



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific
Research



Ferhat Abbas University – Setif 01-

Faculty of Economic, Commercial and Management Sciences

Department of Basic Education

Publication for first-year students basic education:

Pedagogical lectures

BASICS OF ECONOMICS

Prepared by:

Dr: ABBES Widad.

Evaluation Committee		
LOUCIF fayçale	assistent Professor -A	Setif-1 University
OTMANIA Otman	Lecturer Professor - A	Tebessa University

Academic Season: 2023-2024

SYLLABUS TEACHING MATERIAL HANDBOOK

Introduction to Economics			
domain	Economics business studies and management sciences	Branche/ departement	Basics education
level	First year bachelor's degree		
Familiarity with the education material			
The basic	Education unit	Introduction to economics	Subject name
03	coefficient	06	The number of balances
3 hours	Lecture number of hours in the week	4:30	Weekly volume
1:30 h	M/T works hours per week	////////	////////////////////////////////////
Description of the education material			
The student needs rational thinking and deduction to understand this subject			earnings
Enabling the student to understand an introduction to economics and to train on its basic topics and terminology of important economic issues			The general objectives of the education material
<p>To learn about economics, its topics, terminology of economic issues, and its relationship to economics</p> <p>Politics and various other sciences.</p> <p>- Defining the concept of the economic problem and ways to address it.</p>			Learning objectives (skills to be achieved)

- Identifying the factors of production and the most important economic activities.
- Getting to know the economic agents and the economic institution.
- Learn about the market and money.
- Enabling the student to learn about the problem of inflation and unemployment and the economic policies to confront them.

Evaluation method

The relative weight of the evaluation			mark	Percentage rating
60%	60%	Lecture weight	20/20	exam
40%	40%	The weight of the evaluation tutorial classes	40%	Partial exam
20%			20%	Perseverance (attendance/absence/behaviour)
40%			40%	Other elements (participation)

For subjects that are taught in the form of lectures and directed/practical work or of an assessed nature, an examination and continuous monitoring, the subject average is measured.

Weighted weight of the lecture and directed work:

Lecture mark*0.6+tutorial classes mark*0.4

Introduction:

Economics is considered one of the modern social sciences, as it is one of the sciences that studies human behavior.

Economics is concerned with studying scarcity, which is considered the first aspect of the economic problem. Man seeks to search for ways to overcome the degree of scarcity of resources in light of the increase in his needs in quantity and quality. This is at the micro level.

At the macro level, we find countries and governments that adopt an economic system (capitalist, socialist, mixed) that helps them achieve the well-being of their citizens through creating wealth and achieving their development goals.

In light of this endless conflict, in order to meet various needs, individuals, or what are called economic agents, carry out economic activity (production, distribution, consumption, saving, investment).

Various economies also face challenges from time to time, such as successive rises in the general level of prices and the resulting decline in purchasing power, which is known as inflation. Or high unemployment rates as a result of the economic recession.

These various economic phenomena can be overcome by achieving acceptable rates of economic growth, which must be reflected in the well-being of the population through the improvement of development indicators as a qualitative indicator composed of several parts (education, health care, unemployment and employment, basic infrastructure...)

Acquisitions

The student needs rational thinking and deduction to understand this material

The general objective of the educational material:

Enabling the student to understand an introduction to economics and practice its basic topics and terminology of important economic issues.

Learning objectives Skills to be achieved:

Getting to know economics, its topics, the terminology of economic issues, and its relationship to political economy and various other sciences.

Defining the concept of the economic problem and ways to address it.

Getting to know the economic agents and the economic institution.

Learn about the market and money.

Enabling the student to learn about the problem of inflation and the economic policies to confront it.

Content Of The Educational Material

Introduction

The first axis: The nature of economics and its relationship to political economy and other sciences.

The second axis: Economic Problems: 3 Basic Questions For An Economic System To Answer /

The third axis: the economic systems

The Fourth axis: Economic activity and economic processes (production, distribution, consumption, saving, investment) .

The fifth axis: Economic agents.

The Sixth axis: The market (its concept, those involved in it, its types, and how prices are determined in various types of markets).

The Seventh axis: Money: a historical overview of the origin of money, the concept and types of money, the traditional and modern functions of money, Money in economic and financial activity.

The Eighth axis: Inflation. (Its causes and economic policies to confront it

The ninth axis: Unemployment. (Its causes and economic policies to confront it

The Tenth axis: Economic growth, economic development and sustainable development.

The First axis: The Nature Of Economics And Its Relationship To Other Sciences.

Economics is a social science that deals with the production, consumption, and distribution of goods and services, and the transfer of wealth. The term ‘Economics’ is derived from the Greek words OIKOS ("household") and NEMEIN ("management and dispensation"). Understanding “What is Economics?” is very important for understanding further concepts in a holistic manner.

This lecture aims to highlight:

- Recognizing the terminological meaning of economics;
- The development of the concept of economics over time;
- Identifying the branches of economics;
- We also review the relationship of economics with the rest of the sciences.

1-Definitions: we found many and different definitions of economics among them¹:

- Economy is the art of making most of life.
George Bernard Shaw
- Economics is the study of mankind in the ordinary business of life.
Alfred Marshall
- Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.- Lionel Robbins
- Economics comes in whenever more of one thing means less of another.
Fritz Machlup
- The theory of economics is a method rather than a doctrine, an apparatus of mind, a technique of thinking, which helps its possessor to draw correct conclusions.
John Maynard Keynes
- Economics is the study of the use of scarce resources to satisfy unlimited human wants.

¹Ajesh BabuKP, “**Introductory Economics-1**”, university of Calicut, kerala; India 2019;PP:7-9.

- Vancouver island university, <https://management.viu.ca/economics/definition>

Richard Lipsey

From this we conclude that:

- Economics is the study of scarcity, resource utilisation, and response to incentives, or the study of decision-making.
- Economics is a vast subject and its definition and meaning have undergone changes over a period of time.
- Aristotle, the Greek Philosopher has termed Economics as a science of **‘household management.’**
- There are two **branches** of economics: microeconomics and macroeconomics.

2 . Different Meaning of Economics

Due to its vastness, the meaning of economics has changed over the course of time. Let us see the evolution of the meaning of economics from the late eighteenth century.¹

- Science of Wealth

- The late eighteenth-century classical thinkers viewed that economics deals with the phenomenon of wealth.
- This includes the nature and causes of wealth and the creation of wealth by individuals and nations.

- Science of Welfare

- In the early nineteenth century, scholars felt that economics should address the welfare of society as only wealth divided the society into rich and poor.
- Welfare is both quantitative and qualitative. The quantitative aspects involve consumption of goods and services, increase in per capita income, etc.

- Science of Scarcity and Choice

- The welfare definition only explains the material goods aspects of welfare and not the non-material services aspects.

¹ Roger E. Backhouse, Steven G. Medema (2009):” **On The Definition Of Economics**” journal of economic perspectives, vol:23, N: 1, winter 2009. pp: 21-33

.paul A .samwilson and William P.nordhaves” economics’

- Since resources available in society to individuals are scarce, we try to achieve our goals by alternatively using resources and using them appropriately.
- For instance, consider an example where cloth and wheat are produced with fixed limited resources.
- When the demand for Wheat is increased either we ignore the demand and produce the same quantities of cloth and wheat or allocate more resources to wheat production by cutting from cloth production to meet the demand.

- **Science of Growth and Development**

- In the twentieth century, the role of government to ensure the growth and development of the entire economy gained momentum.
- Therefore economics was no longer limited to individual decision-making and use of resources but included production and consumption of commodities over time.
- It is well acknowledged that in order for an individual to be able to fulfil his or her desires, the entire economy must grow and appropriate mechanisms must be found to transfer the advantages of growth among individual residents.
- As a result, the economy's performance is critical in terms of resource utilisation, production, and distribution of products and services.
- The economy must distribute its resources across numerous alternative activities, assure their efficient utilisation, and figure out how to grow them for future economic development.

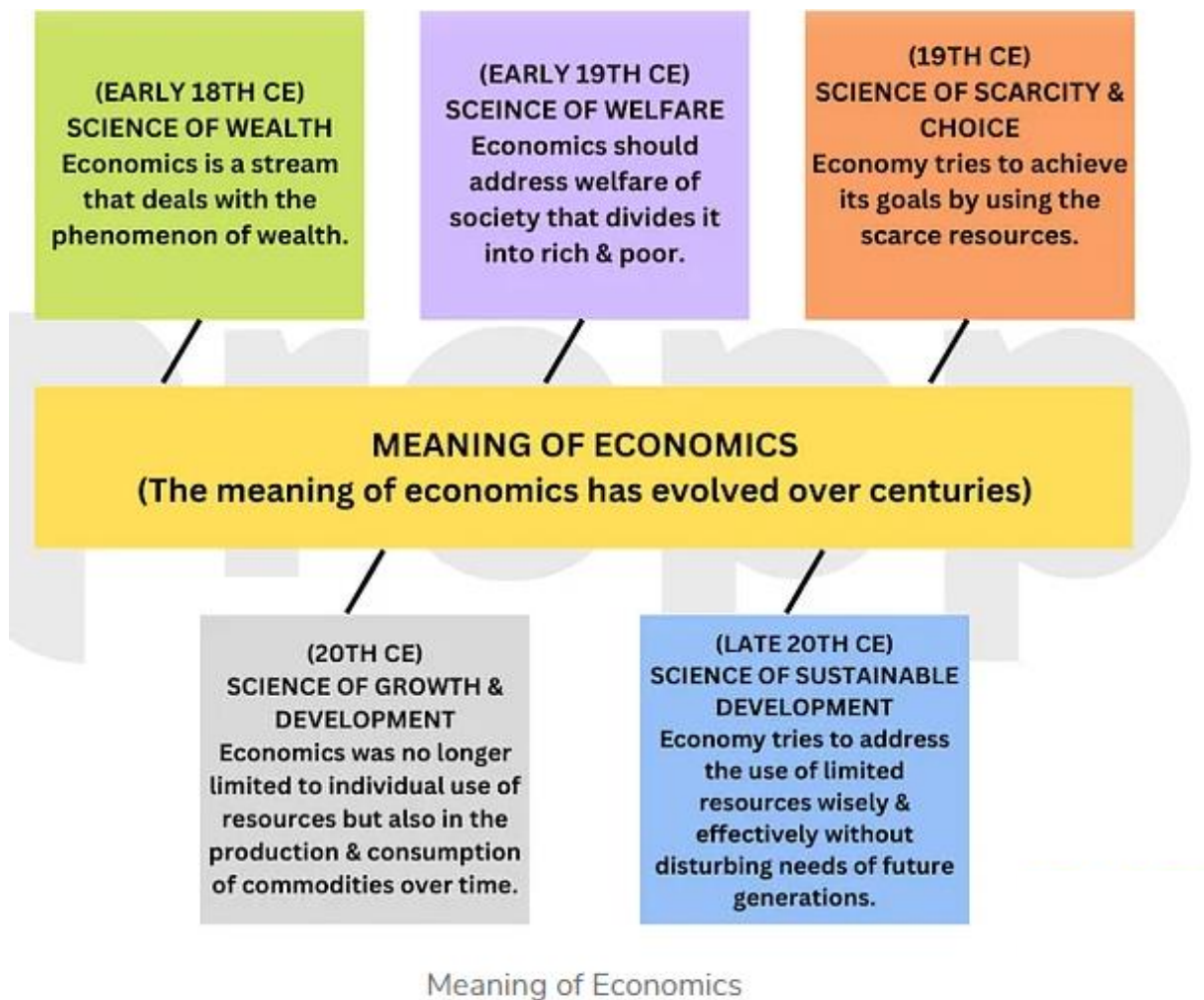
- **Science of Sustainable Development**

In the late twentieth century, economists talked about the welfare of future generations and the protection of the environment.

- To achieve high growth and development the natural environment is exploited.
- Increased consumption leads to wastage and it should be noted that many minerals are available in limited quantities which we may not leave behind for future generations.
- It is our moral obligation to use the limited resources available wisely and efficiently in order to secure the well-being of future generations.
- **Nobel Laureate Prof. Samuelson** has spelt out Economics as follows: “Economics is 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”.

Figure 01 : Meanings of economics.



Source : <https://www.aeaweb.org/resources/students/what-is-economics>

3. Branches of Economics

The study of economics is separated into two branches: microeconomics and macroeconomics ¹

¹ N.gregory Mankiw ” **principles of economics**” ; 2016, cengage learning, Boston, USA ; eighth edition; p:471.

<https://arts-sciences.buffalo.edu/economics/about/careers/what-do-economists-do.html>

- **Microeconomists** study the supply and demand decision of individuals and firms, such as how profits can be maximized and how much of a good or service consumers will demand at a certain price.
 - **Industrial/Organizational Economists** study the market structure of particular industries in terms of the number of competitors, and the market decisions of competitive firms and monopolies. These economists may also be concerned with antitrust policy and its impact on market structure.
- **Macroeconomists** study historical trends in the whole economy and forecast future trends in areas such as unemployment, inflation, economic growth, productivity, and investment¹.
 - **Financial Economists** study the money and banking system and the effects of rising interest rates.
 - **Public Finance Economists** primarily are involved in studying the role of the government in the economy and the effects of tax cuts, budget deficits, and welfare policies.
 - **International Economists** study international financial markets, exchange rates, and the effects of various trade policies such as tariffs.
 - **Labor Economists** study the supply and demand for labor and the determination of wages. These economists also try to explain the reasons for unemployment, and the effects on labor markets of changing demographic trends such as an aging population and increasing immigration.
 - **Econometricians** are involved in all areas of economics and use mathematical techniques such as calculus, game theory, and regression analysis to formulate economic models. These models help to explain economic relationships and are used to develop forecasts related to the nature and length of business cycles, the effects of a specific rate of inflation on the economy, the effects of tax legislation on unemployment levels, and other economic phenomena. Many economists have applied these fundamental areas of economics to more narrow areas with specific applications such as health, education, agriculture, urban and regional economics, law, history, energy, and the environment.

Macroeconomics vs. Microeconomics

Macroeconomics differs from microeconomics, which focuses on smaller factors that affect choices made by individuals and companies. Factors studied in both microeconomics and macroeconomics typically influence one another.

¹ N. Gregory Mankiw:” **Principles Of Economics**”, Cengage learning, Boston, USA, 2016, p: 471.

A key distinction between micro- and macroeconomics is that macroeconomic aggregates can sometimes behave in very different ways or even the opposite of similar microeconomic variables. For example, Keynes referenced the so-called Paradox of Thrift, which argues that individuals save money to build wealth (micro). However, when everyone tries to increase their savings at once, it can contribute to a slowdown in the economy and *less* wealth in the aggregate (macro). This is because there would be a reduction in spending, affecting business revenues and lowering worker pay.

Meanwhile, microeconomics looks at economic tendencies, or what can happen when individuals make certain choices. Individuals are typically classified into subgroups, such as buyers, sellers, and business owners. These actors interact with each other according to the laws of supply and demand for resources, using money and interest rates as pricing mechanisms for coordination.

4- Economics in relation to other sciences

Economics is a social science which deals with human wants and their satisfaction. It is related to other sciences like sociology, politics, history, ethics, jurisprudence and psychology. For example

We shall discuss, in some detail, economics in its relation to other sciences.¹

- Economics and Sociology

Sociology is the science of society. Social sciences like politics and economics may be considered as the branches of sociology. Sociology is a general social science. It attempts to discover the facts and laws of society as a whole. Sociology deals with all aspects of society. But economics deals only with the economic aspects of a society. It studies human behaviour in relation to scarce means and unlimited wants. For a student of sociology, social institutions like marriage, religion, political institutions and economic conditions are all important subjects for study. But in economics, we are interested in them only to the extent that they affect the economic life of a society. And we cannot properly understand the economic conditions of a society without considering its sociological aspects. Though economics is a branch of sociology, we must look at it as a separate and distinct branch.

¹ Economics in relation to other social sciences https://www.brainkart.com/article/Economics-in-relation-to-other-social-sciences_1514/

- **Economics and Politics**

Both economics and politics are social sciences and there is a close connection between them. Politics is the science of the State or political society. It studies about man in his relation to the State.

The production and distribution of wealth are influenced to a very great extent by the government. We have economic planning in our country. And the main aim of planning is to increase the national income by increasing production and by a proper distribution of income.

The Planning Commission, which is an agency of the government, plays a vital role in it. Some of the important questions like nationalization, privatization and prohibition are all economic as well as political questions. Elections are fought often in many countries on economic issues. Unemployment, labor disputes are all economic issues. But government has to tackle them. The relationship between economics and politics is so great that the early economists described economics as political economy.

Sometimes, political ideas and institutions are influenced by economic conditions. For example, socialism was born of economic inequalities and exploitation in England during the industrial revolution. **Karl Marx** is considered as the Father of (scientific) socialism.

- **Economics and History**

Economics and history are closely related. History is a record of the past events. In history, we survey economic, political and social conditions of the people in the past. To a student of history, love affairs, marriages and even murders of kings are important subjects of study. For example, the murder of Julius Caesar is important for a student of Roman history. In our country, the religious policy of Mughal emperors is important for a student of history. But we are interested in history only to the extent that it will help us in understanding economic problems of the past.

As students of economics, we are interested in things like taxation and other sources of revenue and standard of living in the past.

In economics, we make use of historical data to formulate economic laws. We make use of history in economics to study the material conditions of people in the past. There is a separate branch of economics known as 'Economic History'.

We may say economics is the fruit of history and history in the root of economics:

'Economics without history has no root; History without economics has no fruit'.

- Economics and Ethics

Ethics is a social science. It deals with moral questions. It discusses the rules that govern right conduct and morality. It deals with questions of right and wrong. It aims at promoting good life.

There is connection between economics and ethics. While economics, according to Marshall, aims at promoting material welfare, ethics aims at promoting moral welfare. When we discuss economic problems, often we consider ethical issues. The government introduced prohibition in many states for ethical reasons, though there was heavy loss of revenue to it.

- Economics and Jurisprudence

Jurisprudence is the science of law. The economic progress of a nation depends to a great extent on its legal system. Good laws promote economic progress and bad laws act as an impediment to growth. For example, in the past when we welcomed foreigners to invest in our country, they used to say our taxation was complex and not good. Of course, now things have improved. So we must have simple and clear laws in the fields of taxation and labor legislation to promote economic progress.

- Economics and psychology

Psychology is the science of mind. It deals with all kinds of human behaviour. For example, we have child psychology, mob psychology, industrial psychology and criminal psychology. But economics studies one aspect of human behaviour. It studies human behaviour with reference to unlimited wants and limited means. Of late, psychology has become important in analysing economic problems. To deal with labor problems, we must understand industrial psychology. And a good businessman must understand the psychology of buyers whenever he wants to change the price of his good. Many important laws of economics are based on psychology. For example, we have the law of diminishing marginal utility. It tells that the more and more of a thing you have, the less and less you want it.

- Economics, mathematics and statistics

Among other sciences, economics is related to mathematics and statistics. Statistics is the science of averages. It is the science of counting. Many tables and diagrams used in economics are based on statistical analysis. Mathematical methods are largely used in modern economics.

Now we have a new science called *econometrics*. It makes use of statistics and mathematics in economics. The econometric society was founded in 1930, and the first Nobel prize in economics was awarded to Jan Tinbergen and Ragnar Frisch for their contribution to econometrics.

The basic economic problem, also known as the fundamental problem in economics is the issue with the scarcity of resources but unlimited wants. Economics has also pointed out that a man's needs cannot be fulfilled. The more our needs are fulfilled, the more wants we develop with time. By definition, scarcity implies a limited quantity of resources. As a result of scarcity, there is constant opportunity cost. Opportunity cost means that if you use your resources to consume a particular good, you cannot consume any other good with the given resource. Therefore, economists are concerned with dealing with the optimum allocation of resources in society to make the usage of these resources efficient as well as practical.

Then, our decision to allocate our resources raises three basic economic questions:¹

1. What do we produce?
2. How to produce it?
3. And for whom is the product?

- This lecture aims to highlight:

- Identifying the basic elements of the economic problem (resources, scarcity and the relationship between them, needs and desires, technological development and its impact on the sustainability of the economic problem)
- Questions related to the economic problem (what do we produce? - How do we produce? - And for whom do we produce?)

The economic problem is the fundamental challenge facing all societies, which is how to satisfy unlimited wants and needs with limited resources. Because resources such as land, labor, and capital are scarce, people and societies must make choices about how to allocate them.

Through what was mentioned above, the economic problem expresses a clash or contradiction between relatively scarce resources and infinite needs. Accordingly, we will discuss the two basic components of the economic problem.

¹ Economic problem; available: <https://www.studysmarter.co.uk/explanations/microeconomics/economic-principles/the-economic-problem/>

1. The Resource:

Economists point to resources as factors of production. They are land, labor, capital, and entrepreneurship.¹

Economists define land broadly. It doesn't just cover agricultural areas or the like. However, it also includes various natural resources, including metallic minerals, wood, fossil fuels, etc.

Meanwhile, labor refers to our physical and mental efforts to help the production process. For example, workers work in agriculture or mining to produce raw materials. Or they may work in factories to produce various manufacturing outputs. They may also work in the service sector, relying more on mental than physical effort.

Capital refers explicitly to physical capital. They include machinery and production equipment. They are available to help us in the production process, so we don't have to use our hands. Financial capital, such as money, is excluded in this definition because it does not contribute directly during the production process.

Meanwhile, entrepreneurship represents our efforts to collect and unite the other three resources under a business. An entrepreneur takes risks when starting a business. They risk failing and losing the competition.

1- Needs and wants

We all have needs and wants. Need refers to something essential. We have to fulfill it. If it can't be fulfilled, it could cause serious problems. For example, we need food and water to survive. Without them, we can die.

Meanwhile, want is our desire for something that we cannot fulfill or is not yet available at this time. Thus, a need may become a want as long as we cannot fulfill it.

¹ A.S. Watts, E.M. Crimmins, **IN INTERNATIONAL ENCYCLOPEDIA OF PUBLIC HEALTH**, 2008/

Unlike needs, wants are not essential to us. So, not meeting it does not cause serious problems. Of course, we may be disappointed because we cannot fulfill our wants. But, it doesn't cause severe problems like death when we don't meet our food needs.

2- Scarcity in Economics and Its Relation to Resources, Needs, and Wants

Scarcity : is a finite state, so it cannot fulfill something. In the introduction to economics, scarcity represents a condition in which limited resources cannot satisfy our needs and wants, which are unlimited.

Economic activity produces various goods and services using existing resources. However, they are insufficient to fulfill all our needs and wants. When we have satisfied our needs and wants by consuming some goods and services, we want others.¹

Our new needs and wants continue to emerge after satisfying existing ones. And we want more and more variety. This is the reason why economists view our needs and wants as unlimited.

- The difference between scarcity and shortage

We may often hear the words shortage and scarcity in microeconomics. Both describe a similar situation. Shortages occur due to insufficient supply to meet demand (excess demand). It could happen due to a decrease in supply, such as a natural disaster. Or, it's because demand is increasing beyond our ability to produce. As a result, goods or services are not available even if their demand exists.

Meanwhile, scarcity occurs because finite quantities must satisfy unlimited wants. We cannot fulfill certain demands because our resources have already been used to produce others. And we cannot produce everything at once using the available resources.

Take a farm as a case. For example, the market asks for 100 units of oranges or apples. But unfortunately, the land only can produce 100 units of fruit. So, we can only use it to produce one type: oranges or apples.

¹ Ahmad Nasrudin, **Scarcity in Economics: Its Relation to Resources, Needs, and Wants**, available on site web: <https://penpoin.com/scarcity>

Only producing apples can meet and satisfy market demand. The opposite applies if we produce oranges. However, we cannot produce both due to limited land capacity.

So, if we plant apples, we cannot grow oranges. But, on the other hand, if we grow oranges, we cannot grow apples.

Say, we plant oranges on the land. Apples are not available in the market, and it is not due to a shortage. Rather, it occurs due to scarcity. The available land can only produce 100 units, and we decide to grow oranges instead of apples.

Other times, bad weather causes oranges production to fall. As a result, the market faces a shortage of oranges, assuming the demand is unchanged. This situation is not a scarcity because we can still increase citrus production at a later time when the weather returns to normal. However, apples are still scarce because even though the production of oranges is decreasing, we can't grow them either.

The case above shows us the shortage occurs because we cannot produce at maximum capacity due to weather problems. Therefore, even though the land is available to produce oranges, we cannot produce 100 units.

On the other hand, apples are scarce because there are not enough resources (land) to grow oranges and apples simultaneously. So, we decided to only grow oranges instead of apples.

In other words, scarcity occurs due to insufficient resources. Meanwhile, shortages occur due to production problems (which can also be due to increased demand) even though resources are available.

- The relation between wants -needs- and scarcity:

Economists explain scarcity by linking the resources to produce goods and services to our needs and wants. They view resources as limited. On the other hand, our needs and wants are unlimited.

We have many needs and wants. We fulfill them through:

- Physical objects (goods) such as food, drink, and clothing.

- Non-physical objects (services) such as education, health care, and entertainment
- While needs may be limited, not with wants. Our dissatisfaction with what we have makes our wants limitless.
- Meanwhile, we have limited resources. They are not enough to meet our unlimited needs and wants. Thus, when we use resources for one good, they are not available to produce another. For example, when we have used labor to produce oranges, they are unavailable to produce apples and vice versa.
- Therefore, we must make decisions to use resources at their highest use. This requires us to allocate them efficiently to produce the most desired goods.

- **The Relationship Between Scarcity And Innovation:**

As mentioned earlier, our needs and wants are constantly growing and changing. We are never satisfied. The demand to satisfy needs and wants drives us to innovate.

How computers have evolved, from mainframe computers to laptops, provides a good example of explaining the link between scarcity and innovation.

Computers have been around for a long time. And because they help us in many ways, their demand increases yearly.

Even though mainframe computers have arrived, we are not satisfied with them. At the beginning of their release, mainframe computers were not economical. In addition, they are also slow and have many drawbacks, including having to require sufficient space for the mainframe. They also can't store a lot of data or perform commands.

Such dissatisfaction triggers us to think better, considering the resources available at the time. We want better computers. We need them to be able to process faster and perform more tasks. In addition, we also want their size smaller. Then came the personal computer.

Entering a more modern era, our desires have changed again. Our mobility increases. Work requires us to work in various places, not just sitting at a desk. At the same

time, we still need the help computers provide. Finally, we want computers to be more mobile and portable. Then comes the laptop, which supports us in performing tasks while accommodating our mobility.

Of course, a laptop is impossible to produce if it is not supported by better resources. In other words, it will remain scarce if we rely on old resources. This situation then requires us to improve the old resource. For example, we innovate manual machines into automated machines with more accurate precision to manufacture smaller devices, such as semiconductors.

Thus, dissatisfaction with existing products and services encourages innovation. Likewise, scarcity gives us a reason to continue to innovate by making available resources of higher quality (from manual machines to automated machines). Finally, better resources enable us to produce better products to satisfy our needs and wants.

- The Relative Concept of Scarcity :

Scarcity is a relative rather than an absolute concept. I mean, how available resources are to meet needs and wants varies between regions or individuals.

For example, some resources are abundant in one area but not another. Take water as a case. For some countries in Africa, water is scarce. Their geographic area experiences long droughts and shorter rainfall. But, in tropical rain areas like Indonesia, water is abundant, and we can find it anywhere. Thus, water is scarce in Africa but not in Indonesia.

Likewise, sophisticated physical capital is abundantly available in developed countries. However, they are not widely available in developing countries.

Then, at the individual level, resources are also scarce for some but not for others. Take money and time as an example. Unemployed people may have much free time with their families (satisfying the need to be closer to their children). However, they find it difficult to pay rent because they do not have enough money.

In contrast, rich people have less time for family and spend more time doing office work. However, they have a lot of money to meet their material needs.

Scarcity forces us to make choices about allocating resources. And the choices we make have an opportunity cost.

When resources are limited, we must prioritize their allocation. Take money as an example. We have to choose which products and services we need to buy. And every choice has consequences or costs. And in economics, we call this opportunity cost. It represents the next best alternative we sacrifice when choosing something.

Say we have two options for spending money: oranges or apples. When we buy oranges, consuming apples is an opportunity we must sacrifice. But, on the other hand, when we choose apples, the satisfaction lost from not consuming oranges is an opportunity cost.

And our choice is optimal when it comes to using resources at their highest use to satisfy needs and wants. For example, we use the money to get the things we want most. So when we decide to buy oranges, we believe it gives us higher satisfaction than when we buy apples.

The Three Basic Questions Regarding Economic Problems

Needs may be more limited than wants. Want is limitless because we all want to go beyond our current capabilities. And our wants are not limited by the resources we have.

For example, we want a luxury car. Indeed, we can't buy it now because we don't have enough money.

In that case, luxury cars are the things we want. And money is our resource. Because of little money, we cannot satisfy our wants.

However, not having money does not limit our wants. One day, we hope to fulfill it when we have a lot of money.

In economics, we call this problem "scarcity." It occurs when limited resources must satisfy unlimited needs and wants. In a broad scope, resources refer to the factors of production above. And money is not an economic resource even though, at the individual level, it is.

And scarcity raises three basic questions:

- What goods and services do we need to produce?
- How do we produce them?
- For whom do we produce goods and services?

Scarcity forces every economy to answer three basic questions regardless of the economic system adopted.

1- What do we Produce ?

There are so many goods and services we need and want. First, however, we must determine which goods and services we produce and in what quantities. We must make this decision because we cannot produce all goods and services using existing resources.

So what goods should we produce? It requires us to determine the goods and services we need most. It is useless if we use resources only to produce goods we need less.

Say, food and clothing are what we need most. We then mobilize the factors of production to produce both. We allocate some resources to produce food and others to produce clothing.

How to produce?

Answering this question requires us to determine the production method we use. Then, once we have chosen the goods and services we most want to produce, we must answer the following question: how do we produce them?

For example, we might use labor-intensive methods. We rely on labor rather than machines to produce goods and services. Agricultural products and consulting services are good examples. Capital such as machinery and equipment may not be too dominant to contribute to this method.

In other cases, we might use a capital-intensive method. For example, we rely more on physical capital and less labor. We use sophisticated machines and are assisted by computers to control them.

And to control the production system, we need skilled labor. However, unlike labor-intensive methods, labor is more involved in controlling operations and may not be directly involved in operations.

For whom production?

The economy must choose how to distribute goods and services among the population. Answering this question also has to do with income among individuals in the population.

We get income from supplying factors of production. Each resource supplier is compensated. Landowners get rent. The capital owner earns interest. Labor suppliers earn wages. And entrepreneurship makes a profit.

So how are goods and services distributed? Does everyone get the same amount? Or do they acquire goods and services based on their contribution – their compensation? So, some people get more than others. This question is answered through the adopted economic system (including answering the previous two basic questions).

The Third Axis: The Economic Systems

An economy must answer the three basic questions above. How they answer these questions gives rise to the chosen economic system. And in general, there are two poles: the command economy system and the market economy system.

Under a command economy, the government regulates everything, from what is produced to how and for whom to produce. Likewise, the government also controls resources without the private sector's participation.

In contrast, a market economy system relies on the private sector to answer the above questions without government intervention. Market mechanisms determine what goods and services are produced. How to produce is also left to the market.

Thus, businesses only produce goods and services that the market needs (there is demand). They also pursue the most efficient production methods to maximize profits.

Then, for whom goods and services also depend on the market mechanism. So, how much goods and services we get depends on how much we can buy, which in turn depends on the income or compensation we receive.

The two economic systems above have advantages and disadvantages. Then came the mixed economy, which combined the two systems. Under this economic system, the government and the private sector both participate in answering three basic questions in economics. However, the government focuses on the public sector, and the rest is left to the private sector.

Currently, all countries adopt mixed systems with some inclination. For example, the United Kingdom and the United States are inclined towards a market economy. Meanwhile, China and Cuba are leaning towards a command economy.

In this lecture we review

- The capitalist system, its principles, advantages and disadvantages
- The socialist system works

-Mixed system

1- **Capitalist Economy** or Capitalism means an economic system in which the factors of production such as land, labor, entrepreneurship, and capital are controlled and regulated by private players. In a capitalist economy, the government has no active involvement. The topic “Capitalist Economy” is one of the important concepts in the Economy syllabus which is discussed in this article in detail.¹

- Capitalism, often known as the capitalist economy, is an economic system in which private firms control and govern the factors of production such as capital goods, labor, natural resources, and entrepreneurship.
- It is defined as a system characterised by private ownership and the profit-making utilisation of both artificial and natural capital.
- The production of all goods and services in a capitalist economy is based on demand and supply in the market, often known as a market economy.
- It differs from the central planning system, which is also referred to as a command or planned economy.
- The primary feature of a capitalist economy is the objective to make money.
- The availability of open markets and the government's lack of involvement in corporate regulation are also characteristics of the capitalist economy.
- The origins of capitalism may be traced back to 18th-century England, which was in the midst of the industrial revolution.
- This form of economy is also known as a free-market economy because there is no government intervention.

¹ Baumol, William J., Robert E. Litan, and Carl J. Schramm. 2007. **Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity**. New Haven, Connecticut: Yale University Press.

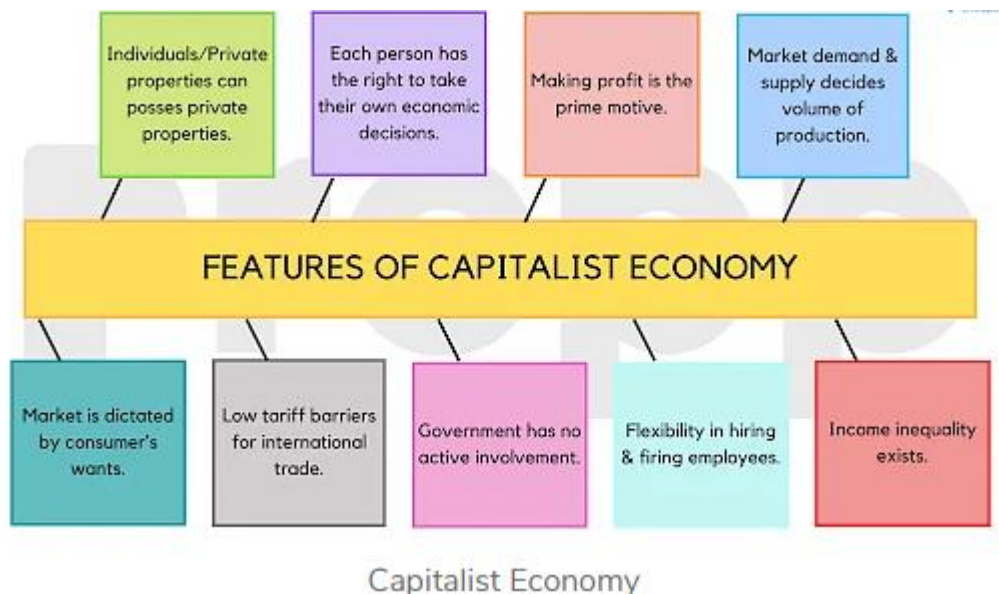
Hall, Peter A., and David Soskice, eds. 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. New York: Oxford University Press.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, Massachusetts: Belknap Press.

Rajan, Raghuram, and Luigi Zingales. 2003. *Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity*. New York: Crown Publishing Group.

- The capitalist economy is also called a **liberal economy** because the free market decides demand, supply, and price.

Figuer 02 :features capitalist economy



source: Niha Grover, capitalist economy, available on site web, <https://prepp.in/news/e-492-capitalist-economy-indian-economy-notes>, 4th nov 2023.

1-1- Characteristics of Capitalist Economy

The capitalist economy is bound to have some of the following characteristics.

- **Private property:** Private property is one of the most important features of capitalism. This is because, in a capitalist economy, private persons or organisations can have private properties such as factories, machinery, and equipment.
- **Individual liberty:** Under this system, each person has the freedom to make their own economic decisions without anyone's interference. Both producers and consumers can benefit from this.
- **Profit motive:** One of the most fundamental motives of a capitalist economy is the desire to make money. In this system, all businesses strive to maximise their profits by producing and selling their goods to consumers.
- **Price mechanism:** In a capitalist economy, market demand and supply decide the volume of production and, as a result, the price is established for the products, with no interference from the government.

- **Customer sovereignty:** In this economic model, the market is dictated by customers' needs and wants. It governs the degree of production carried out by businesses, although the consumer is free to choose which things to buy.
- **Free trade:** In this system, low tariff barriers exist that promote international trade.
- **Government interference:** In a capitalist economy, the government is not involved in the day-to-day operations of the firm. Customers and producers are free to make their own choices when it comes to products and services.
- **Flexibility in labor markets:** Capitalism allows for a degree of flexibility in the hiring and firing of employees.
- **Ownership freedom:** Under this system, an individual can possess any amount of property and use it as he/she sees fit. By right of inheritance, the same property is passed on to his successors after his death.

2- A socialist economy :

- In the 1840s, a new form of economic theory known as "The Communist Manifesto" evolved in literary circles.
- It proposed a fresh and distinctive notion of a country's economy, written by Karl Marx and Fredric Engels.
- A socialist economy arose as a result of this.¹

A socialist economy is one in which products and services are produced for use rather than profit, as opposed to a capitalist economy in which goods and services are produced for profit (and therefore indirectly for use). Under socialism, all production would be for the sole purpose of use. It is a type of economy that focuses on collective ownership and the reduction of class distinctions. The main aim of a socialist economy is the maximization of wealth for a whole community or a country. In a socialist economy, the ownership of factors of production lies with the government as a whole. No modern nation is considered to have a "perfect" socialist system, but North Korea, China, and Cuba all have strong socialist market economy components. The topic “Socialist Economy” is one of the important concepts in the Economy which is discussed in this article in detail.

¹ Types of Economic Systems, available on sit web: <https://pressbooks.howardcc.edu/soci101/chapter/13-2-types-of-economic-systems>

a Socialist Economy

Socialist economies prioritize collective or state ownership of major industries and resources.

- A socialist economy is one in which the government controls the factors of production, such as labor, raw materials, and capital goods.
- As a result, a community in control of the state owns all of the factories, machines, plants, money, and so on.
- On the basis of equal rights, all citizens profit from the production of goods and services. As a result, this economic system is also known as the Command Economy.
- Under a socialist economy, private enterprises or people are not permitted to create goods and services freely.
 - The production takes place in response to societal requirements and under the direction of the state or planning authorities.
 - The market and supply and demand forces will have no bearing on this.
- The ultimate goal of a socialist economy is to maximize the wealth of a whole community, or perhaps a complete country.
- Socialist principles aim to reduce income inequality and ensure access to basic necessities.
- It aspires to a fair distribution of wealth among all of its residents, not simply the well-being of the country's wealthiest corporations and individuals.
- The setup of a socialist economy is diametrically opposed to that of a capitalist one.

- Features of Socialist Economy

Collective Ownership of Resources

- The whole foundation of a socialist economy is founded on socio-economic goals.
- People's well-being takes precedence over business motivation.
- As a result, the state owns all of the key elements and resources of production.
- Small farms and trading companies are the only ones that remain privately owned.

Economic Planning at the Center

- A central planning committee is always present in a socialist economy, which is the body in charge of deciding what will be produced using public funds.
- The committee will also decide on the production amount and manner.
- The ultimate goal of such power is to achieve the State's socio-economic goals.

No Choice for the Consumers

- Under a socialist economy, every citizen is guaranteed basic necessities such as food, clothes, and shelter.
- Consumers, on the other hand, do not have complete freedom of choice. They cannot demand the things they want; instead, they must pick from a list of products produced by the government.
- There is no sense of choice or demand and supply since there is no free market.
- While every person will find a job, he will not be able to select his profession freely.

Equality in Income Distribution

- This is one of the most important characteristics of a socialist economy.
- The system prevents a single person from accumulating a large amount of money. As a result, the gap between the affluent and the poor has shrunk significantly.
- All of its residents have equal access to opportunities and services like education and public healthcare. Thus, there is no distinction between social classes.

Absence of Market Forces

- The people's well-being is the driving force here.
- Price mechanisms will have no impact on product decisions since there is no financial motivation.
- In a socialist economy, the price system is known as "**managed pricing**," which is determined by the planning commission based on their socio-economic goals.

Figuer 03 : socialist economy



Source :socialisme, available on site web
<https://businessjargons.com/socialism.html>

3- A mixed economy

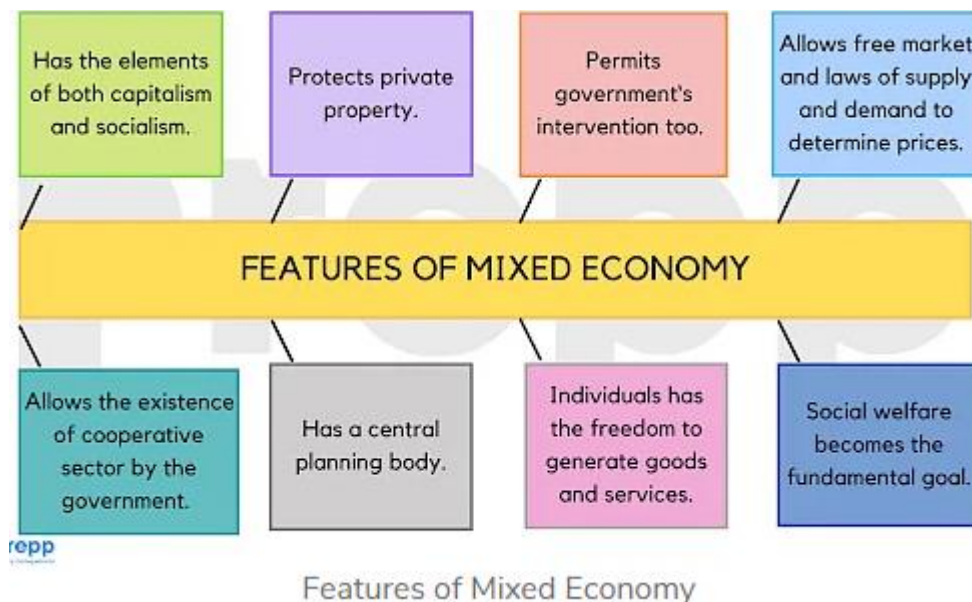
A mixed economy is an economic system that **has elements of both capitalism and socialism**. A mixed economy protects private property and permits some economic freedom in the use of capital, but it also permits government intervention in the economy to achieve social objectives. A mixed economy means a market system for allocating resources, doing business, and conducting trade in which government intervention coexists with free markets¹.

- A mixed economic system thus combines the positive sides of both capitalism and socialism while avoiding its negative aspects.
- As a result, it adheres to both the pricing mechanism and central economic planning and supervision.

¹ Paul A. Samuelson, William P. Nordhaus:” **economics**”, nineteenth edition,MC Graw Hill, p; 25.

- Both private corporations and governmental or state-owned enterprises own the means of production.
- While market forces determine pricing, demand, supply, and other factors, the government maintains some control to avoid monopolization and discrimination.
- It values the principle of private property and resource ownership as well as the freedom that comes with it. At the same time, it recognizes the dangers of unchecked capitalism.
- As a result, it advocates government control and economic planning to ensure that the poorest citizens are not discriminated against.

Figurer 04 : features mixed economy



Source: sunil kumar D, **mixed economy**, available on site web <https://prepp.in/news/e-492-mixed-economy-indian-economy-notes>

1-3- Features of Mixed Economy

- **Coexistence of All Sectors:** In a mixed economy, all three sectors, namely the private, public, and joint sectors, coexist in peace. The government and private enterprises administer the joint sector together, with the government owning at least 51 percent of the company.
- **Cooperative Sector:** Another sector exists in a mixed economy i.e., the cooperative sector. The primary goal of forming this sector is for the

government to offer financial aid to cooperative societies in the warehouse, agricultural, and dairy industries, among other industries.

- Individuals have the **freedom to generate goods and services**, own property, pick their careers, and choose or demand the products/services they desire. However, the state retains some supervision over monopolistic behaviors and discrimination against the poorer classes.
- **Economic Planning:** A mixed economy generally has a central planning body. To reach various aims and goals, all sectors of the economy follow the state's economic plan. The plan is not set in stone, but rather serves as a basic guideline for the country's economic progress and prosperity.
- **Social Welfare:** Social welfare is one of the fundamental goals of a mixed economy. Its goal is to close the wealth gap in the country and combat societal inequities. Poverty and unemployment are to be reduced. Simultaneously, increase social security, public health care, and public education system, among other things.

3-2- Mixed Economy - Benefits

- **Private Sector Encouragement:** The most important benefit of a mixed economy is that it encourages the private sector and gives it the opportunity to flourish. It causes the country's capital creation to rise.
- **Freedom:** In a mixed economy, there is both economic and occupational freedom as in a capitalist system. Every individual has the freedom to pursue any employment of his or her own choice. Similarly, each producer has the freedom to make judgments about production and consumption.
- **Optimal Resource Utilization:** In this system, both the commercial and public sectors collaborate to make the most effective use of resources possible. The public sector works for the common good, whereas the private sector makes the best use of these resources in order to maximize profit.
- **Economic Planning Benefits:** In a mixed economy, economic planning has all of its benefits. The government takes steps to address economic instabilities and other economic ills.
- **Lower Economic Disparities:** Capitalism exacerbates economic inequalities, but in a mixed economy, inequalities are more easily addressed by government initiatives.
- **Rivalry and Efficient Production:** The degree of efficiency stays high due to competition between the private and governmental sectors. In the prospect of profit, the components of production operate efficiently.

- **Social Welfare:** Under this system, social welfare is prioritised through sound economic planning. The government has complete authority over the private sector. The private sector's production and pricing practices are geared toward maximizing societal welfare.
- **Economic Development:** Under this system, the government and the private sector work together to construct socio-economic infrastructures. In addition, the government enacts several legislative measures to protect the interests of the poor and vulnerable. As a result, for any developing country, a mixed economy is the best option.

3-3- Mixed Economy - Demerits

- **Instability:** According to some economists, mixed economies are the most unstable in nature. The public sector reaps the greatest rewards, while the private sector is kept under check.
- **Sector Inefficiency:** Under this arrangement, both sectors are inefficient. The private sector does not have complete independence, and as a result, it is rendered ineffectual. As a result, the public sector becomes ineffectual. Both industries are, in a way, not just competitive, but also complimentary.
- **Ineffective Planning:** In a mixed economy, there is no such thing as comprehensive planning. As a result, the government has no authority over a significant portion of the economy.
- **Lack of Efficiencies are lacking in this system,** and both sectors suffer as a result. In the public sector, this is because government officials do not carry out their responsibilities carefully, but in the private sector, efficiency suffers because the government imposes too many limitations in the form of controls, permissions, and licenses, among other things.
- **Delays in Economic Choices:** In a mixed economy, certain decisions are usually delayed, especially in the public sector. This type of lag always creates a significant obstacle to the proper functioning of the economy.
- **Resource Waste:** Another issue with the mixed economic system is resource waste. A portion of the funding given to various public-sector programs ends up in the pockets of middlemen. As a result, resources are squandered.
- **Corruption and Black Marketing:** This system is rife with corruption and black marketing. Political parties and self-interested individuals benefit unduly from the public sector. As a result, numerous evils develop, such as black money, bribes, tax evasion, and other illicit acts. All of these things add to the system's red tape.

Fourth axis: Economic activity and economic processes (production, exchange, distribution, consumption, saving, investment) .

An economic activity takes place when resources such as capital goods, labor, manufacturing techniques or intermediary products are combined to produce specific goods or services. Thus, an economic activity is characterised by an input of resources, a production process and an output of products (goods or services).¹

- 1- Production ;
- 2- Distribution ;
- 3- Consumption ;
- 4- Saving And Investment ;

1-1- Production: In simple words, the definition of **production** is the process in which various inputs, such as land, labor, and capital, are used to produce the outputs in the form of products or services. Each company is diverse and has a particular production strategy, but all businesses strive to combine their inputs in a way that maximizes their profits.

Businesses must take into account several factors when deciding how much to produce to be profitable. Businesses must consider the cost of the inputs utilized in the production process.

The most logical step to take for cost minimization if the company is purchasing raw materials at a high cost is to switch suppliers.

Production in Economics is sometimes defined as the creation of utility or the creation of wants – satisfying goods’ and services. It is said that just as a man cannot destroy matter, he also cannot create matter.

“If consuming means extracting utilities from,” says Fraser, “producing means putting utility into.”

Production, therefore, should be defined, not as a creation of utility, but the creation (or addition) of value. Utilities are created in three forms:

- Form utility

¹ <https://ec.europa.eu/eurostat/statistics-explained>

1- Factors of Production:

In economics, factors of production are the resources people use to produce goods and services; they are the building blocks of the economy. Economists divide the factors of production into four categories: **land, labor, capital, and entrepreneurship.**¹

- Land as economic resources

Although only abbreviated and called land, this term has a broader meaning. It doesn't just refer to lands like areas for agriculture, shops, warehouses, factories, or offices. But, it includes all the natural resources available on planet earth. Therefore, some writers prefer the word "natural resources" as a substitute vocabulary.

And, in economics, rent is a reward for land.

Natural resources include what is available on the earth's surface, rivers, forests, and lakes. They include the soil and the mineral resources contained therein. Examples of natural resources are:

- Wood
- Geothermal
- Fish
- Coal
- Oil

In general, we group them into two categories: renewable and non-renewable resources.

- **Non-renewable resources** are scarce, limited in number, and cannot be replenished. They can be exhausted if we continue to exploit them. Metallic minerals oil, natural gas, and coal are examples.
- **Renewable resources** will not run out if we consume them, or we can increase their number. Examples are fish in the sea and wood in the forest. Another

¹Paul samuelson, op cit, p :229.

- <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production>

example is agricultural and plantation products, which, after we harvest, we can plant again.

Land resources are useful for various purposes in production. It is useful for agricultural land, factory locations, retail, and offices. Agricultural commodities, minerals, and petroleum are inputs for raw materials and energy. Furthermore, we can also use water and wind as energy sources to generate electricity.

2- Human capital

Knowledge, skills, and experience are important factors to make workers productive. And, often, we refer to the labor factor as human capital. It refers to the skills, health, knowledge, and experience accumulated and attached to the individual. We get it through education, training, or learning by doing.

Investment in human capital is vital for increasing productivity. More productive workers enable businesses and the economy to produce more output. Furthermore, for businesses, it also allows them to make more profits because they bear fixed labor costs, and at the same time, can produce more output.

In a broad definition, human capital is not only attached to workers. However, it is also inherent in entrepreneurs who provide entrepreneurial input.

Thus, empowering human capital also produces other economic benefits. Human capital is critical for finding new solutions to problems, developing new ideas, and seeing business opportunities. And, in this case, it is attached to the entrepreneurial factor, not the labor factor.

- Labor supply

In an economy, not all individuals are available to work. For example, some people may be outside the working-age (16-64 years), such as school children and the elderly.

Furthermore, among the working-age population, some individuals deliberately choose not to work. For example, they may be in college or caring for a family member. Or they give up hope and stop looking for work. Thus, they are not available for use in the production process.

Then, economists specifically refer to individuals who are ready to provide labor factors as a labor force. It consists of those who are currently working and unemployed but actively looking for work.

- **Labor Quantity And Quality**

The production process depends not only on the quantity but also on the workers' quality. Quality affects their productivity. And, productivity is the key to increasing production and spurring long-term economic growth.

An increase in productivity means workers can produce more output with the same input. In a production possibilities curve, it is indicated by a shift out of the curve.

Achieving higher productivity requires investments to improve the quality, for example, through education and training. In addition, technological factors also play an important role. Reliable technology enables workers to produce more output than using outdated technology. For example, workers in a factory can produce more output with an automatic machine than a manual machine. This is because they just control the machine with a computer.

3- Capital As Economic Resources

In the economic definition, capital refers to physical capital or capital goods, i.e., man-made tools to assist the production process. They range from simple tools like hoes to more complex ones like car assembly machines. Other examples are production equipment, logistics vehicles, and computers.

Economists say the reward for capital is interest.

Capital goods help businesses produce more output. However, unlike raw materials and components, they are not part of the output. Instead, businesses use them to assist in processing inputs such as raw materials into outputs.

- **financial capital**

Economists exclude financial capital such as money, bonds, or other financial assets because they do not contribute directly to production. We do not produce goods and services using money or debt securities.

- However, financial capital is just as important as capital goods. They contribute indirectly. Businesses use it to buy capital goods.

Then, like labor, it is not only quantity that affects production. The quality of capital goods also plays an important role, which is determined by technological progress. More sophisticated capital goods can produce a lot of output.

For example, manufacturers can use machine job computers to control and automate work in factories. It makes work faster and of higher quality compared to completely depending on workers to operate the machines.

4- Entrepreneurship as economic resources

Entrepreneurship refers to the effort or activity by individuals taking risks to set up a business. Those who do it we call entrepreneurs. They bring together the other three factors to produce a good or service. Then, as a reward, the entrepreneur hopes to make a profit.

Entrepreneurship has two main functions:

1. Combines and organizes the other three factors. They combine natural resources, labor, and capital to be ready for use in the production process.
2. Take risks and organize production activities. For example, they must divide operating activities into several business functions. They also have to take the risk if the business fails to survive.

In a small business, such as a home business, an individual performs both functions. But in large companies with more complex operations, the entrepreneurial function is shared between management and shareholders.

2- Productivity is a measure of efficiency of a person completing a task. We often assume that productivity means getting more things done each day. Wrong. Productivity is getting important things done consistently. And no matter what you are working on, there are only a few things that are truly important.¹

¹ Paul krugman, 1994, ‘ **The Age Of Diminishing Expectation**’, defining and measuring productivity.

Being productive is about maintaining a steady, average speed on a few things, not maximum speed on everything.

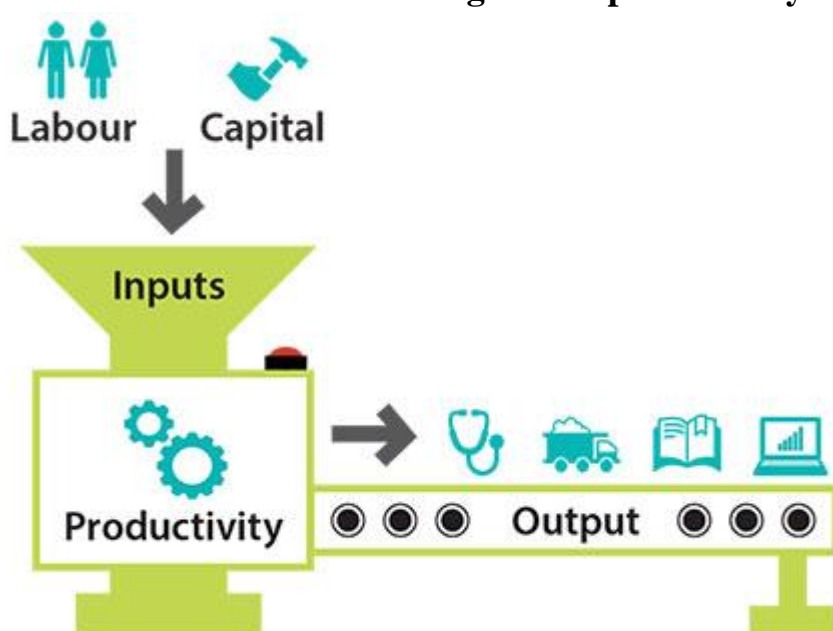
In economics, productivity refers to how much output can be produced with a given set of inputs. Productivity increases when more output is produced with the same amount of inputs or when the same amount of output is produced with less inputs.

There are two widely used productivity concepts.¹

1. **Labor productivity** is defined as output per worker or per hour worked. Factors that can affect labor productivity include workers' skills, technological change, management practices and changes in other inputs (such as capital).
2. **Multifactor productivity (MFP)** is defined as output per unit of combined inputs. Combined inputs typically include labor and capital, but can be expanded to include energy, materials and services. Changes in MFP reflect changes in output that cannot be explained by changes in inputs.

This Explainer outlines how productivity is measured, what drives productivity growth and how productivity growth contributes to the economic prosperity and welfare of all Australians.

Figure 05: productivity



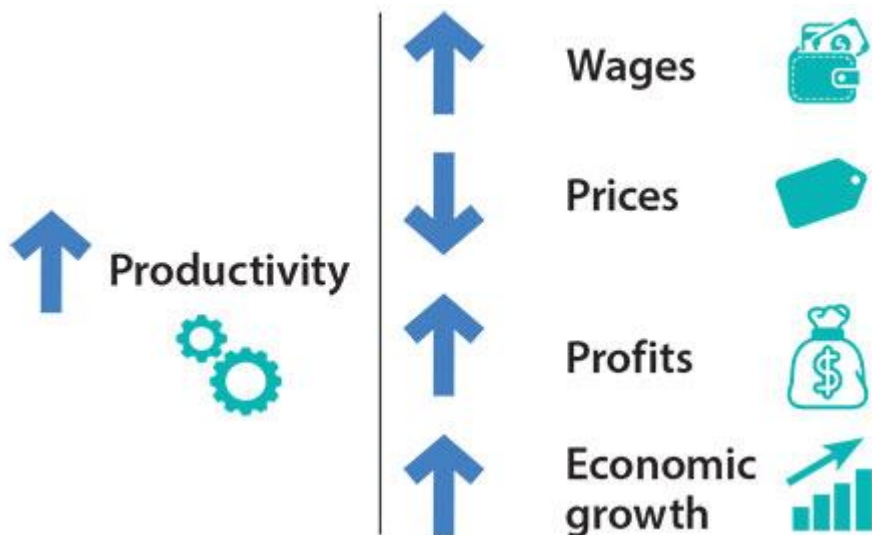
Source: <https://www.rba.gov.au/education/resources/explainers/productivity.html>

¹ <https://www.rba.gov.au/education/resources/explainers/productivity.html>

Benefits of productivity growth

Productivity growth is important for maintaining the economic welfare and prosperity of all . Productivity growth can contribute to one or a combination of the following:

1. **Higher wages:** Productivity growth enables firms to increase wages for workers. Unit labor costs (ULCs), which measure the labor costs associated with producing one unit of output, decrease as labor productivity increases, meaning that firms can offset the effect of wage increases on profits with productivity improvements.
2. **Lower prices:** Businesses can pass on productivity improvements to consumers through lower prices without reducing profits or wages. This also makes businesses more competitive in global markets.
3. **Higher profits:** In response to an improvement in productivity, businesses can increase their profits as it now costs less to produce a given level of output. These profits can be distributed to the business owners or shareholders, or reinvested into the firm.
4. **Stronger economic growth:** Labor and capital inputs tend to be subject to diminishing marginal returns. In other words, holding other inputs constant, the addition of one more unit of labor or capital will lead to a smaller and smaller addition to output. This leaves productivity growth as the main driver of higher living standards in the long run.



Types of Production

Now that we know about production let's learn about the types of production. There are three types of production - primary production, secondary production, and tertiary production. Let's learn about each of them in more detail!

- **The primary sector**, often referred to as the **agricultural sector**, forms the bedrock of any economy, providing the essential resources necessary for human survival and industrial activities. It encompasses activities related to **extracting natural resources and producing raw materials**, laying the groundwork for economic development. **Agriculture, forestry, fishing, mining, oil, and gas extraction** are some **examples** of primary sectors.
 - The primary sector encompasses activities directly tied to the **extraction of natural resources from the earth, water, and air**.
 - It forms the foundation for subsequent economic activities.
 - **Agriculture, mining, forestry, and fishing** stand as **core activities** within the primary sector, each contributing to a nation's resource base and livelihoods.
 - Due to the outdoor nature of their jobs, those who work in the primary sector are known as **red-collar workers**.
 - The primary sector often dominates in the majority of **underdeveloped nations**.
 - Increased labor productivity allows workers to quit the agriculture sector and shift to other sectors such as manufacturing and services as an economy develops.
 - It is also known as the **Agriculture and Allied Sector** since agriculture, dairy, forestry, and fishing provide the majority of the natural items we consume.
- **The secondary sector:**
 - The secondary sector is responsible for **transforming raw materials into finished goods**, adding value through various processing and manufacturing activities.
 - India's secondary sector encompasses a wide range of industries, from **textiles and automobiles to electronics and pharmaceuticals**.
 - **It drives the process of industrialization**, which in turn leads to job creation, technological advancement, and higher economic output.
 - The secondary sector is sometimes called the **industrial sector or manufacturing sector**.
 - The secondary sector is a **significant source of employment** for a large portion of the population, contributing to economic development.
 - The **integration of automation, data exchange, and AI-driven technologies** is transforming manufacturing processes in India.
 - Industries are **adopting digitalization** to enhance efficiency, reduce operational costs, and improve product quality.

- Most economies go through a middle period of development during which the secondary sector overtakes the primary sector in terms of production and employment, while the primary sector declines in prominence.

- **The Third Sector:**

also known as the **service sector** is responsible for **providing services to both businesses and final consumers**. The service sector includes transportation, distribution, and sale of commodities from a producer to a customer, as in wholesaling and retailing, or providing of a service, as in pest treatment or entertainment. It is a driving force behind economic growth, innovation, and employment generation

- The tertiary sector offers a diverse array of services, from healthcare and education to finance, entertainment, and tourism.
 - The sector's **contribution to GDP, job creation**, and innovation is substantial, making it a key pillar of economic development.
 - The healthcare sector **provides medical services, pharmaceuticals, and medical tourism opportunities**.
 - Banking, insurance, stock markets, and financial technology (FinTech) services contribute significantly to economy.
 - The service sector is continually shaped by technology, with innovations like artificial intelligence, blockchain, and data analytics transforming service delivery.
 - The **rise of e-commerce platforms** has revolutionized retail, creating new opportunities for businesses and consumers.
 - This industry is very important because people demand specific services to live a pleasant and high-quality existence.
- **Fourth sector :** includes **intellectual services like innovation and technological advancements**. Quaternary sector comprises all **research and development activities** that result in process improvements, such as in manufacturing. This sector emerged a few years ago as an additional tertiary sector distinction.
- The **intellectual side of the economy** is said to be represented by the **quaternary sector**.
 - It encompasses **education, training, technological advancement, and research and development**.

- It is the process that allows entrepreneurs to improve manufacturing processes and the quality of services provided in the economy by innovating better manufacturing processes.
- Economic progress would be slow or non-existent without the advancement of technology and knowledge.
- It is also known as the **knowledge economy**, which refers to the part of the economy that is reliant on human capital, such as information technology, knowledge, and education.
- It's mostly about the service industry, but it's also about the high-tech component of manufacturing.
- This category includes employees who work in office buildings, elementary schools, and university classrooms, hospitals and doctors' offices, theatres, accounting, and brokerage firms.

Division of labor: THE greatest improvement in the productive powers of labor, and the greater part of the skill, dexterity, and judgement with which it is anywhere directed, or applied, seem to have been the effects of the division of labor.¹

We can distinguish between three types of division of labor:

- **The physiological division of labor:** which is according to gender and age (women perform jobs that differ from men's jobs and are compatible with their physiological structure)

-**The social division of labor.** we distinguish between the macro level and the division of the national economy into economic sectors (agriculture, industry and services) and then the sector into economic branches (textile industry, chemical industry...)

The micro level is the division of labor within the production unit among workers. Here the social division of labor takes the form of specializing community members in certain professions (carpenter, farmer, doctor...)

The first social division of labor known to man was when some tribes specialized in raising animals and others in agriculture.

¹ Adam Smith, "Of the Division of Labour," in **An Inquiry into the Nature and Causes of the Wealth of Nations**, edited with an Introduction, Notes, Marginal Summary and an Enlarged Index by Edwin Cannan (London: Methuen, [1776] 1904). Vol. 1. <https://oll.libertyfund.org/titles/smith-an-inquiry-into-the-nature-and-causes-of-the-wealth-of-nations-cannan-ed-vol-1> Accessed: January 31, 2020.

- **International division of labor:** Different countries specialize in producing and exporting a product or group of products according to natural and economic (technological) data.

The topic of specialization and international trade aroused great interest in economic thought due to the results of this: a Ricardo theory of comparative costs and advantages

2 . Distribution Of Wealth And Income: the way in which the wealth and income of a nation are divided among its population, or the way in which the wealth and income of the world are divided among nations. Such patterns of distribution are discerned and studied by various statistical means, all of which are based on data of varying degrees of reliability.

Wealth is an accumulated store of possessions and financial claims. It may be given a monetary value if prices can be determined for each of the possessions; this process can be difficult when the possessions are such that they are not likely to be offered for sale. Income is a net total of the flow of payments received in a given time period. Some countries collect statistics on wealth from legally required evaluations of the estates of deceased persons, which may or may not be indicative of what is possessed by the living. In many countries, annual tax statements that measure income provide more or less reliable information. Differences in definitions of income—whether, for example, income should include payments that are transfers rather than the result of productive activity, or capital gains or losses that change the value of an individual's wealth—make comparisons difficult.

- In order to classify patterns of national wealth and income, a basis of classification must be determined. One classification system categorizes wealth and income on **the basis of the ownership of factors of production:** labor, land, capital, and, occasionally, entrepreneurship, whose respective forms of income are labeled wages, rent, interest, and profit. Personal distribution statistics, usually developed from tax reports, categorize wealth and income on a per capita basis.

- **Income Redistribution¹**

The use of taxation, government spending, and controls to change the distribution of real incomes. Taxation may be more or less progressive. Government spending programmes may be generally available, or may be targeted or means-tested to try to concentrate benefits on the relatively needy. Controls may be used to alter income

¹ <https://www.oxfordreference.com/display>

Distribution: for example, rent controls were originally designed to prevent housing shortages from shifting income from tenants to landlords, and minimum wage legislation aims to benefit low-paid workers at the expense of their employers. The extent of income redistribution through the tax system can be measured by comparing the inequality of income distributions before and after tax. The ability of the state to redistribute incomes is limited by the need to avoid too much damage to the incentives to create income by work, savings, and enterprise.

these taxation procedures, if done with proper administration, serve the overall benefit of society and economic growth. It creates a large consumer market/class which has adequate money to spend on goods.

3- Consumption in economics,

the use of goods and services by households. Consumption is distinct from consumption expenditure, which is the purchase of goods and services for use by households. Consumption differs from consumption expenditure primarily because durable goods, such as automobiles, generate an expenditure mainly in the period when they are purchased, but they generate “consumption services” (for example, an automobile provides transportation services) until they are replaced or scrapped.

Neoclassical (mainstream) economists generally consider consumption to be the final purpose of economic activity, and thus the level of consumption per person is viewed as a central measure of an economy’s productive success.

The study of consumption behaviour plays a central role in both macroeconomics and microeconomics. Macroeconomists are interested in aggregate consumption for two distinct reasons. First, aggregate consumption determines aggregate saving, because saving is defined as the portion of income that is not consumed. Because aggregate saving feeds through the financial system to create the national supply of capital, it follows that aggregate consumption and saving behaviour has a powerful influence on an economy’s long-term productive capacity. Second, since consumption expenditure accounts for most of national output, understanding the dynamics of aggregate consumption expenditure is essential to understanding macroeconomic fluctuations and the business cycle.

- **Consumption Types:** There are six types of consumption in economics. These types are defined as four kinds of consumer goods. They also capture the various consumer motivations that drive people's propensity to purchase certain goods. The main types include convenience, shopping, specialty, and unsought consumer goods:

- Individual consumption like clothes;

- Mass consumption like bus;
- Immediate consumption like drink water;
- Sustainable consumption like mobile or car or house;
- Final consumption like food
- Intermediate consumption like raw material

- **Goods and services:**

Businesses produce goods and provide services to satisfy our needs and wants. It makes our life easier. We just give up enough money to get what we want without having to bother producing it ourselves.¹

- Goods represent tangible products. We can see and touch them. Examples are food, drink, clothing, and smartphones.
- Services represent intangible products. They have no physical substance. We can only feel the benefits without being able to see or touch them. An example is what barbershops, banks, insurance, and consultants provide.

Then, there are many businesses around us. They offer the same products and target consumers. As a result, they compete with each other.

The competition requires businesses to be more efficient and innovative. By doing so, they should be able to outperform their competitors. If successful, they can earn more money.

Goods and services are the output of an economic system. Goods are tangible items sold to customers, while services are tasks performed for the benefit of the recipients. The output of a business can lie somewhere between these two concepts. For example, a landscaping company could sell a homeowner a tree (goods) and also mow the lawn (a service).

4- **Save Money:**

Income left over after people spend money and pay taxes is personal saving. The personal saving rate is the percentage of their disposable income that people save.

¹ N.gregory Mankiw ” **Principles Of Economics**” ; 2016, cengage learning, Boston, USA ; eighth edition, p:211.

This rate is followed to learn about Americans' financial health and to help predict consumer behavior and economic growth.

In plain words, savings refer to the excess of disposable income over consumption expenditure.

From a national level, the unconsumed part of the entire nation's income comprising of all its members can be termed as National Savings.

Total domestic savings, on the other hand, can be defined as the summation of savings of the government, the business sector, and households.

The wealth-building plan is important for ensuring a secured financial future. When it comes to financial terms, savings and investments are often used interchangeably, but these two are actually different terms.

An investor, before making any kind of investment, should know the basic difference between saving and investing. While both of them are essential for a secured future, the way they function is totally different.

Both saving and investment play an important role in shaping our financial strategy. Knowing when to save or invest is crucial in your financial journey.

Saving Meaning

Saving is referred to as that part of income that is not used for consumption, it is the act of keeping aside money that is required for later use.

In other words, savings can be defined as an amount that is left after meeting all the expenses from the disposable income of a person.

5- Investment :

Investment is the process of buying an asset that is acquired with the purpose of generating income over a long period of time. It is done with saving to generate wealth and returns (or get greater returns).

The main purpose of investing is to create capital appreciation and investment can be done through instruments such as bonds, shares, mutual funds, etc.

Let us discuss the most important points of difference between saving and investment.

Table 01: Defrinite Between Saving And Investment

Basis of comparison	Saving	Investment
Type of account	Savings account	Brokerage account
Type of return	Fixed return	Fluctuating rate of return
Goals	Short-term	Long-term
Risk	Low-risk	High-risk
Return on investment	Low returns	High returns
Liquidity	Has high liquidity	Has low liquidity
Protecting against inflation	Offers little protection	Offers greater protection from inflation.

- Typed Of Investment:

The investment is classified according to several considerations and produces these types for us

- Compensation or renewal investment in parallel with simple reproduction. This investment aims to compensate for the lost capital without increasing it.

- Expansion investment: aims to increase production in quantity and quality.

Productive investment: It is an investment in the productive field, i.e. commodity (agricultural industry).

Non-productive investment: that is, investment in sectors on which investment depends, such as infrastructure, education, and health care.

- Financial investment, which is investment in machinery and equipment.

Intangible investment, which is investment in the intangible field such as creativity, research, development, advertising, training, formation,,,,

- Financial investment: It is investment in the financial and banking field and aims to obtain interest from depositing money in banks or speculation in stocks and bonds.

The fifth axis: Economic Actors- Types and Roles

Economic agents are actors who intervene in the economy under certain rules determined by the economic system and economic institutions. They make decisions trying to resolve an optimization or choice problem. In this process, they model the economy; for example, they decide the distribution of goods and services, taxes, laws, tariffs, etc.

In this lecture we highlight:

- The definition the economics actors.
- We presented the types of economics actors.
- Finally we connect the various economic agents to form the economic cycle.

1-The Economics Actors:

Economic actors refer to the participants in economic activities in an economy. They use productive resources and interact with each other with their respective motives and compensation, involving the flow of goods and income. Synonym market participants are economic agents.

Another definition of economic agents, also known as economic actors, considers them as decision makers who are able to recognize different economic factors, incentives, and motivations of the different economic groups.

The concept of “economic agents” was created by economists to simplify and explain economic processes. As a concept, it was first used in classical and neoclassical models where economists construct a simplified framework representing the economic process by a set of variables and a set of logical relationships between them.

We group economic actors into the following three categories:

1. Household sector
2. Business sector
3. Government sector

In an open economy, economic activity also involves the external sector. It represents economic actors abroad, which interact with domestic economic actors through international trade and capital flows.

However, if we break down its components again, the external sector also consists of the three economic actors mentioned above.

Furthermore, transactions between these sectors involve exchanging goods and services and money as a means of payment. Economists describe the flow of goods and income into a diagram that we call a circular flow diagram.

Apart from the three sectors, several authors added the voluntary sector. Different from the business sector, this sector is neither profit-oriented nor dependent on the government sector. Sometimes we refer to it as the third sector, the community sector, or the non-profit sector. Examples of the voluntary sector are charities, communities, cooperatives, foundations, advocacy groups, and social welfare organizations.

Furthermore, if you dissect economic actors in more detail, you will likely find a wide variety of actors, including:

2-Types of the economics agents: In general, economists consider three or four types of economic agents:¹

A: Household

The household sector consists of individuals. They are the owners of various factors of production available in the economy. They may be workers, landowners, or entrepreneurs.

In the factor market, the household sector offers firms a factor of production. In return, they receive a variety of incomes, including:

- Wages for labor
- Rent for used land
- Profit for entrepreneurship

¹ **Juan David Montoya** : Economic agents, an explanation; available on the site web <https://www.economicactivity.org/economic-agents>

- Interest for capital

Another source of income is transfer payments from the government, such as pension benefits and unemployment benefits.

Households use that income for consumption or for saving. Before allocating to the two, they must pay taxes. The income remaining after paying taxes is called disposable income.

Households use disposable income to buy several products. They buy it from the business sector in the product market. Products fall into three main categories of durable goods, non-perishable goods, and services.

Households also save some of their disposable income to accumulate wealth. They place it into real assets such as property or financial assets such as time deposits, stocks, mutual funds, and bonds.

- **Families** are a domestic group defined by the U.S. Census as “a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family”.

Families consume, work and save. They consume to satisfy their necessities, they save for greater future consumption, they borrow to advance consumption, and they work (sacrificing leisure) to be able to consume. Their income is distributed in consumption, savings, and taxes.

They have a dual role in the economy. On one side, they are consumers, they demand goods and services; and on the other, they own the means of production through which the goods and services are produced.

B: The business sector (Firms):

try to maximize their utility (economic benefits) for their shareholders. To achieve this, firms use factors of production (land, labor, and capital) to produce goods and services, creating value and wealth.

They demand labor from families for a salary, and also employ capital (machines, vehicles, computers, etc) in exchange for interest, and land for rent. Finally, They offer goods and services for families, other firms, or the government.

C: Governments

The government consists of institutions that are tasked with regulating and issuing policies to influence economic activity. They include the central government, ministries, central banks, and local governments.

The macroeconomic objectives of the government sector are:

- Achieve sustainable economic growth
- Stable inflation
- Full employment
- Balance of payments equilibrium

Apart from going through regulations, the government sector also issues policies. Well-known examples of macroeconomic policy are fiscal and monetary policy. Both affect aggregate demand, which in turn has an impact on production activities and aggregate supply.

To finance operations and macroeconomic policies, the government collects taxes from the business and household sectors. If tax revenues are less than expenditure, the government runs a budget deficit. It must borrow to cover the deficit, for example, by issuing debt securities.

Furthermore, the government also launched structural policies to influence the supply side of the economy. Examples of policies are privatization, infrastructure development, improving the education system, and promoting competition.

In several sectors, the government also carries out various economic activities, especially where they are less attractive for private sectors (business). Examples are infrastructure development, defense, health and education services, and rail transportation. The private sector considers these activities high risk or unprofitable.

D: Central Banks manage the country's currency, money supply, and interest rates. Through monetary policies, they can increase the money supply in the economy or modify the interest rates to incentivize or disincentivize consumption, savings, or investments.

E: External Sector: The external sector refers to economic actors located outside the country. They include foreign households, foreign businesses, and foreign governments. They interact with the domestic economy through international trade. They buy domestically produced goods and services and also sell goods and services to the domestic economy. In addition, interactions with them also involve the flow of capital through direct and portfolio investments. Also known as the foreign sector.

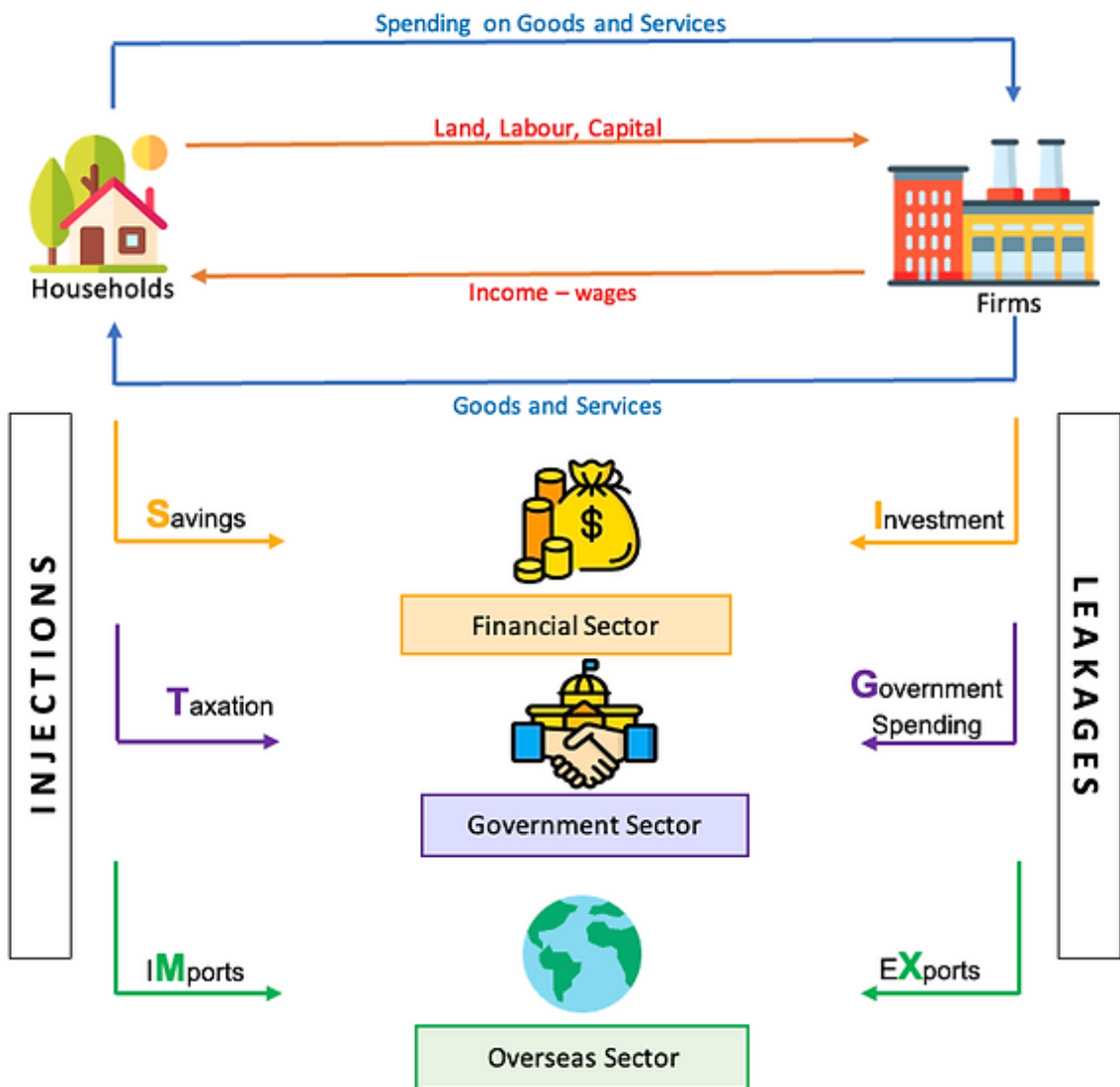
When a country interacts with foreign countries, we call it adopting an open economy (as opposed to a closed economy). Trade and capital flows have a major impact on the country's economy and affect economic indicators such as economic growth, exchange rates, and interest rates.

A circular flow of income model shows you the economy's movements of spending and income.

- Output flows from businesses to households in the goods market. While money flows from households to businesses. In this market, households are buyers, and businesses are suppliers.
- Businesses use the money to buy inputs in factor markets. Take the labor market, for example. Businesses act as buyers and households act as sellers. Labor services flow from households to businesses. Instead, money flows from businesses to households.

Figure 06 : circular flow of income model

Circular Flow of Income Model



In the economy, such flow is more complicated. It involves four macroeconomic sectors:

- Household
- Business
- Government
- Foreign

And remember, the foreign sector also basically consists of households, businesses, and government.

The sixth axis: Market

A market is a place where parties can gather to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers. The market may be physical, like a retail outlet, where people meet face-to-face, or virtual, like an online market, where there is no physical presence or contact between buyers and sellers.

In this lecture we found:

- Definition of market;
- Types of market;
- Market structures.

1- **Definition:** A market is defined as the sum total of all the buyers and sellers in the area or region under consideration. The area may be the earth, or countries, regions, states, or cities.

The value, cost and price of items traded are as per forces of supply and demand in a market. The market may be a physical entity, or may be virtual. It may be local or global, perfect and imperfect.

Some key characteristics help define a market, including the availability of an arena, buyers and sellers, and a commodity that can be purchased and sold.

- A market is where buyers and sellers can meet to facilitate the exchange or transaction of goods and services.
- Markets can be physical, like a retail outlet, or virtual, like an e-retailer.
- Examples include illegal markets, auction markets, and financial markets.
- Markets establish the prices of goods and services, determined by supply and demand.
- Features of a market include the availability of an arena, buyers and sellers, and a commodity.

Features of a Market

Certain features help define a market and are necessary for it to function. The following are the most basic characteristics that shape a market:¹

- **Arena:** This is the platform where transactions are conducted between buyers and sellers. Keep in mind that this doesn't necessarily mean a physical location.
- **Buyers and Sellers:** For the market to function, there must be buyers and sellers. The market can't exist if someone isn't buying something that someone else is selling. These entities can be businesses, individuals, or even governments, and they can execute their transactions physically or virtually, thanks to the internet.
- **One Commodity:** A single market depends on a single commodity, so a related commodity must be present for a market to operate. For instance, wheat is the commodity bought and sold in the wheat market. Electronics make up the electronics market en masse but can be broken down into subcategories.

Other features include competition, pricing, and the freedom to buy and sell goods and services.

2- Types of Markets

- **Physical Markets** - Physical market is a set up where buyers can physically meet the sellers and purchase the desired merchandise from them in exchange of money. Shopping malls, department stores, retail stores are examples of physical markets.
- **Non Physical Markets/Virtual markets** - In such markets, buyers purchase goods and services through internet. In such a market the buyers and sellers do not meet or interact physically, instead the transaction is done through internet. Examples - Rediff shopping, eBay etc.
- **Auction Market** - In an auction market the seller sells his goods to one who is the highest bidder.
- **Market for Intermediate Goods** - Such markets sell raw materials (goods) required for the final production of other goods.

¹ WILL KENTON , Market: What It Means in Economics, Types, and Common Features; 20sept; 2023/

- **Black Market** - A black market is a setup where illegal goods like drugs and weapons are sold.
- **Knowledge Market** - Knowledge market is a set up which deals in the exchange of information and knowledge based products.
- **Financial Market** - Market dealing with the exchange of liquid assets (money) is called a financial market.

Financial markets are of following types:

1. **Stock Market** - A form of market where sellers and buyers exchange shares is called a stock market.
2. **Bond Market** - A market place where buyers and sellers are engaged in the exchange of debt securities, usually in the form of bonds is called a bond market. A bond is a contract signed by both the parties where one party promises to return money with interest at fixed intervals.
3. **Foreign Exchange Market** - In such type of market, parties are involved in trading of currency. In a foreign exchange market (also called currency market), one party exchanges one country's currency with equivalent quantity of another currency.
4. **Predictive Markets** - Predictive market is a set up where exchange of good or service takes place for future. The buyer benefits when the market goes up and is at a loss when the market crashes.

Market Size

The market size is directly proportional to two factors:

- Number of sellers and Buyers
- Total money involved annually

3- Market structure

Market structure refers to the way that various industries are classified and differentiated in accordance with their degree and nature of competition for products and services. It consists of four types: perfect competition, oligopolistic markets, monopolistic markets, and monopolistic competition.¹

¹ Kotler, Philip. (2000) Marketing Management. Upper Saddle River, New Jersey: Prentice Hall.

3-1- Types of Market Structures

According to economic theory, market structure describes how firms are differentiated and categorized by the types of products they sell and how those items influence their operations. A market structure helps us to understand what differentiates markets from one another.

In economics, market structure is the number of firms producing identical products which are homogeneous. The types of market structures include the following:

1. Monopolistic competition, also called competitive market, where there is a large number of firms, each having a small proportion of the market share and slightly differentiated products.
2. Oligopoly, in which a market is by a small number of firms that together control the majority of the market share.
3. Duopoly, a special case of an oligopoly with two firms.
4. Monopsony, when there is only one buyer in a market.
5. Oligopsony, a market in which many sellers can be present but meet only a few buyers.
6. Monopoly, in which there is only one provider of a product or service.
7. Natural monopoly, a monopoly in which economies of scale cause efficiency to increase continuously with the size of the firm. A firm is a natural monopoly if it is able to serve the entire market demand at a lower cost than any combination of two or more smaller, more specialized firms.
8. Perfect competition, a theoretical market structure that features no barriers to entry, an unlimited number of producers and consumers, and a perfectly elastic demand curve.

TABLE 02: Market Structures

Market Structure	
Perfect Competition 100's of firms	<ul style="list-style-type: none"> • Freedom of entry/exit • Homogenous goods - Perfect information • Normal profit
Monopoly 1 firm with at least 25% market share	<ul style="list-style-type: none"> • Barriers to entry • Higher prices than competitive markets • Economies of scale
Oligopoly 5 firm concentration ratio > 50%	<ul style="list-style-type: none"> • A few large firms dominate market • Interdependence of firms • Some barriers to entry
Monopolistic competition Several firms with brand loyalty	<ul style="list-style-type: none"> • Low barriers to entry • Firms produce differentiated products • Less profit than monopoly

Source: Market Structure: Definition, Types, Features and Fluctuations
By Eshna Verma ;Last updated on May 23, 2023237304

4- Market Structure

Market structure refers to the way that various industries are classified and differentiated in accordance with their degree and nature of competition for products and services. It consists of four types: perfect competition, oligopolistic markets, monopolistic markets, and monopolistic competition.

4-1- Types of Market Structures

Market structure refers to the way that various industries are classified and differentiated in accordance with their degree and nature of competition for products and services. It consists of four types: perfect competition, oligopolistic markets, monopolistic markets, and monopolistic competition.

In economics, market structure is the number of firms producing identical products which are homogeneous. The types of market structures include the following:

1. Monopolistic competition, also called competitive market, where there is a large number of firms, each having a small proportion of the market share and slightly differentiated products.

2. Oligopoly, in which a market is by a small number of firms that together control the majority of the market share.
3. Duopoly, a special case of an oligopoly with two firms.
4. Monopsony, when there is only one buyer in a market.
5. Oligopsony, a market in which many sellers can be present but meet only a few buyers.
6. Monopoly, in which there is only one provider of a product or service.
7. Natural monopoly, a monopoly in which economies of scale cause efficiency to increase continuously with the size of the firm. A firm is a natural monopoly if it is able to serve the entire market demand at a lower cost than any combination of two or more smaller, more specialized firms.
8. Perfect competition, a theoretical market structure that features no barriers to entry, an unlimited number of producers and consumers, and a perfectly elastic demand curve.

The imperfectly competitive structure is quite identical to the realistic market conditions where some monopolistic competitors, monopolists, oligopolists and duopolists exist and dominate the market conditions. The elements of Market Structure include the number and size distribution of firms, entry conditions, and the extent of differentiation.

These somewhat abstract concerns tend to determine some but not all details of a specific concrete market system where buyers and sellers actually meet and commit to trade. Competition is useful because it reveals actual customer demand and induces the seller (operator) to provide service quality levels and price levels that buyers (customers) want, typically subject to the seller's financial need to cover its costs. In other words, competition can align the seller's interests with the buyer's interests and can cause the seller to reveal his true costs and other private information. In the absence of perfect competition, three basic approaches can be adopted to deal with problems related to the control of market power and an asymmetry between the government and the operator with respect to objectives and information:

- (a) subjecting the operator to competitive pressures,
- (b) gathering information on the operator and the market,

(c) applying incentive regulation.

Monopolistic Markets Characteristics

Monopolistically competitive markets have the following characteristics:

- There are many producers and many consumers in the market, and no business has total control over the market price.
- Consumers perceive that there are non-price differences among the competitors' products.
- There are few barriers to entry and exit.
- Producers have a degree of control over price.

The long-run characteristics of a monopolistically competitive market are almost the same as a perfectly competitive market. Two differences between the two are that monopolistic competition produces heterogeneous products and that monopolistic competition involves a great deal of non-price competition, which is based on subtle product differentiation. A firm making profits in the short run will nonetheless only break even in the long run because demand will decrease and average total cost will increase. This means in the long run, a monopolistically competitive firm will make zero economic profit. This illustrates the amount of influence the firm has over the market; because of brand loyalty, it can raise its prices without losing all of its customers. This means that an individual firm's demand curve is downward sloping, in contrast to perfect competition, which has a perfectly elastic demand schedule.

Oligopoly Characteristics

- Profit maximization conditions: An oligopoly maximizes profits by producing where marginal revenue equals marginal costs.
- Ability to set price: Oligopolies are price setters rather than price takers.
- Entry and exit: Barriers to entry are high. The most important barriers are economies of scale, patents, access to expensive and complex technology, and strategic actions by incumbent firms designed to discourage or destroy nascent firms. Additional sources of barriers to entry often result from

government regulation favoring existing firms making it difficult for new firms to enter the market.

- Number of firms: "Few" – a "handful" of sellers. There are so few firms that the actions of one firm can influence the actions of the other firms.
- Long run profits: Oligopolies can retain long run abnormal profits. High barriers of entry prevent sideline firms from entering the market to capture excess profits.
- Product differentiation: Product may be homogeneous (steel) or differentiated (automobiles).
- Perfect knowledge: Assumptions about perfect knowledge vary but the knowledge of various economic factors can be generally described as selective. Oligopolies have perfect knowledge of their own cost and demand functions but their inter-firm information may be incomplete. Buyers have only imperfect knowledge as to price, cost and product quality.
- Interdependence: The distinctive feature of an oligopoly is interdependence. Oligopolies are typically composed of a few large firms. Each firm is so large that its actions affect market conditions. Therefore the competing firms will be aware of a firm's market actions and will respond appropriately. This means that in contemplating a market action, a firm must take into consideration the possible reactions of all competing firms and the firm's countermoves. It is very much like a game of chess or pool in which a player must anticipate a whole sequence of moves and countermoves in determining how to achieve his or her objectives. For example, an oligopoly considering a price reduction may wish to estimate the likelihood that competing firms would also lower their prices and possibly trigger a ruinous price war. Or if the firm is considering a price increase, it may want to know whether other firms will also increase prices or hold existing prices constant. This high degree of interdependence and need to be aware of what other firms are doing or might do is to be contrasted with lack of interdependence in other market structures. In a perfectly competitive (PC) market there is zero interdependence because no firm is large enough to affect market price. All firms in a PC market are price takers, as current market selling price can be followed predictably to maximize short-term profits. In a monopoly, there are no competitors to be concerned about. In a monopolistically-competitive market, each firm's effects on market conditions is so negligible as to be safely ignored by competitors.

- **Non-Price Competition:** Oligopolies tend to compete on terms other than price. Loyalty schemes, advertisement, and product differentiation are all examples of non-price competition

Perfectly Competitive Market Characteristics

- **Infinite buyers and sellers** – An infinite number of consumers with the willingness and ability to buy the product at a certain price, and infinite producers with the willingness and ability to supply the product at a certain price.
- **Zero entry and exit barriers** – A lack of entry and exit barriers makes it extremely easy to enter or exit a perfectly competitive market.
- **Perfect factor mobility** – In the long run factors of production are perfectly mobile, allowing free long term adjustments to changing market conditions.
- **Perfect information** - All consumers and producers are assumed to have perfect knowledge of price, utility, quality and production methods of products.
- **Zero transaction costs** - Buyers and sellers do not incur costs in making an exchange of goods in a perfectly competitive market.
- **Profit maximizing** - Firms are assumed to sell where marginal costs meet marginal revenue, where the most profit is generated.
- **Homogenous products** - The qualities and characteristics of a market good or service do not vary between different suppliers.
- **Non-increasing returns to scale** - The lack of increasing returns to scale (or economies of scale) ensures that there will always be a sufficient number of firms in the industry.
- **Property rights** - Well defined property rights determine what may be sold, as well as what rights are conferred on the buyer.

The seventh axis: Money

Prehistoric years. One of the most significant inventions throughout history is money. The invention of money gave new meaning to how people transact and trade, build civilizations or fight wars. Development of trade would have never taken place, without the invention of money. Before money, there was the barter economy around 100,000 years ago. This was a special type of economy where two people would exchange their goods. This type of trade had its limits as sellers and buyers couldn't always find the desired and needed products in order to exchange them on their own the so called, (coincidence of wants) and progressively this led to the creation of money. Another reason was that these objects could not be easily transported or used in daily transactions. Due to these reasons and in order for trade to become efficient, they needed to use something that is durable and valuable i.e. holds its value over time, it is portable and convenient to use and is generally accepted by the population as a means of transaction.

After viewing this lecture, the student will be able to learn about:

The nature of money;

Properties of money;

Money functions;

The evolution of types of money over time.

1- Meaning of Money:

- Money is simply a medium of exchange that can be used to purchase goods and services. It is also defined by its ability to act as a store of value.
- Today, money and currencies are synonymous with each other, but coins and notes are just a physical representation of the concept of money. Throughout history, there has been a range of different mediums of exchange, including commodities.
- Money: is the operating system on which we run our economies.

- Money is any asset that can easily be used to purchase goods and services.

3- Roles of money:

However, despite its widespread use, very few individuals could probably describe precisely what money is or how it functions. Simply said, anything that may be used as a unit of account for the money:¹

1. It is a store of value, allowing users to save and use it at a later time to spread out their purchases;
2. Standard of account, which establishes a standard price foundation; or
3. An exchange medium, or something which allows people to purchase and sell with one another.

Imagine what might happen if people did not have enough money. This is maybe the simplest approach to thinking about the function of money. We would have a barter economy if there was no money. Everyone would have to trade in whatever they wanted to buy for something they could offer.

But when you have money, you don't have to look for a certain individual. To distribute your products or services, all you need is a market. For specific commodities, there is no bartering allowed at that market.

Instead, you trade your goods or services for money, which is a widely used form of transaction. Then you may use that money to purchase whatever you need from those who embrace the same kind of payment.

- 1- **Different Types of Money:** Barter, Fiat, commodity, representative, fiduciary, and commercial bank money are the five distinct forms of money in use today. Additionally, they all perform the very same three tasks: they act as a medium of

¹ Margarit ray, David Anderson:" **krugman's economics for AP- Adapted from economics**" second edition by paul Krugman and robin wells, worth publishers/BFW, 2011 new York,PP:231-233.

transaction, a repository of property, and a measure of value. Let's discuss each type in detail.¹

A- Barter : Before the hard currency came into existence, the most common form of trade was bartering. Barter System dates back to the old time when there was no money. The only way to buy goods was to exchange them with personal belongings of similar value. For example- A farmer gives his cattle in exchange for some land, and so on.

In simple words, any exchange of goods and services for other goods and services without exchanging any form of money is known as the Barter system.

Mesopotamia tribes are said to be the ones to introduce this system of exchange, where they exchanged goods for food, weapons, and other essential needs such as tea. Therefore, it is known as one of the oldest forms of commerce.

Although it is one of the oldest types of commerce, it is still used among individuals as well as companies to procure goods and services when there is not enough cash or money to buy things.

One of the most important factors of the barter system is having the equal value of the goods and services that are to be exchanged.

B- Fiat Money

A government-produced currency known as "fiat money" is not guaranteed by a tangible good like gold and silver, but rather by the administration that created it. Instead of being backed by the value of a substance, fiat money derives its value from the interplay between producers and consumers as well as the integrity of the government that issues it.

The majority of contemporary world currencies, including the U.S. dollar, the euro, rupees, and other significant world exchange rates, are fiat currencies.

¹ Davies, Glyn. *A history of money from ancient times to the present day*, 3rd ed. Cardiff: University of Wales Press, 2002. 720 pages.

C- Fiduciary Money

Money that is used as a means of trade because the parties involved have mutual confidence in one another is known as fiduciary money. Currently, the financial system is quite conservative.

Fiduciary money is what a bank refers to when it decides to pay its clients in several forms of currency and the consumer has the option to sell or transmit the commitment to another party.

Fiduciary payments are typically made in gold, silver, or cash. As they're both tokens that are used as currency or have the same worth, checks and bank notes are instances of fiduciary money. The likelihood that fiduciary money will be extensively used as a means of trade determines its value.

D- Representative Money

A certification or token that may be traded for the fundamental good is known as representative money. For instance, the gold was perhaps housed in a safety deposit box and then you might hold a paper certificate that reflects or was "backed" by the gold inside the vault rather than bearing the actual gold commodity currency.

It was agreed that the certificate might at any moment be exchanged for gold. Additionally, carrying the certificate was secure and simpler than carrying the actual gold. People eventually began to place equal confidence in paper certificates and gold. Fiat money, the kind employed in response to the changes, evolved from representative money.

E- Commodity Money

Commodity money is defined as a currency that takes the shape of a commodity and has inherent worth. The main feature of commodity money is this component of intrinsic value. When this type of money was initially utilized, commerce, exchange, and economic activity, in general, were not as sophisticated as they are now.

Any tradable product can serve as a form of commodity money. This product must adhere to a set of requirements. For instance, it must be in high demand,

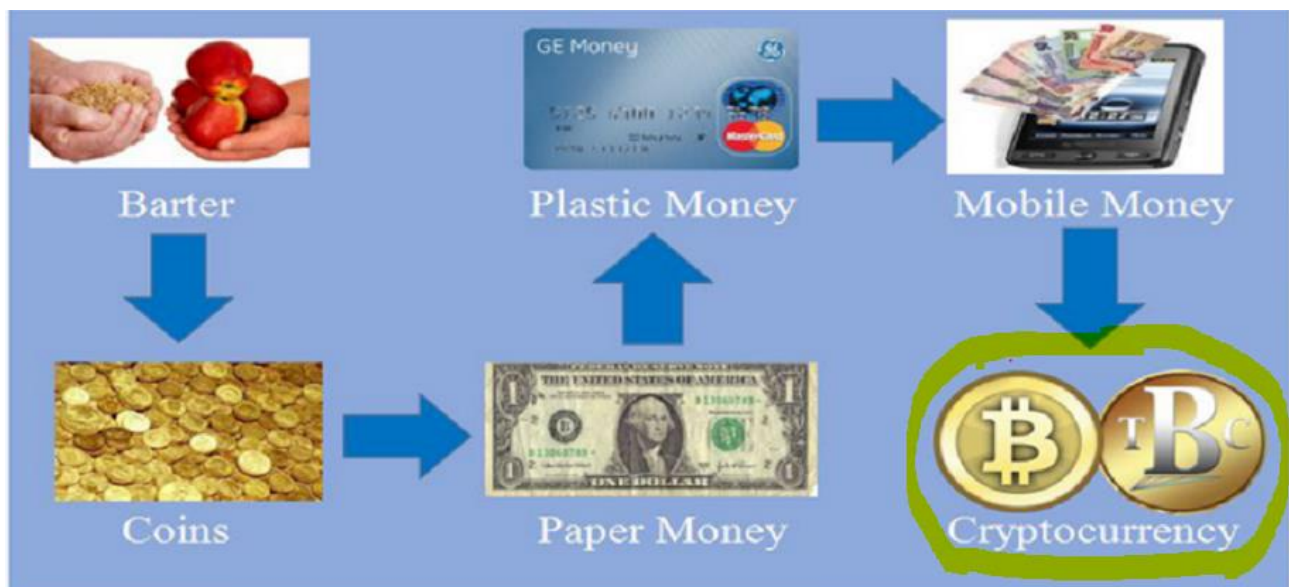
strong, lightweight, and convenient to store. Any commodity that can't meet these requirements in the former was not recognized as commodity money.

E- Commercial Bank Money

Bank commercial The creation of money through into the monetary system is effectively the creation of debt. Banks are only permitted to retain \$10 of each \$100 in deposits for relatively brief transactions by depositors while lending the remaining \$90.

The result is what is known as the "money multiplier" effect. The monetary multiplier phenomenon works when money is given more than they've been in deposits and, as a result of the fractional reserve banking system, the growth in the supply of money surpasses the size of the upfront payment.

Figure 08 :Types of money



2- Advantages of Money

You may exchange your work for goods that you desire because money exists. The following are only a few of the many important advantages of money:

- **Freedom comes from money.**

You may live anywhere you choose, take care of your necessities, and participate in your interests once you have sufficient money. You'll experience even more independence because you'll be willing to spend your energy as you like if you're able to achieve financial independence and have enough money to support yourself without work.

- **Homogeneous**

Money must all be of the same kind, which is a necessary requirement. There are good coins and terrible coins among some of them. However, all banknotes are identical. As a result, it makes a perfect medium of trade.

- **The ability to follow your aspirations is given to you by money.**

You may launch a business, construct your ideal home, cover the expenses of starting a family or achieve other objectives you think would improve your quality of life if you have money.

- **Stability**

By carefully controlling its issuance, paper money's value may be maintained. Because of this, there are many supporters of "managed" paper money.

- **Your security comes from money.**

You won't have to ever think about carrying a shelter over your shoulder, enough just to feed, or even being able to get an appointment when you're sick if you have sufficient savings in the bank. You won't be able to purchase everything you desire because of this, but you will be able to lead a secure middle-class existence.

3- **Issuing money:** Before producing money and putting it into circulation in the form of cash (coins and notes), countries' central banks, which are responsible for issuing money, plan the measures needed to ensure the stability of the money supply. Another type of money is bank money, which is created by commercial banks. We want to explain what the difference is and how each of them works.

The only organisations that have the power to issue money in cash, namely notes and coins, are the central banks of each country or specific region. They do this while following a monetary policy that ensures price stability and economic growth. In other words, these institutions make decisions with the aim of tailoring the money supply to meet different economic objectives.

The eighth axis: Inflation

Inflation is the pace at which a currency's value declines and as a result, the general level of costs for goods and services rises. Although the price fluctuations of individual goods can easily be calculated over time human interests reach well beyond one or two such products.

To live a comfortable life, individuals need a wide and diversified range of goods as well as a host of services. They include goods such as food grains, metal and fuel, electricity and transportation utilities, and services such as healthcare, entertainment, and labor.

Inflation attempts to calculate the aggregate effect of price increases on a diversified range of products and services and enables the rise in the price level of goods and services in an economy to be measured at a single value over a while. Prices increase as a currency loses value, and it buys fewer goods and services. The general cost of living for the general population is influenced by this loss of buying power, which inevitably leads to a deceleration of economic development.

In this lecture the students learned:

- The inflation meaning;
- The causes of inflation;
- The principles types of inflation;
- The effects of inflation;
- Remedies of inflation.

1- Inflation meaning:

- **Inflation** is the rate at which the overall level of prices for various goods and services in an economy rises over a period of time.
- As a result, money loses value because it no longer buys as much as it did in previous times; the purchasing power of a country's currency declines.
- **Central banks** look to maintain mild inflation of as much as 3% to help spur economic growth, but inflation considerably beyond that level could lead to brutal situations such as hyperinflation or stagflation.
- **Hyperinflation** is a period of fast-rising inflation; stagflation is a period of spiking inflation plus slow economic growth and high unemployment.

- **Deflation** is when prices drop significantly, due to too large a money supply or a slump in consumer spending; lower costs mean companies earn less and may institute layoffs.¹
- 2- **Causes of Inflation:** In an economy, different factors can push prices or inflation. Inflation usually results from an increase in the cost of production or a rise in demand for goods and services.

Cost-Push Inflation: Cost-push inflation happens when prices, such as raw materials and wages rise because of rises in production costs. Demand for products remains constant, although the supply of goods decreases as a result of higher production costs. As a consequence, in the form of higher prices for finished products, the additional costs of production are passed on to customers. As they are big manufacturing inputs, one of the indicators of potential cost-push inflation can be seen in rising commodity prices such as oil and metals.

For instance, if the price of copper increases, businesses that produce their products using copper may raise the prices of their goods. If the demand for the commodity is independent of the demand for copper, the higher cost of raw materials would be passed on to customers by the enterprise. Without any change in demand for the goods purchased, the effect is higher prices for customers. Prices can also be pushed higher by natural disasters. For instance, if a hurricane kills a crop such as maize, as maize is used in many goods, prices will increase in the economy.

Cost-Push Inflation Examples Most commonly cost-push inflation occurs in the sectors of natural gas and oil prices. Gasoline and natural gas are used by almost everyone to fuel their automobiles or heat their home. Crude oil is used in refineries for the manufacturing of gasoline and other fuels. High levels of natural gas are also used by electric power suppliers for the manufacturing of electricity. The reduction in the supply of oil due to change in global policies, creation of warlike conditions or occurrence of natural disasters. These reductions in the supply of oil will ultimately increase the price of gasoline. In this case, the demand for the product remains the same but the raw material available for manufacturing the product is not available due to which the price of the product increases.

Demand-Pull Inflation: Demand-pull inflation can be exacerbated by high demand from customers for a product or service. Prices rise as there is an increase in demand for commodities throughout an economy, and demand-pull inflation is the result.

¹ David beg and others :” **Economics**” , allile books, tenth edition, Mcgraw Hill, 2011, P:501.

When unemployment is low, consumer morale appears to be high and wages rise, leading to more spending. Economic expansion has a direct effect on an economy's level of consumer spending, which can contribute to a strong demand for goods and services. As the demand for a specific product or service rises, the supply available decreases. When fewer goods are available, customers are willing to pay more to get the item, as illustrated in the supply and demand economic theory.

Owing to demand-pull inflation, the consequence is higher prices. Companies, especially if they produce common goods, often play a role in inflation. A business can boost prices simply because the additional amount is willing to be charged by customers. Corporations often openly increase prices because the commodity for sale is something that customers, such as oil and gas, require for daily life. Nevertheless, it is customer demand that gives businesses the power to boost costs.

Demand-Pull Inflation Example: The most recent example of demand-pull inflation was seen during the coronavirus pandemic when the global economy was completely shut down in March 2020. The global economy moved towards recovery when the availability of vaccines increased and the pace of vaccination also increased exponentially. This recovery of the global economy is increasing the demand for goods and services which were otherwise not available for the complete year. The increased demand of such products like food, household items and fuel lead to an increase in the prices of the product. The rise in the rate of employment post COVID has also led to rise in the prices of fuel, air tickets and hotel rooms. The low interest rate on properties have also made people buy new houses which has led to an increased demand for copper. Thus, as the global economy has opened up, customers are in favour of spending money but the factories don't have enough raw material to supply the products at a rate at which the demand of the product is increasing.

3- Types of inflation:

- **Structural Inflation:** Occurs due to imbalances in the supply chain or production process, leading to a sustained increase in prices.
- **Stagflation:** Occurs when there is a combination of high inflation and high unemployment, leading to a stagnant economy.
- **Walking/Trotting Inflation:** A rapid increase in prices occurs over a shorter period than walking/trotting inflation.
- **Running/galloping inflation** can be caused by a sudden increase in demand for goods or a decrease in the supply of goods.
- **Runaway/Hyper Inflation:** An extremely rapid increase in prices occurs when the demand for goods and services exceeds the supply. Hyperinflation is often

caused by political instability, war, or other factors leading to a collapse of the currency and the economy.

- **Inflationary gap:** The difference between the actual level of gross domestic product (GDP) and the potential level of GDP. An inflationary gap occurs when the economy is producing above its potential, leading to increased demand for goods and services.
- **Suppressed/repressed inflation:** inflation is hidden or kept under control by government policies. Suppressed/repressed inflation can occur when governments fix prices or artificially control the supply of goods and services.
- 4- **Effects of Inflation:** Inflation affects all aspects of the economy, from consumer spending, business investment and employment rates to government programs, tax policies, and interest rates. Understanding inflation is crucial to investing because inflation can reduce the value of investment returns.¹
- **A Decrease in Purchasing Power:** The first effect of inflation is just another way of stating what it is. Inflation is a decrease in the currency's purchasing power due to an economy-wide increase in prices. The average price of a cup of coffee in living memory was one dime.
- Fixed Income: Securities/Investments in which the income during ownership is fixed or constant. Generally refers to any type of bond investment.

Many governments have set their central banks a **target for a low but positive rate of inflation**. They believe that persistently high inflation can have **damaging economic and social consequences**.

- **Income Redistribution:** One risk of higher inflation is that it has a **regressive effect** on lower-income families and older people in society. This happens when prices for food and domestic utilities such as water and heating rise at a rapid rate
- **Falling real incomes:** With millions of people facing a cut in their wages or at best a pay freeze, rising inflation leads to a fall in real incomes.
- **Negative real interest rates:** If interest rates on savings accounts are lower than the rate of inflation, then people who rely on interest from their savings will be poorer. Real interest rates for millions of savers in the UK and many other countries have been negative for at least four years
- **Cost of borrowing:** High inflation may also lead to higher borrowing costs for businesses and people needing loans and mortgages as financial markets

¹ <https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Inflation>

protect themselves against rising prices and increase the cost of borrowing on short and longer-term debt. There is also pressure on the government to increase the value of the state pension and unemployment benefits and other welfare payments as the cost-of-living climbs higher.

- **Risks of wage inflation:** High inflation can lead to an increase in pay claims as people look to protect their real incomes. This can lead to a rise in unit labor costs and lower profits for businesses
- **Business competitiveness:** If one country has a much higher rate of inflation than others for a considerable period of time, this will make its exports less price competitive in world markets. Eventually this may show through in reduced export orders, lower profits and fewer jobs, and also in a worsening of a country's trade balance. A fall in exports can trigger negative multiplier and accelerator effects on national income and employment.
- **Business uncertainty:** High and volatile inflation is not good for business confidence partly because they cannot be sure of what their costs and prices are likely to be. This uncertainty might lead to a lower level of capital investment spending.¹

5- **Remedies of Inflation:** There are three ways by which Inflation can be controlled:

5-1- Monetary Policy: which is controlled by the Central Bank Of the country

- **Operation of Open Market:** Inflation requires the Central Bank to reduce the cash.
- **Interest Rate:** During the time of Inflation, the interest rate should be increased. An increase in Interest Rate will result in discouragement of consumption and investment.

5-2- Fiscal Policy: Which is controlled by the government via instruments, taxes and expenditure of the government.

- **Direct/Physical Control: Price Pegging:** The government will decide the floor and ceiling price so that values will not increase rapidly.
- **Encourage Saving:** The government raises the contribution to the employee's Provident Funds.

¹ Inflation - Consequences of Inflation; <https://www.tutor2u.net/economics/reference/inflation-consequences-of-inflation>, Last updated 21 Mar 2021

- **Price Tagging:** Every product needs to be labelled to prevent producers from charging to consumers.

Low inflation—around 2%—is believed to be beneficial to the economy, because it stimulates demand. If inflation climbs to more than 10% or becomes deflation, significant economic damage can be done. This is because people won't be able to afford basic goods or services, or because they will put off purchases to take advantage of lower future prices.

6- Measuring Inflation

The rate of inflation can be measured by observing changes in the average price of a consistent set of goods and services, often referred to as a market basket. Inflation is generally measured using a price index, such as the Consumer Price Index (CPI). A price index is constructed by dividing the price of a market basket in a given year by the price of the same basket of goods in a base year. The rate of inflation is then measured by calculating the percentage change in the price index across different periods. For example, the CPI was about 277 in October 2021 and about 298 in October 2022, which amounts to an inflation rate of about 7.8% over this 12-month period.¹

¹ Congressional research service, informing legislative debate since 1914, “ introduction to U.S economy: inflation” , January 2023/ available on site web: <https://crsreports.congress.gov/>

The Ninth Axis: Unemployment

The term unemployment refers to a situation where a person actively searches for employment but is unable to find work. Unemployment is considered to be a key measure of the health of the economy.

The most frequently used measure of unemployment is the unemployment rate. It's calculated by dividing the number of unemployed people by the number of people in the labor force.

In this lecture the students learned:

- Unemployment meaning;
- Types of unemployment;
- Causes of unemployment;
- Effects of unemployment.

1- Unemployment meaning:

Unemployment refers to a situation where individuals capable of working seek active opportunities for work but cannot find any for various reasons. For a person to be considered unemployed, that individual must be an active member of the labor force actively searching for remunerative employment.

It is an indicator of the conditions prevailing in the labor market. When there is less employment, it means the economy is producing less. This hints at the decline of overall economic performance, an important element in **monetary policy** planning. In addition, unemployment can cause personal and social distress and political turmoil.

- Unemployment is when a person capable of working is actively looking for a job but cannot find any. They should be an active member of the labor force looking for a job to be labeled unemployed.
- It is one of the most crucial markers for determining labor market conditions. Less employment indicates that the economy is producing less. This helps in evaluating the economy's overall performance.
- It reduces tax revenue, increases government borrowing, strains government resources, raises crime rates, and generates conflict. It has the potential to harm a country's reputation.
- Unemployment occurs when individuals cannot find jobs despite actively searching for them and being qualified enough. They should be a part of the

labor force looking for paid employment. Individuals employed and those looking for it make up the labor force. However, the labor force constitutes only a portion of the total population. The labor force participation rate is the labor force ratio to the working-age population. At the same time, the unemployment rate is the percentage or proportion of the workforce searching for a job.

- Finding values for these metrics is essential to determining the trajectory of the economy's progress. If there is a wide range of unemployment present in a country, it generally means less manufacturing activity. A decline in activity in the production of goods and services may indicate a weak monetary policy. An **economy** needs necessary corrections to push itself towards recovery. They can also help frame welfare policies. Sound economic policies increase the government's revenue and save it from huge debt. People having no jobs will decrease their consumption, leading to an additional loss of income for the government. Unemployed people may indulge in crimes to earn money, and crime rates increase. This will worsen the political situation in a country.

The definition of unemployment, which states that "people are classified as unemployed if they do not have a job, have actively looked for work in the prior four weeks, and are currently available for work."¹

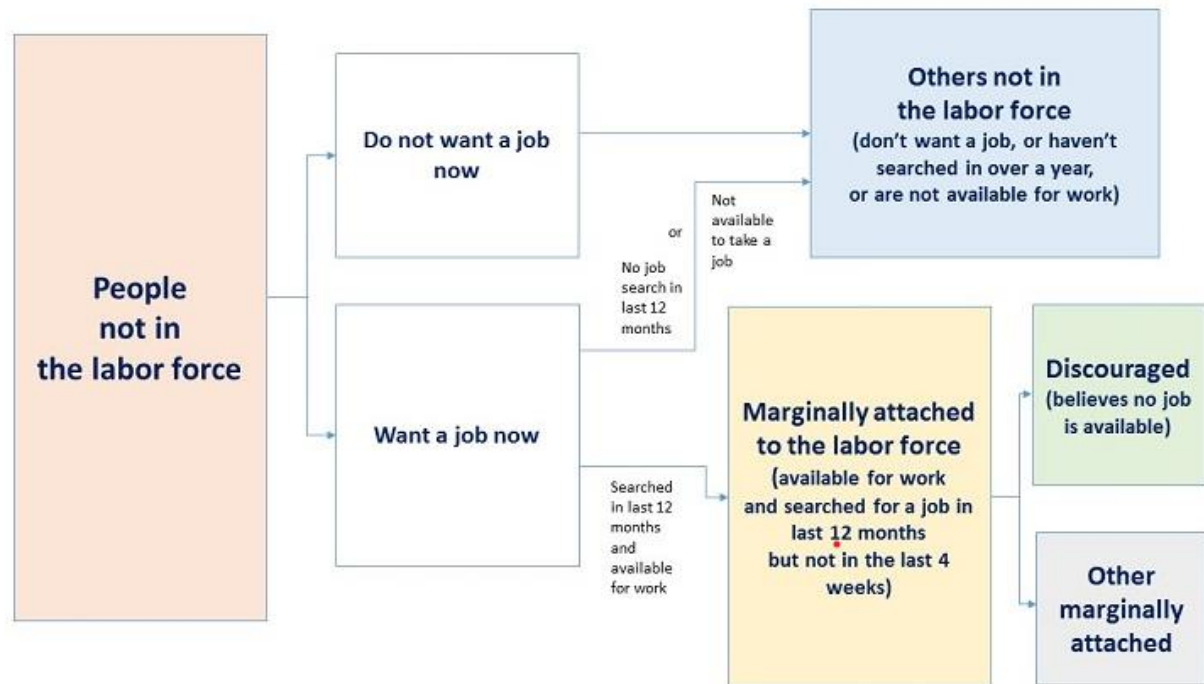
– Cyclical Unemployment

It relates to the cyclical trends in the **business cycle**. They are classified as medium-term in nature (1-12months). When there is no productivity in business, consumer demand falls, and, as a result, labor demand also falls. The rise in **cyclical unemployment** means the economy shows signs of a slowdown. Conversely, unemployment rates will be at their lowest when the economy is doing well. This is directly related to the **macroeconomic** situation of the countries. When productivity is low, and people are competing for job opportunities, they receive less money, which would lower inflation. Policies that stimulate demand and **expansionary monetary policies** are a way out of this situation.²

¹ : U.S bureau of labor statistics," **labor forces statistics from the current population survey**, available on site web: <https://www.bls.gov/cps/definitions.htm#u>

² David bagg and others; op CIT. P: 527.

Figure09 : unemployment



Source: U.S bureau of labor statistics,” **labor forces statistics from the current population survey**, available on site web: <https://www.bls.gov/cps/definitions.htm#ur>

2- Types of unemployment:

– Frictional unemployment

It happens when a person shift from their current job to another or transition into labor. When people leave employment for better opportunities or personal reasons, they may not find the next job immediately. Businesses may also take time to search for suitable candidates. The supply and demand do not meet in such situations, resulting in **frictional unemployment**. This is something that happens for short time span. However, they can occur at all times of a business cycle.

– Structural unemployment

It occurs when there is a mismatch between what people expect and the available jobs. It may be because the individual is overqualified for the job or underqualified. Individuals may not possess the necessary skills for the job they desire, or the job available is below their qualifications, experience, or pay. **Structural unemployment** is long-lasting (more than 12 months) as it may take years to develop

the necessary skills and expertise. It can exist even when economic conditions are good.

- **Voluntary unemployment**

Voluntary unemployment happens when a worker decides to leave a job because it is no longer financially compelling. An example is a worker whose take-home pay is less than his or her cost of living.

- **Underemployment**

This occurs when people have jobs but cannot utilize their skills properly and work less hours. They may be part-time or full-time workers who could be qualified for better hours and more pay, but cannot find any.

- **Hidden unemployment**

Hidden unemployment occurs when people do not belong to a labor market statistics but are willing to work if they had a chance. For example, people may have given up searching for jobs because they couldn't fit for any. As a result, they would have given up hope and left searching for jobs. However, if given a chance, they would work.

- **Seasonal unemployment**

They are seasonal and occur during the off-seasons. For example, in agriculture, people can go jobless after the harvest. In tourism, tour guides may be jobless as the tourist activity drops after the peak season.

3- Measure Unemployment

Measuring the unemployment rate requires identifying the labor force, including employed and unemployed people. Labor surveys of different countries are responsible for collecting, assimilating, and publishing information regarding the **labor market**. For example, in the U.S., The Bureau of Census conducts the Current Population Survey (CPS) every month for the Bureau of Labor Statistics. Generally, people above the age group of 15 (working-age population) belongs to the following broad categories:

- **Employed:** this category includes people who work one or more hours per week.

- **Unemployed:** This group includes people who do not have a paid job but are actively looking for one.
- **Absent from the labor force:** People in this category do not work for a living and are not looking for work. They may be students, mothers, voluntarily retired people, etc.

From the above metrics, one can calculate the following labor market indicators:

- **The labor force:** This group comprises both unemployed and employed people.
- **The unemployment rate:** The proportion of unemployed people in the labor force.
- **Participation rate:** proportion of people in the working-age population who belong to the workforce.

Example

Suppose there are 10 million individuals belonging to the employed people and 0.5 million unemployed people. We can add the number of unemployed and employed people to calculate the labor force. Here it will be $10 + 0.5 = 10.5$ million. To calculate the unemployment rate, unemployed people shall be divided by the total number of people in the labor force (at present) and multiplied by 100. Because $\text{unemployed} = 0.5$ and $\text{labor force} = 10.5$, the unemployment rate is $0.5/10.5 \times 100 = 4.7\%$.

3- Causes of unemployment:

There are various causes of unemployment, and a few of them are as follows:

– High-interest rates

When banks raise interest rates, the cost of borrowing goes up. As a result, companies cannot sustain increased levels of expenditure. They will have to cut down on employees' salaries or lay off workers to save financial resources. They may not hire new employees either, contributing to unemployment.

– Recession or sluggish economic growth

Here, the economy's growth rate may be slower than anticipated, and the economy may not create adequate jobs. When there is no production, no jobs are created, and there comes no need to employ people. Hence, it contributes to unemployment.

– **Population increase**

The number of people who need jobs also increases with a population surge. However, it is impossible to employ all the people living in a country. So the supply here is more than the demand, and hence unemployment is inevitable to a certain degree.

– **Technological advancements and lack of skills**

Technologically, the world is making an immense progress. Jobs such as billing and accounting have been largely optimized by technology and do not require much human interference. Automation and artificial intelligence has led companies to cut down on the cost of employing human resources. This contributes to unemployment. Similarly, in this fast pace of social and economic advancements, jobs require additional skill sets and continuous upskilling. Those who cannot catch up are laid off and lags, which contributes to unemployment.

– **Underdeveloped labor markets**

This case mostly applies to developing countries. People there may be employed in jobs such as fishing, farming, or hunting and may be paid in kind (not cash but as shelter and food). These may not be classified as **underemployment** and therefore belong to the unemployed category.

– **The natural rate of unemployment**

In every society, there exists a natural rate of unemployment. It may exist because companies decided to pause hiring due to welfare laws put by the State. However, the average rate of unemployment prolongs an economy for an extended period.

- **Effects of unemployment :**

Unemployment is seen largely as detrimental to both individuals and the economy. Even if some governments give out unemployment benefits, they can hardly replace a substantial part of **earned income**. Financial stress makes them consume less, and less consumption brings the economy's income down. Long-term unemployment outdates people's skills and talents. It eats up their productive years. Education and physical and mental health suffer; this directly affects the growth and development of an economy. Crime rates can also increase when people cannot find a means to carry on their livelihood.

Unemployment benefits, food assistance, and medical aid provided stress on the government's exchequer. It results in less tax revenue and higher government borrowing. People with no employment are absent from the workforce, and their production is also absent. This reduces the **GDP** (gross domestic product) of the country. The cyclical flow of income gets disrupted, and efficient allocation of resources does not happen. When a section of the government's revenue is spent on feeding unemployed people, there may not be enough funds to divert to growth and developmental activities. This hinders the development of the nation as a whole. Apart from the above, increased crime rates can demoralize a society.

The Tenth axis: Growth Economics; Development Economics And Sustainable Economics

- This lecture was divided into two parts

The first part relates to economic growth

The last part deals with economic development

Growth Economics

Economics growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. It can be measured in nominal or real terms, the latter of which is adjusted for inflation. Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP). Although alternative metrics are sometimes used...

- Economic growth definition:

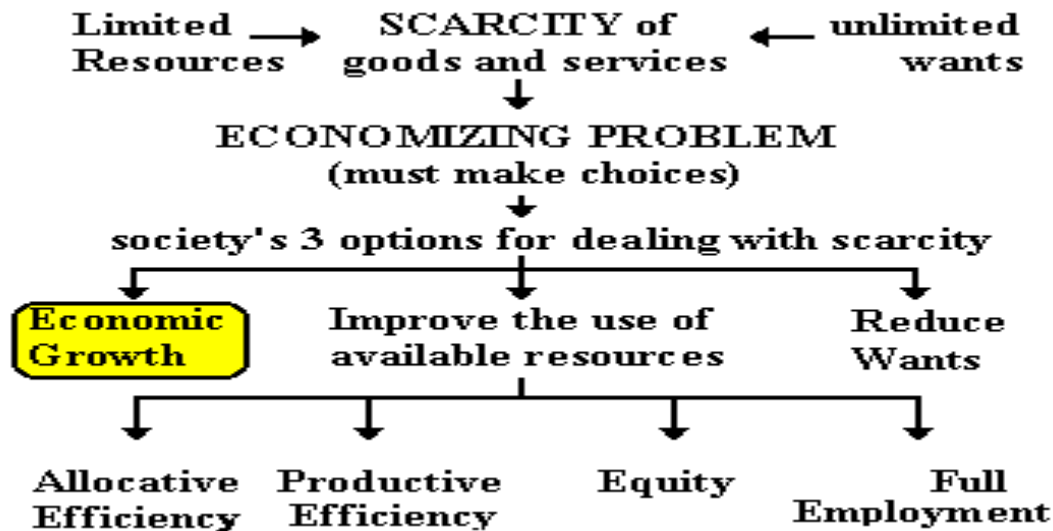
Economic growth, the process by which a nation's wealth increases over time. Although the term is often used in discussions of short-term economic performance, in the context of economic theory it generally refers to an increase in wealth over an extended period.¹

Economic growth is the increase of national income or national output, regarding economic goods and products compared to one form another time. On the other hand, economic development means long term economic growth, such as a country having an increased rate of income. Healthcare, gender equality, can be addressed in developed countries or the developed economy.²

¹ John L. Cornwall, **economic growth**, available on-site web <https://www.britannica.com/contributor/John-L-Cornwall/621>.

² C. Michael Henry, **Economic Growth and Economic Development: A Distinction without a Difference**; Social and Economic Studies ;

Figure 10: Economics Growth



Source: Macroeconomic Goal: Economic Growth,

- Types of economic growth

There are different types of economic growth¹

- **Boom and bust economic cycles.** If growth is very fast and inflationary, then the growth will prove to be unsustainable and there will be the costs of the recession and an economic downturn.
- **Export-led growth.** Economies such as Japan and China have experienced export-led growth. This enables economic growth and a current account surplus. China has increased its ownership of foreign assets.
- **Consumer-led growth.** Since 1979, UK economic growth has been more dependent on consumer spending. The UK has run a persistent current account deficit with fears the economic growth is unbalanced.
- **Commodity exports.** Some countries very rich in resources have economic growth based on production and export of raw materials. For example, Saudi Arabia (oil), Venezuela (oil), Cuba (sugar) Congo (oil and natural resources). Whilst export of raw materials can increase

¹ Department of economic and social affairs; 'the problems and policies of economic development an oppaisal of recent experience' world economic survey, 1967- part one- p:15.

wealth, it can also cause problems. The resource curse states countries which have growth based on raw materials may struggle in long-term, as raw material industries crowd out other manufacturing industries and make the economic growth more volatile – depending on fluctuating prices.

- **Measuring economic growth** : to measure the economic growth we use the GDP index
 - **Gross Domestic Product**¹

What does gross domestic product mean? ²

“**Gross**” signifies that no deduction has been made for the depreciation of machinery, buildings and other capital products used in production.

“**Domestic**” means that it is production by the resident institutional units of the country.

The products refer to final goods and services, that is, those that are purchased, imputed or otherwise, as: the final consumption of households, non-profit institutions serving households and government; fixed assets; and exports (minus imports).

Definition: GDP is the final value of the goods and services produced within the geographic boundaries of a country during a specified period of time, normally a year. GDP growth rate is an important indicator of the economic performance of a country.

Description: It can be measured by three methods, namely,

1. Output Method: This measures the monetary or market value of all the goods and services produced within the borders of the country. In order to avoid a distorted measure of GDP due to price level changes, GDP at constant prices or real GDP is computed. $\text{GDP (as per output method)} = \text{Real GDP (GDP at constant prices)} - \text{Taxes} + \text{Subsidies}$.

2. Expenditure Method: This measures the total expenditure incurred by all entities on goods and services within the domestic boundaries of a country. $\text{GDP (as per expenditure method)} = C + I + G + (X - IM)$ C: Consumption expenditure, I: Investment expenditure, G: Government spending and (X-IM): Exports minus imports, that is, net exports.

¹ <https://economictimes.indiatimes.com/definition/gross-domestic-product>

² OCDE, 2009 : (National Accounts At A Glance), p:18

3. **Income Method:** It measures the total income earned by the factors of production, that is, labor and capital within the domestic boundaries of a country. GDP (as per income method) = GDP at factor cost + Taxes – Subsidies.

4- Difference between economic growth and economic development

Economic growth consists of various processes in per-capita income and national income increasing process. Apart from economic growth, economic development is a much wider concept that includes social, political, cultural changes and overall development in literature, gender and other phenomena.

Several factors are related to economic growth such as gradual positive changes in GDP, product consumption, spending investment of the government and net exports. On the other hand, economic development is related to the growth of human health, increases inequality and equity, and quality of life along with purchasing power parity and so on.

Economic growth can be measured by several quantitative factors for example GDP, PPP, whereas development can be measured by the HDI, HPI, literacy, infant mortality etc.

- Economic Growth is the **positive change in the indicators of economy**.
- Economic Growth refers to the increment in amount of goods and services produced by an economy.
- Economic growth means an **increase in real national income / national output**.
- It refers to an increase over time in a country's real output of goods and services (GNP) or real output per capita income.
- Economic growth is **single dimensional in nature** as it only focuses on income of the people.
- Earlier, economic growth was only measured in terms of Gross Domestic Product (GDP).
- At present, it is measured in terms of GDP, Gross National Income (GNI) and Per Capita Income.
- Economic Growth is the precursor and prerequisite for economic development.
- **Indicators of economic growth are GDP, GNI and per capita income.**

- Economic growth relates a gradual increase in one of the components of GDP; consumption, government spending, investment or net exports.
- It is also considered as a traditional measure of development which indicates the quantitative rise of economy.
- Economic growth only looks at the quantitative aspect. It brings quantitative changes in the economy.
- Economic growth is **concerned with increase in economy's output.**
- It **focuses on production of goods and services.**
- Economic growth is **more relevant metric for assessing progress in developed countries.**
- Economic growth is relatively narrow concept as compared to economic development.
- It is for short term/short period.
- It is a material/physical concept.
- Economic growth is measured in certain time frame/period.
- Economic development is the **quantitative and qualitative change in an economy.**
- Economic development refers to the reduction and elimination of poverty, unemployment and inequality with the context of growing economy.
- Economic development means an **improvement in the quality of life and living standards**, e.g. measures of literacy, life-expectancy and health care.
- Economic development includes process and policies by which a country improves the social, economic and political well-being of its people.
- Economic development is **multi-dimensional in nature** as it focuses on both income and improvement of living standards of the people.
- Economic development is **concerned with the happiness of public life.**
- Economic development comes after economic growth. It is a positive impact of economic growth.
- Economic development also refers to:
 - provision of sufficient and effective physical and social infrastructures
 - equal access to resources
 - participation of all in economic activities
 - equitable distribution of dividends of economy.
- **Economic development= Economic growth + standard of living**
- It **refers to increase in productivity.**
- Indicators of economic development are:

- Human Development Index (HDI)
- Human Poverty Index (HPI)
- Gini Coefficient
- Gender Development Index (GDI)
- Balance of trade
- Physical Quality of Life Index (PQLI)
- Economic development is the ends of development.
- Achieving economic development is linked with end of poverty and inequality.
- It is more abstract concept.
- Economic development **focuses on distribution of resources**.¹

Sustainable Development

The concept of economic development has evolved over time from being synonymous with growth to development that is concerned with social aspects, and in order to keep pace with current developments, it must integrate environmental aspects.

1- The concept of sustainable development:

- Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.²
- The concept of sustainable development can be interpreted in many different ways, but at its core is an approach to development that looks to balance different, and often competing, needs against an awareness of the environmental, social and economic limitations we face as a society.
- All too often, development is driven by one particular need, without fully considering the wider or future impacts. We are already seeing the damage this kind of approach can cause, from large-scale financial crises caused by

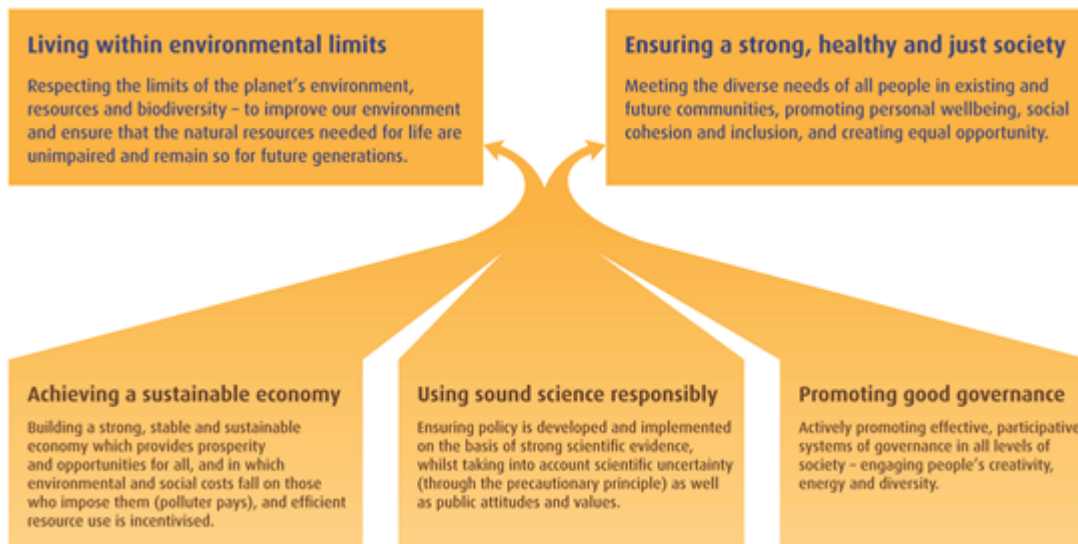
¹ <https://www.publichealthnotes.com/economic-growth-vs-economic-development-17-differences/>

² World Commission on Environment and Development. **Our Common Future**. Oxford paperbacks. Oxford: Oxford University Press, 1987

https://www.sd-commission.org.uk/pages/the_principles.html

irresponsible banking, to changes in global climate resulting from our dependence on fossil fuel-based energy sources. The longer we pursue unsustainable development, the more frequent and severe its consequences are likely to become, which is why we need to take action now.

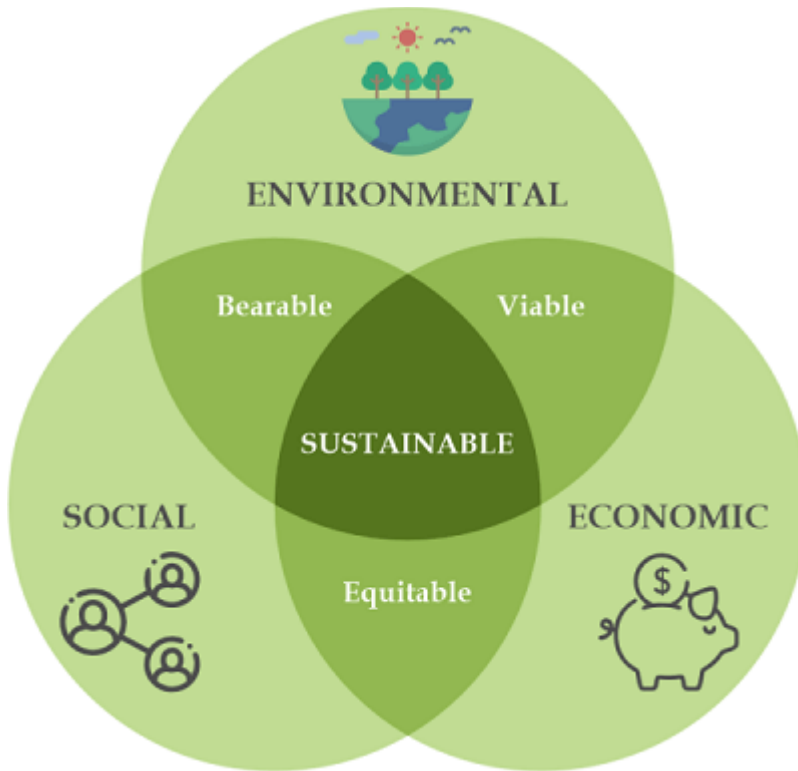
Figure 11: Meaning Of Sustainable Development



- **Commodities:** A commodity is food, metal, or another fixed physical substance that investors buy or sell, usually via futures contracts.
- **Correlation:** A statistical measure of how two securities, such as equities, bonds, commodities, move in relation to each other.
- **Equities:** Ownership or proprietary rights and interests in a company.
- **Fixed Income:** Securities/Investments in which the income during ownership is fixed or constant. Generally refers to any type of bond investment.

Corporate sustainability is a well-known topic in both large and small businesses. Sustainability has been cited as a top goal moving ahead by several corporate behemoths, including Walmart Stores, Inc. (WMT), McDonald's Corporation (MCD), and many more. Other businesses are now being pushed to make a commitment to developing environmentally friendly ways to distribute their products and services.

Figure12: The Three Pillars Of Sustainable Development



source : The 3 Pillars of Corporate Sustainability; <https://www.javatpoint.com/three-pillars-corporate-sustainability/>

The three fundamental pillars of sustainability are **economic, environmental, and social**. Humans, planet, and profits are the three pillars' colloquial names.

-The Environmental Pillar

The environmental component frequently receives the most significant focus. Many businesses are working to minimize water use, packaging waste, carbon footprints, and other environmental harm. These actions can benefit the economy in addition to the environment. Reduced costs of packaging materials, for instance, and increased fuel economy also assist the company's budget.

In a recent instance, Walmart focused on packaging as part of its zero-waste campaign, urging suppliers to use less packaging overall and to obtain more packaging from recycled or repurposed materials.

A company's influence is frequently not wholly costed, which means that there are repercussions not included in consumer pricing, which is one of the difficulties with the environmental pillar. Because businesses are only sometimes held responsible for the garbage they make, it is difficult to estimate the total expenses of sewage, carbon dioxide, land acquisition, and waste in general. To quantify such externalities so that

the work being made to reduce them can be tracked and documented in a meaningful way, benchmarking is used in this situation.¹

-The Social Pillar

The social pillar is related to the social licence, another ill-defined idea. Employees, shareholders, and the community in which a firm operates should all be in favour of it. There are many ways to gain and keep this support, but ultimately it boils down to treating workers fairly and acting responsibly in local and global communities.

Businesses are refocusing their efforts on employee retention and engagement methods, offering more flexible perks such as excellent maternity and family amenities, flexible scheduling, and chances for learning and development. Companies have developed various strategies to give back to the community, including fundraising, sponsorship, scholarships, and investment in regional public initiatives.

A company should be attentive to how its distribution system is being filled on a worldwide social scale. Is child labor used to produce the finished goods? Does everyone receive a fair wage? Is the workplace secure? Public outcry over calamities like the Bangladesh mill collapse, which highlighted previously unaccounted-for hazards in procuring from the lowest-cost supplier, has caused many significant retailers to grapple with this.²

-The Economic Pillar

Most firms consider their footing to be secure in the economic pillar of sustainability. A firm has to be lucrative to last. Profit, however, cannot be put above the other two principles. The financial component is not about maximizing profit at any cost. Compliance, effective governance, and risk assessment fall within the economic pillar. While most North American businesses consider these as the minimum requirements, they are not the industry norm.

This pillar is sometimes called the administration pillar to emphasize/ sound corporate governance. This indicates that the interests of shareholders, the company's

¹ There are many publications on environmental sustainability but these are particularly relevant for the understanding of this dimension in relation to environmental policy, science and development: Rockwood, Larry L., Ronald E. Stewart, and Thomas Dietz. *Foundations of Environmental Sustainability: The Coevolution of Science and Policy*. Oxford: Oxford University Press, 2008. See also: Steininger, Karl W., and Mario Cogoy. *The Economics of Global Environmental Change: International Cooperation for Sustainability*. New horizons in environmental economics. Cheltenham, UK: Edward Elgar, 2006

² Docherty, Peter, Mari Kira, and Abraham B. Shani. *Creating Sustainable Work Systems: Developing Social Sustainability*. New York, NY: Routledge, 2009. See also: Polèse, Mario, and Richard E. Stren. *The Social Sustainability of Cities: Diversity and the Management of Change*. Toronto: University of Toronto Press, 2000. And also this on sustainable communities: Marsden, Terry. *Sustainable Communities*. Amsterdam: Elsevier, 2008.

communities, value chains, and end-user consumers are aligned with those of the boards of managers and directors.

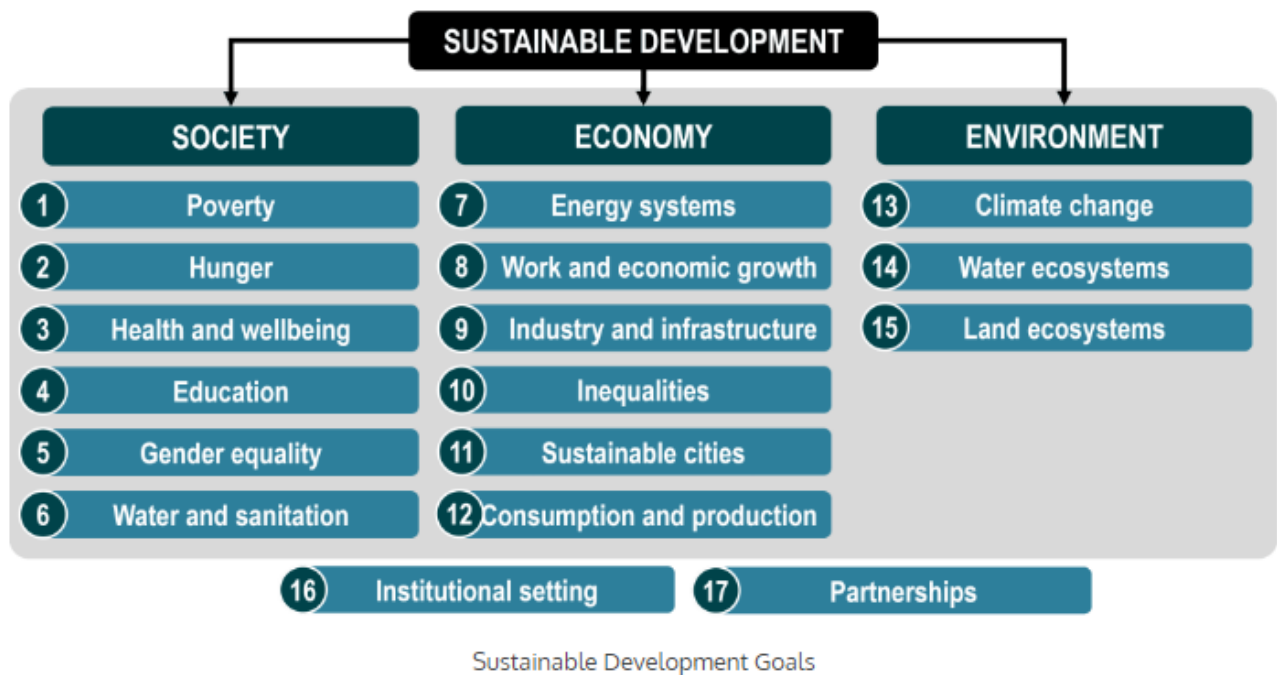
Investors may be interested in the governance of a firm, including whether or not it employs accurate and open accounting practices. It allows stockholders to participate in voting on significant matters. They may also seek guarantees that businesses won't choose board members with conflicts of interest, won't utilize political donations to get preferential treatment, and won't participate in unlawful activity.

Corporate adoption of sustainability solutions is made feasible by incorporating the economic pillar and profit. The economic pillar checks against excessive steps businesses may be pressured to take, including immediately quitting fossil fuels or chemical fertilizers instead of gradually adjusting.

sustainable development goals :The outcome of the 2015 United Nations resolution was to set a series of 17 sustainable development goals, also known as the 2030 Agenda. Each of these goals can be associated with societal, economic, or environmental improvements:

- **Society.** These goals prioritize satisfying the diversified needs of the population, such as food, health, and education being among the most basic. Maintaining human capital (knowledge, skills, and capabilities) is mostly the responsibility of educational systems, but corporations also provide substantial training opportunities to their workforce.
- **Economy.** These goals promote improvements in the welfare of populations. Key concepts are related to achieving or sustaining economic growth, maximizing profits, increasing competitiveness, and expanding markets. Globalization has given a new dimension to economic development by enabling an extended range of comparative advantages. However, like all economic processes, globalization promotes growth differently as regions and social classes capture their opportunities differently. This has led to inequalities.
- **Environment.** These goals concern the footprint of human activities on environmental systems, notably their carrying capacity. The overarching issue of climate change remains salient, particularly over the issue of carbon emissions.

Figuer13: sustainable development goals



The Main Challenges of Sustainable Development Today

Having highlighted the importance of sustainable development, it is also important to understand that it does need a lot of concentrated effort and, like many things in life, it does have many challenges ahead of itself. It is also important to note that sustainable development is equally valid in developing and developed countries, despite them dealing with polarly opposite sides of the spectrum. Developed countries may be developed but that doesn't necessarily imply that they are sustainable and for these countries, the main goal is to rid their society of issues such as social inequalities, waste management, and environmental responsibility.

1. Lack of financial resources to carry out and plan sustainable development
2. Sustainable development is often not possible in war-torn countries as there are other priorities on hand.
3. Natural occurrences, such as earthquakes and tsunamis, can pose a threat to sustainability as they can shift the flow of water and destroy certain elements of infrastructure. (In the village of Ramche in Nepal, the only source of water was shaken off course by the earthquake of 2015 and as a result of the difficulty of access to the village, it has been undergoing a water crisis. Expenditure on bottled water in the village has in turn grown and in many other areas in Nepal undergoing a water crisis, people resort to drinking and cooking with E-Coli infected water as an act of desperation. Meanwhile tsunamis in Southeast and East Asia may pose a threat to the already existing sustainable infrastructure, such as the destruction of means of public transport in Japan.)

4. The governmental conflict between immediate profit and investment towards sustainable technologies. (In Poland, the government has even increased financing towards the mining sector instead of moving full steam ahead towards adopting sustainable energy sources, with coal amounting towards 80% of total energy generation in Poland. These measures are thought to have been implemented as a move to win miners' votes in the south of Poland.)
5. Corruption. (Funding to developing countries is usually provided through foreign grants, in the case of Nepal foreign grants constitute the majority coming from the UK. Nevertheless, due to bureaucracy and corruption in Nepal, in order to pass certain development projects a stipend needs to be paid to ministers as well as service fees to the Nepal government which significantly slow down NGO processes.)
6. Lack of efforts at a municipal level

Bibliographie

1. Adam Smith, "Of the Division of Labor," in **An Inquiry into the Nature and Causes of the Wealth of Nations**, edited with an Introduction, Notes, Marginal Summary and an Enlarged Index by Edwin Cannan (London: Methuen, [1776] 1904). Vol. 1. <https://oll.libertyfund.org/titles/smith-an-inquiry-into-the-nature-and-causes-of-the-wealth-of-nations-cannan-ed-vol-1>
2. Ajesh Babu K.P, **introductory economics**1, university of Calicut, kerala; India 2019
3. A.S. Watts, E.M. Crimmins, in **international encyclopedia of public health**, 2008/
4. Economic problem; available: <https://www.studysmarter.co.uk/explanations/microeconomics/economic-principles/the-economic-problem/>
5. Ahmad Nasrudin, **Scarcity in Economics: Its Relation to Resources, Needs, and Wants**, available on site web: <https://penpoin.com/scarcity>
6. Baumol, William J., Robert E. Litan, and Carl J. Schramm. 2007. **Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity**. New Haven, Connecticut: Yale University Press.
7. Blanchard, Olivier, Giovanni Dell’Ariccia, and Paolo Mauro, 2010, “**Rethinking Macroeconomic Policy**,” IMF Staff Position Note 10/03 (Washington: International Monetary Fund).
8. C. Michael Henry, **Economic Growth and Economic Development: A Distinction without a Difference**; Social and Economic Studies
9. CHAD STONE , 2017, **Economic Growth: Causes, Benefits, and Current Limits**.
10. Davies, Glyn. **A history of money from ancient times to the present day**, 3rd ed. Cardiff: University of Wales Press, 2002.
11. David begg and others:” **Economics**” , allile books, tenth edition, Mcgraw Hill, 2011
12. **Department of economic and social affairs;**’ the problems and policies of economic development an appraisal of recent experience’ **world economic survey, 1967- part one-**
13. Docherty, Peter, Mari Kira, and Abraham B. Shani. **Creating Sustainable Work Systems: Developing Social Sustainability**. New York, NY: Routledge, 2009.
14. Economics in relation to other social sciences https://www.brainkart.com/article/Economics-in-relation-to-other-social-sciences_1514/
15. Hall, Peter A., and David Soskice, eds. 2001. **Varieties of Capitalism: The Institutional Foundations of Comparative Advantage**. New York: Oxford University Press.

16. <https://arts-sciences.buffalo.edu/economics/about/careers/what-do-economists-do.html>
17. <https://arts-sciences.buffalo.edu/economics/about/careers/what-do-economists-do.html>
18. <https://ec.europa.eu/eurostat/statistics-explained>
19. <https://economictimes.indiatimes.com/definition/macroeconomics>
20. <https://www.aeaweb.org/resources/students/what-is-economics>
21. <https://www.britannica.com/money/topic/macroeconomics>
22. <https://www.imf.org/en/Publications>
23. <https://www.oxfordreference.com/display>
24. <https://www.oxfordreference.com/display>
25. <https://www.rba.gov.au/education/resources/explainers/productivity.html>
26. <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production>
27. Juan David Montoya : **Economic agents, an explanation; available on the site web** <https://www.economicactivity.org/economic-agents/>
28. N.gregory Mankiw ” **Principles Of Economics**” ; 2016, cengage learning, Boston, USA ; eighth edition.
29. Margarit ray, David Anderson:” **krugman’s economics for AP- Adapted from economics**” second edition by paul Krugman and robin wells, worth publishers/BFW, 2011 new York.
30. Paul krugman, 1994, ‘ **The Age Of Diminishing Expectation**’, defining and measuring productivity.
31. ¹ Paul A. Samuelson, William P. Nordhaus:” **economics**”, nineteenth edition,MC Graw Hill.
32. Peter Naible 2016:” **concept of sustainable development** “, centre for advanced studies in environment law and policy /
33. Piketty, Thomas. 2014. **Capital in the Twenty-First Century**. Cambridge, Massachusetts: Belknap Press.

34. Polèse, Mario, and Richard E. Stren. **The Social Sustainability of Cities: Diversity and the Management of Change**. Toronto: University of Toronto Press, 2000.
35. Rajan, Raghuram, and Luigi Zingales. 2003. **Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity**. New York: Crown Publishing Group.
36. Rockwood, Larry L., Ronald E. Stewart, and Thomas Dietz. **Foundations of Environmental Sustainability: The Coevolution of Science and Policy**. Oxford: Oxford University Press, 2008.
37. Roger E. Backhouse, Steven G. Medema (2009):” **On The Definition Of Economics**” journal of economic perspectives, vol:23, N: 1, winter 2009. pp:221-33.
38. Steiner, Karl W., and Mario Cogoy. **The Economics of Global Environmental Change: International Cooperation for Sustainability**. New horizons in environmental economics. Cheltenham, UK: Edward Elgar, 2006
39. sustainable communities: Marsden, Terry. **Sustainable Communities**. Amsterdam: Elsevier, 2008.
40. **The 3 Pillars of Corporate Sustainability**; <https://www.javatpoint.com/three-pillars-corporate-sustainability/>
41. THE OECD, 2012, « MARKET DEFINITION » <https://www.oecd.org/daf/competition/Marketdefinition2012.pdf/>
42. Types of Economic Systems, available on sit web: <https://pressbooks.howardcc.edu/soci101/chapter/13-2-types-of-economic-systems>
43. University of buffalo, <https://www.buffalo.edu/>
44. World Commission on Environment and Development, 1987
45. Juan David Montoya : **Economic agents, an explanation**; available on the site web <https://www.economicactivity.org/economic-agents>
46. Market Structure: **Definition, Types, Features and Fluctuations**
47. [By Eshna Verma](#)
48. <https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Inflation>
49. Inflation - Consequences of Inflation;
<https://www.tutor2u.net/economics/reference/inflation-consequences-of-inflation>
50. Congressional research service, informing legislative debate since 1914, “ introduction to U.S economy: inflation” , January 2023/ available on site web: <https://crsreports.congress.gov/>

51. U.S bureau of labor statistics,” **labor forces statistics from the current population survey**, available on site web: <https://www.bls.gov/cps/definitions.htm#u>
52. John L. Cornwall, **economic growth**, available on-site web <https://www.britannica.com/contributor/John-L-Cornwall/621>.
53. C. Michael Henry, **Economic Growth and Economic Development: A Distinction without a Difference**; Social and Economic Studies ;
54. OCDE, 2009 : (**National Accounts At A Glance**), p:18
55. <https://www.publichealthnotes.com/economic-growth-vs-economic-development-17-differences/>
56. World Commission on Environment and Development. **Our Common Future**. Oxford paperbacks. Oxford: Oxford University Press, 1987
57. https://www.sd-commission.org.uk/pages/the_principles.html
58. The 3 Pillars of Corporate Sustainability; <https://www.javatpoint.com/three-pillars-corporate-sustainability/>