ECONOMICS

Distance Module I

GRADE 9

Writers:

Hussien Mohammed Oumer (M.Sc.)
Tadesse Ababu Abebe (M.Sc.)

Editors:

Enguday Ademe Mekonnen (Ph.D)
Birhanu Engidaw Getahun (Ph.D)

Designer:

Derejaw Lake Melie (M.Sc.)

Evaluators:

Mekonnen Bersisa Gadisa (PhD)
Tariku Mulushewa Dessea (MSc)
Ararssa Hora Dabi (MSc)

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF EDUCATION

HAWASSA UNIVERSITY

First Published xxxxx 2023 by the Federal Democratic Republic of Ethiopia, Ministry of Education, under the General Education Quality Improvement Program for Equity (GEQIP-E) supported by the World Bank, UK's Department for International Development/ DFID-now merged with the Foreign, Common wealth and Development Office/FCDO, Finland Ministry for Foreign Affairs, the Royal Norwegian Embassy, United Nations Children's Fund/UNICEF), the Global Partnership for Education (GPE), and Danish Ministry of Foreign Affairs, through a Multi Donor Trust Fund.

The Ministry of Education wishes to thank the individuals, groups and other bodies involved – directly or indirectly – in publishing this module. Special thanks are due to Hawassa University for their huge contribution in the development of this module in collaboration with Addis Ababa University, Bahir Dar University and Jimma University and Semera University.

Printed by:
xxxxxxxx PRINTING
P.O.Box xxxxxx
xxxxxxx, ETHIOPIA
Under Ministry of Education Contract no. xxxxxxxxxxx
ISBN:___________

Module Introduction

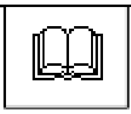
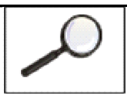
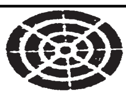
Dear distance learner, welcome to the module on Economics grade 9. As module writers, we are highly concerned about you. In preparing this course module, we have tried to consider your needs and knowledge you have acquired earlier, experience and previous learning. We organise this course into two modules. This is the first module "Module I", which contains four units, namely, introducing economics; basic economic problems and economic systems; economic resources and markets; and introduction to demand and supply. The objective of this module is to introduce you to these units. Each module of the subject consists of interrelated units. We divide the units into a number of sections. In some cases, we further divide the sections into sub-sections. We expect you to complete this module in a total of 60 hours. As you go through the module, you encounter unit and section outcomes stated at the beginning of each unit and section. Please read the module thoroughly in order to achieve the stated objectives after completing your study of the intended unit or section.

When you read the module, you will see questions. They provide you with the opportunities to apply your previous knowledge. These in text questions have also motivational value. Try to answer them in order to develop critical thinking. There are self-check tasks at the end of each section that allow you to assess your understanding of the topics covered in relation to the objectives shown at the beginning of the section. The final task of each section is a self-test. Try to respond to the self-test without consulting your notes. At the end of each unit, you will get the answers to all the tasks and the self-test. After completing the tasks and the self-test, compare your response to the answer key provided at the end of each unit. At the end of each module, you will have an assignment. Do it and submit your answers to your tutor.

Table of Contents

Icons

Throughout each module, you will find the following icons or graphic symbols that alert you to a change in activity within the module. Onlythe icons that are required are used in each module.

 Text or Reading Material	provides information aboutthe topics that are covered.
 Self-check	requests that you double-check your comprehension. If you mark any box under the 'No' column, please look at the corresponding item to the left and go back to your text and read about it.
 Summary	highlights or provides an overview of the mostimportant points covered
 Overview	introduces you to focus on the content that will be discussed
 Suggested Answers	allows you to evaluate your learningby providing sample answers to assessments and activities
 Objective	indicates what you should know after completing a section or unit.
 Self-Assessment	enables you to check your understanding of what you have read and, in some cases, to apply the information presented in the unit to new situations.
	

 Recall for prior learning	requires you to focus on thecontent that will be discussed in a section or unit

Unit 1

Introducing Economics

Unit Introduction

Economics is an extremely useful subject. Therefore, its study and knowledge has acquired greater importance in recent years. As you know, many countries all over the world are facing economic problems today. This is one of the reasons behind the growing importance of studying economics. Furthermore, the study of economics improves logical thinking and analytical skills. Hence, it enhances our abilities of observation and judgment. From this, we conclude that the study and knowledge of economics is useful to every person and to the society as a whole. This unit deals with the meaning of economics, branches of economics, methods and approaches of studying economics, and decision-making units.

Unit Outcomes

At the end of this unit, you will be able to:

- Define economics.
- Explain the difference between microeconomics and macroeconomics.
- Analyze the methods of studying economics.
- Explain the characteristics of decision-making units.

Key Concepts

Scarcity, microeconomics, macroeconomics, deductive method, inductive method, normative economics, positive economics, households, business firms, and government

The Required Study Time: 12 hours

1.1 Meaning of Economics

Overview

This section deals with the definition of economics. It indicates the origin of the term economics and describes how its definition evolves over time. It also provides the various considerations that gave rise to the definition of economics. Finally, it indicates the objective of economics and describes its nature.

Learning Outcomes

At the end of this section, you will be able to:

- Define the term economics;
- Explain the nature of economics.

1.1.1 Definition of Economics

Dear distance learner, how do you describe economics based on your daily life and work experience to date? What comes to your mind when you hear the word economics?

The origin of economics is the ancient Greek word oikonomia; it means the management of a family or household. This shows that the ancient Greece started the study of economics. Economics is a branch of the social science.

Economics is an important field of study. Its importance has increased in recent years because of the worldwide economic problems. These economic problems consist of poverty, unemployment, inflation, population growth, etc. In order to understand such problems and find their solutions, a detailed knowledge of economics is necessary.

The definition of economics has developed through time. Economic theory has advanced over time, and different themes have gradually been included into the field. There is no completed definition of economics yet, and the definition is essentially under improvement in areas such as the wealth definition, the welfare definition and the scarcity definition. Based on the above considerations, we can define economics as follows.

Economics is a branch of social science, which studies about efficient allocation of scarce productive resources to achieve the maximum fulfillment of unlimited human wants.

This definition implies that:

- Economics studies about scarce resources;
- It studies about allocation of resources;
- Allocation of resources should be efficient;
- Human wants are unlimited.

Economics is a science of choice. Accordingly, it studies how people choose to use scarce or limited productive resources to produce different commodities in order to satisfy unlimited human wants. The objective of economics is to study how to satisfy the unlimited human wants up to the maximum possible degree through allocating the scarce or limited resources efficiently.

Activity 1.1

1. How do you define the term economics?

1.1.2 The Nature of Economics

Dear distance learner, how do you perceive the nature of economics? Can you explain why the definition of economics vary over time? Do you tell whether economics is a science or an art based what you learn earlier?

The lack of uniformity in defining economics emanates from the changing views about the subject matter over time. Some economists consider economics a 'science' while others consider it an 'art'.

Economics as a Science

Science produces a systematic and an organised body of knowledge that links causes and effects. We can consider this as a knowledge of "What is". In economics, several facts are systematically collected, classified, analysed and interpreted to make predictions about the future. In this sense, economics could be a science.

Economics as an Art

One of the important definitions of art is a technique or a way of doing something. When dealing with problems such as unemployment, poverty and inflation, economics provides principles and methods of solving these problems. Hence, economics examines widely the nature and causes of economic problems. Then, it sets procedures for finding their solutions. From this point of view, economics could be an art.

Activity 1.2

1. Describe the nature of economics?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of definition and nature of economics. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the term economics?		
Can you tell whether economics is a science or an art?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 1.1

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Economics is a branch the natural sciences.
2. The definition of economics has developed through time.
3. The lack of uniformity in defining economics arises from the unchanging views about the subject matter over time.
4. Economics examines the nature and causes of economic problems, and sets the procedures for finding their solutions.
5. Economics is both a science and an art.

1.2. Branches of Economics

Overview

This section deals with the branches of economics. The two main branches of economics are microeconomics and macroeconomics. Various new branches of economics have evolved over time. However, we developed all of the other branches of economics based on its two main branches.

Learning Outcomes

At the end of this section, you will be able to:

- Identify the main branches of economics.
- Explain the concepts of microeconomics and macroeconomics.
- Distinguish between microeconomics and macroeconomics.

1.2.1 Main Branches of Economics

Dear distance learner, what are the main branches of economics? Can you explain the concepts of microeconomics and macroeconomics?

The field and scope of economics is growing rapidly. It has come to include a wide range of themes. Hence, different new branches of the subject have emerged over time. Some of the branches are development economics, international economics, industrial economics, labour economics, natural resources and environmental economics, mathematical economics, monetary economics, experimental economics, Behavioural economics, welfare economics, health economics etc. However, the foundation of modern economics rests on two of its main branches. These are *microeconomics* and *macroeconomics*.

Microeconomics is a branch of economics that deals with the economic behaviour of individual decision-making units such as households, business firms and the government. It studies interactions and organizations of decision-making units through markets and industries. In other words, it deals with how households and firms make decisions and how they interact in specific markets. For example, economic activities about a consumer, a producer, a firm or an industry, income of individuals, the determination of prices of different products and factors of production, etc. fall under the scope of microeconomics.

Macroeconomics is a branch of economics that deals with the effects and consequences of the aggregate behaviour of all decision-making units in an economy. That is to say, it examines the interrelations among various aggregate economic variables. For example, total employment, total output, national income, total investment, total consumption, etc. in an economy. In general, macroeconomics studies the interrelations among several aggregate economic variables, their determination and causes of their fluctuations over time.

Activity 1.3

1. Can you mention the main branches of economics?
2. Explain the concepts of microeconomics and macroeconomics.

1.2.2 Difference between Microeconomics and Macroeconomics

Dear distance learner, can you distinguish between microeconomics and macroeconomics based on your previous knowledge and experience?

Microeconomics is the study of individual decision-making units of an economy like individual households and business firms. In contrast, macroeconomics is the study of an economy as a whole. Its focus is the study of broad economy-wide aggregates. For example, when we study the price determination of a commodity in a given market, our focus is microanalysis. This is the concern of microeconomics. However, if we study the trend of the general price level of commodities in a country over time, our study is macro-analysis and this is the concern of macroeconomics. The central problem of microeconomics is associated with resource allocation and price-determination. On the other hand, the central problem of macroeconomics is associated with full employment of resources in an economy.

Note that microeconomics and macroeconomics are complementary. Therefore, we cannot study macroeconomics in isolation from microeconomics. Table 1.1 shows differences between microeconomics and macroeconomics.

Table 1.1 Main differences between microeconomics and macroeconomics

Microeconomics	**Macroeconomics**
1. Studies individual economic units in an economy.	1. Studies an economy as a whole and its aggregates.
2. Deals with income, prices, outputs, etc.	2. Deals with national income, output, general price level, etc.
3. Its central problem is price determination and allocation of resources.	3. Its central problem is determination of the level of income and employment.
4. Its main tools are the demand and supply of particular commodities and factors of production.	4. Its main tools are aggregate demand and aggregate supply of an economy as a whole.
5. It helps to solve the central problems of what, how and for whom to produce.	5. It helps to solve the central problem of full employment of resources in an economy.
6. Discusses how equilibrium of a consumer, a producer or an industry is attained.	6. Deals with the determination of equilibrium income and employment at national level.
Examples: Price of Teff or Orange, income of Aberash, saving of Chala, etc.	Examples: GDP of Ethiopia, General price level in Ethiopia, etc.

Activity 1.4

1. What is the difference between microeconomics and macroeconomics?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the branches of economics. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you identify the two main branches of economics?		
Are you able to define microeconomics and macroeconomics?		
Can you distinguish between microeconomics and macroeconomics?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 1.2

Choose correct answer among the alternatives for the following questions.

1. The foundation of modern economics rests on ____________

   A . microeconomics economics and labour economics.
   B . macroeconomics economics *and* development economics.
   C . microeconomics economics and *macroeconomics* economics.
   D . industrial economics and mathematical economics.

2. Which of the following is not the concern of microeconomics?

A . Economic activities of individual firms and households.
B . Deals with national income, output, general price level, etc.
C . Consumer behaviour and firms output decisions.
D . Forces of demand and supply in a particular market.

3. Which of the following is the concern of macroeconomics?

A . The behaviour and operation of the economy as a whole.
B . Economic activities of individual firms and other organisations.
C . Forces of demand and supply in a specific market.
D . Consumer behaviour and firm production decisions.

4. Which of the following is the central problem of microeconomics?

A . price-determination
B . resource allocation
C. both A and B
D. none of the above

5. Which of the following is correct about macroeconomics?

A . It is the study of an economy as a whole.
B . Its focus is the study of broad economy-wide aggregates.
C . Its central problem is associated with full employment of resources.
D . All of the above.

1.3. Methods and Approaches of Studying Economics

Overview

This section deals with the methods and approaches of studying economics.

There are two methods of studying economics. They are deductive and inductive methods. There are also two approaches of studying economics. They are positive economics and normative economics.

Learning Outcomes

At the end of this section, you will be able to:

- Explain the methods of studying economics.
- Distinguish between positive and normative economics.

1.3.1 Methods of Studying Economics

Dear distance learner, can you describe deductive and inductive methods? Did you try to answer the question? Very good!

The major objective of economics is establishing valid generalisations about some aspects of human behaviour, like any other science. Those generalisations are known as theories. A theory is a simplified picture of reality. Economic theory provides the basis for economic analysis, which uses logical reasoning. There are two methods of logical reasoning, namely, deductive and inductive methods.

Deductive Method

Deductive method proceeds from general to particular. It involves reasoning from certain principles to the analysis of facts. In effect, it enables one to arrive at a particular conclusion starting from a general statement. The conclusions are, then verified against observed facts. Example: Man is mortal. Abebe is a man. Therefore, Abebe is mortal.

Inductive Method

Inductive method is a process of reasoning from a part to the whole. It involves reasoning from the particular to the general or from the individual to the general. In this method, economists proceed from a practical angle to problems of science to reduce the gap between theory and practice. We can perform the process of induction in two forms: experimentation and statistical form.

The inductive method develops economic theories based on observations and experiments. In this method, economists collect a comprehensive data about the prevailing economic conditions. Then, they attempt to arrive at hypothesis based on observations and the collected data.

Example: During harvest period, one may observe that the prices of grains decrease. This may be associated with an increase in the supply of grain at that time of the year. From this observation, one can make a generalisation: "keeping other factors constant, an increase in supply leads to a fall in prices".

Note that deductive and inductive methods are complementary. They are not competing methods. Induction and deduction always complement each other in reasoning. Yet, proper induction is not required for the truth of deduction. Induction produces general conclusions from facts. However, deduction produces knowledge of specific instances from the general knowledge.

Activity 1.5

1. What are the methods used to study economics?

1.3.2 Approaches of Studying Economics

Dear distance learner, can you define positive and normative economics? What is the difference between positive and normative economics?

Economics can be analysed using two approaches, namely, positive economics and normative economics. Positive economics is like a science, which deals with knowledge and facts. However, normative economics entails value judgement in applying economic knowledge to solve problems.

Positive economics is concerned with analysis of facts and attempts to describe the world as it is. It tries to answer the questions what is; what was; or what will be? It does not judge a system as good or bad, better or worse.

Examples:

1. The number of secondary schools in Ethiopia is increasing.
2. The current inflation rate in Ethiopia is 20 percent.

Both of the above examples are positive statements. They are concerned with real facts and information. We can check any disagreements on positive statements with reference to the facts.

Normative Economics deals with the questions like, what the economy ought to be? Or what the economy should be? It evaluates the desirability of alternative outcomes based on one's value judgments about what is good or what is bad. In this case, since normative economics is loaded with value judgments, what is good for an individual may not be good for the other? Normative analysis is a matter of opinion, which we cannot prove or disprove with reference to facts. So, we can resolve any disagreement on a normative statement through voting.

Examples:

1. The government should introduce school feeding programs in all schools.
2. There should be government intervention in the economy, when necessary.

Activity 1.6

1. What is the difference between positive and normative economics?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the methods and approaches of studying economics. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you describe the two methods of studying economics?		
Can you distinguish between positive and normative economics?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 1.3

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. The deductive method proceeds from the general to the particular.
2. Inductive method is the process of reasoning from a part to the whole.
3. "Some of the scarce resources are non-renewable" is a normative statement.
4. "Rising prices encourage production" is a positive statement.
5. "Poverty is something society should reduce" is a positive statement.

1.4. Decision Making Units

Overview

This section deals with the decision-making units of an economy. The basic decision-making units are households, business firms and the government. This section briefly discusses each of these decision-making units.

Learning Outcomes

At the end of this section, you will be able to:

- Identify the decision-making units of an economy.
- Explain the objectives of each decision-making unit.

Dear distance learner, can you define decision-making units of an economy? Did you try to answer the question? That is good.

We can divide an economy into different parts. We sometimes call these parts decision-making units of the economy and often describe them as economic agents. The basic decision-making units of an economy are households, business firms and the government. We briefly discuss each of these decision-making units of the economy as follows.

i. Households

Households are the primary owners of factors of production. These factors of production are land, labour, capital and entrepreneurship. Households sell the services of these factors (also referred to as factor services) to producers. The households, in return, receive their income in the form of rent, wages, interest, and profit, for the above factors, respectively. Households spend a large portion of their income in purchasing goods and services from the producers. Yet, they save part of their income, and pay taxes to the government out of their income.

ii. Business Firms

In economics, we use the terms business firms and producers interchangeably. Firms hire the services of the factors of production from households to produce commodities. They sell those commodities to households, to other firms, to the government or to other countries. Firms are the main buyers of the factors of production. In addition, they are the leading producers of commodities. The business firms consist of both private and government enterprises.

iii. Government

In economics, we take government in the sense of 'general government' in order to ignore government enterprises. General government gets its income mainly from taxes levied on households and on the business firms in the form of direct and indirect taxes. General government buys goods and services from the producers and factor services from the households. It uses these commodities and factor services to provide free services, such as police, education, medical facilities, sanitation facilities, judicial services, etc., to the people in order to satisfy their combined wants for those services.

Activity 1.7

1. Enumerate the basic decision-making units of an economy.
2. Describe the objectives of these decision-making units.

Self- check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the decision-making units of an economy. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you describe the basic decision-making units of an economy?		
Can you discuss objectives of decision-making units of an economy?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 1.4

Write 'True' if the statement is correct or 'False' if it is not correct for each of the following statements.

1. The basic decision-making units of an economy are households, business firms and the government.
2. Households spend a large portion of their income in purchasing factor services from the producers.
3. The business firms consist of both private and government enterprises.
4. Business firms are the main sellers of the factors of production.
5. General government gets its income mainly from taxes levied on households and business firms.

Unit Summary

Economics is a branch of social science. It studies about efficient allocation of scarce resources to achieve the maximum fulfillment of unlimited human wants. Economics is a science of choice. As a result, it studies how people choose to use scarce resources to produce different commodities. The main objective of economics is efficient utilisation of scarce resource to satisfy the unlimited human wants.

The foundation of modern economics rests on two of its main branches. These are microeconomics (focuses on economic behaviour of individual economic units) and Macroeconomics (deals with functions of the economy as a whole).

The fundamental problem of microeconomics is associated with resource allocation or the problem of price-determination. While the fundamental problem of macroeconomics is associated with full employment of resources.

Economics uses two methods of logical reasoning: Deductive (involves reasoning from certain principles to analysis of facts) and inductive (involves reasoning from the particular to the general) methods. Besides, economics uses two approaches: Positive economics (deals with knowledge and facts) and normative economics (entails value judgement in applying economic knowledge to solve problems).

We can divide an economy into different parts that we sometimes call decision-making units. The basic decision-making units of any economy are households, business firms and the government. Households are the main owners of factors of production: land, labour, capital and entrepreneurship. Business firms hire services of factors of production from households to produce commodities. However, the government gets its income mainly from taxes levied on households and business firms in the form of direct and indirect taxes.

Unit Review Exercises

Part I: Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. The definition of economics is completed and requires no improvement.
2. Some economists say economics is a 'science' while others say it is an "art.".
3. The field and scope of economics is growing slowly and has come to include a limited range of themes.
4. Microeconomics deals with how households and firms make decisions and how they interact in specific markets.
5. Macroeconomics examines the interrelations among various aggregate economic variables.
6. The deductive method involves reasoning from the analysis of specific facts to certain principles.
7. The inductive method involves reasoning from the general to the particular.
8. Positive economics is concerned with the analysis of facts and attempts to describe the world as it is.
9. The basic decision-making units of an economy are households, business firms, and the government.
10. The government purchases goods and services from households and factors services from business firms.

Part II: Choose the best answer among the given alternatives for each of the following questions.

1. Which of the following is the concern of macroeconomics?

   A . Consumer behaviour and firms output decisions.
   B . Economic activities of individual firms and households.
   C . The behaviour and operation of the economy as a whole.
   D . Forces of demand and supply in a particular market.

2. Which of the following statements is true about the inductive method?

   A . Helps to arrive at specific conclusion from general statement.
   B . Involves reasoning from the particular to the general.
   C . Proceeds from the general to a particular.
   D . None of the above.

3. The deductive method involves reasoning from

   A . the general to the particular
   B . certain principles to the analysis of specific facts.
   C . a part to the whole
   D . A and B

4. Which of the following is not a positive statement?

   A . Falling price of housing affects real income.
   B . Falling prices encourage consumer spending.
   C . Falling prices are good to consumers.
   D . Rising prices encourage production.

5. Which of the following is not a normative statement?

   A . Countries normally experience higher unemployment during recessions.
   B . Increasing taxes is positively wrong.
   C . Free markets are inherently unfair institutions.
   D . Taxes should redistribute business profit to benefit the society.

6. All of the following are positive statements **except**

   A . Not all resources experience price rises.
   B . Poverty is something society should reduce.
   C . An increase in house price is likely to cause a reduction in demand.
   D . Some of the earth's scarce resources are non-renewable.

7. Which one of the following statements is correct?

   A . A theory is a simplified picture of reality.
   B . Economic theory provides the basis for economic analysis.
   C . There are two methods of logical reasoning in economics.
   D . All of the above

8. The inductive method develops economic theories on the basis of

   A . observations and experiments.
   B . comprehensive data collected about economic conditions.
   C . an attempt made to arrive at a hypothesis.
   D . the observations and the collected data.

9. Which of the following statements is true about business firms?

   A . They are the leading consumers of commodities.
   B . They consist of private enterprises and non-government enterprises.
   C . They consist of both private and government enterprises.
   D . None of the above

10. Which of the following statements is correct about households?

   A . They are the main owners of the factors of production.
   B . They sell the services of the factors of production to producers.
   C . They receive income in the form of rent, wages, interest, and profit.
   D . All of the above

Part III: Answer the following questions briefly and to the point.

1. Outline the definition of economics based on Wealth, Welfare, and Scarcity. Which definition is more relevant to economics? Justify you answer?
2. Why is the study and knowledge of economics very useful and significant?
3. What is the importance of studying economics? Did you get anything from this unit? Explain what you get.

4. Explain the concepts of positive economics and normative economics.
5. Economics studies the allocation and efficient utilisation of scarce resources only. Why?
6. Now adays, due to the problem of air pollution in the neighborhood of big cities the likelihood of poisoning is high. Under such circumstances, can air be a free resource? State the reason.
7. What are the main features of the decision-making units of an economy?

Answer Key

✓ **Suggested Answers for Activities**

Activity 1.1

1. Economics is a branch of social science, which deals with efficient allocation of scarce resources to get maximum satisfaction of unlimited human wants.

Activity 1.2

1. In economics, facts are scientifically collected, classified, analysed and interpreted to make predictions. This makes economics a science. However, economics tends to present principles and methods to solve problems and sets guidelines for their solutions. This makes economics an art. Therefore, economics is both a science and an art.

Activity 1.3

1. The main branches of economics are *microeconomics* and *macroeconomics*.
2. **Microeconomics** is a branch of economics that deals with the economic behaviour of individual decision-making units such as households, business firms and the government. It studies interactions and organizations of decision-making units through markets and industries. In other words, it deals with how households and firms make decisions and how they interact in specific markets.

Macroeconomics is a branch of economics that deals with the effects and consequences of the aggregate behaviour of all decision-making units in an economy. In other words, it examines interrelations among various aggregate economic variables.

Activity 1.4

1. Difference between microeconomics and macroeconomics

- Microeconomics studies individual decision-making units of an economy such as households, and business firms. It focuses on supply and demand, and other forces that determine price levels. It is a bottom-up approach. Its central problem is associated with resource allocation.
- Macroeconomics studies the decisions of countries and governments. It focuses on the economy as a whole and study broad economy-wide aggregates. It is a top-down approach. Its central problem is associated with full employment of resources.

Activity 1.5

1. The methods used to study economics are deductive and inductive methods. Deductive method proceeds from the general to particular. It involves reasoning from certain principles to the analysis of specific facts. In contrast, inductive method is a process of reasoning from a part to the whole. It involves reasoning from the particular to the general.

Activity 1.6

1. Positive economics is concerned with analysis of facts and attempts to describe the world as it is. It tries to answer the questions what is; what was; or what will be? It does not involve value judgment. On the hand, normative economics deals with the questions like, what the economy ought to be? Or what the economy should be? It evaluates the desirability of other outcomes based on one's value judgments about what is good or what is bad.

Activity 1.7

1. The basic decision-making units of an economy are households, business firms and the government.
2. The main objective of households is to maximise income. The main objective of firms is to maximise profit. The main objective of the government is to provide free services, like police, education, medical facilities, sanitation facilities, judicial services, etc., to the people so as to satisfy their combined wants for those services.

✓ Suggested Answers for Self-test Exercises

Self-test Exercise 1.1

1. False 2. True 3. False 4. True 5. True

Self-test Exercise 1.2

1. C 2. B 3. A 4. C 5. D

Self-test Exercise 1.3

1. True 2. True 3. False 4. True 5. False

Self-test Exercise 1.4

1. True 2. False 3. True 4. False 5. True

Suggested Answers for Unit Review Exercises

Part I

1. false	2. True	3. False	4. True	5. True
6. False	7. False	8. True	9. True	10. False

Part II

1. C	2. B	3. D	4. C	5. A
6. B	7. D	8. A	9. C	10. D

Part III

1. *We can outline the definition of economics based on:*

   i. Wealth

   - *Economics is accumulation of valuable economic resource through producing goods and services to generate income.*

   ii. Welfare

   - *Economics studies about efficient allocation of scarce resources to satisfy unlimited human wants. It studies about income distribution and how this affects social welfare.*

   iii. Scarcity

   - Economics studies about how people use scarce resources to satisfy unlimited wants.
   - ➢ The scarcity definition more relevant to economics. This due to the fact that economics studies about efficient allocation of scarce resources to get the maximum fulfilment of unlimited human wants.
2. Study and knowledge of economics is extremely useful since:
   – It helps people to recognize some problems and questions.
   – It explains problems and questions, which disturb society and the state.
   – It studies activities and behaviour of diverse people to help understand about people.
3. Studying economics is important to understand how to manage and allocate our scarce resources efficiently to achieve the maximum fulfilment of unlimited human wants.
4. – **Positive Economics** focuses on the analysis of facts and attempts to describe the world as it is with no value judgment.
   – **Normative Economics** is a matter of opinion that cannot be proved with reference to facts. It is loaded with value judgments.
5. Economics studies allocation and efficient utilisation of scarce resources only since it tries to satisfy unlimited human wants using scarce resource.
6. Air is a free resource since we do not pay any price to breathe it. Under the given circum-

stances, there exists air pollution. This is the negative externality of a business firm. Hence, there may be a health problem. Thus, we do not pay for the air but we do pay for the medical treatment.

7. The main features of the decision-making units of an economy are:

   1. **Households**

      – Owners of productive factors, land, labour, capital and entrepreneurship.

      – Sellers the services of these factors.

      – Spend a large part of their income on purchasing goods and services from the producers.

      – Save part of their income.

      – Pay taxes to the government.

   2. **Business Firms**

      – Hire services of factors of production from households.

      – Produce commodities to households, government and to other securer.

      – Consist of both private and government enterprises.

   3. **Government**

      – Gets its income mainly from taxes.

      – Buys goods and services from the producers.

      – Buys factor services from the households.

      – Uses the commodities and factor services to provide free services.

Unit 2

The Basic Economic Problems and Economic Systems

Unit Introduction

Obviously, you heard about economics and perhaps you talked a lot about it in your day-to-day activities. Probably, you may have questions like: What is economic problem? What does efficient allocation mean? What are human needs? This unit will answer these questions and introduce you to the fundamental concepts of economics at large. This unit focuses on the basic economic problem, central problems of economies and economic systems.

Unit Outcomes

At the end of this unit, you will be able to:

- Describe the basic economic problem.
- Recognize how the basic economic problem affects the individual,
- firms and society.
- Compare and contrast the main economic systems.

Key Concepts

Choice, economic problem, opportunity cost, scarcity, shortage, allocation of resources, choice of technique, problem of distribution, capitalism, command economy, freedom of choice, mixed economy, private property, profit motive, and traditional economy.

The Required Study Time: 18 hours

2.1. Basic Economic Problems-Scarcity, Choice, and Opportunity Cost

Overview

This section deals with the basic economic problems-scarcity, choice, and

opportunity cost. It discusses the concepts of scarcity, choice and opportunity cost. In addition, it discusses the concepts of production possibility frontier (PPF) and economic growth and the (PPF).

Learning Outcomes

At the end of this section, you will be able to:

- Define scarcity, choice, opportunity cost, and the PPF.
- Explain the difference between scarcity and shortage of resources.
- Calculate the opportunity cost of a good.

Dear distance learner, can you mention any basic concepts in Economics? What do you mean by those concepts?

Clearly, the scarcity of resources relative to the unlimited human wants is a plain fact. Households, producers, and the whole economy face the problem of scarcity of natural and human-made resources. Consequently, it is necessary to use resources as efficiently as possible. In effect, we should efficiently allocate resources among the main choices. We discuss some basic concepts as follows.

1. Scarcity

The fundamental economic problem that any human society faces is the problem of scarcity. Scarcity refers to the fact that economic resources, which a society wants to produce goods and services are limited in supply. However, we should express their being limited in relation to human wants. Thus, the term scarcity reflects the imbalance between human wants and the means to satisfy those wants. Scarcity of resources generates economic problems. If resources were fully abundant, then there would be no economic problem at all.

Note: Scarcity does not mean shortage. A good is scarce if the amount available is less than the amount people wish to have at zero price. On the other hand, we say that there is a shortage of goods and services when people are unable to get the amount they want at the prevailing price. Shortage is a specific and short-term problem while scarcity is a universal and basic problem.

2. Choice

If resources are scarce, output will be limited. If output is limited, then we cannot satisfy all of our wants. Therefore, we must make choice. The problem of scarcity forces individuals, firms and government to choose, what output to produce, in what quantity, and what output not to produce. In short, *scarcity* implies *choice,* which in turn, implies *opportunity* cost.

Scarcity → limited resource → limited output → we might not satisfy all our wants

→ choice involves costs → opportunity cost

3. Opportunity Cost

In a world of scarcity, a decision to have more of one thing, at the same time, means a decision to have less of another thing. Thus, the value of the next best alternative that one must sacrifice is the opportunity cost of the decision. One can define opportunity cost as follows:

Opportunity cost is the amount or value of the next best alternative that one must sacrifice (give up) in order to obtain one more unit of a product.

For example, suppose that a country spends all of its limited resources on the production of cloth or computer. If a given amount of resources can produce either one-meter of cloth or 20 computers, then the opportunity cost of one meter of cloth is the value of 20 computers.

Note the following points about opportunity cost:

- One measures it in terms of goods and services but not in terms of money.
- It should be in line with the principle of substitution of one activity for another.

To sum up, the opportunity cost of any activity increases as people substitute other activities in its place. In effect, we measure the cost of producing a quantity of a commodity in terms of the quantity of some other commodity that we could have produced in its place. In short, opportunity cost comes into being due to the problem of scarcity and the fact that resources have alternative uses.

4. The Production Possibilities Frontier

The production possibilities frontier or curve (PPF/PPC) is a curve, which shows the various possible combinations of goods and services that the society can produce given its resources and technology.

To draw the graph of the PPF/PPC, we need the following assumptions.

a . The quantity and quality of economic resource available for use during the year is fixed.

b . We produce only two broad classes of output over the year.

c . The economy is operating at full employment and is achieving full production. Technology does not change during the year.

d . Some inputs are better adapted to the production of one good than to the production of the other (specialization).

For example, suppose a hypothetical economy produces food and computer given its limited resources and available technology (see Table 2.1).

Table 2.1: Alternative production possibilities of a certain nation

Type of products	Measuring unit	Production alternatives				
		A	B	C	D	E
Food	Metric tones	500	420	320	180	0
Computer	Number	0	500	1000	1500	2000

We can also display the above information with a graph as follows.

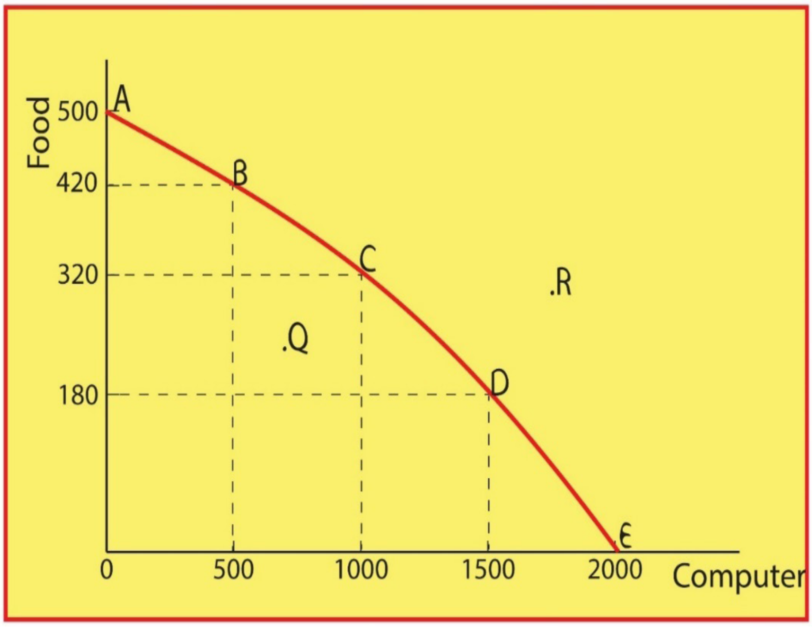


Figure 2.1 PPF for Food and Computer

Note the following points:

i. All points on the curve are both attainable and efficient.
ii. Any point inside the curve (e.g., point Q) is attainable but inefficient.
iii. Any point outside the curve (e.g., point R) is unattainable.

The PPF describes three important concepts:

i) The concept of scarcity: the society cannot have unlimited amount of output even if it employs all of its resources and utilizes them in the best possible way.

ii) The concept of choice: any movement along the curve indicates the change in choice.

iii) The concept of opportunity cost: when the economy produces on the PPF, production of more of one good requires sacrificing some of another product, which the downward sloping PPF reflects. Related to the opportunity cost, there is a law known as the law of increasing opportunity cost. This law states that as we produce more and more of a product, the opportunity cost per unit of the additional output increases. This makes the shape of the PPF concave to the origin.

Opportunity cost increases when producing more of one good since economic resources are not fully adaptable to alternative uses (specialization effect).

$$Opportunity\ cost\ of\ a\ good = \frac{the\ amount\ of\ the\ next\ best\ alternative\ sacrificed}{the\ amount\ of\ the\ good\ gained}$$

Example: Referring to Table 2.1 above, if the economy is initially operating at point B, what is the opportunity cost of producing one more unit of computer?

Solution: Moving from production alternative B to C, we have:

5. Economic Growth and the PPF

Economic growth, which is an increase in the total output level, occurs when one or both of the following conditions occur.

1. Increase in the quantity and quality of economic resources.

2. Advances in technology.

Outward shift of the PPF represents economic growth, as depicted in Figure 2.2.

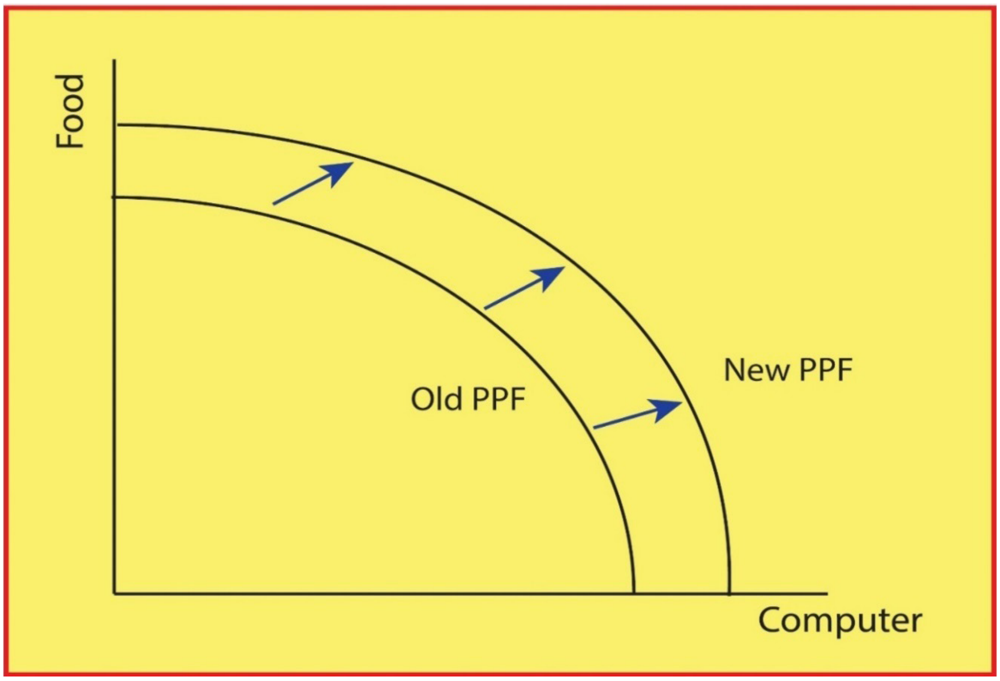


Figure 2.2 Economic growths with a new PPC

An economy can grow because of an increase in productivity in one sector of the economy. For example, improved technology applied to either food or computer would be illustrated by a shift of the PPF along the Y- axis or X-axis. This is called asymmetric growth (see Figure 2.3).

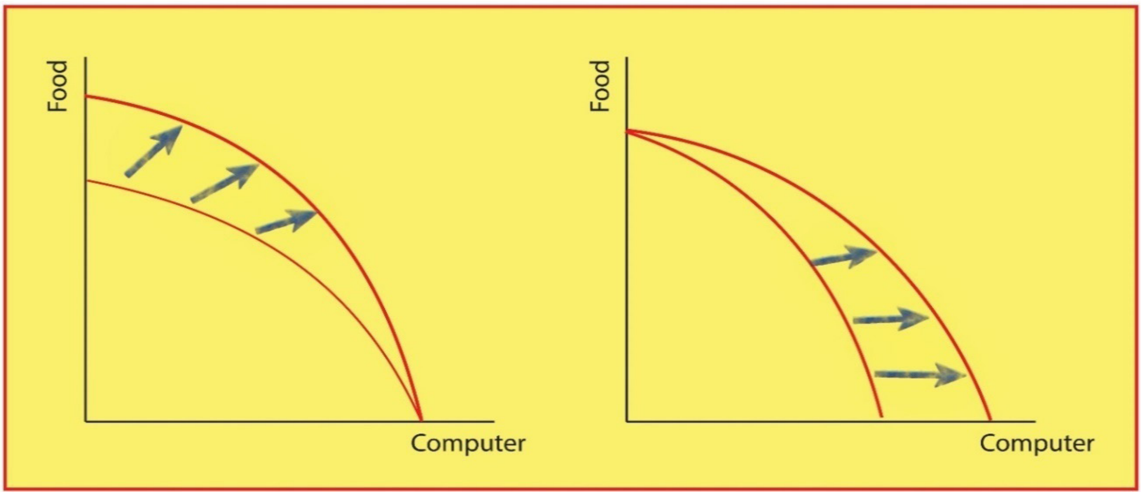


Figure 2.3 Improvements in technology and quantity or quality of resources on national output

Activity 2.1

1. Define the concept of production possibilities frontier (PPF).
2. Explain the distinction between scarcity and shortage?
3. The following table gives the various possible combinations of the production of two goods X and Y, where all quantities are measured in millions of tons.

Table 1: The production possibilities schedule of the two goods, X and Y.

Production Possibility	*Good X*	*Good Y*	*Opportunity Cost of Good X*
A	0	120	
B	2	110	
C	4	90	
D	6	40	

Calculate the opportunity cost of the production of good X at each point. What law does the trend in those values exhibit?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding about definition and nature of economics. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the about points discussed in this section.

Question	Yes	No
Can you define scarcity, choice and opportunity cost?		
Are you in a position to distinguish between scarcity and shortage?		
Can you calculate opportunity cost from the PPF schedule?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 2.1

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Scarcity is the fundamental problem that any human society faces.
2. The value of the next best alternative that must be sacrificed is the total cost of the decision.
3. Production possibilities frontier shows possible combinations of goods and services that the society can produce with its resources and technology.
4. A point inside the production possibilities curve is attainable and efficient.
5. An economy can grow due to an increase in productivity in one sector of the economy.

2.2. Central Problems of Economies

Overview

This section deals with the central problems of economies. It discusses the basic questions of what to produce, how to produce and for whom to produce.

Learning Outcomes

At the end of this section, you will be able to:

- Describe the basic economic problems.
- Explain how the basic economic problem affects individuals, firms, and the society.

Dear distance learner, how do you describe the basic economic problems from your previous knowledge and experience? What are the fundamental problems of economics? Did you think about it? That is good.

Basic Economic Questions

Economic problems, which an economic system faces owing to scarcity of resources, are basic economic problems. These problems are common to all economic systems. We also call them central problems of economies.

Hence, every modern society should answer the following three basic questions:

1. What goods and services to produce?
2. How to produce goods and services?
3. For whom to produce goods and services?

We can discuss each of these basic questions briefly as follows.

1. What goods and services to produce?

We also call this question the problem of resources allocation. It implies that every economy must decide about the type and quantities of goods to produce. The economy must make choices among the productions of consumption and capital goods, civil and military goods, and necessity and luxury goods.

2. How to produce goods and services?

We also refer to this question as the problem of choice of technique. First, an economy reaches a decision about the types of goods and services to produce. Second, the economy must determine their respective quantities. Finally, it decides how to produce them. This entails choosing between alternative methods or techniques of production. For example, wheat can be produced using primitive tools and manual labour, or using modern machinery and some labour.

We can classify the various techniques of production into two groups. These are labor-intensive techniques and capital-intensive techniques. A labor-intensive technique involves the use of more labour, relative to capital, per unit of output. In contrast, a capital-intensive technique involves the use of more capital, relative to labour, per unit of output. The choice between these techniques depends on the available supplies of diverse factors of production and their relative prices. A good choice is important to utilise optimally limited resources for the production the maximum amount of goods and services.

3. For whom to produce goods and services?

We also call this question the problem of distribution of the national product of a country. It relates to how to distribute a material product among the different members of a society. The economy should decide, for instance, whether to produce for the benefit of a few rich people or for the majority of poor people. Suppose that an economy wants to produce for the benefit of the maximum number of persons. To that end, it would first try to focus on the production of necessary goods for the whole population. Then, it would focus on the production of luxury goods for the rest of the population.

All these and other fundamental economic problems focus on human wants. The society directs many human efforts towards the production of goods and services in order to satisfy the human wants. These human efforts result in economic activities that occur within the framework of an economic system. The next section presents a detailed discussion of an economic system.

Activity 2.2

1. Explain the basic economic problem of all societies?
2. Describe how the basic economic problem affects individuals, firms and the society?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of central problems of economies. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you explain the basic economic problem?		
Are you able to tell how the basic economic problem affects individuals, firms and the society?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 2.2

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Basic economic problems are peculiar to only some economic systems.
2. The question of 'what to produce' implies that every economy must decide about the type and quantities of goods to produce.
3. A capital-intensive technique involves the use of more labour, relative to capital, per unit of output.
4. National product is the summation of all the goods and services produced in an economy during a certain period.
5. The society directs many human efforts towards the production of goods and services to satisfy only the wants of the poor people.

2.3. Economic Systems

Overview

This section deals with economic systems. It defines an economic system and discusses the main types of economic systems. These are the Traditional or Subsistence economy, Capitalist economy, Command economy and Mixed economy.

Learning Outcomes

At the end of this section, you will be able to:

- Define an economic system.
- Compare and contrast the main types of economic systems.

Dear distance learner, can you describe an economic system based on your previous knowledge and experience? What are the main types of economic systems? How do you classify them?

A concept known as economic system summarises the way a society tries to answer the basic economic questions discussed in section 2.2. An **economic system** is a set of organisational and institutional arrangements established to answer the basic economic questions. We classify the different types of economic systems based on ownership of economic resources. The main types of economic systems are Traditional economy, Capitalist economy, Command economy and Mixed economy. We can discuss these economic systems briefly as follows:

1. Traditional Economy

A traditional economy is a system that relies on customs, history, and time-honored beliefs. Tradition guides economic decisions such as production and distribution. Societies with traditional economies depend on agriculture, fishing, hunting, gathering, or some combination of them. These societies use barter instead of money.

Most traditional economies operate in emerging markets and developing countries. They are often in Africa, Asia, Latin America, and the Middle East. You can also find forms of traditional economies scattered even in developing countries throughout the world.

Main Features of Traditional Economy

- **Traditional economies center on a family or tribe:** They use traditions acquired from the elders' experiences to guide day-to-day life and economic decisions.
- **A traditional economy exists in a hunter-gatherer and nomadic society:** These societies cover vast areas to find enough food to support them. They follow the herds of animals

that sustain them, migrating with the seasons. These nomadic hunter-gatherers compete with other groups for scarce natural resources. There is little need for trade since they all consume and produce the same things.

- **Most traditional economies produce only what they need:** There is rarely surplus or leftovers. That makes it unnecessary to trade or create money.
- **When traditional economies do trade, they rely on barter:** It can only occur between groups that do not compete. For example, a tribe that relies on hunting exchanges food with a group that relies on fishing. Since they just trade meat for fish, there is no need for cumbersome currency.
- **Start to evolve once people start farming and settle down:** They are more likely to have a surplus that they can use for trade. When that happens, the groups create some form of money. That form of money facilitates trading over long distances.

2. Capitalist Economy (Capitalism)

Capitalism is the oldest formal economic system in the world. It became widespread in the middle of the 19^{th} century. In this economic system, individuals privately own all means of production. Production takes place at the initiative of individual private entrepreneurs who work mainly for their own profit. Government intervention in the economy is minor. We also call this system free market economy or simply market economy or laissez faire.

Main Features of Capitalist Economy

- **The right to private property**: This is the central feature of a capitalist economy. According to the principle of capitalism, all economic or productive factors including land, factories, machinery, mines, etc. are under private ownership.
- **Freedom of choice by consumers**: Consumers can buy the goods and services that suit their tastes and preferences. Producers produce goods in accordance with the demand of the consumers. We call this the principle of consumer sovereignty.
- **Competition**: In a capitalist economy, competition exists among sellers or producers of similar goods to attract customers. Among buyers, there is competition to obtain goods. Among workers, the competition is to get jobs. Among employers, it is to get workers and investment funds.
- **Minor role of the government**: The government does not interfere in the day-to-day economic activities but confines itself to defence and maintenance of law and order.
- **Self-interest**: Self-interest guides and motivates individuals in the economy to strive for an economic advantage.
- **Inequalities of income**: In the capitalist economy, there is a big income inequality between the rich and the poor.

3. Command Economy (Socialism)

We also call Command economy Socialism or Socialist economy. In command economy, the state owns and controls the economic institutions. Those institutions are engaged in production and distribution of goods. In addition, the economic institutions are put to use under a centralised plan. Socialism started in Russia with the outbreak of the Great October

Revolution in 1917. Since then, many countries of the world, including China, Vietnam, former East Germany, Poland, Hungry, Cuba and Ethiopia adopted it. Several countries adopted this system after the Second World War. However, socialism lost its acceptance and most of the former socialist countries adopted free market economies.

Main Features of Command Economy

- **Collective ownership**: The society as a whole, owns all means of production and there is no right to private property.
- **Central economic planning**: The controlling authority performed planning for resource allocation based on the socio-economic goals.
- **Strong role of government**: Government has complete control over all economic activities.
- **Relative equality of incomes**: Private property does not exist in a command economy. The profit motive is absent. Moreover, there are no opportunities for accumulation of wealth. In comparison to capitalism, all these factors lead to greater equality in income distribution.

4. Mixed Economy

A mixed economy is an economy containing the characteristics of both capitalism and socialism. It is a combination of private and public ownership of the means of production; with some government control measures. It incorporates some of the features of both capitalist and command economies and allows private and public sectors to co-exist.

Main Features of Mixed Economy

- **Co-existence of public and private sectors**: Public and private sectors co-exist in this system. Their respective roles and aims are well defined. Industries of national and strategic importance, such as heavy and basic industry, defence service, power generation, etc. are set up in the public sector. While consumer-goods industry and small-scale industry are developed through the private sector.
- **Economic planning**: The government uses instruments of economic planning to achieve coordinated rapid economic development. This is achieved through making use of both the private and the public sectors.
- **Economic equality**: Private property is acceptable, but rules exist to prevent concentration of wealth. It is the belief that people should receive the same rate of pay for a job, regardless of race, gender, or other characteristics that are irrelevant to their ability to perform the task.

Activity 2.3

1. Define the concept of an economic system.
2. what is the difference between capitalism and socialism?
3. Which economic system is more relevant to the Ethiopian economy today? Why is it relevant?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the economic systems. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define an economic system?		
Are you able to distinguish among the different economy systems?		
Can you tell the economic system that is more relevant to Ethiopia today?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 2.3

Choose correct answer among the alternatives for the following questions.

1. The different types of economic systems are classified on the basis of
   A . ownership of economic resources.
   B . availability labour.
   C . availability of capital
   D . none of the above
2. Which of the following statements is true about a traditional economy?
   A . It relies on customs, history, and time-honored beliefs.
   B . Tradition guides economic decisions such as production and distribution.
   C . Societies with traditional economies depend on agriculture, fishing, hunting, gathering, or some combination of them.
   D . All of the above.
3. In the capitalist economic system,
   A . Government intervention in the economy is higher.
   B . Individuals privately own all means of production.
   C . Production takes place at the initiative of the society.
   D . A and C.
4. Which of the following statements is false about a command economy?
   A . The state owns and controls the economic institutions.
   B . Institutions are engaged in production and distribution of goods.
   C . Production takes place at the initiative of private entrepreneurs.
   D . The economic institutions operate under a centralised plan.
5. In a mixed economy ________________________________
   A . the characteristics of both capitalism and socialism exist.
   B . private and public ownership of means of production prevail.
   C . Both A and B.
   D . All of the above

Unit Summary

Basic economic problems are the problems facing an economy today due to the scarcity of resources. These problems are common to all economies in the world. They are also known as central problems of economies. These problems originate from the scarcity of resources. Scarcity is the imbalance between unlimited human wants and limited available resources. In effect, it is the tension between the unlimited human wants and the means of satisfying them.

The fundamental economic problem focuses around the unlimited human wants and limited means of satisfying those wants. Many human efforts in any society are directed towards the production of goods and services in order to satisfy the demand of the society for those goods and services.

Production Possibility Curve (PPC) is a curve that shows all possible combinations of the maximum output that we can produce in an economy with given resources and technology. The value of the next best alternative that one must sacrifice is the opportunity cost of the decision. Linked to the opportunity cost there is a law known as the law of increasing opportunity cost. This law states that as we produce more and more of a product, opportunity cost per unit of additional output increases. This makes the shape of PPC concave to the origin.

The way a society tries to answer the basic economic questions is summarised by a concept known as economic system. An economic system is a set of organisational and institutional arrangements established to answer the basic economic questions. In economics, there are four basic economic systems. These are traditional, capitalist, command and mixed economies.

Unit Review Exercises

Part I: Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. When the opportunity cost of any activity increases people substitute other activities in its place.
2. Points inside the production possibility curve are attainable and efficient.
3. An economy can grow when there is an increase in productivity in one sector of the economy.
4. The different types of economic systems are classified on the basis of scarcity of economic resources.
5. In a capitalist economy, competition exists among sellers or producers of similar goods to attract customers.
6. In a command economy, consumers can buy the goods and services that suit their tastes and preferences.
7. In a mixed economy, private property is allowed, but rules exist to prevent the concentration of wealth.
8. Mixed economy is the oldest formal economic system in the world.
9. Most traditional economies operate in emerging markets and developing countries.
10. When traditional economies do trade, they depend on money.

Part II: Choose the best answer among the given alternatives for each of the following questions.

1. Which of the following is the basis of the concept of opportunity cost?
   A . Profit
   B . Investment
   C . Trade
   D . scarcity
2. Which of the following would make the concept of choice irrelevant?
   A . Eliminating trade
   B . Eliminating scarcity
   C . Eliminating capital
   D . Eliminating poverty
3. The basic economic problem can best be described by
   A . Matching endless wants with limited resources.
   B . The fact that economies often go into decline.
   C . The fact that high exchange rates discourage exports.
   D . The presence of high level of unemployment.
4. Which of the following can the production possibility frontier measure?
   A . nominal output
   B . total output
   C . potential output
   D . Real output
5. A point outside a production possibility curve shows
   A . efficient point
   B . unattainable point
   C . inefficient point
   D . attainable point

6. A production possibility curve is represented by
   A . a horizontal line
   B . a vertical line
   C . a downward sloping curve
   D . an upward sloping curve
7. Which of the following is a feature of a capitalist economy?
   A . Right to private property
   B . Equality of income
   C . Collective ownership
   D . All of the above
8. Which of the following is a feature of a mixed economy?
   A . Maximum social welfare
   B . Collective ownership
   C . Economic planning
   D . None of the above
9. Which of the following features persist in a command economy?
   A . All resources are allocated through the price mechanism.
   B . There is a big income inequality between the rich and the poor.
   C . Self-interest guides and motivates individuals in the economy.
   D . Government has complete control over all economic activities.
10. Which of the following is a feature traditional economy?
   A . It exists in a hunter-gatherer and nomadic society.
   B . It allows the right to private property.
   C . Self-interest guides and motivates individuals in the economy.
   D . Public and private sectors co-exist in the economy.

Part III: Work out the following problems based on the given information.

1. Assume that a certain simplified economy produces only two goods, X and Y, with given resources and technology. The following table gives the various possible combinations of the production of the two goods (all units are measured in millions of tons).

Table 2.2: The production possibilities schedule of the two goods, X and Y.

Production Possibility	*Good X*	*Good Y*	*Opportunity Cost of Good X*
A	0	130	
B	2	110	
C	4	100	
D	6	95	

   a) Calculate the opportunity cost of the production of good X at each point. What law does the trend in those values exhibit?

   b) What changes are required for this economy to shift the PPF outward?

2. Calculate the opportunity cost, per unit of sugar in terms of cloth, at the different production possibilities for the hypothetical data on a country shown in Table 2.3 below. Insert a column on the right-hand side of Table 2.3 and fill your answers in it.

Table 2.3 Hypothetical production possibility schedule for cloth and sugar

Production possibilities	Cloth (million metres)	Sugar (million kg)
A	0	60
B	1	55
C	2	47
D	3	35
E	4	20
F	5	3

Part IV: Answer the following questions briefly and to the point.

1. Describe the central problems of an economy.
2. Explain the concepts of scarcity, choice and opportunity cost. Try to link them to your daily life.
3. Define the concept of economic system. Explain how economic systems can be classified.
4. Which economic systems prevail in Ethiopia during the FDRE, Derg and Imperial regimes? Briefly discuss each of them.
5. Define capitalism and explain its main features.
6. What are the basic characteristics of a command economy? Discuss them briefly.
7. Define the concept of mixed economy and describe its main features.
8. Indicate the economic system that provided the right to private property.

Answer Key

✓ **Suggested Answers for Activities**

Activity 2.1

1. The production possibilities frontier is a curve, which shows different possible combinations of goods and services that a society can produce with the available resources and technology.
2. Scarcity reflects the imbalance between our wants and the means to satisfy those wants. Scarcity of resources generates economic problems. On the other hand, shortage of goods and services arises when people are unable to get the amount they want at the prevailing price. Shortage is a specific and short- term problem while scarcity is a universal and fundamental problem.
3. We calculate the opportunity cost of good X at different production possibilities, as follows:

At point B,

$$Opportunity\ Cost\ of\ good\ X = \frac{110-120}{2-0} = \left|\frac{-10}{2}\right| = |-5| = 5$$

At point C,

$$pportunity\ Cost\ of\ good\ X = \frac{90-110}{4-2} = \left|\frac{-20}{2}\right| = |-10| = 10$$

At point D,

$$pportunity\ Cost\ of\ good\ X = \frac{40-90}{6-4} = \left|\frac{-50}{2}\right| = |-25| = 25$$

The trend in these values exhibits the law of increasing opportunity cost.

Activity 2.2

4. Scarcity of resources is the basic economic problem of all societies. In other words, scarcity is a common problem to all societies.
5. An economy cannot produce all the goods that it needs because of scarcity. As a result, every economy must decide about the type and quantities of goods to be produced. The economy must make choices between the production of consumption and capital goods, civil and military goods, and necessity and luxury goods. In this way, the basic economic problem affects the individual, firms and society as a whole.

Activity 2.3

1. An economic system is a set of organisational and institutional arrangements that are created to answer the basic economic questions of all societies.
2. In capitalism, all means of production are privately owned; government intervention in the economy is negligible; consumers have freedom of choice; self-interest guides

and motivates individuals in the economy to strive for an economic benefit; and a big income inequality exists between the rich and the poor.

Conversely, in socialism, the economic institutions are owned by the state and operate under a centralised plan. Further, no private property exists; planning for resource allocation is performed by the planning authority; government has complete control over all economic activities; no profit motive, and no opportunities for accumulation of wealth. All these factors lead to greater equality in income distribution under socialism.

3. The mixed economy is more relevant to the Ethiopian economy today. This is due to the fact that it incorporates some features of both capitalist and command economies and allows private and public sectors to exist side by side. At present, the private and public sectors are growing together in Ethiopia. So, mixed economy is more relevant to the Ethiopian economy.

✓ **Suggested Answers for Self-test Exercises**

Self-test Exercise 2.1

1. True 2. False 3. True 4. False 5. True

Self-test Exercise 2.2

1. False 2. True 3. False 4. True 5. False

Self-test Exercise 2.3

1. A 2. D 3. B 4. C 5. D

✓ Suggested Answers for Unit Review Exercises

Part I

1. True	2. False	3. True	4. False	5. True
6. False	7. True	8. False	9. True	10. False

Part II

1. D	2. B	3. A	4. C	5. B
6. C	7. A	8. C	9. D	10. A

Part III

1. We can calculate the opportunity cost of good X at different production possibilities as follows:

a. We calculate the opportunity cost of good X at different production possibilities, as follows:

At point B,

$$Opportunity\ Cost\ of\ good\ X = \frac{110-130}{2-0} = \left|\frac{-20}{2}\right| = |-10| = 10$$

At point C,

$$pportunity\ Cost\ of\ good\ X = \frac{100-110}{4-2} = \left|\frac{-10}{2}\right| = |-5| = 5$$

At point D,

$$pportunity\ Cost\ of\ good\ X = \frac{95-100}{6-4} = \left|\frac{-5}{2}\right| = |-2.5| = 2.5$$

The trend in these values exhibits the law of decreasing opportunity cost.

b. One or both of the following changes are required to shift the PPF outward.

i. Increase in the quantity and/or quality of economic resources.

ii. Advances in technology

2. We can calculate the opportunity cost, per unit of sugar in terms of cloth, at different production possibilities for the given data, as follows:

Production Possibilities	Cloth (in million metres)	Sugar (in million kg)	Opportunity cost per kg of sugar (in million metres)
A	0	60	–
B	1	55	60 – 55 = 5
C	2	47	55 – 47 = 8
D	3	35	47 – 35 = 12
E	4	20	35 – 20 = 15
F	5	3	20 – 3 = 17

Part IV

1. The central problems of an economy

   i. What goods and services should be produced and in what quantity? This suggests that every economy should decide about the types and quantities of goods to be produced?

   ii. How should production be organised to produce the goods and services most efficiently? This indicates an economy should decide how to produce the required goods and services. It is concerned with the choice between alternative techniques of production.

   iii. For whom should goods and services be produced? This is related to how the total output should be distributed among the members of a society.

2. – **Scarcity** is the limitation of resources to satisfy unlimited human wants.

   – **Choice** is an alternative that we choose due to scarcity of resource.

   – **Opportunity cost** is the next best alternative that must be scarified or forgone to obtain one more unit of a product.

3. An economic system is a set of organisational and institutional arrangements, which is designed to answer the basic economic questions. Economic systems are classified on the basis of ownership of economic resources into: Capitalist economy, Command economy, Mixed economy, and Traditional economy.

4. – During the FDRE regime, the mixed economic system prevails in Ethiopia. Because private and public sectors co-exist.

   – During the Derg regime, Command economic system had prevailed in Ethiopia. Because the state had owned all means of production and there was no right to private property.

   – During the Imperial regime, Capitalist economic system had prevailed in Ethiopia. Because all means of production were privately owned, and production took place at the initiative of private entrepreneurs, who worked mainly for their own profit.

5. Capitalism was an economic system in which all means of production were privately owned, production took place at the initiative of private entrepreneurs, and the role of the government was highly restricted. Its main features were:

- **The Right to Private Property**: All productive factors such as land, factories, machinery, mines, etc. were privately owned.
- **Freedom of Choice by Consumers**: Consumers could buy the goods and services that suited their tastes and preferences.
- **Competition**: There was competition among:
  - producers of similar goods, to attract customers
  - consumers, to obtain goods
  - workers, to get jobs
  - employers, to get workers and investment funds
- **Minor Role of the Government**: The government did not restrict economic activities but confined to defence and keeping law and order.
- **Self-Interest**: Self-interest guides and motivates individuals in the economy to strive for an economic gain.
- **Inequalities of Income**: There is a big income inequality between the rich and the poor.

6. The basic characteristics of a command economy were:

- **Collective Ownership**: The society owned all means of production and there was no right to private property.
- **Central Economic Planning**: The controlling authority performed planning for resource allocation on the basis of socio-economic goals of society.
- **Strong Role of Government**: Government has control over all economic activities.
- **Relative Equality of Incomes**: Private property did not exist in a command economy, there was no profit motive, and there were no opportunities for accumulation of wealth.

7. A mixed economy is an economy containing the characteristics of both capitalism and socialism. Its main features were:
   - **Co-existence of Public and Private Sectors**: Public and private sectors co-exist in this system. Their respective roles and aims were well-defined.
   - **Economic Planning**: The government uses instruments of economic planning to achieve coordinated rapid economic development using both the private and the public sectors.
   - **Economic Equality**: Private property is allowed, but rules exist to prevent concentration of wealth. Limits were fixed for owning land and property. Progressive taxation, concessions and subsides were implemented to achieve economic equality.
8. It was the capitalist system that provided the right to private property. The right to private property is the central feature of a capitalist economy. According to the principle of the right to private property, all productive factors including land, factories, machinery, mines, etc. were privately owned.

Unit 3

Economic Resources and Markets

Unit Introduction

The basic economic problem that any human society faces is the scarcity of resources. Scarcity refers to the fact that all economic resources that a society needs to produce goods and services are limited in supply. The term scarcity reflects the imbalance between the unlimited human wants and the means to satisfy those wants.

This unit deals with types of resources and factor payments, renewable and non-renewable resources, types of markets, circular flow of economic activities and land as economic resource in Ethiopia.

Unit Outcomes

At the end of this unit, you will be able to:

- Describe the concepts of resources.
- Examine the types of resources and factor payments.
- Distinguish between renewable and non-renewable resources.
- Recognize the important role of land as a resource in Ethiopia.

Key Concepts

Economic resources, free resources, factor payments, non-renewable resources, renewable resources, intricately, labour market, financial market, households, business firms, government, money flows, and real flows.

The Required Study Time: 18 hours

3.1. Types of Resources and Factor Payments

Overview

This section deals with the types of resources and factor payments. It discusses the two types of resources, namely, free resources and economic resources. It also discusses the basic categories of resources and their factor payments.

Learning Outcomes

At the end of this section, you will be able to:

- Define resources.
- Describe the broad categories of resources and their factor payments.

Dear distance learner, can you define resources based on your daily life and experience to date? Can you name the resources available in your area?

Resources are inputs used in the process of production in order to make goods and services available to the society. There are two types of resources. These are free resources and economic resources.

Free resources: A resource is said to be free if the amount available to a society is greater than the amount people desire to have at zero price. In other words, free resources are the gifts of nature. They are unlimited in supply and have zero prices. For example, air, sunshine, solar energy, and a mountain stream.

Economic resources: A resource is said to be economic or scarce when the amount available to a society is less than what people want to have at zero price. Since economic resources are scarce or not available in plenty, they have non-zero prices. Price is the test of whether a resource is an economic or a free good. Examples of scarce resources are:

- All types of human labour: manual, intellectual, skilled and specialised;
- Most natural resources: land, minerals, clean water, forests, etc.;
- All types of capital resources: machines, infrastructure), etc.;
- All types of entrepreneurial resources.

We can divide economic resources into four broad categories. These are land, labour, capital, and entrepreneurship. Each of them is briefly described below.

i. **Labour:** refers to the physical and mental efforts of human beings in the production and distribution of goods and services. Its reward is **wage.**
ii. **Land:** refers to the natural resources or all the gifts of nature used in the production of goods and services. The reward for the services of land is **rent.**
iii. **Capital**: refers to all the manufactured inputs that can be used to produce other goods and services. Example: equipment, machinery, transport and communication facilities, etc. The reward for the services capital is **interest.**
iv. **Entrepreneurship**: refers to a special type of human talent that helps to organise

and manage other factors of production to produce goods and services and takes risk of making losses. Its reward is **profit.**

Activity 3.1

1. Define resources and point out the two types of resources.
2. Enumerate the four categories of economic resources and mention the factor payment of each resource.

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of types of resources and factor payments. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define resources?		
Are you able to distinguish between free and economic resources?		
Can you describe the four categories of economic resources?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 3.1

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. A resource is economic if the amount available to a society is greater than the amount people want to have at zero price.
2. Price is the test of whether a resource is an economic or a free good.
3. We can divide economic resources into two broad categories.
4. Labour refers to the physical and mental efforts of human beings in the production and distribution of goods and services.
5. Land means all manufactured inputs that can be used to produce other goods and services.

3.2. Renewable and Non-renewable Resources

Overview

This section deals with the renewable and non-renewable resources. It discusses the two broad categories of resources that we use in the production of goods and services. It also discusses the concept of conservation of natural resources.

Learning Outcomes

At the end of this section, you will be able to:

- Define renewable and non-renewable resources.
- Differentiate between renewable and non-renewable resources.
- Describe the concept of conservation of natural resources.

Dear distance learner, how do you define renewable and non-renewable resources? Do recognise renewable and non-renewable resources in your area? Did you try these questions? That is good.

There are many types of resources used in producing goods and services. Broadly, these resources have been categorised into two. These are renewable resources and non-renewable resources.

Renewable resources are resources that have the potential to be replaced over time through the natural processes. The renewal process may be relatively quick, as with sunshine, which comes on a daily basis. Or else, the renewal process may be very slow, as in the formation of soil, which may take hundreds of years. Examples of renewable resources are solar energy, wind energy, soil, trees, grass, geothermal pressure, and ground water.

Non-renewable resources are those resources whose reserve is fixed. They are found in the ground. The available supply of non-renewable resources may be replaced through recycling. Nevertheless, the overall supply remains relatively constant. Examples of non-renewable resources are natural gas, coal, steel, Aluminum and oil.

All natural resources should be used wisely. We must conserve natural resources. Conserve means not to misuse or waste resources. This is especially true for the nonrenewable resources. However, even some renewable natural resources can be exhausted if they are overused. We must also protect our natural resources from pollution. Pollution occurs when people put harmful chemicals and other things into nature. Oil spilled in water, toxic chemicals in the air, or garbage dumped on the side of the road are examples of this problem.

Conservation of natural resources

To conserve natural resources, we can reduce their use, reuse them, and recycle them. For example, turn off the lights when you are not in a room. This will reduce the use of fossil fuel used to generate electricity. Ride your bicycle and walk more, to reduce the amount of gasoline used to transport you. You can reuse things. Things like plastic containers, pots, paper, and bags can be reused. Each time you reuse something, you conserve the natural resources that would have been used to make the new ones.

Finally, we can recycle. Recycle means to reuse a natural resource to make something new. It also means to collect and send these things for reuse. Items that can be easily recycled include glass, some plastics, paper, aluminum, and steel. Some plastics and metals are hard to recycle. They are often made from mixtures of materials. Mixtures can be hard to separate. Try to buy and use things that you can recycle.

In general, natural resources, both renewable and nonrenewable, are important to all of us. We must conserve and carefully use natural resources. Because our future depends on them.

Activity 3.2

1. Define renewable and non-renewable resources.
2. Differentiate between renewable and non-renewable resources.
3. How do you to take care of natural resources?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of renewable and non-renewable resources. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Are you able to define renewable and non-renewable resources?		
Can you state the difference between renewable and non-renewable resources?		
Can you explain the concept of conservation of natural resources?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 3.2

Choose correct answer among the alternatives for the following questions.

1. Broadly, resources used in producing goods and services have been categorised into ____________________.
   A . natural resources and renewable resources
   B . renewable resources and nonrenewable resources
   C . manmade resources and renewable resources
   D . manmade resources and nonrenewable resources
2. ____________________ have the potential to be replaced over time through the natural processes.
   A . Renewable resources
   C . All natural resources
   B . Nonrenewable resources
   D . All manmade resources
3. Which of the following statements is true about non-renewable resources?
   A . They have fixed stock or reserve.
   B . The available supply may be replenished through recycling.
   C . The overall supply is relatively constant.
   D . All of the above.
4. Which of the following statements is false about natural resources?
   A . All natural resources should be used wisely.
   B . We must conserve natural resources.
   C . We need to conserve only the nonrenewable resources.
   D . Some renewable resources can be depleted if they are all killed.
5. Which of the following is an example of a renewable resource?
   A . Natural gas B. Soil C. Coal D. None of the above.

3.3. Types of Markets

Overview

This section deals with the types of markets. It focuses on three types of markets. These are the goods and services market, labour market, and financial market.

Learning Outcomes

At the end of this section, you will be able to:

- Define the concept of a market.
- Distinguish among the financial market, goods and services market, and labour market.

Dear distance learner, how do you describe the term Market based on your daily life and work experience to date? Can indicate the types of markets available in your surroundings? Did you try to answer the questions? Very good!

A market is an institution where two parties can meet 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. Alternatively, it may be digital like an online market, where there is no direct physical contact between buyers and sellers. In this section we focus on three types of markets. These are the goods and services market, labour market, and financial market. We can briefly discuss each of these markets as follows.

1. Goods and services market

The goods and services market is where households purchase consumable goods and services and businesses sell their goods and services. This market includes stores, the Internet, and any other place where consumer goods and services are exchanged.

When you go to a store, shop on the internet, or even just trade with your friend, you are dealing in the goods and services market. The end products are traded in this market Consumers pay money to businesses to acquire something. Money flows from the consumer to the business firms continuously.

2. Labour market

The labour market is a market in which employees provide the labour services and employers provide employment opportunities for labour. The labour market should be viewed at both the macroeconomic and microeconomic levels. It is a major component of any economy. It is essentially linked to markets for capital, goods, and services. For example, daily labourers, domestic workers, skilled workers, professionals, etc. provide labour services to the labour market.

3. Financial market

Financial market is a market where equities, securities, currencies, bonds, and other financial assets are traded between the buyers and sellers. This market is the basis of capitalist societies. It provides capital formation and liquidity for businesses. It can be physical or digital. Examples of financial market include markets for bonds, stocks, shares, etc. Financial markets facilitate the interaction between those who need capital and those who have capital to invest.

Activity 3.3

1. Explain the concept of the term market.
2. List down the different kinds of markets found in your surroundings and classify them into goods and services market, labour market and financial market.
3. Differentiate between the goods and services market and labour market.

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the types of markets. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the term market?		
Can you explain the differences among the financial market, goods and services market, and labour market?		
Are you able to identify the types of markets that operate in your locality?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 3.3

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. A market is an institution where two parties can meet to facilitate the exchange of goods and services.
2. The end products of producers are frequently traded in the labour market.
3. Goods and services market is where households purchase consumable goods and services and businesses sell their goods and services.
4. The labour market should be viewed only at the microeconomic levels.
5. Financial market is the basis of capitalist societies, and it provides capital formation and liquidity for businesses.

3.4. Circular Flow of Economic Activities

Overview

This section deals with the circular flow of economic activities. It discusses the two types of flows, namely, real flows and money flows. It also demonstrates how to construct the two-sector and three-sector circular flow diagrams.

Learning Outcomes

At the end of this section, you will be able to:

- Define circular flow of income.
- Explain the models of circular flow.
- Construct a circular flow of economic activities and interpret it.

Dear distance learner, can you define a circular flow of economic activities based on your daily life and work experience to date?

The circular flow of economic activities is a simplified macroeconomic model of the basic economic relationships in a market economy. This model gives an overview of how households, businesses and government interact in different markets through exchanging goods and services, productive resources (inputs or the factors of production) and money.

Production, exchange and consumption are the three important activities of an economy. As people carry out these economic activities, transactions between different sectors of the economy occur. Because of these transactions, income and expenditure move in a circular way in an economy. This is called circular flow of income or circular flow diagram. We can illustrate and explain the circular flow of income in an economy. Before that, let's consider the different sectors into which an economy is divided for this purpose. These sectors are also sometimes known as decision-making units of the economy. Generally, they are called economic agents. We can define a circular flow of income as follows:

A circular flow of income is a visual model of an economy that shows how a currency, such as the Birr, flows through markets among decision-making units.

Circular flows of income and expenditure

A circular flow is a pictorial representation of the continuous flow of payments and receipts for goods and services and factor services among different sectors of the economy. It also refers to the process whereby the income and expenditure of an economy flow in a circular manner continuously through time.

Types of flows

Economic transactions, like the sale and purchase of goods and factor services, generate two types of flows. These are real flows and money flows. Real flow and Money flow are the two main aspects of the circular flow of income model. Both refer to exchanges of goods and services for money. However, the two concepts differ in the way they refer to the opposite sides of these exchanges as they relate to individuals and companies.

Note that real flows and money flows are two sides of a coin. A real flow of goods and services is matched by an equal but reverse money flow.

Real flows

Real flows consist of the flows of:

- Factor services from the owners of factor services to the producers,
- Goods and services from the producers to the consumers.

Money (Financial) flows

Money flows consist of the flows of:

- Money incomes from factor services such as rent, wages, interest, etc.
- The money expenditures incurred for the purchase of goods and services.

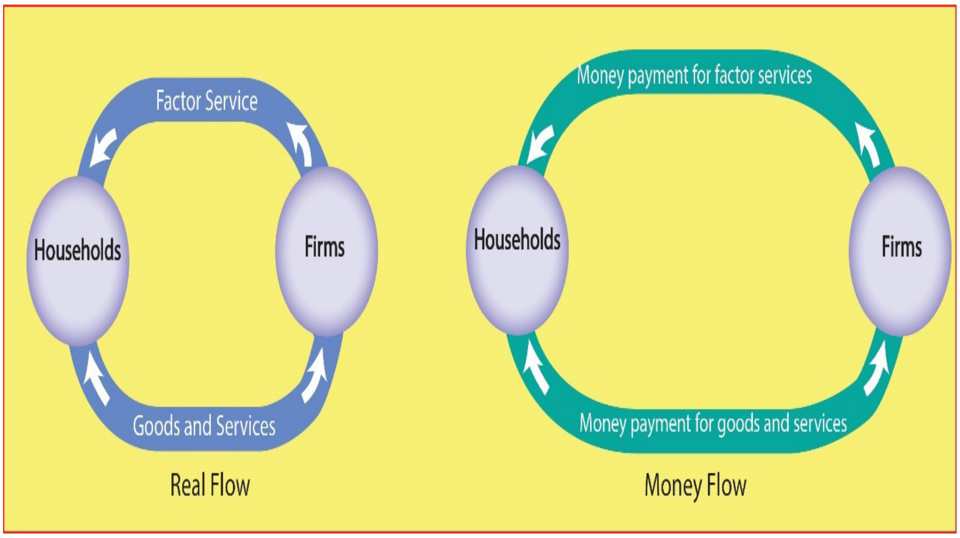


Figure 3.1 Circular flow of income: Real flow and money flow

Models of circular flow

For closed economies, we have two types of circular flow models:

1. Two-sector model that shows the flows between households and firms.
2. Three-sector model, showing the flows among households, firms, and the government sector.

1. **Two-sector circular flow model**

The two-sector model represents a private closed economy with only two sectors, namely, household sector and the business sector (firms).

In this model, the underlying assumptions are:

1. There are only two sectors in the economy: the household sector and business firms.
2. Household sectors are owners of factors of production and they supply factor services to the firms.
3. Firms produce goods and services and sell their full output to households.
4. Households receive income for their factor services and spend the whole amount on consumption.
5. There is no savings in the economy.
6. There is no government sector.
7. It is a closed economy, and therefore, there are no exports or imports.

The circular flow in a two-sector economy is illustrated in the Figure below.

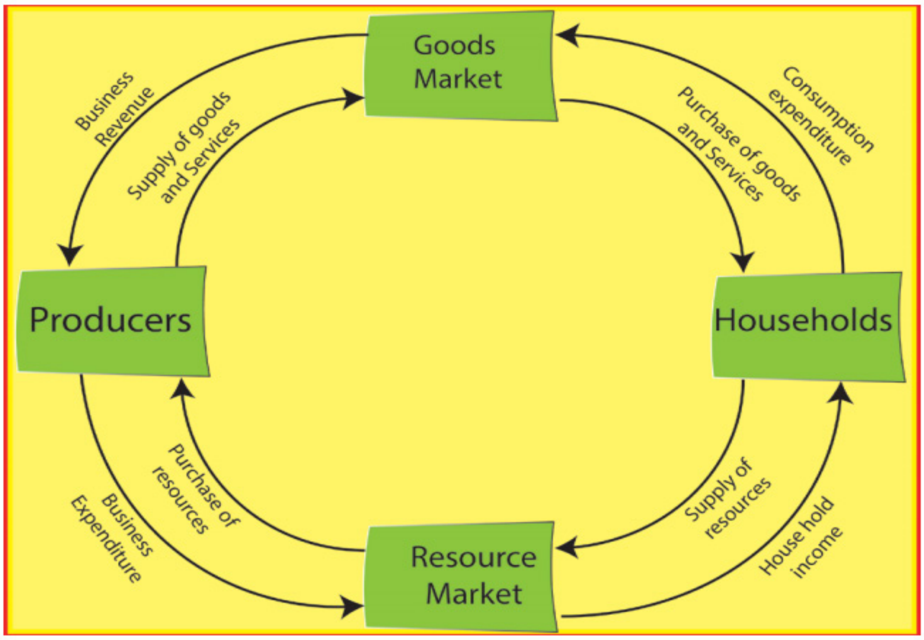


Figure 3.2: Circular flow of income in a two-sector economy

Note that the above Figure shows the two types of flows – real flow (of factor services and of goods and services) and money flow.

There is a continuous flow of factor services (in the form of land, labour, capital and entrepreneurship) from households to firms in the economy. Firms produce goods and services with the help of these factors and supply them to the households for consumption. This is called real flow of goods and services. The inner circle of the diagram shows that real flow.

In a monetary economy, all payments are made in money. Thus, the real flow is also the money flow of income, which is shown as the outer circle of Figure 3.2. When firms get factor services from households, they make monetary payments against them to the households. Households spend this income on the purchase of goods and services from the firms for their consumption. In this model, the households spend all their income on consumption of goods and services. Hence, the total money receipt of the firms is the same as the total income of the households. Thus, money flows from firms to households (as payments for factor services) and back from households to firms (as payments for goods and services). The outer circle of Figure 3.2 shows money flow of income.

2. **Three-sector circular flow model**

In the three-sector circular flow model, the economy has three sectors: households, firms, and government. In this model, activities of the government (and those of the other two sectors) influence the flow of income. There are two main categories of government economic activities, namely, government revenue and government expenditure. Figure 3.3 demonstrates the circular flow of income in a three-sector economy.

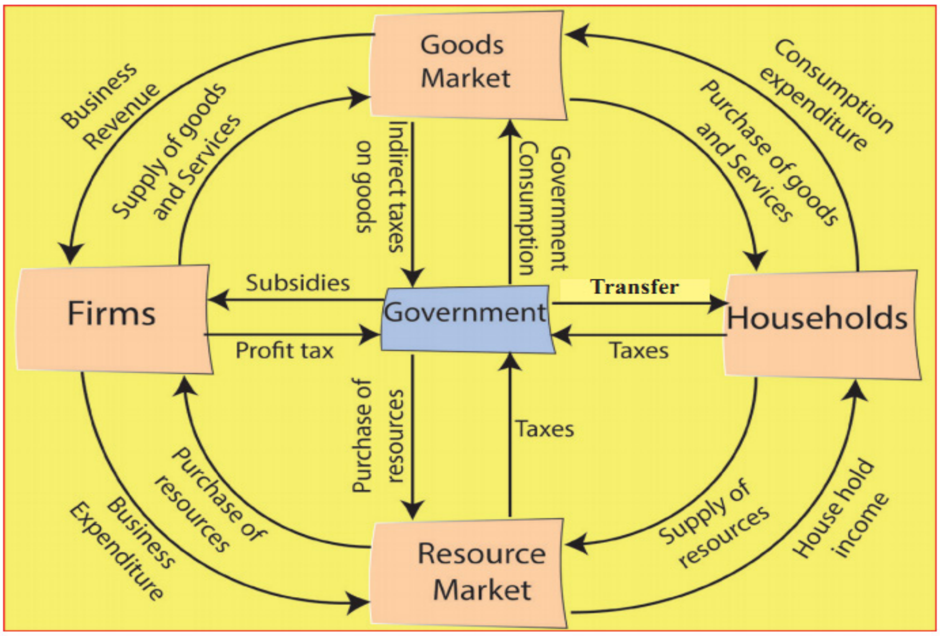


Figure 3.3: Circular flow of income in a three-sector economy

The above figure shows that firms make payments to households in return to factor services received from them. Households make payments to firms for goods and services purchased from them. Households' savings are deposited in the capital market, which in turn, they give it to the firms for investment.

Government gets its revenue by imposing taxes on the households and firms. It pays back this revenue to the firms and households by purchasing goods and services from them. In addition, government gives subsidies to the firms and transfer payments to the households. In this way, national income flows in a circular form among these three sectors of the economy.

Activity 3.4

1. Explain the main models of circular flow.
2. What do you mean by a circular flow diagram?
3. Draw a circular flow diagram for a two-sector economy and explain the types of flows involved in it.

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of circular flow of economic activities. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the circular flow income?		
Are you able to explain the models of circular flow?		
Can you construct a circular flow of economic activities?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 3.4

Choose correct answer among the alternatives for the following questions.

1. The circular flow of economic activities
   A . is a simplified macroeconomic model of basic economic relationships in a market economy.
   B . gives an overview of how households, businesses and government interact in different markets.
   C . is called circular flow of income or circular flow diagram.
   D . All of the above.
2. Which the following is an aspect of the circular flow of income model?
   A . Real flow B. Money flow C. A and B D. investment
3. Real flows consist of the flows of ______________________________
   A . factor services from the owners of factor services to the producers.
   B . money incomes from factor services such as rent, wages, interest, etc.
   C . money expenditures incurred for the purchase of goods and services.
   D . both B and C.
4. Which of the following does not go with two-sector circular flow model?
   A . Firms produce goods and services and sell all output to households.
   B . Households receive income for the goods and services they produce.
   C . There is no savings in the economy.
   D . There is no government sector in the economy.
5. In the three-sector circular flow model, _________________________
   A . the economy has three sectors: households, firms, and government.
   B . activities of the government influence the flow of income.
   C . Government activities are government revenue and expenditure.
   D . All of the above.

3.5. Land as an Economic Resource in Ethiopia

Overview

This section deals with land as an economic resource in Ethiopia. It discusses the important role of land as an economic resource in Ethiopia. It also discusses about the issue of land rights in the context of Ethiopia.

Learning Outcomes

At the end of this section, you will be able to:

- Explain the important role of land as an economic resource in Ethiopia.
- Identify the two main soil types found in most of the Ethiopian highlands.

Dear distance learner, how do you define land in the context of agriculture in Ethiopia based on your daily life and work experience to date?

For a country like Ethiopia, where agriculture is the backbone of the economy, land is a very important economic resource. In the context of agriculture, land refers to areal extent as well as its productivity of food and other crops. Ethiopia has a total area of 1,106,000 square kilometers of which 35 per cent is considered to be suitable for agriculture (CSA, 2007). Availability of this amount of land for agriculture is the result of good soil and suitable climate.

Most of the highlands have two main soil types that are generally believed to be suitable for agriculture. These soil types are:

- Red-to-reddish brown soils: These soil types are well endowed with the required minerals for crops. They are found in areas of relatively good drainage. Further, these soil types are friable – easy for ploughing.
- Brownish-to-grey and black soils with high clay content: With proper drainage and conditioning, these soils have excellent agricultural potential.

The formation of different agroecological zones due to altitude has multiplied the resource potential of the land of Ethiopia. The presence of different agroclimatic zones results in the growth of different types of crops. This increases Ethiopia's potential for the production of exportable items in order to earn foreign currency.

The Ethiopian people had been struggling for centuries with the inequitable land holdings of the country. As a result, they effectively removed the feudal system in 1975. The socialist system that came into being in 1975 under the slogan "Land to The Tiller" paradoxically overturned the slogan. Hence, this system ended up in state ownership of the land rather than giving it to the people. The ensuing government, which controlled power in 1991, was expected to remove land rights' problems. This can be accomplished, among others, by giving land to the people in tenure. However, it maintained state ownership of land and controls all urban and rural land with the natural resources.

Even if state controls land ownership, rural peasants and pastoralists are guaranteed lifetime "holding" right that gives all rights except sale and mortgage. Though it is not mentioned in the constitution, urban residents are also provided with the right to get land for residence on the 99 years lease-based agreement. The state ownership of land in the present-day Ethiopia is far from ideal. Meanwhile, it restricts the different land rights of use, rent, lease, endowment, and inheritance for different reasons. Since redistribution of land is highly restricted, access to rural land is also almost non-existent. The constitution is commended for its protection of land holdings against arbitrary state eviction. This was accomplished by inserting a provision that gives "adequate" amount of compensation during expropriation. Yet, successive implementation of proclamations has violated this protection by denying market value (fair compensation) for loss of property.

Activity 3.5

1. What is the important role of land as economic resource in Ethiopia?
2. Describe the two main soil types found in most of the Ethiopian highlands?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of land as an economic resource in Ethiopia. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you explain the role of land as economic resource in Ethiopia?		
Do you know the two main soil types found in most Ethiopian highlands?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 3.5

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. In the context of Ethiopian agriculture, land refers to only its productivity of food and other crops.
2. Most of the Ethiopian highlands have two main soil types that are not generally believed to be suitable for agriculture.
3. The formation of different agroecological zones due to altitude has multiplied the resource potential of the land of Ethiopia.
4. Since redistribution of land is highly open, access to rural land prevails in most parts of Ethiopia.
5. The current Ethiopian government could give more secure land rights compared to its predecessors.

Unit Summary

Resources can be categorised as free resources (which are unlimited in supply) and economic resources (which are limited in supply). A resource is free if the amount available to a society is greater than the amount people desire to have at zero price. While a resource is economic when the amount available to a society is less than what people want to have at zero price.

Renewable resources are resources that have the potential to be replaced over time through the natural processes. While non-renewable resources are those resources, whose reserve is fixed. They are found in the ground. The available supply of non-renewable resources may be replaced by recycling but the overall supply remains relatively constant.

A market is an institution where two parties can meet to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers. The market may be physical like a retail opening, where people meet face-to-face. Or else, digital like an online market, where there is no direct physical contact between buyers and sellers. There are three markets discussed in this unit. These are goods and services market, the labour market, and the financial market.

The circular flow of economic activities is a simplified macroeconomic model of the basic economic relationships in a market economy. This model gives an overview of how households, businesses and government interact in different markets by exchanging goods and services, productive resources and money.

For a country like Ethiopia, where agriculture is the backbone of the economy, land is a very important economic resource. In the context of agriculture, land refers to both areal extent and its productivity of food and other crops.

Unit Review Exercises

Part I: Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Free resources are the free gifts of nature, which are unlimited in supply and have no price.
2. Capital refers to the natural resources used to produce goods and services.
3. Renewable resources have the potential to be replaced over time through the natural processes.
4. Conserve means to reuse a natural resource to make something new.
5. A market is an institution where two parties can meet to facilitate the exchange of goods and services.
6. It is in the financial market that end products are traded.
7. Production, exchange and consumption are the three important activities of an economy.
8. In the three-sector circular flow model, government gives subsidies to the households and transfer payments to the firms.
9. In Ethiopia, the presence of different agroclimatic zones results in the growth of different types of crops.
10. The state ownership of land in the present-day Ethiopia is ideal.

Part II: Choose the correct answer among the given alternatives for each of the following questions.

1. A resource is said to be economic if the amount available to a society is
   A . less than the amount people want to have at a zero price.
   B . less than the amount people want to have at a non-zero price.
   C . greater than the amount people want to have at a zero price.
   D . greater than the amount people want to have at a non-zero price.
2. Which of the following is the reward for the services of land?
   A . Capital B. Rent C. Wage D. Profit
3. Which of the following features describes renewable resources?
   A . They have fixed reserve.
   B . They are found on the outer surface of the earth.
   C . They have the potential to be replaced over time.
   D . Their renewal process is always relatively quick.
4. Which of the following measures helps to conserve natural resources?
   A . Reducing their use. C . Re-cycling them.
   B . Re-using them. D . All of the above
5. When you go to a store, shop on the internet, or even just trade with your friend, you are dealing in the ________________________________.
   A . financial market. C . labour market.
   B . goods and services market. D . bond market.

6. ______________________ facilitates the interaction between those who need capital and those who have capital to invest?
   A . Financial market
   B . Goods and services market
   C . labour market
   D . None of the above
7. Which of the following is true about the two-sector circular flow model?
   A . Households spend their entire income on the consumption of goods and services.
   B . The total money receipt of the firms is the same as the total income of the households.
   C . Money flows from firms to households and back from households to firms.
   D . All of the above.
8. A closed economy allows all of the following **except**:
   A . Sale of goods to households
   B . Sale of goods to government
   C . Sale of goods to other countries
   D . Sale of goods to business firms
9. Which of the following soil types in Ethiopia are well endowed with the required minerals for crops?
   A . Red-to-reddish brown soils
   B . Brownish-to-grey soils
   C . black soils with high clay content
   D . All of the above
10. The Ethiopian people had been struggling for centuries with the
   E . presence of different agroclimatic zones in the country.
   A . inequitable land holdings of the country.
   B . absence sufficient urban land in the country.
   C . socialist system that came into being in 1975.

Part III: Answer the following questions briefly and to the point.

1. Explain the difference between free and economic resources?
2. Outline and briefly explain the four categories of economic resources.
3. What are the types of resources that go into producing goods and services? Briefly explain each of them with examples.
4. Describe how pollution occurs and give examples of this problem.
5. Explain the difference between the financial market and the labour market.
6. Define circular flow of income and explain the difference between real flows and money flows.
7. How do you explain circular flows of income in a three-sector economy?
8. Describe the nature of land ownership rights in the context of Ethiopia during the pre-1974 period, from 1975 to 1991 and from 1991 to the present.

Answer Key

✓ **Suggested Answers for Activities**

Activity 3.1

1. Resources are inputs used to produce goods and services for the society. There are two types of resources, namely, free resources and economic resources.

2. The four categories of economic resources are

- **Labour,** its reward is **wage.**
- **Land,** the reward for the services of land is **rent.**
- **Capital**, the reward for the services of capital is **interest.**
- **Entrepreneurship,** its reward is **profit.**

Activity 3.2

1. We define renewable and non-renewable resources as follows.
   - Renewable resources are those resources that have the potential to be re-placed over time through the natural processes.
   - Non-renewable resources are those resources whose reserve is fixed.

2. We can differentiate between renewable and non-renewable resources as:
   - Renewable resources can be replaced over time through the natural processes. The renewal process may be relatively quick or very slow.
   - Non-renewable resources cannot be replaced. They may be replenished through recycling but the overall supply remains relatively constant.

3. To take care of natural resources, it is vital to raise awareness among the general public on the importance of nature and the threats it faces. In addition, we can conserve natural resources by reducing their use, reusing them, and recycling them.

Activity 3.3

1. A market is an institution where two parties can meet to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers. The market may be physical where people meet face-to-face. Or it may be digital where there is no physical contact between buyers and sellers.
2. This question is open ended and students should attempt it by collecting data on the different kinds of markets found in their surroundings. Then, they can classify into goods and services market, labour market and financial market.
3. We can differentiate between the goods and services market and labour market as follows.
   - The goods and services mark is a market where households purchase consum-able goods and services and businesses sell their goods and services. The end

products are traded in this market.

- The labour market is a market in which employees provide the labour services and employers provide the employment opportunities for labour. It should be viewed at the macroeconomic and microeconomic levels.

Activity 3.4

1. The main models of circular flow are:

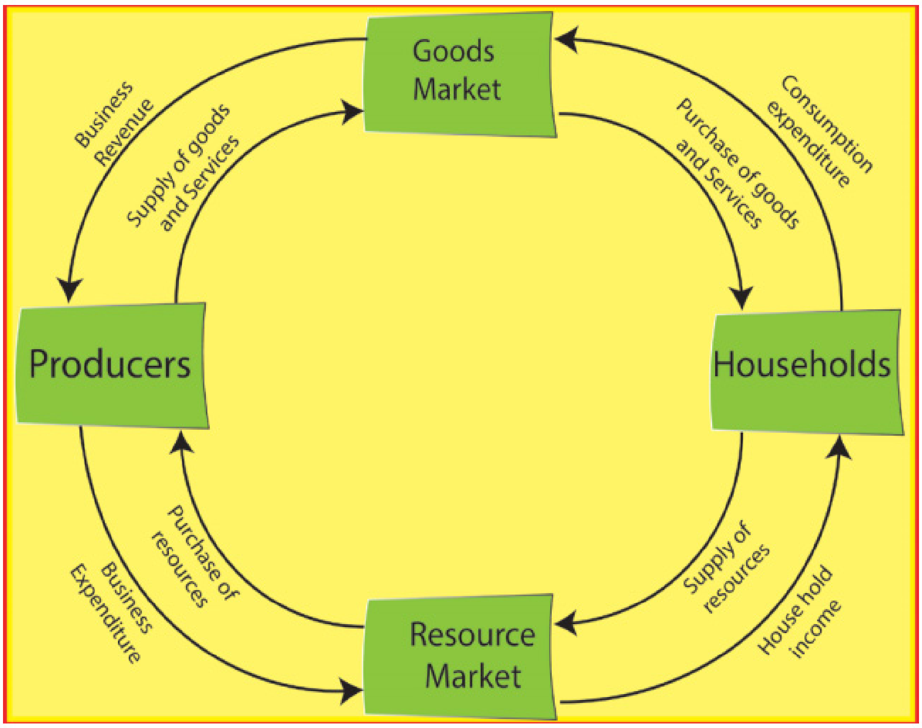
- Two-sector model, consists of flows between households and business firms.
- Three-sector model, consists of the flows among households, business firms, and the government.

2. The circular flow diagram is a picture that represents the organization of an economy in a simple economic model. This diagram contains households, firms, markets for factors of production, and markets for goods and services.

3. We can draw a circular flow diagram for a two-sector economy and explain the types of flows involved in it below. In this diagram, there are two types of flows:

   a. Physical flow or real flow: clockwise flow. This is the flow of goods and services and economic resources from one market to another.

   b. Financial or monetary flow: counter clockwise flow. This is the flow of money from one market to another. A two-sector economy circular flow diagram is depicted below.



Activity 3.5

1. Land is both a means of production and a status symbol that largely determines an individual's standard of living in rural communities in Ethiopia. Land and its resources, however, are not evenly distributed for every individual or household. The only 'formal' way of obtaining access to land is through membership in peasant association. In the past, land was subjected to periodic redistribution among households based on family size and land quality. It is also stated that land redistribution has eliminated rural unemployment by safeguarding the right of the former tenants to a source of income. This discloses that land plays an important role as economic resource in Ethiopia.

2. The two main soil types found in most of the Ethiopian highlands are:
   - **Red-to-reddish brown soils** that are well endowed with the essential minerals for crops and found in areas of relatively good drainage.
   - Brownish-to-grey and black soils with high clay content and have excellent agricultural potential with proper drainage and adaptation.

✓ **Suggested Answers for Self-test Exercises**

Self-test Exercise 3.1

1. True 2. True 3. False 4. True 5. False

Self-test Exercise 3.2

1. B 2. A 3. D 4. C 5. D

Self-test Exercise 3.3

1. True 2. False 3. True 4. False 5. True

Self-test Exercise 3.4

1. D 2. C 3. A 4. B 5. D

Self-test Exercise 3.5

1. False 2. False 3. True 4. False 5. True

✓ **Suggested Answers for Unit Review Exercises**

Part I

1. True	2. False	3. True	4. False	5. True
6. True	7. False	8. True	9. True	10. False

Part II

1. A 2. B 3. C 4. D 5. B 6. A 7. D 8. C 9. A 10. B

Part III

1. Free resources are the gifts of nature, which are unlimited in supply and have zero prices. Examples of free resources are: Air, sunshine, and mountain stream. On the other hand, economic resources are not available in plenty and have non-zero prices. Examples of economic resources are: Land, machines, etc.
2. The four categories of economic resources are:

i. Land – contains all-natural wealth that exists on or under the earth's surface. **ii. Labour** – includes all the physical and mental human efforts that are used in the production of goods and services

iii. Capital – includes all man-made inputs that are used for further production of goods and services

iv. Entrepreneurship – comprises a special type of human talent that helps to organise and manage other factors of production to produce goods and services and takes risk of making losses.

3. The types of resources that go into producing goods and services are broadly categorised into renewable and non-renewable resources.
   - Renewable resources have the potential to be replaced over time through the natural processes. For example, soil, trees, grass, ground water, etc.
   - Non-renewable resources have fixed stock or reserve, which are found in the ground. For example, natural gas, coal, steel, Aluminum, oil, etc.

4. Pollution occurs when people put harmful chemicals and other things into nature. Examples of this problem are Oil spilled in water, toxic chemicals in the air, or garbage dumped on the side of the road.
5. The difference between financial market and labour market is explained as:
   - Financial market is a market where equities, securities, currencies, bonds, and other financial assets are traded between the buyers and sellers. It is the basis of capitalist societies, and provides capital formation and liquidity for businesses.

- Labour market is a market in which employees provide the labour services and employers provide the employment opportunities for labour. It should be viewed at both the macroeconomic and microeconomic levels.

6. Circular flow of income is a visual model of an economy that shows how a currency such as the Birr flows in markets among the decision-making units.

   i. Real flows consist of both the flows of factor services from the owners of factor services to the producers and the flows of goods and services from the producers to the consumers.

   ii. Money flow consists of both the flows of money income from factor services and the flows money expenditures for the purchase of goods and services.

7. We can explain circular flows of income in a three-sector economy as follows. The economy has three sectors, namely, households, firms and government. The activities of the three sectors influence the flow of income.
   - Firms make payment to households for factor services received from them.
   - Households, in turn, make payments to firms for goods and services purchased from them. Their savings are deposited in the capital market and are given to the firms for investment.
   - Government gets its revenue through imposing taxes on households and on firms. It pays back this revenue to firms and households by purchasing goods and services from them. Moreover, it gives subsides to the firms and transfer payments to the households.

8. The feudal system prevailed in Ethiopia during the pre-1974 period and land was the property of landlords. However, from 1975 to 1991, land was the property of the state. Moreover, land continued to be the property of the state from 1991 to the present.

Unit 4

Introduction to Demand and Supply

Unit Introduction

You may have questions such: What does demand mean? What does the law of demand say? What does supply mean? What does the law of supply say? What does market equilibrium mean? The purpose of this unit is to explain what demand and supply are and show how they determine equilibrium price and quantity. It will also show how the concepts of demand and supply reveal consumers and producers' sensitivity to price change. This unit deals with the concept of demand, the concept of supply and market equilibrium.

Unit Outcomes

At the end of this unit, you will be able to:

- Define the concepts of demand and supply.
- Analyze the laws governing demand and supply.
- Describe the equilibrium price and quantity

Key Concepts

Ceteris paribus, demand, demand schedule, demand curve, demand function, law of demand, supply, supply schedule, supply curve, law of supply, equilibrium, market demand, market supply, market equilibrium, equilibrium price, and equilibrium quantity.

The Required Study Time: 12 hours

4.1: Concept of Demand

Overview

This section deals with the concept of demand. It discusses demand, quantity demanded, and the law of demand. It also discusses demand schedule, demand curve and demand function.

Learning Outcomes

At the end of this section, you will be able to:

- Define the concept of demand.
- Analyse the law of demand.

Dear distance learner, can you describe the concept of demand? Can you define demand based on your previous knowledge and experience?

Demand

The terms demand, desire and want are frequently used synonymously to express what an individual needs and would like to acquire. Demand states that the consumer must be willing and able to buy a commodity, which he or she desires at a given price during a specified period.

Thus, demand is different from a mere desire to acquire something. Human wants are unlimited and desires are numerous. However, only a desire backed up by the ability to pay the price for the commodity and the willingness to purchase it, is called a demand. We can say demand refers to an effective desire.

A desire becomes an effective demand only when it is backed by the following three features:

- ability to pay for the good desired,
- willingness to pay the price of the good desired, and
- availability of the good itself.

Moreover, demand for a good is constantly stated relative to a specific price and certain time. For instance, an individual may be interested to buy certain trousers at a price of Birr 700. However, he or she could not absolutely demand it if its price is Birr 900. Similarly, an individual may be willing to buy a room heater at a price of Birr 1000 during a cold season. However, he or she may not be interested in buying it at this price during a hot season. Based on the preceding considerations, we can define demand as follows:

Demand for a commodity is the amount of the commodity that a consumer is willing to buy at various prices and a given moment of time.

Quantity Demanded

Quantity demanded is the amount of commodity a consumer must be willing and able to buy which he/she desires at a given price during a specified period.

Law of Demand

Law of demand states that, ceteris paribus, price of a commodity and its quantity demanded are inversely related. Ceteris paribus means other thing remain the same. In other words, the higher the price, the lower the quantity demanded. The law of demand is a fundamental principle of economics. It states that at a higher price consumers will demand a lower quantity of a good.

Demand Schedule

A demand schedule is a tabular description, which presents various quantities of a commodity that would be demanded at different prices. Demand schedule refers to a tabular representation of the relationship between price and quantity demanded. It demonstrates the quantity of a product demanded by an individual or a group of individuals at specified price and time.

Table 4.1: Individual household demand schedule for Oranges per week

Price (Birr Per kg)	Quantity Demanded/week
5	5
4	7
3	9
2	11
1	13

The above demand schedule shows the different quantities of Oranges demanded by an individual household at different prices. At Birr 5 per kg consumer demands 15 kg of Oranges. However, an individual household's demand becomes 23 kg of Oranges at Birr 1 per kg.

Demand Curve

Demand curve is a graphical representation of the relationship between different quantities of a commodity demanded by an individual at different prices during a given period.

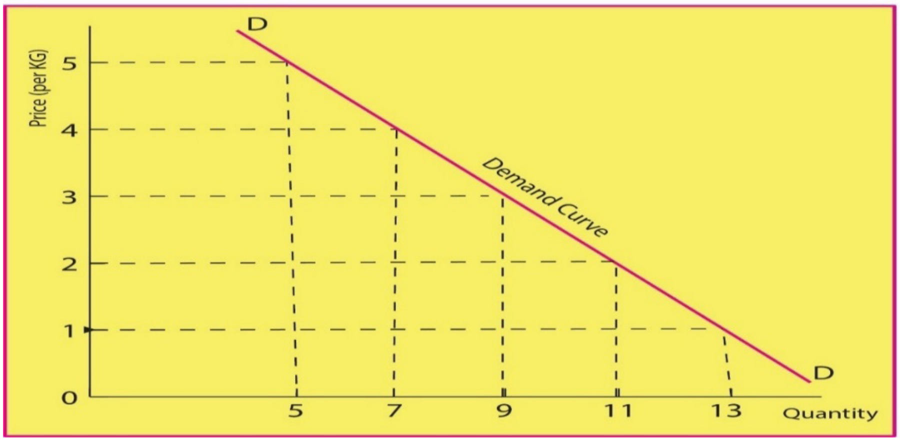


Figure 4.1: Individual household demand curve

Demand Function

Demand function is a mathematical representation of the relationship between price and quantity demanded, ceteris paribus. A typical demand function is given by

$$Q_d = f(P)$$

where, Q_d is quantity demanded and P is price of the commodity

Market demand

Market demand is determined by how willing consumers are to spend a certain price on a particular good or service. As market demand increases, price also increases. When the market demand decreases, price will decrease as well. Market demand is the horizontal summation of the quantity demanded for a commodity by all buyers at each price.

The market demand curve describes the relationship between various quantities of a commodity that all buyers are willing to buy at different prices. It is the horizontal summation of individual demand curves at the market price.

Activity 4.1

1. What is meant by demand? What does the law of demand state?
2. Why does the demand curve always slopes downwards from left to right?

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the concept of demand. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the concept of demand?		
Are you able to state the law of demand?		
Do you know why the demand curve slopes downwards from left to right?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 4.1

Choose correct answer among the alternatives for the following questions.

1. A desire becomes an effective demand only when it is backed by
   A . ability to pay for the good desired.
   B . availability of the good itself.
   C . willingness to pay price of the good.
   D . All of the above.
2. Which of the following statements is true about the law of demand?
   A . It states that, ceteris paribus, price of a commodity and its quantity demanded are inversely related.
   B . Ceteris paribus, the higher the price, the higher the quantity demanded.
   C . It states that at a lower price consumers will demand a lower quantity.
   D . None of the above.
3. Which of the following statements is false about demand schedule?
   A . It presents various quantities of a good demanded at various prices.
   B . It presents various quantities of a good demanded at a single price.
   C . It refers to a tabular representation of the relationship between price and quantity demanded.
   D . It is a tabular description that presents various quantities of a commodity that would be demanded at different prices.
4. Which of the following statements is incorrect about market demand?
   A . It describes the demand for a given product and who wants to buy it.
   B . As market demand increases, price also increases.
   C . It is derived by a simple vertical summation of the quantity demanded for a commodity by some buyers at each price.
   D . It is the willingness and ability of all consumers in a market to purchase a given good.

5. Which of the statements below is correct about market demand curve?
   A . It is the graphical illustration of the relationship between the price and quantity demanded of a good by all households.
   B . It is the horizontal summation of individual demand curves at the market price.
   C . It describes the relationship between various quantities of a commodity that all buyers are willing to buy at different prices.
   D . All of the above.

4.2. Concept of Supply

Overview

This section deals with the concept of supply. It discusses supply, quantity supplied, and the law of supply. It also discusses supply schedule, supply curve and supply function.

Learning Outcomes

At the end of this section, you will be able to:

- Define the concept of supply.
- Analyse the law of supply

Dear distance learner, how do you define the term 'supply' in economics? Can you explain the concept of supply in your area based on your previous knowledge and experience? Did you try these questions? That is good.

Supply

In everyday language, the term supply is often misused and confused with the term 'stock'. Stock is the total volume of a commodity produced during a certain period less the quantity already sold out. Conversely, supply means the quantity, which is actually brought to the market. Most of the time, producers do not offer all of their stock for sale in the market. For example, at the time of harvest, a large part of agricultural product is kept back in cold storage and is taken out during the off-season for sale at better prices. Similarly, a part of industrial product is usually kept back in stock and is offered for sale in the market at the time when it can bring higher prices. Thus, we can say that stock is potential supply and supply may be less than or equal to the stock of a commodity. However, in economics, the term supply has a specific meaning and it is defined as:

Supply of a commodity refers to the various quantities of the commodity which producers are willing and able to offer for sale during a particular period at different prices.

Quantity Supplied

Quantity Supplied indicates various quantities of a commodity that producers are willing and able to provide at different prices in a given period. In economics, quantity supplied describes the number of goods or services that suppliers will produce and sell at a given market price. The quantity supplied differs from the actual amount of supply since price changes influence how much supply producers actually put on the market.

Law of Supply

Like the law of demand, the law of supply reveals the quantities sold at a specific price. Yet, unlike the law of demand, the supply relationship shows an upward slope. This means that the higher the price, the higher the quantity supplied. The law of supply states that, ceteris paribus, there is a direct or positive relationship between price and the quantity supplied of a commodity.

Supply Schedule

A supply schedule is a tabular presentation of different quantities of a commodity offered for sale at different prices per time period. Supply schedule is a chart that shows how much product a supplier will have to produce to meet consumer demand at a specified price based on the supply curve.

Table 4.2: Individual seller's supply schedule for Oranges

Price (Birr Per kg)	Quantity Supplied (kg/week
10	60
15	70
20	80
25	90
30	100

The above supply schedule shows the different quantities of a commodity that an individual seller is willing to provide at different prices. At Birr 15 per kg, the seller provides 70 kg per week while at Birr 30 per kg; the seller provides 100 kg of the commodity per week.

Supply curve

A supply curve shows the information of seller's supply schedule graphically rather than in a tabular form.

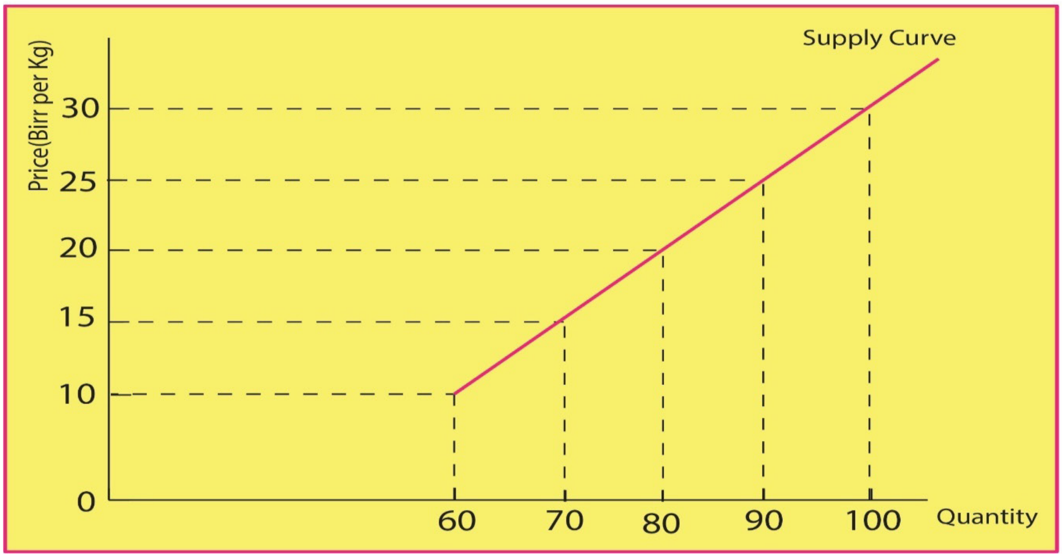


Figure 4.2 Individual seller's supply curve for Oranges

Supply Function

A supply function is a mathematical representation of the relationship between price and quantity supplied of a good, all other things remaining the same. A typical supply function is given by:

$$Q_S = f(P)$$

where, Q_S is quantity supplied and P is price of the commodity.

Market supply

Market supply is the total amount of a commodity producers are willing and able to sell at different prices, over a given period. It is derived by horizontally adding the quantity supplied of the commodity by all sellers at each price.

The market supply curve shows the relationship between various quantities of a commodity that sellers are willing to offer for sale at different prices. Market supply curve is the horizontal summation of individual supply curves at the market price.

Activity 4.2

1. What is meant by supply? What does the law of supply state?
2. Explain why the supply curve slopes upwards to the right.

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of the concept of supply. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the concept of supply?		
Are you able to state the law of supply?		
Do you know why the supply curve slopes upwards to the right?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 4.2

Choose correct answer among the alternatives for the following questions.

1. Quantity supplied ________________________________
   A . indicates various quantities of a commodity that sellers are willing and able to provide at different prices in a given period of time.
   B . describes the number of goods or services that suppliers will produce and sell at a given market price.
   C . differs from the actual amount of supply.
   D . All of the above.
2. The law of supply states that
   A . Ceteris paribus, price of a commodity and its quantity supplied are inversely related.
   B . Ceteris paribus, when the price is high the quantity supplied is low.
   C . Ceteris paribus, there is a direct relationship between price and the quantity supplied of a commodity.
   D . All of the above.
3. Which of the following statements is false about supply schedule?
   A . It is a tabular presentation of different quantities of a commodity offered for sale at different prices per period.
   B . B. It presents various quantities of a good supplied at a single price.
   C . It refers to a tabular representation of the relationship between price and quantity supplied.
   D . It is a chart that shows how much product a supplier will have to produce to meet consumer demand at a specified price.

4. Which of the following statements is correct about market supply?
   A . It is the total amount of an item producers are willing and able to sell at different prices, over a given period.
   B . It is derived by horizontally adding the quantity supplied of the commodity by all sellers at each price.
   C . Both A and B.
   D . None of the above.
5. Which of the statements below is incorrect about market supply curve?
   A . It indicates the relationship between various quantities of a commodity that sellers are willing to offer for sale at different prices.
   B . It describes the relationship between various quantities of a commodity that buyers are willing to buy at different prices.
   C . It is the horizontal summation of individual supply curves at the market price.
   D . All except C.

4.3. Market Equilibrium

Overview

This section deals with market equilibrium. It discusses the concept of equilibrium and market equilibrium. It also explains how forces of demand and supply help in attaining 'equilibrium', and how the 'equilibrium price' is determined.

Learning Outcomes

At the end of this section, you will be able to:

- Define the concepts of equilibrium and market equilibrium.

Dear distance learner, how do you define market equilibrium? Can you relate the concept of market equilibrium to the situation in your local market?

In the preceding sections, we have discussed both the consumers' demand for goods in a market and the firms' supply of goods in a market independently. Demand and supply curves tell us how much consumers demand and how much producers supply at different prices, respectively. However, they do not tell us the actual price of a good in general. We now come to the important question: How do the forces of demand and supply work together to determine market prices? We explain how forces of demand and supply help in attaining 'equilibrium', and how the 'equilibrium price' is determined.

The concept of equilibrium

The term equilibrium refers to a state of balance. In the physical world, when two opposing forces that act on an object are balanced so that the object is not moving, it is said to be in equilibrium. In simple terms, when the object under the action of forces acting in opposite direction has no tendency to move in any direction, it is in equilibrium. Similarly, an economic system is said to be in equilibrium when its important variables show no change, and when no forces are acting on them to produce a change in their values. For instance, after attaining equilibrium, a consumer has no intention to re-allocate his or her money or income. Likewise, a firm is said to be in equilibrium when it has no tendency to change its level of output through either increasing or decreasing it. Thus, there is a tendency to move towards the equilibrium price. This tendency is known as the market mechanism, and the resulting balance between supply and demand is called market equilibrium.

In real world economic activities, equilibrium may never be actually attained. In economics, the central feature of equilibrium analysis is the concept that economies tend towards equilibrium when no external forces are acting on them.

Market equilibrium

In the context of price determination, equilibrium refers to a situation in which the quantity demanded of a commodity equals the quantity supplied of the commodity. In short, equilibrium refers to the balance between opposite forces of demand and supply known as market equilibrium.

Graphically, we can depict market equilibrium as shown in the Figure below.

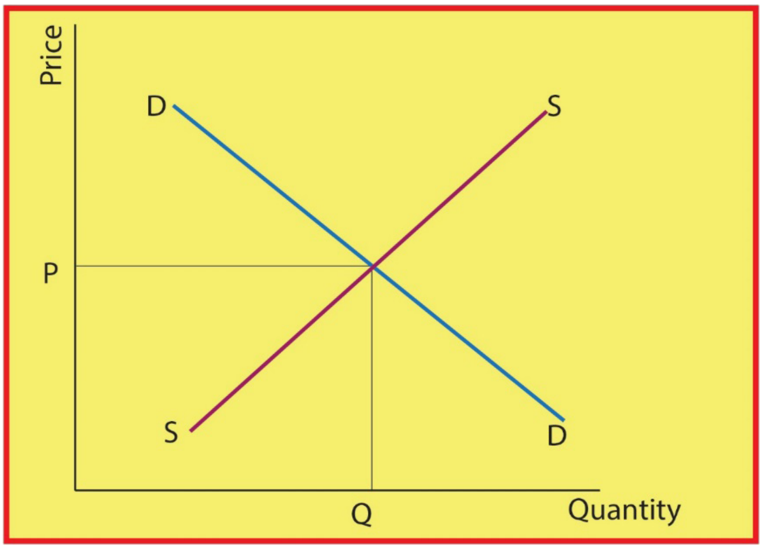


Figure 4.3 Market equilibrium

When the demand curve and the supply curve intersect, we have a point where the quantity that consumers are willing to purchase matches the quantity that suppliers are willing to supply at a given price. This point is known as the market equilibrium. From the market equilibrium we can derive market price and equilibrium quantity.

Note: This market equilibrium is not fixed; it is likely to change over time due to changes in the patterns of demand and supply.

Equilibrium price

The price at which the quantity demanded of a commodity equals its quantity supplied is called 'equilibrium price'. The forces of demand and supply determine the price of a commodity in a given market. At equilibrium price, the quantity demanded and quantity supplied are equal.

Equilibrium quantity

Equilibrium quantity refers to the quantity of a good supplied in the marketplace when the quantity supplied by sellers exactly matches the quantity demanded by buyers. In other words, the equilibrium quantity is the amount of a commodity that is bought and sold at an equilibrium price.

Activity 4.3

1. What do you mean by equilibrium and market equilibrium?
2. Describe the concepts equilibrium price and equilibrium quantity.

Self-check

Dear distance learner, we hope you enjoyed studying this section. Now, it is time to check your understanding of market equilibrium. Read each of the questions below and put a tick (√) mark in the 'Yes' or 'No' columns. This helps you decide on the level of your understanding about the main points discussed in this section.

Question	Yes	No
Can you define the concept of equilibrium?		
Are you able describe the concept of market equilibrium?		
Can you distinguish between equilibrium price and equilibrium quantity?		

Dear distance learner, did you make any tick (√) mark under the 'No' column? If so, please look at the corresponding question on the left-hand side, go back to your notes, and read about it again.

Self-test exercise 4.3

Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Demand and supply curves tell us how much consumers demand and how much producers supply at different prices, respectively.
2. An economic system is said to be in equilibrium when its important variables show some changes over time.
3. In the context of price determination, equilibrium refers to the balance between opposite forces of demand and supply.
4. The forces of demand and supply determine the price of a commodity in a given market.
5. The equilibrium quantity is the amount of commodity that is bought and sold at any price in a given market.

Unit Summary

Demand for a commodity is the amount that will be purchased at a particular price during a given period. The law of demand states that, ceteris paribus, the quantity demanded of a commodity increases when its price falls and decreases when the price rises. The law can be described using a demand schedule, a demand curve and a demand function. A demand schedule is a table that describes different quantities of a commodity demanded at different prices. A demand curve is the graphical representation of a demand schedule. Individual demand for a commodity is the amount a single consumer buys at a given price during a particular period. Market demand is the total quantity of a commodity all consumers are willing to buy at a given price during a period.

Supply is the quantity of a commodity that producers are willing to produce and offer for sale at a particular price during a given period. The law of supply states that, ceteris paribus, the quantity of a commodity that firms will produce and offer for sale rises with a rise in price and falls with a fall in price. Supply schedule is a tabular description that shows various quantities that producers are willing to produce and sell at various prices during a given period. Individual supply is the quantity of a commodity which one firm is willing to produce and offer for sale at a particular price during a period. Market supply is the quantity of a commodity that all producers are willing to produce and offer for sale at a particular price during a given period.

Market equilibrium is a situation in which quantity demanded of a commodity equals the quantity supplied of the commodity. Equilibrium price is the price at which quantity demanded equals quantity supplied. Graphically, it is determined at the intersection point of the demand curve and the supply curve. Equilibrium quantity is the amount of a commodity bought and sold at equilibrium price.

Unit Review Exercises

Part I: Write 'True' if the statement is correct, or 'False' if it is not correct for each of the following statements.

1. Demand is the same as a simple desire to obtain goods and services.
2. A change in price of a commodity can cause a change in quantity demanded of the commodity.
3. The law of demand states that at a lower price consumers will demand a lower quantity of a good.
4. Demand function is a mathematical representation of the relationship between price and quantity demanded.
5. Most of the time, producers offer all of their stock for sale in the market.
6. A change in price of sugar will affect the quantity supplied of sugar.
7. A supply curve shows the information of seller's supply schedule graphically.
8. In real world economic activities, equilibrium may be actually attained.
9. When the market demand curve and the market supply curve intersect, market equilibrium is attained.
10. The market equilibrium is fixed and does not change over time although changes occur in the patterns of demand and supply

Part II: Choose the correct answer among the given alternatives for each of the following questions.

1. Which of the following is affected by a change in price of a commodity?
   A . quantity demanded of a commodity.
   B . quantity stored of a commodity.
   C . quantity produced of a commodity.
   D . quantity sold of a commodity.
2. Which of the following demonstrates the quantity of a product an individual demands at specified price and time?
   A . Demand curve.
   C . Demand schedule
   B . Demand function.
   D . None of the above.
3. Which one of the following statements is not correct?
   A . Demand curves tell us how much consumers demand at different prices.
   B . Demand and supply curves tell us actual price of a good in general.
   C . Supply curves tell us how much producers supply at different prices.
   D . Unlike the law of demand, the supply relationship shows an upward slope.
4. When an economic system attains equilibrium,
   A . no forces are acting on it to produce a change in its values
   B . its important variables show no change
   C . both A and B
   D . all of the above

5. The intersection of a market demand curve and a market supply curve for a commodity determines the ____________________________
   A . selling price of the commodity.
   B . quantity demanded of the commodity.
   C . point of neither increase nor decrease in price of the commodity.
   D . none of the above
6. Why do consumers purchase more of a commodity at lower price?
   A . Consumers buy this commodity in place of others whose price is not changed.
   B . Consumers can buy more of this commodity with a given money income at lower prices.
   C . More consumers will buy the commodity at lower prices than at higher prices.
   D . All of the above.
7. Which of the following is the amount of a commodity bought and sold at equilibrium price?
   A . Equilibrium quantity C . Demanded quantity
   B . Purchased quantity D . Supplied quantity
8. What determines the price of a commodity in a given market?
   A . The importance the commodity. C . The type of the commodity.
   B . The forces of demand and supply. D . The nature of the commodity.

Part III: Answer the following questions briefly and to the point.

1. Explain the difference between the following pair of concepts:
   a. Individual demand and market demand
   b. Individual supply and market supply
   c. Equilibrium price and equilibrium quantity
2. When do we say an economic system is in equilibrium?
3. When do we say a firm is in equilibrium?
4. Why do we take horizontal summation of individual demand curves to get the market demand curve for a product?
5. Is equilibrium actually attained in real world economic activities? What is the central feature of equilibrium analysis in economics?

Answer Key

✓ **Suggested Answers for Activities**

Activity 4.1

1. Demand means the amount of commodity which an individual buyer is willing and able to buy at a given price and during a specified period.

   The law of demand states that, ceteris paribus, at a higher price consumers will buy less of a commodity, and at a lower price, consumers will buy more of it.

2. The demand curve always slopes downwards due to the following reasons:

   - With a decrease in price more units of a commodity will be demanded while with an increase in price, less units of the commodity will be demanded.
   - When price of a commodity decreases, a consumer can buy more of the commodity with the same amount of income indicating an increase in his real income.

Activity 4.2

1. Supply means the various quantities of a commodity that producers are willing and able to sale at different prices during a particular period.

   The law of supply states that, ceteris paribus, there is a direct relationship between price and the quantity supplied of a commodity.

2. The supply curve slopes upward to the right because, over time, suppliers can choose how much of their goods to produce and later bring to the market. Supply in a market can be depicted as an upward sloping supply curve that shows how the quantity supplied will respond to different prices over a specified period.

Activity 4.3

1. The term equilibrium indicates a state of balance. In the physical world, when two opposite forces that act on an object are balanced and the object is not moving, it is said to be in equilibrium. In other words, when the object under the action of forces acting in opposite directions has no tendency to move in any direction, it is in equilibrium. Likewise, an economic system is said to be in equilibrium when its important variables show no change, and when no forces are acting on them to produce a change in their values. In brief, equilibrium is the balance between opposite forces of demand and supply known as market equilibrium.

Market equilibrium refers to a situation in which the quantity demanded of a commodity equals the quantity supplied of the commodity.

2. We can describe the concepts equilibrium price and equilibrium quantity as follows:

- Equilibrium price is the price at which the quantity demanded of a commodity equals its quantity supplied.
- Equilibrium quantity is the amount of commodity that is bought and sold at an equilibrium price.

✓ Answer Key for Self-test Exercises

Self-test Exercise 4.1

1. D	2. A	3. B	4. C	5. D

Self-test Exercise 4.2

1. A	2. C	3. B	4. C	5. D

Self-test Exercise 4.3

1. True	2. False	3. True	4. True	5. False

✓ Answer Key for Unit Review Exercises

Part I

1. False	2. True	3. False	4. True	5. False
6. True	7. True	8. False	9. True	10. False

Part II

1. A 2. C 3. B 4. D 5. C 6. D 7. A 8. B

Part III

1. We can explain the difference between the given pair of concepts as follows:

   a. Individual demand refers to the quantity of the commodity that an individual household is willing and able to buy at different prices in a given period. In contrast, market demand refers to the total quantity of the commodity that all households in the market are willing and able to buy at different prices in a given period.

   b. Individual supply refers to the quantity of a commodity offered for sale by an individual firm at a given price during a given period. On the contrary, market supply refers to the total quantities a commodity offered for sale by all individual firms in the market at a given price during a given period.

   c. Equilibrium price is the price at which quantity demanded of a commodity equals its quantity supplied. Conversely, equilibrium quantity is the amount of a commodity bought and sold at equilibrium price.

2. We say an economic system is in equilibrium when its important variables show no change, and when no forces are acting on them to produce a change in the values of these variables.

3. We say a firm is in equilibrium when it has no tendency to change its level of output through either increasing or decreasing it.

4. We take horizontal summation of individual demand curves to get the market demand curve for a product because the quantity demanded is measured along the horizontal axis.

5. No, equilibrium can never be actually attained in real world economic activities. In economics, the central feature of equilibrium analysis is the concept that economies tend towards equilibrium when no external forces are acting on them.

Glossary

Capitalism: An economic system in which private individuals or businesses own capital goods. At the same time, business owners (capitalists) employ workers (labour) who only receive wages; labour does not own the means of production but only uses them on behalf of the owners of capital.

Ceteris paribus: A Latin phrase that generally means "all other things being equal." In economics, it acts as a shorthand indication of the effect one economic variable has on another, provided all other variables remain the same.

Choice: Scarcity refers to the finite nature and availability of resources while choice refers to people's decisions about sharing and using those resources. The problem of scarcity and choice lies at the very heart of economics, which is the study of how individuals and society choose to allocate scarce resources.

Demand: Demand simply means a consumer's desire to buy goods and services without any hesitation and pay the price for it. In simple words, demand is the number of goods that the customers are ready and willing to buy at several prices during a given time frame.

Economic activity: The production and consumption of goods and services. This can take place through organised markets or through non-market activities such as household production.

Economic problem: An economic problem generally means the problem of making choices that occurs because of the scarcity of resources. It arises because people have unlimited desire but the means to satisfy that desire is limited.

Economic resources: Are components used to produce goods or services for consumption. Economic resources can also be defined as factors of production.

Efficient allocation: A feasible allocation of economic resources such that there is no alternative feasible allocation where one economic agent is better off and no agent worse off.

Equilibrium: The state in which market supply and demand balance each other, and as a result prices become stable. Generally, an over-supply of goods or services causes prices to go down, which results in higher demand—while an under-supply or shortage causes prices to go up resulting in less demand.

Factor payments: The incomes earned from the factors of production are called factor payments. They come in the form of rent for land, wages for labour, interest for capital, and profit for entrepreneurship. Factor payments are what the firm pays for the use of the factors of production.

Free resource: A resource or good that is not scarce, even when its price is zero, is called a free resource or good. Economics, however, is mainly concerned with scarce resources and goods.

Freedom of choice: An individual's opportunity and autonomy to perform a chosen action unconstrained by external parties. Freedom of choice may also refer to: Free will, the ability to choose between different possible courses of action unconstrained.

Households: Consist of one or more persons who live in the same housing unit, such as a family. Households own all the economic resources in the economy. The economic resources are land, labor, capital, and entrepreneurial ability.

Macroeconomics: A branch of economics that studies how an overall economy—the markets, businesses, consumers, and governments—behave. Macroeconomics examines economy-wide phenomena such as inflation, price levels, rate of economic growth, national income, gross domestic product, and changes in unemployment.

Microeconomics: The study of what is likely to happen (tendencies) when individuals make choices in response to changes in incentives, prices, resources, and/or methods of production. Individual actors are often grouped into microeconomic subgroups, such as buyers, sellers, and business owners.

Money flows: Depict the way that money and credit circulate in the economy as income turns into savings and investment and back again.

Non-renewable resource: A nonrenewable resource is a substance that is used up more quickly than it can replace itself. The supply of a nonrenewable resource is finite, which means it cannot easily be replenished.

Normative economics: Focuses on the value of economic fairness, or what the economy "should be" or "ought to be." It is based on value judgments.

Opportunity cost: The amount or value of the next best alternative that one must sacrifice in order to obtain one more unit of a product. Opportunity cost represents *the potential benefits that an individual, investor, or business misses out on when* choosing one alternative over another.

Plant: In the study of economics, a plant is an integrated workplace, usually all in one location. A plant generally consists of the physical capital, like the building and the equipment at a particular location that is used for the production of goods.

Positive economics: The objective analysis of the economic study. This involves investigating what has happened versus what is happening, allowing economists to predict what will happen in the future. It is based on fact and cannot be approved or disapproved.

Production efficiency: Production efficiency is a measure that describes the conditions to produce goods at the lowest possible cost. This consider the number of units produced and how waste is minimized in the process.

Profit motive: The profit motive is the intent to achieve a monetary gain in a project, transaction, or material endeavor. Profit motive can also be construed as the underlying reason why a taxpayer or company participates in business activities of any kind.

Real flows: The flow of goods and services across different sectors of the economy. Flow of factor services from household sector to the producer sector or flow of goods and services from producer sector to household sector are examples of real flows.

Resource allocation: Resource allocation is the process of assigning and managing assets in a manner that supports an organization's strategic planning goals. Resource allocation includes managing tangible assets such as hardware to make the best use of softer assets such as human capital.

Scarcity: The property of being in excess demand at zero price. It means that the demand for a good or service is greater than the availability of the good or service. Therefore, scarcity can limit the choices available to the consumers who ultimately make up the economy

Shortage: A situation when the demand for a good or service exceeds the available supply. It is a situation in which there is less of something than people want or need.

Socialism: A political and economic system in which property and the means of production are owned in common, typically controlled by the state or government. Socialism is based on the idea that common or public ownership of resources and means of production leads to a more equal society.

Stock exchange: A centralised location where the shares of publicly traded companies are bought and sold. Stock exchanges differ from other exchanges because the tradable assets are limited to stocks, bonds and exchange traded products.

Supply: Supply in economics is defined as the total amount of a given product or service a supplier offers to consumers at a given period and a given price level. It is usually determined by market movement. For instance, a higher demand may push a supplier to increase supply.

Technique: A particular method of doing an activity, usually a method that involves practical skills. Technique is a way of carrying out a particular task, especially the execution or performance of an artistic work or a scientific procedure.

References

1. Ayele Kuris. (2003). *Ethiopian Economy,* A.A, Ethiopia
2. Ayele Kuris. (2006). The Ethiopian Economy: Principles of Practices, A.A Ethiopia.
3. Campbell R., et. al. (2005). *Economics,* McGraw-Hill Higher Education
4. Curtis, D. and Irvine, I. (2020). Principles of Macroeconomics, 2nd ed., Publisher: Lyryx
5. Hyman, David N. (1997). *Economics*, McGraw-Hill
6. Mankiw, N. Gregory. (2009). Principles of Economics, 5th ed., South-Western
7. Paul A. Samuelson and William D. Nordhaus. (2010). Economics, 19th ed., McGraw-Hill
8. Gould, P. and Fergusson, C. (1998). Micro economics theory, 6th ed., Irwin-Dorsey Ltd.
9. Salvator D. (1997). Microeconomics theory and applications, 3rd ed., Pearson
10. Boumol, W. J. and Blinder, A. S. (2011). Economics principles and policy, 11th ed., South-Western, Cengage Learning