# TABLE OF CONTENTS

CHAPTER 1  THE NATURE AND SCOPE OF ECONOMICS ................................................. 9
CHAPTER 2  DEMAND AND SUPPLY ANALYSIS .......................................................... 20
CHAPTER 3  THEORY OF THE HOUSEHOLD ............................................................... 47
CHAPTER 4  THEORY OF THE FIRM ........................................................................ 53
CHAPTER 5  FACTOR MARKETS & DISTRIBUTION OF INCOME ............................... 81
CHAPTER 6  MACROECONOMICS ............................................................................. 92
CHAPTER 7  THE DEMAND FOR AND SUPPLY OF MONEY ..................................... 99
CHAPTER 8  NATIONAL INCOME ANALYSIS ............................................................. 106
CHAPTER 9  THE KEYNESIAN MODEL ..................................................................... 110
CHAPTER 10 PUBLIC FINANCE .................................................................................. 125
CHAPTER 11 BUSINESS CYCLES & ECONOMIC GROWTH .................................. 132
CHAPTER 12 ECONOMIC DEVELOPMENT & POLICIES ........................................ 137
CHAPTER 13 INTERNATIONAL TRADE & FINANCE .............................................. 147
REFERENCES ........................................................................................................... 164
APPENDIX ............................................................................................................... 165
Aims of the Course
To enable students understand the basic principles, concepts and techniques of economics and enable students apply these principles, concepts and techniques to current issues and problems with special reference to Malawi.

Learning Objectives:
By the end of this course, the student should be able to:

(i) Define and explain the concepts and tools that economists use to address the fundamental economic problem of scarcity.
(ii) Explain the different types of economic systems.
(iii) Explain how the market system works to ensure efficient resource allocation.
(iv) Describe the operation of price systems.
(v) Understand the concept of utility and indifferent curves and how they are used in making choices to maximize utility (satisfaction) among competing wants with limited resources.
(vi) Explain production and cost decisions.
(vii) Determine cost and revenue structures and profit maximization.
(viii) Describe different market structures.
(ix) Describe factor markets and the income distribution.
(x) Explain the role of money, credit and financial institutions in determining national output.
(xi) Use macroeconomic variables to measure performance of the economy at the national level.
(xii) Explain the consumption, saving, investment and the business cycle.
(xiii) Explain the role of public finance, fiscal policy and monetary policy in influencing macroeconomic performance.
(xiv) Describe the objectives of the macroeconomic policies.
(xv) Explain the causes of poverty and underdevelopment.
(xvi) Explain the operations of international trade and payment systems.
(xvii) Explain the effects of globalization on national economies.

Format of the Examination Paper
The examination paper will be divided into two sections. Section A deals with Microeconomics and will contain 3 questions. Section B deals with Macroeconomics and will have four questions. Candidates will be required to answer five questions out of seven that is, two questions from Section A and three questions from Section B.

Specification Grid

<table>
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<th>Syllabus Area</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>Microeconomics</td>
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Learning Outcomes

Microeconomics

1 The nature and scope of economics
Candidates should be able to define basic economic concepts and theories. Concepts of interest are scarcity, choice, and production possibility curve. Additionally, students will be exposed to various topical economic issues such as normative and positive economics, economic systems, exchange and specialization.

In the examination, students may be required to:

- Define basic economic theories and concepts including but not limited to the following: scarcity, choice, production possibility curve and the opportunity cost.
- Explain the difference between normative and positive economics
- Define various economic systems i.e. planned economy, free market economy, mixed economy and traditional / indigenous economy.
- Explain the importance of exchange and specialization in economics.

2 Demand and supply analysis

Candidates should be able to define demand and supply and show how these interact in order to determine equilibrium price in a market place. Candidates s will also be expected to define elasticities of demand and supply. Lastly the candidates will be expected to define market failure as a justification for government intervention in an economy.

In the exam, candidates may be required to:

- Define demand and supply.
- Derive demand and supply curves.
- Differentiate between shifts and movement along demand and supply curves.
- Explain factors determining shifts in demand and supply curves
- Explain how demand and supply interact to determine market equilibrium price and output.
- Explain factors determining demand
- Explain factors determining supply
- Define and compute elasticity of demand
- Explain different types of elasticity of demand
- Define and compute elasticity of supply
- Explain different types of elasticity of supply
- Explain justification for price legislation
- Define market failure and justification for government intervention in an economy.

3 Theory of the household

Candidates should be able to explain the utility theory and how to derive indifference curves in order to maximize level of satisfaction.

In the exam, candidates may be required to:

- Explain the marginal utility theory (the cardinalist approach)
- Outline factors that determine utility
- Describe the indifference curves
- Explain the budget line
- Describe the income and substitution effects

4 Theory of the firm
Candidates should be able to explain how a profit maximizing firm makes decisions given market structures in order to maximize profits.

In the exam, candidates may be required to:

- Distinguish between the short run period and long run period.
- Explain the behaviour of costs both in short run and long run.
- Understand the economists and accountants view of profit.
- Describe the law of diminishing marginal returns and short run cost curves.
- Explain the firms output decisions.
- Define economies of scale and diseconomies of scale.
- Identify and explain the main sources of economies of scale and diseconomies of scale.
- Analyse the process of competition in different market structures (perfect competition, monopoly, monopolistic competition and oligopoly).
- Explain what a contestable market is.
- Describe how firms can experience growth.

5 Factor markets and distribution of income

Candidates should be able to explain the demand for and supply of factors of production in given market environments.

In the exam, candidates may be required to:

- Explain and illustrate how product and factor markets operate.
- Derive the demand curve for labour.
- Demonstrate their understanding of the concept of supply of labour.
- Outline the main determinants of demand elasticity for labour and supply elasticity of labour.
- Demonstrate their understanding of the pricing of factors of production in competitive markets and monopolistic markets.
- Describe the institutional intervention in the labour market.
- Define and describe the concepts of economic rent, wages and transfer earnings.

MACROECONOMICS

6 The nature of money

Candidates should be able to define money and describe various forms of money, explain how central banks operate and describe the financial market.

In the exam, candidates may be required to:

- Define money
- Explain functions of money
- Describe different forms of money
- Explain how value of money changes
- Explain functions of credit
- Explain the banking system.
- Explain functions of central bank.
- Explain tools/instruments of monetary policy.
- Explain the capital markets.

7 The demand for and supply of money
Candidates should be able to explain various theories of money.

In the exam, candidates may be required to:

- Define the quantity theory of money
- Discuss the Keynesian views on the demand for money
- Describe the new quantity theory of money.

**8 National income accounting**

Candidates should be able define various quantities of national income and describe circular flow of national income, measure national income and appreciate the difficulties of measuring national income.

In the exam, the candidate may be required to:

- Define the macroeconomic concepts of national income; GNP, GDP and NNP.
- Illustrate a simple circular flow of income model.
- Understand and explain the approaches used in measuring national income (expenditure, income and output approaches).
- Outline uses of national income statistics.
- Identify the main problems in attempting to measure national income.

**9 The Keynesian model**

Candidates should be able to discuss and describe the Keynesian Model and how this model is used to determine national income.

In the exam, the candidate may be required to:

- Explain aggregate demand and its components
- Explain factors affecting consumption, savings, investment and government spending.
- Discuss Keynesian consumption function and permanent income hypothesis.
- Explain the crowding out effects.
- Define the multiplier and accelerator principles.
- Explain how the national income is determined
- Explain, using a Keynesian cross, how an equilibrium state is achieved.

**10 Public finance**

Candidates should be able to explain the role of government in the economy and how government is financed. This takes into account both expenditure and taxation.

In the exam, candidates may be required to:

- Define public finance
- Explain the economic role of government
- Explain how government sources its revenue
- Explain principles of taxation
- Explain government expenditure
- Explain national debt
- Define fiscal Policy and its implications to the economy

**11 Business cycles and economic growth**
The candidates should be able to explain business cycles and economic growth and the relationship between the two.

In the exam candidates may be required to:

- Explain what business (trade) cycles are.
- Define the term accelerator, and the accelerator-multiplier model of the trade cycle.
- Demonstrate their understanding of the term economic growth.
- Discuss factors affecting economic growth.
- Analyse the benefits of economic growth.
- Outline the costs of growth.
- Distinguish economic development from economic growth.
- Explain the concept of economic re-organisation.

12 Economic development and policies

Candidates should be able to explain economic development and various policies that countries pursue in order to bring about economic development.

In the exam, candidate may be required to:

- Explain features of least developed countries
- Explain causes of underdevelopment.
- Define inflation and unemployment and show how they are related.
- Explain the types of unemployment and costs of unemployment.
- Discuss ways of reducing unemployment.
- Discuss the main types and causes of inflation and how they can be controlled.
- Explain the effects of inflation.
- Outline the features of supply-side economics.
- Explain the main objectives of supply side policies.

13 International trade and finance

Candidates should be able to demonstrate justification for international trade and its implications on balance of payment, terms of trade and exchange rates.

In the exam, candidate may be required to:

- Explain reasons for international trade.
- Define protectionism and its implications on welfare.
- Explain Balance of Payment (BOP) and its implications on trade
- Define terms of trade
- Implication of Exchange Rates on trade
- Describe international economic institutions and corporations

14 Globalization

Candidates should be able to define globalization and explain the effects of globalization.

In the exam, candidate may be required to:

- Define globalization
- Explain positive and negative effects of globalization
- Define regional integration
• Discuss local regional integrations
• Explain the economic effects of regional integration
CHAPTER 1

THE NATURE AND SCOPE OF ECONOMICS

LEARNING OBJECTIVES

By the end of this chapter, the student should be able to:

- Define the term economics
- Distinguish the main branches of economics.
- Understand the basic economic issues: scarcity, the opportunity cost concept and production possibility frontier.
- Explain the approaches used in economics; normative and positive economics
- Describe economic systems
- Understand issues of specialisation and exchange

1.1 DEFINITION OF ECONOMICS:

- Economics is the study of how limited resources are allocated or distributed among the people in order to satisfy their wants. In particular, economics studies the following.
- What goods and services are to be produced in an economy?
- How the goods and services should be produced?
- How are the goods and services distributed in an economy?

1.2 BRANCHES OF ECONOMICS

Economics has two main branches: microeconomics and macroeconomics.

**Microeconomics:** is the study of how individual households or firms in an economy make their decisions such as;
- What goods and services to produce?
- What goods and services to buy?
- How the goods and services should be produced?
- How are the goods and services distributed in an economy?

**Macroeconomics:** is the study of economy wide phenomena including inflation, unemployment, and economic growth. It also develops policies to deal with the economic problems.

1.3 BASIC ECONOMIC ISSUES

**Scarcity of resources**
The term scarcity refers to a condition in which resources are limited (short) in supply. Scarcity exists in all aspects of life as such producers have insufficient productive resources to produce so much of everything. In this case, the resources that can be identified and used efficiently in order to maximise the output are land, labour, capital, and entrepreneurship.

**Choice**
Since the resources of production are scarce and there are not enough goods and services to satisfy the total potential requirement, choices must be made. Choice is only necessary because resources are scarce and can be used in alternative ways.

**Opportunity cost**
The term opportunity cost refers to the benefit or income which could have been derived from the next best alternative or activity. It therefore measures the cost of any economic choice. For example going to school has an opportunity cost of foregone income one could have earned through employment.

**Production**
Production is a process of creating goods and services by combining resources like land, labour, capital and entrepreneurship in order to cater for individual needs.

**Factors of production**
These are all the resources which have to be combined in order to produce goods and services. The main factors or resources or means of production are land, labour, capital, and entrepreneurship. They are also called agents of production.

**Land**
This refers to the resources provided by nature which a firm uses. It includes for example farming and building land, forests, mineral deposits, rivers, and lakes – all those resources freely supplied by nature, which aid people in producing goods and services. Being an agro based economy, land is vital resource to the economy of Malawi. The reward of this factor is rent.

**Labour**
It is the human effort, both physical and mental that is available to engage in the production of goods and services. It therefore includes all forms of human work, from routine to the most intellectual which is directed towards the production process. The quality of labour can be improved by education and training so as to increase productivity and a nation’s total output of goods and services. The owner of this factor is rewarded in form of wages or salaries.

**Capital**
Capital can be defined as wealth (goods) employed in the production of further wealth. This is the property of any kind – buildings, machines, materials etc – used to produce other goods. The reward for capital is **interest**.

**Entrepreneurship**

Refers to the innovative, risk-taking activities of individual and firms for new products and new markets. The person involved in the innovative and organising activities is called an entrepreneur. His role is to combine the other factors of production because left to themselves land, labour, capital will not produce anything. Entrepreneurship is also called enterprise. The reward for the entrepreneurship is **profit**.

**1.4 THE PRODUCTION POSSIBILITY CURVE**

It is a curve showing the maximum combinations of quantities of commodities, which may be produced from a given level of resources.

The production possibility curve is also called a production possibility frontier or a production transformation curve.

The basic economic problems of scarcity can be well illustrated using a production possibility curve. For example a society can spend its income on two products, F: food and G: guns.

The resources in the economy are limited, such that there are restrictions on the amount of food and/or guns that can be produced.

The graph below shows the production possibility curve.

**FOOD (F)**

The curve from F₁ round to G₁, in figure 1 shows the different combination of F and G that a society can make with its limited resources. This curve shows the border of combination of guns and/or food that can be produced from the available resources.
The production possibility curve is concave shaped because as we move away from product F, it means less of F is being produced as more of G is being produced. This illustrates the opportunity cost concept. The firm can therefore choose to make various combinations of F and G as follows:
Produce \( G_1 \) units and no F.
Produce \( F_1 \) units and no G
Produce \( F_2 \) units of F and \( G_2 \) of G.
Produce \( F_3 \) units of F and \( G_3 \) of G.
The combination of \( F_4 \) units of F and \( G_4 \) units of G at point X is within the production possibility curve. Since more quantities of either product can be made (F and G). Point X is therefore inefficient production quantity for the economy. And if the society were only to make \( F_4 \) of F and \( G_4 \) of G it would be using its limited resources inefficiently.

Point Y lies outside the production possibility curve. Even with efficient use of resources it is impossible to produce \( G_5 \) of G and \( F_5 \) of F. To reach point Y either the current resources must be increased or production methods must be improved perhaps by developments in technology.

**Importance of the production possibility curve**

The production possibility curve shows that there is scarcity of resources and the impact that this has on output of various commodities.

It also illustrates the need to make a choice about what to produce, when it is not possible to have everything.

It can be appreciated from the figure above, that if we are to have the combination of \( G_2 \) of G and \( F_2 \) of F, it means to produce \( G_3 \) (\( G_2 - G_3 \)) has been forgone, while \( F_2 \) has decreased to \( F_3 \). Therefore the opportunity cost of producing \( F_3 \) has been forgone.

**Shifts in the production possibility curve**

The production possibility curve can shift. The shift can be either rightward or leftward.

**Rightward shift or upward shift or outward shift**

When the production possibility curve shifts to the right, it means there is economic growth indicating that the economy is producing more goods and/or services than before.

**Some causes of the rightward shift are:**

- Increased labour force.
- Improvements in methods of production like use of machinery.
- Discovery of new natural resources.
Leftward shift or inward shift or downward shift

If it moves to the left it means that the economy is unable to produce as much as before.

Some causes of leftward shift are:

- Significant decrease in population.
- Exhaustion of natural resources.
- Switching to obsolete methods of production.

In figure 2, curve M represents greater production possibilities than curve N. If a society’s production possibility curve shifts out from N to M, there is economic growth. The society could now switch from making $F_1$ of $F$ and $G_1$ of $G$ (point X) to making $F_2$ of $F$ and $G_2$ of $G$ (point Y).

1.5 APPROACHES TO THE STUDY OF ECONOMICS

There are two approaches:
- Normative economics
- Positive economics

Normative economics
It is an approach which involves the use of value judgements. It is concerned with subjective statements about what should or ought to happen. For example, one economist can support the idea of government prioritising to reduce the rate of inflation, while another will support the idea that it is more important to reduce unemployment.

**Positive economics**

It is an approach based on testable theories, in other words, it is concerned with objective statements about what will happen or does happen. For example the idea that reducing interest rates leads to a fall in aggregate demand.

**Means of allocating resources (The three basic economic decisions)**

Scarcity of resources means that choices must be made on how the limited resources can be allocated.

This leads to the three basic questions of resource allocation;

(a) **What goods and services will be produced?**

In a market economy this will depend on what consumers will want to buy, and what they will pay for each product or service. The decisions of what will be produced relate to demand and supply.

(b) **How will these goods and services be produced?**

The producers or suppliers of goods and services might be small companies, large companies, state owned enterprises or government itself. The choice about who will produce the goods and services will depend on the cost of resources and efficiency of resource utilisation.

(c) **To whom the goods and services will be distributed?**

Some goods and services are distributed for free by the government (state) e.g. health care and education, but others are paid for. The distribution of goods and services will depend on the distribution of income and wealth in society. Some people have the financial resources to enjoy great quantities of goods and services of the highest quality.

The way, in which resource allocation is based, value is measured and the forms of ownership of economic wealth will vary according to the type of economic system that exists in a society.

**1.6  ECONOMIC SYSTEMS**

**Types of economic systems**
There are four economic systems;
(a) Planned economy
(b) Free market system
(c) Traditional
(d) Mixed economy

The planned /command /controlled economy

This is an economic system in which the economy is entirely controlled by the state. The state owns land, housing, transport system etc. This was practiced in the former Soviet Union, China and most Eastern European countries. The theory on which this economic system is based was founded by Karl Marx.

The main features of this economic system include:
(a) The state decides on what goods and services should be produced in an economy.
(b) The government makes decisions on how the goods will be produced.
(c) The state controls the prices of goods services
(d) Nearly all capital decisions related to capital formation will be made by the state.

Advantages of a planned economy
(a) There is usually a fairer distribution of goods and services, since it is done by the state.
(b) Only desirable and harmless products will be produced in an economy.
(c) Prices of goods and services are usually fair and affordable to the masses.
(d) There is high production of social goods and services, e.g. school, hospitals etc
(e) There is no wastage of resources since there is no undue competition.
(f) Effective long term strategies can be formulated taking into account the needs of the whole society.

Disadvantages of the planned economy
(a) There are limitations on personal freedom and control over resource allocation.
(b) Due to the absence of competition, the quality of goods and services is poor.
(c) There are inefficiencies in production and distribution of goods and services due to bureaucratic tendencies of the government and lack of incentives.
(d) Companies are not free to produce goods and services they want and consumers are not free to buy goods according to their choices.

These countries experienced lower economic growth than countries which were practicing free market economy.

Free market economy
This is an economic system in which the market guides on what is produced, how it is produced, and for whom it is produced or how it is distributed. This theory is based on the idea of the invisible hand founded by Adam Smith.

This economic system has the following characteristics:
(a) Individuals and private firms control the economy by deciding goods and services that should be produced and how the goods will be produced.
(b) There are no price controls and therefore individuals can charge any price they feel / want.
(c) There is private ownership of property.
(d) The prices of goods and services are determined by the market forces of demand and supply which are ruling on the market.
(e) The allocation of goods and services is done by the market forces of demand and supply.

**Advantages of free market economic system**
(a) High production of goods and services due to the availability of incentives such as profits.
(b) There is production and consumption freedom, that is producers are free to produce what they want and consumers buy what they prefer.
(c) Efficiency in allocation of resources because such allocations are done by the market forces of demand and supply.
(d) Due to the availability of competition, the quality of goods and services is high.

**Disadvantages of the free market system**
(a) Some vital services cannot be provided by the private enterprise.
(b) Some undesirable and harmful products can be produced.
(c) There is inequitable distribution of goods and services (uneven distribution).
(d) Only rich people can afford to buy the best products on the market because they might be very expensive.
(e) There is low production of social services, such as roads, schools etc because the private sector will aim at maximising their profits.
(f) In a free market many resources can be wasted due to high failure rate of new businesses because a lot of money can be spent on setting up the new business.

**The mixed economy**
This is an economic system in which both the market and government guide on what is produced, how it is produced, and for whom it is produced or how it is distributed. As such, a mixed economy is blended by the state and the private enterprise.

The disadvantages of the free market system listed above indicate the need of government intervention in the workings of the economy.
In the private sector, individuals decide on what goods and services should be produced, how they should be produced and the allocation of goods and services is done by the forces of demand and supply.

In the public sector, the government controls on what goods and services should be produced and how the goods and services should be allocated.

Examples of mixed economies are USA, United Kingdom, Malawi, and Japan.

**Advantages of mixed economy**

(a) There is high production of goods and services because there are incentives such as profits, in the private sector than in a planned economy.
(b) Prices are usually affordable to the masses because they are set up by the government than in a free market economy where prices are determined by the market forces of demand and supply.
(c) Production reflects the wishes of consumers as goods and services being produced are the ones being demanded on the market as compared to a planned economy where the state decides on what should be produced.
(d) The system is flexible in the way that it responds to different conditions of demand and supply as compared to a command /planned economy.
(e) Resources can be allocated more equitably because the government will attempt to produce and distribute products in areas where there are inefficiencies than in a free market economy.

**Disadvantages of a mixed economy**

(a) Inefficient use of resources: because wages and cost of capital do not reflect demand and supply considerations in a planned economy than in a free market economy.
(b) There can be production of undesirable and harmful products like drugs (cocaine) as private firms choose on what to produce in a free market system than in a command economy where production is controlled by the state.
(c) Lack of incentives that usually result in low production of goods and services in a planned economy as compared to a free market system.
(d) Individuals do not have greater freedom to make their own demand and supply decisions because the government decides on what goods and services should be produced in an economy.

**Traditional / Indigenous economy**

This is an economic system in which behaviour is based on tradition, custom and habit.

In this economic system, young men follow their father’s paths; girls do what their mothers did.

Production follows traditional patterns, in that; what to produce, how to produce and who will produce are determined by traditions.
Resource allocation is based on long term established customs.

1.7  EXCHANGE AND SPECIALISATION

Exchange value

When resources are scarce, they have an exchange value or an economic value. The goods and services produced are exchanged for other goods and services. Originally exchange was by barter, but then money developed as a medium of exchange.

Barter trade

This is a type of trade that involves the exchange of goods for other goods.

Limitations of barter trade

- It is difficult to value the goods that a person needs to exchange with other goods.
- There is a need to have double coincidence of wants.
- There might be problems of divisibility.
- There are likely to be problems of transferability.
- Makes it difficult for international trade to occur.

Money as a medium of exchange

This involves use of money in order to exchange for goods.

1.8  SPECIALISATION AND DIVISION OF LABOUR

Specialisation

This occurs when an individual makes a single type of product or provides a single type of service. In other words it can be described as the concentration of resources in a narrow range of products as opposed to a broader range of products and services.

Division of labour

A type of specialisation is the division of labour. This involves splitting the production process into a number of different individual operations, making each operation the special task of one worker.

Specialisation can also be categorised as:

- **Individual specialisation**, this where an individual concentrates on a single type of work, e.g. carpentry.

- **Nations specialisation**, this occurs when different nations focus greatly on the production of goods and services efficiently in order to achieve economies of
scale. This kind of specialisation can arise from the availability of raw materials, availability of markets etc. e.g. tobacco in Malawi.

- **Geographical specialisation**, this takes place when resources are concentrated in a particular geographical location due to the availability of locally trained and skilled work force or because of ease in transportation goods and services to readily available markets.

**Advantages of specialisation**

- They increase efficiency in production and therefore can lead to greater output from the economy as a whole.
- Repetition of tasks leads to increased skill.
- Specialisation in production is often associated with mechanisation, which in turn leads to faster production.
- Households/nations have the freedom to select the work they like, as such they can choose the ones they like and therefore work more effectively and efficiently to increase output.

**Disadvantages of specialisation**

- Can lead to a decline in craftsmanship in the way that the worker uses machines as compared to one’s own talent.
- Can increase unemployment in an economy. This is mainly due to lack of comprehensive training to workers which would make them adaptable to changes in technology.
- There is a lot of inflexibility in the sense that workers cannot cover for their colleague’s field of specialisation.
- Leads to boredom because of carrying out an operation repetitively.
- Can lead to major hold-ups in production process, once a problem has occurred in one sector it will affect the whole system because of dependence on one another.

**Adverse impacts (limitations) to the division of labour**

- The extent of the market, e.g. in a post office situated in remote area, it would not be effective to assign each task to different people.
CHAPTER 2

DEMAND AND SUPPLY ANALYSIS

Learning objectives
By the end of this chapter, the student should be able to:

- Identify factors affecting demand.
- Outline factors that determine supply.
- Explain the market equilibrium.
- Describe utility and indifference curves.
- Describe elasticity’s of demand and supply.

2.0 DEMAND AND SUPPLY

2.1 The price mechanism

This involves the use of prices on the market based on demand and supply of goods and services.

2.2 What is a market?

A market is a situation where buyers and sellers exchange goods and services. It does not usually refer to a geographical location. It is the interaction of these buyers and sellers which determine the price of a product.

2.3 The theory of demand

2.3.1 Definition

- Demand for a good or service is that quantity which buyers are willing and able to buy at given price over a given period of time. In other words, it is a relationship between the price of a product and quantity demanded.

- Quantity demanded: it is the actual amount of goods and services which buyers are prepared to buy at a given price over a given period time.

2.3.2 The law of demand

The law of demand states that, other things being equal (ceteris paribus), the higher the price, the lower will be quantity demanded for a certain product. The lower the price of a product, the higher will be the quantity demand for that particular product.

2.3.3 Demand schedule and demand curve

- Demand schedule is a list of the quantity demanded at different prices, other things being equal (ceteris paribus). The demand schedule below shows the demand of Pizza at various prices.
The schedule is based on the assumptions that there is no change in any other demand influence except price.

### 2.3.4 Market demand curve:

This is a curve showing the relationship between price and quantity demanded.

#### 2.3.5 Why demand curve slopes downwards from left to right?

**i. Income and substitution effects**

When the price of a product changes, the real income of consumers change, hence the purchasing power of money rises when the price of a product falls and decreases when the price increases. When the price of a product falls the tendency will be for the consumers to buy more, ceteris paribus, because they afford to buy more. Existing buyers will likely increase their spending and new buyers, who did not purchase at the higher price, will tend to enter the market. This is called income effect.

A fall in the price of a product also makes it relatively cheaper when compared with competing products. There will be likely switching of purchases away from the now
relatively dearer substitutes towards the product which has fallen in price. This is called substitution effect.

ii. Diminishing marginal utility

Utility is the satisfaction that someone gains from the consumption of a good or service. The more a person buys a product or service, the greater the total utility he will obtain. However, total utility may not rise in line with quantity purchased. The additional utility gained from the last unit purchased is known as marginal utility. For most goods and services, marginal utility diminishes as consumption increases. For example the first cup of tea may provide someone with high level of satisfaction, a second cup might also be welcome but it is unlikely to yield as much utility (satisfaction) as the first, while a third cup will provide even lower level of satisfaction. This is known as diminishing marginal utility.

2.3.6 Factors that influence the market demand for a good.

(a) The price of the good
(b) The price of other goods (substitutes and complements)
(c) The size of the households income
(d) Tastes and fashion
(e) Expectations
(f) The distribution of income among households

(a) The price of the goods

In the case of most goods, the higher the price, the lower will be the quantity demanded. At a lower price, the higher will be the quantity demanded, other things being equal.

(b) The price of other goods and services

Substitute goods: there are goods that are alternatives to one another, so that an increase in the demand for one is likely to cause a decrease in the demand for another. Switching demand from one good to another rival good is substitution. Examples of substitute goods and services are:

- Rival brands of the same product, i.e. Coca-cola and Pepsi-cola
- Tea and coffee
- Bus rides and car rides
- Some forms of different entertainments

Substitution takes place when the price of one good rises or falls relative to a substitute good.
**Complements**: there are goods that tend to be bought and used together, so that an increase in the demand for one is likely to cause an increase in the demand for the other. Examples of complements are:

- Cups and saucers
- Bread and butter
- Motor cars and the components

If the price of a commodity is high compared to the price of other goods (substitutes) the demand for that good will be low. If the goods are close substitutes for another, the demand of the other commodity will be seriously affected by a reduction in the price of the competitor. On the other hand if the price of the commodity is high compared the demand for its complements will be low.

(c) **Household income**

Households basically desire different products and services; as such they have varying abilities to pay for them. However, a rise in households’ income will mean that more products and services will also be demanded. The effect of a rise in income on demand for an individual good will depend on the nature of the good. The relationship between demand and the level of income may be viewed as;

(a) A rise in household income may increase the demand for a good. Goods for which demand rises as household income increases are called Normal goods.
(b) Demand may rise with income up to a certain level but then fall as income rises beyond that point. Goods whose demand eventually falls as income rises are called Inferior goods.

(d) **Tastes and fashion**

A change in fashion will alter the demand for a product. For example, if it becomes fashionable for middle class households in Malawi to have Plasma television sets, then expenditure on such goods will increase.
(e) **Expectations**

If consumers believe that prices will rise or that shortages will occur they may attempt to stock up the product, thereby creating excess demand in the short term which increases prices. Rumours can also lead to panic buying, for example, fear of war or expected devaluation.

(f) **Distribution of income among households**

Market demand is also influenced by the way in which national income is shared among households. In a country with many rich and many poor households and few middle income ones, we might expect a relatively large demand for luxury cars and yachts.

2.3.7 **Changes in quantity demanded**

- Movement along the demand curve
If the price of a good goes up or down, given no changes in other factors that affect price, then there will be a change in the quantity demanded, depicted as **movement along the demand curve**. These changes would not require a new demand curve to be drawn.

The movement in the demand curve can illustrated as below:

![Demand Curve Diagram](image)

- **Shift of the demand curve**

When there is a change in other factors that affect demand (other than price), the relationship between quantity demanded and price will also change and this will result in a different price/quantity demand schedule and demand curve. This change is called shift of the demand curve (change in demand).

A change in demand implies **a movement of an entire demand curve** for a good. This would mean deriving a new demand schedule and demand curve. The diagram below shows a shift (change in demand).

The new demand curve will be as follows:
Types of shift of the demand curve

There are two types:
- Rightward shift
- Leftward shift

**Rightward shift:** This means that there is an increase in demand.

**Leftward shift:** This indicates a decrease in demand.

2.3.8 Causes of the shift of the demand curve

This shift could be caused by any of the following:

- A rise in household disposable income shifts the demand curve to the right.
- A rise in the prices of substitutes shifts the demand curve to the right.
- A fall in the prices of complements shifts the demand curve to the right.
- A change in tastes towards this product shifts the demand curve to the right.
- An expected rise in the price of a product shifts the demand curve to the right.
- Availability of credit shifts the demand curve to the right.

2.4 THE SUPPLY SCHEDULE

2.4.1 Supply

Refers to the quantity of a good that existing suppliers or would be suppliers would want to produce for the market at a given price over a given period of time.
The quantity of a good that can be supplied to a market can vary either because of existing suppliers have increased or reduced their output or they have stopped producing it and have left the market because of new entrants (suppliers) who are producing good products.

As with demand, supply can be analysed at the level of an individual seller (or firm) or at the market level (industry). Market supply is the sum of individual supplies.

2.4.2 The law of supply

The law of supply states that, in general, other things being equal, the higher the price of a good, the higher will be the quantity supplied. The lower the price of a commodity, the lower will be the quantity supplied, ceteris paribus.

2.4.3 Supply schedule

It is a table that shows how quantity supplied is related to the price. For example, the table below showing supplies for bananas at various prices in certain period.

<table>
<thead>
<tr>
<th>Price(K)/tonne</th>
<th>Quantity supplied (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000</td>
<td>50</td>
</tr>
<tr>
<td>25,000</td>
<td>45</td>
</tr>
<tr>
<td>20,000</td>
<td>30</td>
</tr>
<tr>
<td>15,000</td>
<td>20</td>
</tr>
<tr>
<td>10,000</td>
<td>15</td>
</tr>
</tbody>
</table>

2.4.4 The supply curve

It is a curve which shows the relationship between quantity supplied and price. A supply curve is constructed in the same manner as the demand curve (from a schedule of supply quantities at different prices) but shows the quantity suppliers are willing to produce at different price levels. It is an upward sloping curve from left to right, because greater quantities will be supplied at greater prices.

For example, that the supply schedule for product X is as follows:
2.4.5 DETERMINANTS OF SUPPLY

The quantity supplied of goods depends greatly on price and costs. More precisely, it depends on the following.

(a) The price obtainable for the goods.
(b) The prices of other goods. An increase in the prices of other goods would make the supply of a good whose price does not rise more unattractive to the suppliers. Goods in joint supply include beef and leather. If the price of beef rises more will be supplied and there will be an accompanying increase in the supply of leather.
(c) The number of producers. If more producers enter the market, there will be an increase in the market supply and the supply curve will shift to the right. Conversely, if producers leave the market then the market supply curve will shift to the left.
(d) The cost of making the good (input prices). If the cost of a factor of production, for example labour, falls, then more of the goods will be supplied at each price. The supply curve will shift to the right.
(e) Changes in technologies. Technological developments which reduce the costs of production (and an increase in productivity) will raise the quantity of supply a good at a given price.
(f) Other factors, such as changes in weather. I.e. in the case of agricultural goods, natural disasters or industrial disruptions.

2.4.6 Change of the market supply curve

- Movement along the supply curve
The supply curve shows how the quantity supplied changes in response to a change in the price provided that all other conditions affecting supply remain unchanged (ceteris paribus). Changes in quantity supplied represent **movements along a supply curve** caused by the change in the price only. The upward slope of the supply curve reflects the law of supply. As the price increases, the quantity supplied over a given period of time also increases.

A graph showing changes in quantity supplied.

- **Shifts of the market supply curve**

  The market supply curve is the sum of the supply of individual firms in the market. A change in any of the conditions of supply (the price of other goods, or costs of factors of production) therefore causes the supply curve to **shift to the right or left**.

  A favourable change in the conditions of supply shifts the supply curve to the right; this is called increase in supply and may be caused by:

  (a) A fall in the cost of factors of production
  (b) A fall in the price of other goods.

  A shift of the supply curve is the result of changes in costs, either in absolute terms or relative to the costs of other goods. The figure below shows an outward shift of the supply curve representing an increase in supply.
Unfavourable change in the conditions of supply shifts the supply curve to the left. This is called decrease in supply; and may be caused by rising costs of factors of production, bad weather etc. The decrease in supply shows an inward shift of the supply curve.

2.5 THE DETERMINATION OF THE MARKET EQUILIBRIUM

The price mechanism brings demand and supply into equilibrium and the equilibrium price for a good is the price at which the volume demanded by the consumers and the volume that firms will be willing to supply are the same.

The market price is determined by the demand and supply curve being brought together in a single graph and it will be a point where the two curves intersect.

This can be illustrated as shown below.
The forces of demand and supply push a market to its equilibrium price and quantity. However, the following **key points** should be noted.

(a) If there is no change in conditions of demand or supply, the equilibrium price will rule the market and will remain stable. (There is no tendency for change in price and quantity)
(b) If the equilibrium does not rule, the market is in disequilibrium, but demand and supply will push prices towards the equilibrium price.
(c) Shifts in the demand curve or supply curve will change the price and quantity.

**Disequilibrium**

This is when the volume demanded by the consumers is not equal to the volume supplied by the producers. This leads to the adjustment of the price from the equilibrium point. From the graph below, this can happen if the price is below or above the equilibrium price.

At \( P_2 \) there is excess quantity demanded than quantity supplied. Therefore there will be a tendency for the price to increase towards \( P_e \). At \( P_1 \) there is excess quantity supplied than quantity demanded, therefore there will be a tendency for the price to decrease towards \( P_e \).
2.6 CONSUMER AND PRODUCER SURPLUS

The marginal utility derived by different consumers from the consumption of a unit quantity of a good will vary. As a result, they may be able to buy the good at the prevailing market price lower than the price they were prepared to pay.

2.6.1 Consumer surplus

This is the difference between the price the consumer is willing to pay and the price the consumer actually pays.

2.6.2 Producer surplus

This is the difference between the price producers are willing to supply at and the price they actually receive.

These concepts can be illustrated below.

2.7 PRICE LEGISLATION

This is a law passed by government to regulate prices in a country with the aim of protecting both the consumer and producer.

Government might introduce regulations either:
(a) To set a maximum price for a good, as part of anti-inflationary economic policy such as prices and income policies. This is usually aimed at protecting the consumer.
(b) To set a minimum price of a good. This is aimed at protecting producers. For example in Malawi government sets minimum prices for crops.

2.7.1 Maximum prices

The government may try to prevent prices of goods from rising by establishing a price ceiling. This is done to benefit the consumers.

If the ceiling price is higher than the equilibrium price, setting a price ceiling will have no effect at all on the operation of the market forces.

If the maximum price $M$ is lower than what the equilibrium price would be, there will be an excess of demand over supply. As the price ceiling is below the equilibrium price $P$, producers will reduce the quantity of goods supplied to the market place from $Q$ to $A$. The quantity demanded will increase from $Q$ to $B$ because of the fall in price. The excess quantity demanded is $AB$.

To prevent unfair allocation of units $A$ of the goods that are available, the government can introduce rationing or a waiting list.

2.7.2 Minimum prices

This price legislation aims to ensure that suppliers earn a minimum for each unit they sell. Minimum prices are also referred to as floor prices.
If the minimum price is set below the market equilibrium there is no effect. But if it is set above the market price, it will cause an excess supply of AB; this has been a recurring problem in Europe, resulting in the so called ‘butter mountains’ and ‘wine lakes’.

In the diagram below, the minimum price M is set above the equilibrium price P. The quantity demanded falls from Q to A but the quantity increases to B. There is excess supply equal to the quantity AB.

2.7.3 Black market

This is an illegal market in which normal market price is higher than the legally imposed price ceiling. Black markets develop where there is excess demand (or shortage) for a commodity. Some consumers are prepared to pay higher prices in order to get the goods and services. When there is a shortage, higher prices act as a rationing device. For example tickets for major sporting events. But for quantity A they are prepared to pay price Z, which is well above the official price M. The black marketers step in to exploit the gap. The commodity may be sold at the official price M, but black marketers may sell at price.

When there is excess supply over demand, there is a danger that more goods will be produced than they can be sold at the minimum price. Therefore, surplus quantities will be sold at lower prices.

To prevent over supply and dumping of excess supply at low prices, a system of production quotas might be introduced. This is where each supplier is allowed to produce up to a maximum quantity and no more.

2.8 ELASTICITIES OF DEMAND AND SUPPLY

2.8.1 The concept of elasticity
This is a useful measure of the responsiveness of one variable (demand or supply) to changes in another variable (price of the good, income or the price of another good). There are four types of elasticity’s namely:

- The price elasticity of demand (Ed)
- The income elasticity of demand (Ey)
- The cross price elasticity of demand (Exy)
- The price elasticity of supply (Es)

### 2.8.2 The Price Elasticity of Demand (Own Price)

It is a measure of the responsiveness of demand to a change in its price. If the price of a product rises or falls by a certain percentage, the impact on quantity demanded will depend on the price elasticity of demand for the good.

Price elasticity of demand is measured as:

\[
\text{Ed} = \frac{\text{The percentage change in quantity demanded}}{\text{The percentage change in the price of the good}}
\]

Since demand usually goes up when the price falls, and goes down when the price rises, the elasticity has a negative value. However, it is usual to ignore the minus sign.

In this case, we are measuring the responsiveness of demand at a particular point in the demand curve, hence calculating the **point elasticity of demand** (the change will represent an infinite small change)

\[
\text{Ed} = \frac{Q_2 - Q_1}{P_2 - P_1} \times \frac{P_1}{Q_1}
\]

where

*For the purpose of measuring the responsiveness of demand to a significant change in price, we are effectively measuring elasticity between two points on the demand curve.*

The resulting measure is called arc elasticity of demand.

**Arc elasticity of demand** is calculated by getting the percentage change in quantity to average quantity for the relevant range of output and the percentage relative to the average of the corresponding price range. The formula for arc-elasticity of demand is given as follows:

\[
E = \frac{Q_2 - Q_1}{P_2 - P_1} \times \frac{P_1}{Q_1}
\]

*Elasticity demand can take any numeric value between zero and infinity, the higher its value, the more sensitive (elastic) — demand is to the changes in price.*
Demand is referred to as:

- Inelastic if the absolute value is less than 1.
- Elastic if the absolute value is greater than 1.

Where demand is inelastic, the quantity demanded falls by a smaller percentage than price, and where demand is elastic, demand falls by a large percentage than the percentage rise in price.

2.8.3 Price elasticity and the slope of the demand curve

The price elasticity at different points on a downward sloping straight line will normally vary.

The demand curve below illustrates the price elasticity at different points;

![Demand Curve Diagram]  

2.8.4 Special values of price elasticity

There are three special values of price elasticity and these are:

- **Perfectly inelastic**, Ed =0. There is no change in quantity demanded regardless of the change in price. The demand curve is a vertical straight line.
- **Perfectly elastic**, Ed= (infinitely elastic). Consumers will want to buy an infinite amount up to a particular price level. Any price increase above this level will reduce demand to zero. The demand curve is a horizontal straight line.

- **Unitary elasticity of demand**. Ed=1.
  The demand curve is a rectangular hyperbola i.e. quantity demanded changes by the same rate as change in price.

### Diagrams of elastic and inelastic demand (inset)

#### 2.8.5 The importance of price elasticity of demand

- It is relevant to total spending on a good or a service. Total expenditure is of great importance to both suppliers, to whom sales revenue accrues, and government, who may receive a proportion of total expenditure in the form of taxation.
- Helps in pricing goods and services by sellers.
- Helps in determining the quantities that consumers are willing and able to buy.
- Assists monopolists to determine which goods they can get most profit.

#### 2.8.6 Main determinants of price elasticity of demand
(a) **Time:** the longer the period of time consumers have had to respond to a significant change in prices, the more likely it is that they find alternatives. In other words, the price elasticity of demand is greater in the long run.

(b) **Competitors pricing:** if the response of competitors to an increase by one firm is to keep their prices unchanged, the firm raising its price is likely to face elastic demand for its goods at higher prices. If the response of competitors to a reduction in price by one firm is to match the price reduction themselves, the firm is likely to face inelastic demand.

(c) **The availability of close substitutes:** when close substitutes are available to the consumers (in competitive), then demand tend to be elastic i.e. responsive to changes in price. This is because consumers can easily switch away if the firm increases its price. When no alternative is available demand will be inelastic

(d) **Luxuries and necessities:** the demand for basic necessities will tend to be unresponsive to changes in prices; the demand for luxuries will be much more elastic.

(e) **Habit formation:** goods which are habit forming are usually price inelastic.

### 2.8.7 OTHER TYPES OF ELASTICITIES

This is a measure of responsiveness of demand for a good to changes in consumer’s income.

\[
\text{Income elasticity of demand} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in household income}}
\]

### 2.8.8 The income elasticity can take positive or negative values.

- A **good is income elastic** if income elasticity is greater than 1 so that quantity demanded rises by a larger percentage than the rise in income.
- A **good is income inelastic** if income elasticity is between 0 and 1, and the quantity demanded rises less than the proportionate increase in income.
- Perfectly **income inelastic**, this is when demand does not change. This has a coefficient of zero.

*Goods which are income elastic and income inelastic are said to be **normal goods** because the demand for them will rise when household income rises, and so they have positive income elasticity.
*If income elasticity is less than 0, income elasticity is negative and the commodity is said to be an **inferior good** since demand falls for it when income rises.

**Use of income elasticity of demand.**

- Allows firms to forecast the likely impact on sales of short term cyclical fluctuations in income across the business cycle, and to anticipate the consequences of long run economic growth and rising in living standards.

### 2.8.9 The cross price elasticity of demand
Cross price elasticity of demand refers to the responsiveness of demand for one good to a change in the price of another good.

Cross elasticity of demand = \( \frac{\% \text{ change in the quantity of good A demanded}}{\% \text{ change in the price of B}} \)

*Given no change in the price of A.

- If the two goods are substitutes, cross price elasticity will be greater than 0 and a fall in the price of one will reduce the amount demanded of the other.
- If the goods are complements, cross price elasticity will be negative and a fall in the price of one will raise demand for the other.
- Products which are unrelated have a zero cross elasticity of demand.

2.8.10 Price elasticity of supply

The price elasticity of supply measures the responsiveness of market supply to changes in product price.

Price elasticity of supply = \( \frac{\% \text{ change in quantity supplied}}{\% \text{ change in price}} \)

Values, terms and descriptions of price elasticity of supply

- **Perfectly elastic**: Es = infinity, this is where producers will supply any amount at a given price but none at a slightly lower price, elasticity of supply is infinite. The supply curve is horizontal straight line.

![Supply Curve](https://via.placeholder.com/150)

- **Unit elasticity**: Es = 1, this prevails when supply varies proportionately with price. The supply curve is a straight line passing through the origin.
- **Perfectly inelastic**: $E_s=0$, this is when a change in price causes no change in the quantity supplied. The supply curve is a vertical straight line.

- **Elastic supply**: this prevails when a small change in price causes a greater change in the quantity supplied. In this case the elasticity of supply is greater than 1.

- **Inelastic supply**: supply changes by a smaller percentage than price. In this case the price elasticity of supply is greater than 0 but less than 1.

### 2.8.11 Determinants of price elasticity of supply.

- Excess/spare capacity: if there is spare capacity suppliers will be able to respond quickly to an increase in price and therefore supply will be elastic. If producers are operating at or near full capacity, supply will be elastic, at least until capacity can be varied.
- The number of suppliers: the more suppliers there are in the market, the more elastic market supply will be.
- The time it takes to increase capacity: in certain industries, expansion takes a long time. Once such industries are operating at full capacity, therefore supply will be inelastic.
- The availability to store the product: supply will be elastic if the product can be stored. If prices rise the quantity offered for sale can be increased quickly and easily drawing on stocks.

### 2.9 MARKET FAILURE, EXTERNALITIES AND GOVERNMENT INTERVENTION
2.9.1 Market failure;

Refers to a situation in which the free market mechanism will fail to produce a satisfactory allocation of resources in an economy.

Thus, market failure prevents the price mechanism to fail from attaining economic efficiency and individual freedom, as well as other social goals.

In other words, it is a situation in which an unstrained market economy leads to too few or too many resources going to a specific economic activity.

2.9.2 Causes of market failure

Some of the causes of market failure include:

- Missing markets, markets fail to produce pure public goods such as national defence, which have to be consumed collectively rather than individually.
- The need to consider non market goals, such as social justice.
- Imperfections in the market. This might be due to existence of a monopoly; a monopoly is a single seller of a commodity in an economy. This monopoly firm might prevent other firms from entering the market and will keep prices higher than they would do in a competitive market.
- Buyers lacking accurate information about goods and markets in which they can get them.
- Existence of a monopsony buyer, this is where there is only one buyer of a commodity in the market. Monopsony buyers can exert control over the market demanding lower prices or other favourable conditions from suppliers.
- Divergence between private costs and social costs (externalities).

2.9.3 Social costs and private costs

- **Social costs**: this is the total cost to the society as a whole of the resources that a firm uses.

- **Private costs**: this is the cost to the firm of the resources it uses to produce goods.

2.9.4 Social benefits and private benefits

- **Social benefits**: this is the total benefit obtained both directly by a supplier or a consumer and indirectly (at no extra cost), to other suppliers or consumers.

- **Private benefit**: measures the benefit obtained directly by a supplier or a consumer.

2.9.5 Externalities
**Externalities** occur when the actions of producers or consumers affect people other than themselves thereby causing the market not leading to social efficiency.

Thus externalities are side effects, or ‘third party effects’ or spill over of production and consumption for which no compensation is paid.

Externalities can also be defined as a cost or benefit, which the market mechanism fails to take into account because the market responds to purely private signals.

Externalities can be either desirable or undesirable. Whenever other people are affected beneficially, they are known as **external benefits**. Whenever other people are affected adversely, they are known as **external costs**.

Externalities can be calculated as the difference between private costs and social cost, or benefits arising from an economic activity.

**Concepts that help to illustrate the condition for allocative efficiency**

**Marginal social cost / marginal social benefit**
This is the additional cost / benefit to the society.

**Marginal private cost / marginal private benefit**
This is the additional cost / benefit to an economic agent.

In a free market (under perfect competition), price = marginal cost.
The condition for allocative efficiency is where price = marginal social cost

\[ P = MSC \]

Thus MSC will be equal to marginal private costs + marginal external costs
This implies that the equilibrium output in perfect competition \( Q \) will be greater than the level for allocative efficiency \( Q^* \), because the price is not high enough to reflect the marginal social cost of the product.

This can be illustrated as below.

\[ 0 \] P = MSC
\[ Q^* \] P = MPC
\[ Q \] D
2.9.6 Public goods

These are much narrower category of goods that the market would fail to provide. These are goods whose benefits are individually spread among the entire community, whether or not particular individuals desire to consume the public good. It can serve a small or a large number of people at exactly the same cost.

Public goods are characterised by:

- Non excludability, a person can benefit from the good without necessarily paying for it, to exclude free riders is impossible.
- Non rivalry, an individual’s consumption of a public good does not reduce its benefits to others.

Quasi public goods; these are goods which the market can provide but for other reasons they do not provide.

These are goods and services now being provided by the state, at a zero price and financed out of general taxation e.g. roads, street lights etc.

2.9.7 Merit good

These goods are either publicly provided or subsidised, they are goods, which it is generally believed, should be made widely available because of the social benefits that it provides. They are goods which government feels that people would otherwise under consume. For example education, health care etc.

2.9.8 Demerit goods

These are goods or services for which the social costs for consumption exceed the private costs. In other words, these are goods which are considered harmful for human consumption. For example tobacco, alcohol etc.

2.9.9 Private goods

These are goods whose benefits are restricted to a particular consumer. They are characterised by rivalry and excludability. Consumers will have to actually pay to consume them. For example a loaf of bread.

2.9.10 Government intervention

This is a situation in which the government tries to rectify market failures. The government can intervene in the following ways:

- Introduction of indirect taxes and subsidies.
- Legal controls.
- Government provisions in missing or in adequate markets.
• Minimum and maximum price controls.
• Controlling means of production.
• Competition policy to regulate monopolies
• nationalisation

2.9.10.1 Introduction of indirect taxes and subsidies

These taxes are used to discourage the productions of a good that the market over produces.

If an indirect tax is imposed on a single good, the effect of the indirect tax will shift the supply curve upwards and leftwards because the price to consumers includes the tax.

The purpose of this tax is to charge the producer with the value of the negative externalities the production of his good creates.

The diagram below shows the effect of this indirect tax

![Diagram showing the effect of an indirect tax]

Examples of the use of taxes used to correct market failure

• Demerit goods such as cigarettes.
• Leaded petrol had a higher tax imposed than unleaded, because of the extra environmental damage.

2.9.10.2 Subsidies

A subsidy is a payment to the supplier of a good by the government to encourage their production and consumption.
It is relevant policy for merit goods and goods with positive externalities such as education.
The figure below shows the effect of granting a subsidy.

A subsidy is rather like indirect taxation in reverse. In the figure

(a) Supply curve $S_0$ is what the supply curve would be if no subsidy existed

(b) Supply curve $S_1$, to the right of $S_0$ is the supply curve making allowance for the subsidy.

For example, if output is $Q_0$, the price to consumers is $P_1$, but the price to the suppliers is $P_0$, because suppliers receive an additional subsidy $AB$ or $(P_0 - P_1)$ on top of the market price paid by consumers.

If there was no subsidy, the free market equilibrium price would be $P_0$, and output $Q_0$. A subsidy per unit equivalent to $AB$ is introduced so that suppliers would now be willing to produce $Q_0$ at a lower price ($P_1$ rather than at $P_0$). In other words, the supply curve shifts from $S_0$ to $S_1$. But there will be a shift in the equilibrium quantity produced to $Q_2$, which can be sold on the market for $P_2$.

Thus the effect of the subsidy will be;

(a) To increase the amount supplied in equilibrium, and
(b) To decrease the price, but the decrease in price will be less than the value of the subsidy itself.

**Advantages of subsidies**

- Subsidising initial production can help to achieve economies of scale.
- Can be used to increase the income of poorer households by redistributing income.

**2.9.10.3 Legal controls**

These may be in the form of regulations such as compulsory and self regulation.
Compulsory regulation, this is where the state interferes in the operations of the free market. For instance, banning traffic from city centres to reduce the effect of externalities such as pollution and noise.

Self regulation, this is where enterprises or firms try to prevent the imposition of regulations by government by acting in amicable manner.

2.9.10.4 Deregulation/Liberization

This involves the removal of regulation or weakening of any form of statutory regulation of free market activity. It is also called liberization.

Deregulation helps to achieve efficiency hence promoting social welfare of the society.

Advantages of liberization

- There is an improvement in allocation of goods and services, this can be reflected by competition that keeps prices closer to marginal cost and firms produce closer to the socially optimum level.
- Due to competition, there are improved incentives for internal/ cost efficiency.

Drawbacks of liberization

- Can lead to diseconomies of scale, as competition increases each firm will be producing less output on a smaller scale, as a result unit costs will be higher.
- There is lower quality or quantity of goods and services; this might be due to the need to reduce costs leading to elimination of unprofitable but socially valuable services.
- It is difficult to control competition when there is a dominant firm in the industry.

2.9.10.5 Government provision in missing markets

The free market economy fails to provide some vital services like national defence, health care, education as such government intervenes by providing such services.

Minimum and maximum price controls.

Maximum price controls can be introduced to protect consumers from being exploited by monopolistic producers to ensure that households who earn lower incomes can still afford to buy basic necessities.

Minimum price controls can also be introduced to enable producers to get a minimum price for each unit of produce.

Controlling means of production can be through state ownership of firms and enterprises
2.9.10.6 Privatisation

It is the transfer of assets from public ownership into private hands.

(a) Methods of privatisation

i. Selling publicly owned assets such as companies.
ii. Sale of local authority property to private citizens e.g. houses.
iii. Contracting out certain services such as refuse collection, catering services or cleaning hospitals.

(b) Economic arguments for privatisation

- The sale of stated owned assets generates a lot of revenue for the government.
- Increased efficiency, private sector may be more efficient than state owned firms as private firms have a profit motive.
- Accountability, private firms are more accountable to shareholders than in stated owned firms.
- There is increased competition in private sector as firms will aim to get a larger market share to increase their revenue.

(c) Drawbacks of privatisation

- Private firms always aim at maximising their revenue as such social costs are not taken into account when making their decisions.
- Long term loss of revenue, revenue can be raised in the short term but future profits can also be eroded away.
- Control over the private sector would be more difficult.
- Private firms may face diseconomies of scale as at times it is only monopoly firms that can experience economies of scale.
CHAPTER 3

THEORY OF THE HOUSEHOLD

Learning objectives
By the end of this chapter, the student should be able to:
- Explain the marginal utility theory (the cardinalist approach)
- Outline factors that determining utility
- Describe the indifference curves
- Explain the budget line
- Describe the income and substitution effect

3.1 THE UTILITY THEORY (THE CARDINALIST AND ORDINALIST APPROACH)

- **Utility** refers to the satisfaction that a person gets from the consumption of goods.
- **Total utility** is the total (sum of satisfaction) satisfaction that a person gets from spending his income and consuming of goods.
- **Marginal utility** is the extra satisfaction gained from consuming one additional unit of a good; that is for example, an individual eats three bananas and then eats a fourth banana, total utility will refer to the satisfaction he obtains from eating all the four bananas, while marginal utility refers to the additional satisfaction from eating the fourth banana, having already eaten three.

A numerical example: suppose that a person scores the following points as satisfaction derived from his holiday stay at Blue bubbles holiday resort.

Required: calculate the marginal utility from each day of the holiday.

<table>
<thead>
<tr>
<th>Day</th>
<th>Total Utility</th>
<th>Marginal utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>45</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>64</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>72</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>78</td>
<td>6</td>
</tr>
</tbody>
</table>

3.1.1 Assumptions about rationality

The following general assumptions are made to understand the behaviour of consumers.
- The consumer prefers more goods to less.
- Generally the consumer is willing to substitute one good for another provided its price is right.
• Choices are transitive. This means that if at a given time a commodity A is preferred to B and B is preferred to commodity C, then a conclusion can be made that commodity A is preferred to commodity C.

3.1.2 Diminishing marginal utility

As a person consumes more of a commodity, the total utility he gains will continue to rise, but the marginal utility derived from increasing consumption will fall with each additional unit. This can be illustrated using the above example.

<table>
<thead>
<tr>
<th>Index of utility</th>
<th>Index of utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total utility</td>
<td>Marginal utility</td>
</tr>
<tr>
<td>Quantity consumed</td>
<td>Quantity consumed</td>
</tr>
</tbody>
</table>

3.1.3 The law of marginal utility

This law states that, all other things being equal, the satisfaction derived from the consumption of additional units of a commodity will diminish with each successive unit consumed. Total utility will continue to increase with each successive unit consumed, but at a decreasing rate.

3.2 Indifference curve

It is a curve showing a combination of two goods to which an economic agent is indifferent. In this case, a person has no preference between:

• Wanting to buy a given amount of two commodities, say three bananas and four oranges.
• Wanting to buy another combination of the same commodities, say six bananas and two oranges.

Then a person is said to be indifferent between the two alternative combinations. In principle, a rational consumer will make choices between the two goods to reach the highest indifference curve feasible given the choices available.

3.2.1 Characteristics of an indifference curve.

• They are convex to the origin, in that they bend inwards towards the origin.
- implying that as the consumer obtains less of one good he needs increasingly large quantities of the other good to compensate for the loss and to maintain the same level of utility.
- Indifference curves do not cross each other.

Given a schedule of a single consumer representing the quantities of two commodities,

<table>
<thead>
<tr>
<th>Good X</th>
<th>Good Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

Required: plot a diagram representing the combination of the two goods.

3.2.2 Indifference map

It is a series of indifference curves, representing different levels of satisfaction or total utility drawn and placed next to each other.
3.2.3 Budget line

This is a line that represents all combinations of two goods that a consumer can purchase with fixed income given the price of each good.

At point A, the consumer is spending all his income on good 1. At point B, the consumer is spending all his income on good 2. Points D and G show combinations of good 1 and good 2 of quantities (C and E) and (F and K) respectively. Point K represents a combination that can be afforded but the consumer is utilizing all his income. Point J represents a combination which a consumer cannot afford.

3.2.4 Income and substitution effect

(a) An income effect results from a change in income. If, for example, income increases, then the consumer can afford more of each commodity if the market prices remain constant. The budget line in this case undergoes a parallel outward shift. This enables the consumer to attain a higher indifference curve.
(b) Substitution effect: If prices change but the consumers money income also changes in such a way as to leave their total utility unchanged, the quantities of the goods consumed will still change, because the consumers will buy more of the good whose relative price has fallen and less of the good whose relative price has risen. This is known as substitution effect. The substitution of one commodity for another – i.e. the shift in the relative amount of each consumed is illustrated by the movement along the indifference curve.

3.2.5 Consumer equilibrium, marginal utilities and relative prices

A consumer will maximise his total utility, with a given level of income and tastes, at a level of consumption where the marginal utility from the last penny spent is the same for each commodity bought.

The law of diminishing marginal utility implies that when this condition has been achieved, a person cannot increase total utility, because by switching expenditure from one commodity to another, the marginal utility gained from the new purchases will be less than the marginal utility lost by forgoing the other purchases that he can no longer afford.

This proposition can be developed into an algebraic formula.
In which a household buys two commodities, X and Y.
Let the marginal utility of unit X be $MU_x$
Let the marginal utility of unit Y be $MU_y$
Let the price per unit of X be \( P_X \) and let the price per unit of Y be \( P_Y \). Therefore the utility-maximising equilibrium can be derived as follows:

\[
\frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}
\]

### 3.2.6 Marginal rate of substitution

An indifference curve shows how much extra of one commodity a household would need to compensate for the loss, given a quantity of another product.

An indifference curve therefore, shows the rate of substitution between two products, and the slope of the indifference at any point represents the marginal rate of substitution (MRS) between the two products at that point. The marginal rate of substitution is represented by the ratio of the marginal utilities.

\[
MRS_{xy} = \frac{MU_X}{MU_Y}
\]

If the goods are perfect substitutes (the goods can be used interchangeably), then the indifference curves will be parallel lines since the consumer will be willing to trade at a fixed ratio. The marginal rate of substitution is constant.

There is a marginal loss of utility from not purchasing some of Y and an equal marginal gain in the utility from the extra X that would have been purchased in substitution.
CHAPTER 4
THEORY OF THE FIRM

Learning objectives

By the end of this chapter, the student should be able to:

- Distinguish between the short run period and long run period.
- Explain the behaviour of costs both in short run and long run.
- Understand the economists and accountants view of profit.
- Describe the law diminishing marginal returns and short run cost curves.
- Explain the firms output decisions.
- Identify and explain the main sources of economies and diseconomies of scale.
- Analyse the process of competition in different market structures (perfect competition, monopoly, monopolistic competition and oligopoly).
- Explain what a contestable market is.
- Describe how firms can experience growth.

FORMS OF BUSINESS ORGANISATION (OMITTED)

4.2 COSTS OF PRODUCTION

These are costs which are incurred in producing goods and services. Production is carried out by firms using the factors of production which must be paid or rewarded for their use.

The cost of production is the cost of the factors used.

<table>
<thead>
<tr>
<th>Factor of production</th>
<th>its cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>rent</td>
</tr>
<tr>
<td>Labour</td>
<td>wages</td>
</tr>
<tr>
<td>Capital</td>
<td>interest</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>normal profit</td>
</tr>
</tbody>
</table>

Behaviour of costs

The relationship between changes in output and in costs depends on the period of time over which a firm can adjust to the variations of output.

4.3 THE CONCEPT OF SHORT RUN AND LONG RUN PERIOD.

Short run period
It is a time period over which at least one factor of production is fixed in supply (cannot be varied). For example, a farmer may be stuck with a fixed area of land.

**Long run period**

It is a time period in which all factors of production can be varied. For example a farmer can buy more land, or dispose some of his existing land in the long run.

### 4.4 SHORT RUN AND LONG RUN COSTS

**Short run costs**

These are costs of output during a time period in which at least one factor of production is fixed in supply and some of the factors are variable.

**Long run costs**

These are cost of output during a time period in which all resources of production are variable as well as in quantity.

### FIXED AND VARIABLE COSTS

**Fixed costs**

These are costs which do not change as output changes, they remain fixed.

In the short run, certain costs are fixed because the availability of resources is restricted. Hence decisions should be taken for the short run within the restriction of having some resources in fixed supply.

**Variable costs**

These are costs which change as output changes. For example labour, raw materials.

In the longer run, however, most costs are variable because the supply of skilled labour, machinery can be increased or decreased. Decisions in the long run are subject to fewer restrictions about resource availability.

**Variable costs in the short run**

Inputs which are variable in the short run include labour and raw materials. These are variable at the decision of management. For example management might decide to buy more raw materials or hire more labour, start overtime working.

**Fixed costs in the short run**

Inputs which are fixed in the short run include capital items such as machinery and buildings, for which significant lead time might be needed before their quantities are increased. Lead time refers to the time it takes to increase the quantity of the resources like land.

**The short run costs components**

- **Total costs (TC)**
  
  This is the total cost of resources used in production. It is the sum of variable and fixed costs.

  \[
  \text{Total cost} = \text{fixed cost} + \text{variable cost}
  \]
Average cost (AC)
This is a per unit of output (total cost dividing total number of quantities produced).

They are also called the short run cost average cost. Average cost changes as output increases. It starts by falling, reaches a lowest level and then starts rising again.

\[ AC = \frac{TC}{Q} = \frac{TFC}{Q} + \frac{TVC}{Q} \]

\[ \frac{TFC}{Q} \] is the average fixed cost and \[ \frac{TVC}{Q} \] is the average variable cost.

Marginal cost
this is the extra cost of producing one more unit of output. For example the marginal cost for a firm of producing the 20\textsuperscript{th} unit of output is the cost of making the 20\textsuperscript{th} unit having already made the previous 19 units. It is the difference between the cost of making 20 units and the cost of making 19 units. The marginal cost curve always cuts through the average cost curve at the lowest point of the average cost curve.

The components of a short run cost shown in a graph.

Numerical example, suppose that a firm employs a given amount of capital which is fixed input in the short run, in other words, it is not possible to obtain the extra amounts of capital quickly.
This firm can combine with this capital, different amounts of labour, which we assume to be an input which is variable in short term. That is fixed capital can be combined to produce a different output. Here is an illustration of the relationship between the different definitions of the firms’ costs. The figures are hypothetical.

<table>
<thead>
<tr>
<th>Units of Output</th>
<th>Total cost (TC)</th>
<th>Average cost (AC)</th>
<th>Marginal cost (MC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>1</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
</tr>
<tr>
<td>2</td>
<td>1.60</td>
<td>0.8</td>
<td>0.5 (1.60 - 1.10)</td>
</tr>
<tr>
<td>3</td>
<td>1.75</td>
<td>0.58</td>
<td>0.15 (1.75 - 1.60)</td>
</tr>
<tr>
<td>4</td>
<td>2.00</td>
<td>0.50</td>
<td>0.25 (2.00 - 1.75)</td>
</tr>
<tr>
<td>5</td>
<td>2.50</td>
<td>0.50</td>
<td>0.50 (2.50 - 2.00)</td>
</tr>
<tr>
<td>6</td>
<td>3.12</td>
<td>0.52</td>
<td>0.62 (3.12 - 2.50)</td>
</tr>
<tr>
<td>7</td>
<td>3.99</td>
<td>0.57</td>
<td>0.87 (3.99 - 3.12)</td>
</tr>
<tr>
<td>8</td>
<td>5.12</td>
<td>0.64</td>
<td>1.13 (5.12 - 3.99)</td>
</tr>
<tr>
<td>9</td>
<td>6.30</td>
<td>0.70</td>
<td>1.18 (6.30 - 5.12)</td>
</tr>
<tr>
<td>10</td>
<td>8.00</td>
<td>0.80</td>
<td>1.70 (8.00 - 6.30)</td>
</tr>
</tbody>
</table>

- **Total cost** is the sum of labour cost plus capital costs, since these are by assumption the only two inputs.
- **Average cost** is the cost per unit of output
- **Marginal cost** is the total cost of producing Q units minus the total cost of producing one less unit.

**The relationship between average costs and marginal costs**

- When the average cost schedule is rising, the marginal cost curve will always be greater than the average cost schedule. This makes sense. If the marginal cost of producing one extra unit exceeds the average cost of making all the previous units, then making an extra unit will clearly cause an increase in the average cost. In our example, the average cost schedule rises from six units of output onwards and MC is bigger than AC at all these levels of output (6-10 units).
- When the average cost curve is falling, marginal cost lies below it. This follows similar logic. If the MC of producing an extra unit is less than the average cost of making all the previous units, the effect of making an extra unit must be a reduction in average unit cost. In our example, this happens between production of units one and four.
- When the average cost curve is horizontal, marginal cost is equal to it. In our example, when there are five units of output, the average cost curve stays at $0.50 and the MC of the fifth unit is also $0.50.

**ECONOMISTS AND ACCOUNTANTS CONCEPTS OF PROFIT AND COSTS**

Economists and accountants hold different views on costs and profit.
**Economists** hold the view that cost includes include an element of normal profit.

- **Normal profit** is the opportunity cost of entrepreneurship, because it is the amount of profit that an entrepreneur could earn elsewhere and so it is the profit he must earn to persuade him to keep on with his investment.
- A further feature of economists is that costs in the short run are fixed and variable or marginal costs, but the marginal cost of making each extra unit of output need not to be the same for each unit that is made. In short, the marginal cost per unit is not a standard value for each unit produced.
- Thus **economic profit** = sales revenue minus both explicit costs and implicit costs.

**Explicit costs** are those costs that have actually been paid and are clearly recorded. For example; material costs, labour costs, depreciation etc.

**Implicit costs** are benefits forgone by not using the factors of production in their next profitable way. Example of implicit cost is the opportunity

**Accountants** hold the view that costs can be divided into fixed costs and variable or marginal costs. Total fixed costs per period are a given amount, regardless of the volume of production and sales. The variable cost per unit is a constant amount; in short it is a standard for every unit produced, so that he total variable cost of sales is directly proportional to the volume of sales. Thus accountants profit = sales revenue less explicit costs.

**Common view point**

It is a well established principle in accounting, as well as economics, that relevant costs for decision making purposes are future costs as a consequence of the decision. Past or sunk costs are not relevant for decision making because they cannot be changed as they have already been incurred. Relevant costs are the opportunity costs of the input resources to be used.

Numerical example:

**Why the short run average cost (AC) curve is U-shaped**

- Combining fixed and variable costs give us the normal U shaped short run average cost curve.
- The division of labour and specialisation.
  - At a very low level of production, the firm cannot take the advantage of the benefits provided by the division of labour. If there are only two workers producing one car a day, the car will be much more costly to produce than the faster and more efficient process where fifty workers produce a hundred cars a day, with workers carrying out specialised tasks.

- Indivisibilities. Most workers work less efficiently at too low an output level because they cannot be divided into smaller units. For example, if one manager deals with the production of a hundred cars, the production of fifty cars still require one manager, he cannot be split into half. Operation of a plant below normal capacity is uneconomical, so there are costs savings as production is increased up to capacity level.
4.5 THE LAW OF DIMINISHING RETURNS

The law of diminishing returns also explains why a short run average cost curve begins to rise at a certain level, and the average cost per unit gets higher as more unit of output is produced.

The law of diminishing returns states that, as successive units of a variable factor of production are applied to a set of fixed factors in a production process in the short run, the resulting increments to total production will eventually and progressively decline. In other words, as more units of a variable factor are added to a quantity of fixed factors, there may be increasing or constant returns as more units of a variable but diminishing returns will eventually set in.

It also called the law of varying proportions.

A graph illustrating the concept of diminishing returns

Cost (K)

Below Z: improving returns

Above Z: diminishing returns

AC short run average cost curve

Output

The law of diminishing returns is expressed in production quantities; as such the following assumptions are made:

- Labour is the only variable factor.
- All units of variable factor are equally efficient.
- There is a fixed size of land.

Diminishing returns can also be explained by the marginal productivity of extra quantities of a variable factor of production.

Total productivity is the total output measured by the quantity rather than value that is produced by a given quantity of (fixed plus variable) production.

Average product can be calculated by dividing total product with the quantity of variable factor units employed.

Marginal product is the extra product created by one extra unit of a variable factor of production.
Numerical example:
Recast A

<table>
<thead>
<tr>
<th>Labour Units</th>
<th>Output (tonnes)</th>
<th>Marginal product (MP)</th>
<th>Average product (AP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>24</td>
<td>4</td>
<td>-1</td>
</tr>
</tbody>
</table>

Beyond the second worker in this example, the marginal productivity of each additional worker is falling. Output is rising at a diminishing rate, and indeed stops rising once five workers are hired.

While marginal product is above average product, average product is rising: once marginal product has fallen below average product (beyond three workers), average product starts falling. Where MP = AP (at three workers hired) average product is maximised.

The relationship between average and marginal product curves is illustrated below;

### 4.5 THE FIRMS OUTPUT DECISIONS

**Pricing behaviour**
A firm's pricing and output decisions depend on
- Its objectives.
- Its environment: that is the degree of competition facing the firm, the nature of its product market and regulatory constraints.
The objective of profit maximisation
The conventional theory assumes that firms aim to maximise current profits. Other objectives include
- Sales revenue maximisation.
- Growth maximisation.

The graph below illustrates the concept of profit maximisation.

![Graph showing profit maximisation with TR and TC curves]

Profits can be defined as total revenue minus total costs at any level of output. Profits are at maximum where the vertical distance AB between the total revenue (TR) and the total cost (TC) curves in the figure is greatest.

**PROFIT**

Profit is the excess of total revenue minus total costs at any level of output.

**Distinction between profit and interest**

**Similarity**
Both profit and interest are payments to providers of capital.

**Difference**
If funds for investment are supplied by creditors of the company in the form of loans, the returns on capital are called interest.
When the money is provided by shareholders, who by purchasing shares become owners of the business, the returns to capital are described as profit.

**Functions of profit**
- It provides a reward for bearing the uncertainty associated with running a business.
It stimulates innovation. The introduction of a new product a new method production or an attempt to enter a new market. Therefore, profit provides an incentive for entrepreneurs to take these risks.

It creates a source of funds for investments and expansion. Retained profits provide an important source of finance.

It indicates the need for expansion or the need to reduce size. A firm may expand where supernormal profits are made and reduce in size when it makes losses.

Revenue function
This a payment a firm receives for selling a good or a service or the amount government raises from taxation.

Forms of revenue
These are
- Total revenue.
- Average revenue.
- Marginal revenue.

**Total revenue:** it is the total income from selling a given quantity of output.

\[ TR = \text{Quantity sold multiplied by selling price per unit.} \]

**Average revenue (AR):** is the price per unit sold

\[ \frac{\text{Total revenue}}{\text{Units sold}} \]

**Marginal revenue (MR):** is the additional to the total revenue earned from the sale of one extra unit of output.

**Average and Marginal revenue curves**
When a firm can sell all its extra output at the same price, the AR curve will be a straight line on graph, horizontal to the axis. The marginal revenue per unit from extra units at a fixed must be the same as the average price.

If the price, per unit must be lowered to sell more units, then the marginal revenue per unit obtained from selling the extra units will be less than the previous price per unit. In other words, when the AR is falling as more units are sold, the MR must be less than the AR.
Note that, in the above figure, all units are sold at the same price. The firm has to reduce its price to sell more, but the price must be reduced for all units, not just for the extra units. This is because we are assuming that all output is produced for a single market, where a single price will prevail.

When the price per unit has to be reduced in order to increase the firm’s sales, the marginal revenue can become negative. This happens in the above figure at price $P_n$ when a reduction in price does not increase output sufficiently to earn the same total revenue as before. In this situation, the demand would be price inelastic.

- Another point to note is that total revenue is maximised when marginal revenue is equal to zero.

### 4.6 PROFIT MAXIMISATION

As a firm produces and sells more units, its total cost will increase and its total revenue will also increase. (Unless demand is price inelastic and the firm faces a downward sloping AR curve).

- Provided that the extra cost of making an unit is less than the extra revenue obtained from selling it, the firm will increase its profits by making and selling the extra unit.
- If the extra cost of making an extra unit of output exceeds the extra revenue obtainable from selling it, the firms’ profits would be reduced by making and selling the extra unit.
- If the extra cost of making an extra unit of output is exactly equal to the extra revenue obtainable from selling it, bearing in mind that economic cost includes an amount of normal profit, it will be worth the firm’s while to make and sell the extra unit.

And since the extra cost of yet another unit would be higher (the law of diminishing returns applies) where as extra revenue per unit from selling the extra unit is never higher, the profit maximising output is reached at the point where $MC = MR$.

### 4.7 ECONOMIES OF SCALE AND LONG RUN COSTS

In the long run, all factors of production are in variable supply, so that the law of diminishing returns no longer applies. In other words the law of diminishing returns only applies to short run costs and not long run costs.

The impact of diminishing returns on costs and profits in the short run encourages the firm to change the scale of its operations in the long run.
Long run output decisions are concerned with economies of scale when all factor inputs are variable.

Output will vary with variations in inputs, such as labour and capital.

- If output increases in the same proportional as inputs (for example doubling all inputs doubles output) there are constant returns to scale.
- If output increases more than in proportion to input (for example doubling all inputs trebles output) there are economies of scale and in the long run the average costs of production will continue to fall as output volume rises.
- If output increases less than in proportion to inputs (for example trebling all inputs only doubles output) there are diseconomies of scale and in the long run average costs of production will rise as output volume rises.

4.8 RELATIONSHIP BETWEEN RETURNS TO SCALE AND ECONOMIES OF SCALE

Returns to scale relate to a change in output due to a change in the quantity of factors of production employed. Returns to scale, for example, are concerned with improvements or declines in productivity by increasing the scale of production, for example by mass producing instead of producing in small batches.

Economies of scale (increasing returns to scale) relate to the advantages of producing on a large scale because of lower average costs.

Decreasing returns to scale these are associated with diseconomies of scale because average costs of production rises as output increases more slowly than the change in the scale of production.

Constant returns to scale they are characterised by constant long run average costs and marginal costs per unit. That is constant returns will result in constant costs (remains unchanged).

Returns to scale contribute to economies of scale in the form of technical economies. Returns to scale measures output, economies of scale measures costs.

ECONOMIES OF SCALE

These are cost advantages that a firm obtains when they increase in size. In other words, these cost advantages express themselves through reduced long run average costs of producing larger volumes of output.

Economies of scale may be categorised in two main groups: internal economies and external economies of scale.

INTERNAL ECONOMIES OF SCALE

These are economies arising within the firm from the organisation of production.

The main sources of internal economies are:
- **Technical economies**: arise from increased specialisation and from mechanisation, automation and computerisation. Of particular interest is the more economic combination of factors that large scale operation makes it possible.

- **Administrative economies**: are said to occur when, as firms grows larger, the specialist skills of particular managers are used to a greater effect and the more sophisticated decision making techniques are introduced.

- **Financial economies**: refer to situations in large firms find it easy to borrow money at favourable rates of interest as financial institutions are willing to loan on preferential terms to well known companies.

- **Marketing economies**: can be due to various reasons. When a firm buys its raw materials in bulk, it may obtain preferential terms in form of a discount, thus reducing the cost of each unit.

- **Research economies**: these tend to occur as large firms establish research departments that help them discover new products, new methods of work and new markets. Such revelations put large firms on a competitive position as they become more efficient in allocation of resources.

- **Other examples include risk bearing, welfare and a range of factors.**

**External economies of scale**

These are economies attainable by the firm because of the growth of the industry as a whole.

For example:

- A large skilled labour force is created and educational services can be geared towards training new entrants.

Specialised ancillary industries will develop more components, transport finished goods, trade in by-products, and provide special services and so on. For example, law firms may be set up to specialise in the affairs of the industry.

**Long run cost curve and short run cost curve**

A long run cost curve (LRAC) can be drawn as the envelope of all short run cost curves (SRAC) of firms producing on different scales of output. The firms long run average cost curve (LRAC) is a tangent to its family of SRAC curves- each SRAC curve represents a feasible of production unit.
**Diseconomies of scale**

It is a situation where an organisation or firms costs per unit of output increases as the scale of production increases. In other words, these are disadvantages which may arise in an organisation as a result of its increased size.

The main reasons for diseconomies of scale are human and behavioural problems of managing large firms.

Some of these are:

- **Bureaucracy**, as an organisation becomes larger there is a tendency for it to become more bureaucratic. Decisions can no longer be made quickly at the local level but must follow centrally laid-down procedures or be referred up to higher levels of management.
- **Loss of control**, large organisations often find it difficult to monitor the performance of their workers.
- **Poor morale and motivation among staff**. Workers may feel alienated if their jobs are boring and repetitive and if they feel insignificantly small part of a large organisation. Poor motivation can lead to inferior work.
- **Increased management problems**, problems of coordination may increase as the firm becomes larger and more complex, and as lines of communication get longer. There may be lack of personal involvement by management.
4.9 MARKET STRUCTURES

The term market structure refers to a classification system of the key traits of a market, including the number of firms, similarity of the product they sell and the ease of entry into and exit from the market.

**Features of market structures**
- Markets can be characterised according to the number of suppliers in the market.
- The determination of price of a commodity also depends on the number sellers and buyers on the market.
- The number of sellers of a product in a market determines the nature and degree of competition in the market.

**Types of market structures**

<table>
<thead>
<tr>
<th>Market structure</th>
<th>Number of organisations &amp; product differentiation</th>
<th>Nature of industry</th>
<th>Control over price</th>
<th>Method of marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfect competition</td>
<td>Large number of firms with homogeneous products</td>
<td>Financial markets</td>
<td>None</td>
<td>Market exchange</td>
</tr>
</tbody>
</table>
### Pricing decisions

- Market structure influences pricing decisions.
- The degree of competition determines a firm’s degree of freedom in determining the price of its products.
- The degree of competition varies from zero and one, and the firm’s freedom of setting the price of its products varies between one and none.
- Rule: the higher the degree the degree of competition, the lower the firm’s degree of freedom in the pricing decision and control over the prices of its own products.

### Features of perfect competition

For a market to be perfectly competitive, the following assumptions will be applied:

- There are many sellers and buyers, none of which have a significant market share.
- Products are homogenous. They are identical in all aspects such that they are perfect substitutes from the point of view of buyers.
- There is free entry and exit in the market. In other words, there are no barriers to enter or exit the market.
- Perfect dissemination of information about products and price etc.
- No government intervention.
- Absence of collusion or artificial restraints.
- There are no transaction costs, for example transport costs.

### Pricing under perfect competition

- Degree of competition is close to one.
- Firm’s discretion in determining price of its product is close to one.
- If it fixes its price above market level, it will not be able to sell the product.
- If it fixes its price below market level, it will not be able to cover its average cost.
- No one seller can influence market price, only market forces.

### The implications of the assumptions

- Individual sellers have no influence of their selling price, which is determined by the market forces of demand and supply. They are said to be price takers.

- The demand curve faced by a perfectly competitive firm is perfectly elastic (horizontal) at the market price as illustrated below.
All firms are selling a homogenous product and are equally efficient.
Because of free entry into the market, existence of abnormal profits in the short run will attract new entrants until the resulting increase in market supply has reduced price to a level where only normal profits can be made. Conversely if the firms are making losses in the short run, sellers will quit the market.
In the long run sellers make normal profits.

**Short run equilibrium in perfect competition**
The short run refers to a period in which the number of firm’s is temporarily fixed. There are two possibilities which must be considered:
- Where a firm can earn supernormal profits (abnormal).
- Where a firm can have a loss.

The figure below shows the cost and demand curve of a firm operating in the short run making supernormal profits.
The demand curve is the horizontal line $D_1$ at price $P_1$. The curve is horizontal indicating that the seller has no influence on the price of the product. If firm were to charge a higher price it would lose all its sales and there is no point charging a lower price as it can sell all its output at the given price.

That is the demand curve is also the marginal revenue curve. A perfect competitor will offer for sale $Q_1$ units where $MR = MC$ (this is the profit maximising point). At $Q_1$, unit costs may be determined from the ATC curve. Then the possible level of supernormal profits can be identified by:

$$\text{Supernormal profits} = TR - TC$$

$$\text{Where } (P_1Q_1) - (ATC Q_1)$$

If the firm were to produce fewer units, it would be producing where MR was higher than MC and all additional units produced up to the point where $MR = MC$ would similarly have MR greater than MC, each unit shows a profit (additional revenue is greater than additional costs). Similarly it should not produce beyond the point $MR = MC$ because it will be producing where MC is greater than MR, in other words where the additional costs for each unit exceeds the additional revenue.

A graph showing a firm making losses in the short run.
The firm makes a loss shown by the rectangle WXYZ.
In this case the firm produces where $MC = MR$ giving an output of $Q_2$.

In the long run, whenever profits are being made new firms will enter the industry and the price will fall. However, the firm remains in production, because it can cover its variable costs. Others will leave the market.

**Long run equilibrium in perfect competition**
In perfectly competitive market in the long run, a firm will be faced with a horizontal average revenue curve because it cannot influence the market price.
Firms will be making normal profits, as the price is equal to the average cost and therefore total revenue equals total cost. This is the condition for the number of firms in the industry to remain constant overtime.

**Individual firm in perfectly competitive market**

<table>
<thead>
<tr>
<th>Price (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
</tr>
<tr>
<td>MC</td>
</tr>
<tr>
<td>AC</td>
</tr>
<tr>
<td>MR = AR</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>output of a small firm</td>
</tr>
</tbody>
</table>

**Market as a whole**

<table>
<thead>
<tr>
<th>Price (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
</tr>
<tr>
<td>Market demand</td>
</tr>
<tr>
<td>Market supply</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>output (industry as a whole)</td>
</tr>
</tbody>
</table>

**MONOPOLY**

**Features of a monopoly**
- There is only one seller, who controls the supply of the product on the market.
- Competition is eliminated as no close substitutes exist.
- There are barriers to entry, making it either impossible or at least prohibitively costly for new entrants to break into the market.

**Pricing under monopoly**
- By their nature, monopolies are able to practice price discrimination (charging different prices in different markets for the same product).
- Degree of competition is close to zero.
- They have a considerable control over the price of its product.
- In theory, a monopoly firm has the ability to fix price of its product under certain constraints: for instance, the objective of the firm and demand conditions.

**Profit maximising equilibrium of a monopoly**
The condition of profit maximisation is where MR = MC. Monopolies are able to earn normal and supernormal profits in the short run as well as long run because there are barriers to entry which prevent rivals entering the market.

The figure below shows a monopolist earning normal profits in the short run.

The graph below shows the position of a monopolist firm earning supernormal profits in the short run.

These supernormal profits remain constant, as long as demand and cost conditions remain constant and barriers to entry remain effective.
There is no distinction between short run and long run profit maximising equilibrium.

**Advantages of a monopoly**
- Economies of scale may become available and will shift the firm’s cost curve to the right, which means that they can maximise profits at a higher output level even though at lower selling price.
- The supernormal profits they get can be invested in research and development which could exploit innovation and technological progress much better than small firms.
- It is easy for monopolists to raise new capital on the capital markets, and can finance new technology and new products.

**Disadvantages of monopoly**
- Monopolists can be wasteful; and can produce low quality output due to the absence of competitive pressures.
- Monopolists can carry out restrictive practices such as price discrimination, to increase their supernormal profits.
- There is allocative inefficiency in monopoly. Price is set above marginal cost to maximise profits, leaving some potential buyers who would have been prepared to cover the marginal cost of additional output unsatisfied.
- In the absence of economies of scale, a monopoly will produce less and sell at a higher price than the combination of firms in a competitive market.
- If a monopoly controls a vital resource, it might make decisions which are damaging to the public interest.
- There is technical inefficiency in a monopoly, because there are no competitive pressures forcing a monopolist to minimise his average costs.

**Barriers to entry**
These are mechanisms by which monopolists try to prevent potential competitors from entering the market.

**Some of the barriers are:**
- **Legal barriers:** these are barriers where a monopoly is fully or partially protected by law. For example there are some nationalised industries that might be protected by patent.
- **Control over outlets:** control over distribution as well as supplies e.g. vertical integration may be important.
- **Product differentiation:** a monopolist firm can establish a monopoly position by marketing and branding.
- **Cost advantages:** significant economies of scale enjoyed by the incumbent firm will prevent other firms from being able to compete.
- **Higher start up costs:** the need to expend significant sums of money to venture into the industry. For example money to acquire fixed assets or advertising.

**Price discrimination**
It is a strategy where a monopolistic supplier charges different prices to different customers for the same product, with the price unrelated to the costs
Conditions necessary for price discrimination

- The industry must be dominated by a single firm such that supply can be controlled by it without any price competition.
- The firm must be able to separate markets at a reasonable cost, with mobility between and resale of the across those segments being impossible.
- There must be different price elasticities of demand in different market segments.
- The firm must face a downward slopping demand curve.

A profit maximising price of a discriminator will set higher prices in market segments with lower price elasticities of demand.

Positive effects of price discrimination

- Enables producers to increase their revenue by charging different prices to different customers.

Drawbacks of price discrimination

- It is against the interests of customers in that they are charged different prices in different markets for the same product.
- Drives out competitors by charging a low price in the markets where the firm faces more competition.

Imperfect competition

This is a market in which the assumptions of perfect competition do not hold.
Examples of imperfect competition markets are monopolistic competition, oligopoly and monopoly

**MONOPOLISTIC COMPETITION**

This is a market setting in which a large number of sellers sell differentiated products. They are many but are able to create situation as monopoly sellers.

**Features of monopolistic competition**

- There are a large number of firms.
- The products produced are differentiated through advertising, packaging and sales promotions.
- Free entry and exit.
- Complete dissemination of information.
- There is perfect factor mobility.

**Pricing under monopolistic competition**

- As the degree of competition decreases, firm’s control over the price and its discretion in pricing decisions increases.
- In this case, degree of competition is less than one, and a firm will have discretion in setting price.
- Under monopolistic competition, the degree of freedom largely depends on the number of firms and the level of product differentiation.
- Each firm is a price setter; firms avoid competing in order to preserve their position as price setters. In other words, they use non price competition but would rather use effective product differentiation, brand name etc.

**Short run equilibrium in monopolistic competition**

The short run equilibrium of a firm operating in monopolistic competition is the same as that of a monopoly.

In the short run, the firm is able to make supernormal profits.

The diagram below illustrates the profit maximising equilibrium in the short run.
LONG RUN EQUILIBRIUM IN MONOPOLISTIC COMPETITION

In the long run supernormal profits are competed away because of the absence of entry barriers. The effect of the new entry, attracted by the supernormal profits is to force the demand curve downwards until those profits no longer exist. In the long run the firm earns only normal profits as illustrated in the following diagram.

Equilibrium occurs when the demand curve is tangential to the long run average cost curves. The diagram resembles a diagram showing a monopoly firm not earning supernormal profits, but only normal profits only.

Adverse effects of monopolistic competition

- Monopolistic competition leads to waste of resources as a firm can produce a wide variety of differentiated version of the same product. If a single version of the same product were made, firms might be able to achieve economies of scale with large volume of production and so shift their cost curves to the right.
- Some methods that are used to create the product differentiation are a direct waste of resources. For example advertising costs.
- Firms in a monopolistic competition, like monopolists, produce an output level below where average cost is minimised and so there is allocative inefficiency of resources.

OLIGOPOLY

An oligopoly is a market structure in which there are two (duopoly), three or four large suppliers selling a homogenous or differentiated products.

Sources of oligopoly

- Large initial capital investment.
- Economies of scale.
- Patent rights.

Examples of oligopoly include mobile communication sector etc

Features of oligopoly

- Supply in the industry is concentrated in the hands of relatively few firms i.e. oil.
The industry must possess significant barriers that will deter other firms moving in to take advantage of the supernormal profits which characterise an oligopolistic. This may be in the form of high start up costs, technological barriers etc.

Firms must be interdependent in decision making; the fewness of firms brings stiff competition with each other. Strategy of each firm in pricing, product etc is watched closely by other firms in the industry. Depending on the actions of one, one firm will react.

Use of non price competition.

**Pricing under oligopoly**

- Control over pricing discretion increases where degree of competition is low.
- Firms that have control over the price of goods can exercise their discretion in pricing decisions, especially when there is product differentiation.
- Problem by having few firms; it gives them an opportunity to form cartels for price fixing.

**Types of oligopoly**

- Perfect oligopoly, this is a market structure where there are no barriers to entry and exit and the firms produce a homogenous product.
- Imperfect oligopoly, this is a market structure characterised by barriers of entry and exit and the firms produce differentiated products.
- Collusive oligopoly, a market structure in which all big firms in the market charge the same price as a monopolist would and split the output between them. It may be either tacit or openly admitted. Tacit collusion is where firms undertake to minimise competitive responses without being open about it. For example avoid price cutting. Open collusion is where firms openly collude with the aim of maximising their profits and each earning a market share.
- Non collusive oligopoly, a market structure in which there is no formal, informal or tacit agreement between the firms.

**CARTEL**

This is an agreement between producers on a price at which they sell their product to the market. This is done to restrict competition on prices, quantities sold or markets served.

**Conditions necessary for price cartel**

- The cartel must include all major producers.
- Demand for the product should be price inelastic.
- The number of producers should be few so that it is easier to check on each other.
- Entry into the market should be difficult.
Non price competition

This involves competition between firms for customers in the same market, but not on the basis of the lowest price only. Non price competition takes the form of product development, improvement, changes in market expenditure, after sale services etc. Examples of this include advertising campaigns, creation of strong brand images, etc.

Non price competition is used in preference to price competition partly because of the damaging impact or disastrous consequences on firms in an industry or price wars and because it cannot be easily imitated.

The disadvantage of non price competition is that it is costly. For example competition through advertising will raise industry costs.

Profit maximisation for non collusive oligopoly.

There are many non collusive oligopoly models, one of which is an oligopoly model with a kink in demand curve. Thus profit is maximized by restricting output. For example in figure below, firms in the market are enjoying price $P_0$ by producing less than quantity $Q$. At quantity $Q$ or more, the price collapses to $P_1$. 
Contestable market
The theory of contestable markets compares markets not by degree of competition but rather the degree of potential competition. It focuses on the threat of entry by potential rivals. A market is perfectly contestable when the costs of entry and exit by potential rivals are zero and when such entry can be made very rapidly.

Characteristics of contestable markets
- No barriers to entry or exit.
- Only normal profits in the long run.
- Product may be diversified.
- Price competition is unlikely.

The growth of firms
Growth refers to the increase in size of a firm.

Reasons of why firms grow
- Firms grow in order to attain a good market share and exercise control over the market.
- To obtain economies of scale (advantages of producing large volume of quantities at lower unit costs).
- To increase their revenue.
- To be able to acquire a management team that will assist them in effective and efficient of resources for the firm.
- To ensure survival in the industry by producing a wide range of products.
- To reduce risks by diversifying.

Means of achieving growth
The main means of achieving growth in a firm are: internal or organic growth and external growth.

Internal growth
A firm experiences growth by producing more and a wide range of products within the firm. This type of growth is also referred to as organic growth, thus a firm having gradual growth through the process of acquiring resources.

**External growth**
This involves a combination of different firms or a firm taking over another firm. This process is called merger or integration.
Mergers and business integration

**Horizontal integration**
This takes place between firms in the same industry at the same stage of production, for example a merger between two banks.

**Benefits of horizontal integration**
- It increases the market power which leads to reduction of competition.
- Economies of scale can be achieved more easily.
- Firms can have the ability to compete effectively against larger rivals.
- Duplicated facilities can be rationalised when demand is decreasing.

**Problems of horizontal integration**
- If not managed properly, can result in managerial diseconomies of scale due to loss of control or increased levels of hierarchy.
- Exploits the interest of the consumer as there are only few sellers and can therefore charge higher prices.

**VERTICAL INTEGRATION**
This takes place between firms in the same industry at different stages of production. In short, where a customer-supplier relationship might exist. For example a larger coffee producer may take a coffee plantation.

Where a firm acquires a potential customer, it is called ‘forward vertical integration’.
Where a firm buys a potential supplier, it is called ‘backward vertical integration’. An example of a vertically integrated industry is the beer brewing industry. All major suppliers owning a chain of retail outlets for beer and other drinks.

**Benefits of vertical integration**
- Eliminates transaction costs.
- Secures an outlet for produce/ source of supplies.

**Criticisms of vertical integration**
- Difficult to undertake in cases of advancements in the level of technology

**Conglomerate integration**
This takes place between firms in different industries. For example a manufacturer moving into financial services such as banking.
This is also called conglomerate diversification.
Advantages of conglomerate integration
- Brings in diversification of output and reduce the risk of trading.
- Benefits of goodwill associated with a particular brand name can be transferred between two products.

Drawbacks of conglomerate integration
- Highly risky, because of lack of familiarity with the business that has been merged with.
- Lack of experience from managers as they are moving into industries they have little or no knowledge.

Survival of small firms
Much as large firms have a lot of advantages over small firms, these small firms can still compete and make huge profits.

Small firms can survive due to diseconomies of scale of large firms, because:
- Small firms normally face lower costs.
- The other disadvantages of large firms include:
  - Not providing personal services.
  - Consumers demanding goods and services those large firms do not provide.

Economic advantages of small firms
- They can compete in competitive markets.
- They can have enhanced management-employee relations.
- Can easily be in close contact with customers.
- They can act as suppliers to larger firms.
CHAPTER 5

FACTOR MARKETS AND DISTRIBUTION OF INCOME

By the end of this chapter, the student should be able to:

- Explain and illustrate how product and factor markets operate.
- Derive the demand curve for labour.
- Understand the concept of supply of labour.
- Outline the main determinants of demand elasticity for labour and supply elasticity of labour.
- Understand the pricing of factors of production; in competitive markets and monopsonistic markets.
- Describe the institutional intervention in the labour market.
- Appreciate the concepts of economic rent, wages and transfer earnings.

4.1 Basic features of factor markets
The four factors of production are land, labour, capital and entrepreneurship. All these factors of production are rewarded in the form of rent, wages, interest and profit respectively.
The factor prices of land, labour, capital and entrepreneurship are determined by the market forces of demand and supply. The demand for factors of production is derived. This means that the demand is derived from the demand of final products which the factors of production produce.

4.2 The labour market
The demand for labour and marginal productivity theory
The demand for labour is demand derived, this means that it arises from the demand of product (output) that a firm produces. Labour is engaged in the production of goods and services in order to increase the total volume of output.
As such, with labour the law of diminishing returns applies because as more and more labour that is employed, the productivity of the extra workforce will gradually decline.

FACTORS AFFECTING DEMAND FOR LABOUR
- The price of the product, when the price of the product is likely to earn a higher margin on the market, the firm can demand for more labour to make that particular product.
- The physical productivity of labour, when there is higher output per worker, the demand for labour will likely increase.

5.3 Marginal productivity theory
The marginal productivity theory draws its origin from the theory of production. It mainly deals with what determines the demand for the factor of production labour.

It states that the wages, being the earnings of the factor of production labour, tend to equal the value of marginal product of labour, i.e. the additional to the value of output resulting from the
extra worker employed. At this point, it is unprofitable to employ any more workers because their wages would be greater than the value of their output and to employ few workers would mean losing the opportunity of making profit. All the workers therefore tend to be paid a wage equal to the marginal productivity of the last worker.

**Marginal and average productivity of labour curves**

![Graph showing marginal and average productivity of labour curves](image)

If the firm can employ labour at a constant wage, the marginal cost of labour equals the wage.

![Graph showing marginal and average productivity of labour curves](image)

Applying the rule of profit maximisation, MRP = wages.
(That is the firm should hire additional labour up to the point where marginal revenue of the last worker employed covers the wage).
This principle can be demonstrated as below:
Explain the link between the marginal product and the marginal revenue product
If productivity of labour increases, the MRP curve will shift. (indicate direction left or right) Productivity could improve by either use of advanced technology or substantial training.

Likewise, if the price of the final product changes, the MRP curve will shift. (indicate direction left or right)

**Significance of the marginal productivity theory**
- Provides a guideline for firms to employ labour at a level where the marginal productivity of labour tends to equal the marginal factor cost of labour.
- Offers a basis for determining wage rate for employees.
- Assists in examining wage differentials in a particular industry.

Despite having above values, this theory suffers many limitations in its practical application.

**Limitations of marginal productivity theory**
- The marginal productivity theory for labour assumes that all other factors of production remain constant in supply. In real sense this is unlikely to be so, because as the amount of labour employed changes, so too would the amount of capital.
- The assumption that labour is free to enter or leave the market, in practical there are imperfections in the labour market.
- In administrative or service industries, it is difficult to calculate the marginal productivity of labour.

**The supply of labour**
The supply of labour in each market will be typically upward sloping. The higher the wage rate offered in a particular type of job, the more people will want to do the job. The position of market supply curve will depend on the number of people willing and able to do the job at each given wage rate.

This depends on the following:
- The number of qualified people.
The non wage benefits or costs of the job, such as the pleasantness or otherwise of the working environment, job satisfaction or dissatisfaction, status, power, the degree of job security, holidays, perks and other fringe benefits.

- The retirement age.
- Size of the population.

**The individual supply curve for labour**

The effect of an increase in wage rate on labour supply can be analysed in terms of substitution and income effects.

**The income effect**

An increase in wage rate would imply that living standards of people are increasing, therefore households can afford to buy more goods and services, and also they can afford to forgo some income in order to enjoy leisure time. This would mean that an increase in leisure would lead to a decline in work hours. This is called income effect.

The income effect is consistent with a negative relationship between the price of labour and labour supply.

**The substitution effect**

As the wage rate increases, the opportunity cost of each hour of leisure in terms of wage income forgone, increases. Leisure becomes more expensive. This implies substitution of time away from leisure towards work. This is called substitution effect.

The substitution effect is consistent with a positive relationship between the price of labour and labour supply.

This can be illustrated as below:

Despite the backward sloping of the individual supply curve, we assume that the market supply curve for labour is always upward sloping because an increase in wage rate will draw more entrants in the labour market from (school leavers, pensioners etc).
The elasticity of demand for labour
This can be defined as the responsiveness of labour to changes in wages. In other words, it measures the effect of a change in wages on the quantity of labour demanded by using the following formula:

\[ E = \frac{\% \text{ change in numbers employed}}{\% \text{ change in wages}} \]

Factors influencing elasticity demand for labour

- The elasticity demand for the final product. For example increase in demand for the final product that labour is producing will increase the demand for labour.
- Technical ease with which employers could substitute other factors of production for labour, i.e. an increase in the price of a substitute input will result in increase in demand for labour. (substitution effect).
- The proportion of labour costs to total costs. The higher the proportion of labour cost to total cost the more elastic the demand for labour.
- The elasticity of supply of alternative factors of production. An increase in the elasticity of supply of alternative factors of production will lead an increase in the elasticity of demand for labour.
- The period of time. In the long term elasticity of demand for labour is high.

The degree of elasticity of demand for labour

**Elasticity of demand for labour**: the demand for labour will be more elastic where workers are easier to replace, where the demand of the final product is price elastic. In this case, a small percentage change in wage rate will result in a greater percentage change in labour demanded. A greater percentage change in wage rate will result in a small percentage change in labour demanded.

**Elasticity of supply for labour**
This the responsiveness of labour supply to changes in wages. This can be expressed as:

\[ E = \frac{\% \text{ change in labour supply}}{\% \text{ change in wages}} \]
The main determinants of elasticity supply of labour

- **The degree of labour mobility in the market**, when labour is more mobile, the more will be the elasticity supply of labour.
  
The labour mobility can be: lateral, occupational and geographical.

**Lateral mobility**
This is the movement of labour between firms in an industry. Since the firms cannot attract suitable workers away from its competitors there will be less lateral mobility, leading to lower elasticity of supply of labour to individual employers.

- **The level of employment**, the supply of labour will be elastic when the level of unemployment is high. A small increase in wage rate will attract more job seekers in the labour market.

- **Qualifications and skills required**, when the level of qualifications and required skills is high, there can be a lower supply of labour making it more inelastic.

- **Time**, mobility increases with time, as such the elasticity of supply of labour is greater in the long run than in the short run.

### 5.4 LABOUR IMPERFECTIONS IN THE MARKET

This can be defined as a situation in which the labour market is not efficient in allocation of labour resources. For example labour immobility.

**Labour immobility**
This is an imperfection in the labour market which helps to explain pay differentials in different industries, jobs and regions.

#### TYPES OF LABOUR IMMOBILITY

**Occupational immobility**
This is where workers from different occupations fail to get new jobs in another occupation.

This can be due to the following reasons:

- Requirements for specialisation.
- Barriers to entry such as professional examinations.

**Geographical immobility**
This is where workers fail to move to places where jobs are. This can be due to:

- Financial and other costs of moving to new regions or areas such as housing.
- Social ties can also affect geographical mobility.

The major causes of labour immobility

- Cultural differences, making some jobs more socially acceptable than others for some people.
- Lack of information on employment opportunities.
- Non monetary considerations such as social life outside work which make individuals reluctant to move to a different region.
Discrimination in the allocation of jobs such as discrimination based on race or sex.

Professional barriers where professional associations restrict entry by means of examinations.

**Barriers to entry into the labour market**
These are restrictive conditions making it impossible for workers to enter in different labour markets. i.e. regulations, restrictive membership etc.

**WAGE DIFFERENTIALS**

Refers to a situation in which there are differences in the rate of pay between one type of job to another.

This might be due to:

- **The level of skill one possesses**, skilled workers will normally be paid better than unskilled workers.
- **The supply of workers**, when the supply of labour is high, pay can be generally be low than in a situation where supply of labour is limited.
- **The marginal revenue product for labour**, when the MRP is high then the job can be a well paid one.
- **Trade union bargaining power**, a strong trade union can easily negotiate for a pay rise in an industry.
- **The nature of the labour market** also influences the wage rate. For example, if the labour market is a perfectly competitive, firms can be able to acquire additional labour at a constant wage rate. This would mean that the marginal cost of labour will be equal to the average cost of labour.

**Perfectly competitive labour market**, can be defined as a labour market in which there are many firms and many workers

**Imperfectly competitive labour market**, it is a labour market in which there is a single firm that demands labour and there are many workers who supply labour. A labour market dominated by a single firm demanding labour is called a **monopsony buyer of labour**.

![Graph showing wage and quantity relationship](image)

According to the graph, the equilibrium is a point where marginal cost is equal to marginal revenue product (MC=MRP). However, the employer is paying a lower wage rate of $W$, which is lower than the one existing at the equilibrium.
**Oligopsony** is a market structure in which there are few major buyers of a certain type of labour. These few buyers are called oligopsonistic employers. These firms are called wage setters because they can be able to pay a rate that is below the equilibrium level.

**TRADE UNIONS AND THE BARGAINING THEORY OF WAGES**

A **trade union** is an organisation that is formed to represent and protect the interest of its members.

**Forms of trade unions**

There are various forms of trade of trade unions, some of which are:
- Industrial union for example Teachers Union of Malawi
- General union, for example Malawi Congress of Trade Union.

**The bargaining theory of wages**

It states that the level of wages is set up by negotiation between trade unions and management.

**Collective bargaining**

This is when trade unions negotiate with employers on behalf of the employees

**Objectives of a trade union**

- Trade unions basically erect barriers to entry to the occupation, so limiting the amount of workers.
- To protect jobs and improve working conditions of workers.
- Negotiate for an increase in wage level.
- To increase return from employing labour by participating in schemes that can increase productivity. For example training workshops.

**The effect of unionisation**

![Graph of Wages and Labour](image)

Trade unions will bargain for higher wages due to one of the following grounds:
- Profitability argument, when firms are earning a lot of profits, it is well worth to negotiate a wage rise.
Increasing in the cost of living, a trade union can bargain for an increase in wages for workers in times of inflation as their real income is reduced.

An increase in labour productivity.

Minimum wages
This is a minimum wage that a lowly paid worker should at least earn. This is done to protect low paid workers from being exploited by employers and to prevent the social welfare system being used to subsidise low wage employers.

Effects of minimum wage on the economy
- Improvement in standard of living.
- The risks are that the minimum wage set too high might trigger of a general increase in labour costs and so increased inflation.
- There might also be significant increase in unemployment of skilled labour.

The decrease in employment can be illustrated as below

![Diagram of wage and quantity of labour](image)

EFFECTS OF DIRECT TAXATION ON THE LABOUR MARKET
Government is likely to impose tax on earnings. The tax imposed on the earnings is called direct tax.

The effect of direct tax can be demonstrated if the following assumptions hold:
- Government has never charged direct taxes before.
- Now the government imposes taxes on wages.

As the government takes a certain proportion of income in tax, the employees will get less take-home net pay.

With a lower net wage than before, for any quantity of labour supplied, the supply curve will shift upwards and labour will substitute leisure for work without any changes in wages, the supply of labour will fall.
This can be illustrated as below:

**Taxation and labour productivity**

**The effect of taxation on labour productivity**
- When taxation is high, work incentives are eroded away.
- When taxes are lower, and work incentives are available productivity increases.

**LAND AND RENT**

Land is another factor of production, the price or its reward is rent. Reward that is paid for land will be determined in the same way as the wage paid for labour.

That is through the interaction of the demand and supply curves for land.

**Arguments on the concepts of land and rent**
- The total amount of land that is available is fixed hence its supply being inelastic regardless of how much rent is paid.
- Because the supply of land is inelastic, the amount of rent to be paid will be determined by the price of the goods produced from the land sale to markets.

**Demand for land**
The marginal revenue product determines the demand for land in the same manner as for labour.

The demand curve for land is derived from the reward or price of goods produced on the land.

**Supply of land**
Considering that the supply of land is for a particular purpose. Its supply is assumed to be absolutely fixed, regardless of what price is offered for it.

**Interaction of demand and supply**
The price to which the rent of the land is paid depends on the position of the demand curve.

Given the productivity of land, the position of the demand curve depends on the price of the agricultural produce, housing or any use of the land.

When the price of the final product is higher, the demand curve will also be higher and therefore he higher the rent for land.

**5.5 THE CONCEPTS OF TRANSFER EARNINGS AND ECONOMIC RENT**
The owners of a factor of production such as labour receive a reward for its contribution to production.

The reward can be divided into two parts:
- Transfer earnings.
- Economic rent

Thus, Total earnings = Transfer earnings + economic rent
**Transfer earnings**  
This is the reward required to prevent a factor from moving into its next best remunerative occupation, i.e. the opportunity cost.

**Economic rent**  
This is the difference between total earnings and transfer earnings, in other words; it is the payment the factor receives over and above its transfer earnings.

**Numerical illustration**  
For instance an individual earns K70,000 a month as shop manager and his next best opportunity is working as a mechanic earning K50, 000. His transfer earnings then must be K20, 000.

The contribution of transfer earnings and economic rent to the reward for factors helps to study the elasticity of supply because the size of the economic rent is determined by the elasticity of supply of the factor of production.

The more elastic the supply curve, the lower the level of economic rent.  
Perfectly elastic factor supply: all earnings are transfer earnings

The more inelastic the supply curve, the lower the level of transfer earnings.  
Perfectly inelastic factor supply: all earnings are economic rent

It can also be appreciated that the more elastic the supply of a factor of production, the higher will be the proportion of its earnings which are transfer earnings and the lower will be its economic rent.
CHAPTER 6
MACROECONOMICS

LEARNING OBJECTIVES:

By the end of this chapter, the students should be able to:

→ Define the term, money.
→ Explain the four major functions of money.
→ Describe the major components of money stock.
→ Mention and explain the characteristics of money.
→ Explain the effects of inflation on the functions of money and the difficulties of measuring the real value of money.
→ Define credit and explain the functions, structure and sources of credit.

Macroeconomics is the study of the major economic totals or aggregates. It is concerned with the big economic issues that determine economic well-being. Some of the major issues are employment, rate of inflation, productivity, interest rate, government budget and foreign trade deficit.

6.1 THE NATURE OF MONEY

Definition of money

Money can be defined as any item which is generally acceptable in exchange of goods and services, or in the final settlement of a debt. In other words, money acts as:

➢ Medium of exchange.
➢ A unit of account.
➢ A standard of deferred payment.
➢ A store value.

Functions of money

Money has the basic functions mentioned in its definition.

Money as a medium of exchange

Money can be used in the exchange of goods and services. People are prepared to organise and work for an employer, and in return receive money wages.

Money as a unit of account

This function of money is associated with the use of money as a means of exchange. Money should be able to measure exactly what something is worth. It should provide an agreed standard measure by which the value of different goods and services can be compared.

Money as a standard of deferred payment

This function of money establishes an agreement between buyers and sellers in payment for goods and services at a future date. Therefore money is instrumental to credit transactions.
Money as a store value
Money acts as a liquid store value in the following two ways;
It is a store value of wealth, this means that a person can hold money in the certainty that its
value does not fall and that it will have the same value in the future that it does now.

It is also a liquid store in the sense that wealth can be easily and readily converted into a means
of exchange for obtaining goods or services.

FORMS OF MONEY

Commodity money
This is money that is made from a valuable commodity such as gold, silver.

Non commodity money (M1)
This is money whose exchange value is greater than its inherent physical or commodity value.
For example bank notes and coins are one form of non commodity money. Bank accounts and
cheques are another way of holding and transferring money in non commodity form. Apart
from currencies, transaction accounts (demand deposit e.g. checking accounts) and traveller’s
cheques are part of non-commodity money. Negotiable orders of withdrawal (NOW) accounts
and automatic transfer systems (ATS) at commercial banks are also part of M1.

Narrow money (M2)
This refers to financial assets including cash which perform the function of money when a
fairly narrow definition of liquidity is applied. Thus M2 contains all M1 plus savings deposit,
savings deposits and certificates, overnight repurchase agreements, money market mutual
funds. Therefore, these are money balances which are readily available to finance current spending
or used for transaction purposes.

Broad money (M3)
This generally refers to money held for transaction purposes and held as a form of saving. It
provides an indicator of the private sectors holding of relatively liquid assets (assets which
could be converted with relative ease and without capital loss into spending on goods and
services). All M2 is part of M3.

Near money or Quasi money (M4)
This is money which consists of financial assets such as postal orders which are held mainly
as a store of value rather than a medium of exchange. Near money is also called quasi money.
M4 contains all M3.

Characteristics of money
To fulfil the functions of money efficiently, an asset should have the following attributes:

- **Durability**, money should be durable to act as a store value.
Divisibility, the smallest unit of money must have no higher value than the least valued item traded.

Acceptability, this means it should be accepted as having value in exchange for goods and services.

Portability, money should be portable, to be a convenient medium of exchange.

Uniformity, the money value should be homogenous (identical). For example, the Malawi kwacha has exactly the same value.

Recognisability, it is essential that money can be easily distinguished from counterfeit money.

Scarcity, if money is not strictly limited in supply, then there will be demand pull inflation due to too much money chasing too few goods.

Stability, if all other items are to be valued in terms of money, then the value of money should not fluctuate widely over time.

CHANGES IN THE VALUE OF MONEY

The value of money changes because of inflation. Inflation erodes the real value of money or the purchasing power of money.

The effect of inflation on the functions of money

Inflation prevents money from performing its functions effectively.

Effect of money as a unit of account, money should be a stable unit of account. When there is inflation, prices of goods are affected differently because individual products and services do not rise in the same percentage amount.

Effect of money as a standard of deferred payment, in a period of inflation an individual who incurs a debt will profit at the expense of the lender or creditor because when the debt has to be repaid, the real value will have declined. In the same manner, an individual who lends money or allows credit will lose out, and might therefore be reluctant to extend any credit or to lend money, except at a higher rate of interest to compensate for the fall in the real capital value of the loan.

Effect of money as a medium of exchange, in a period of excessive inflation people will be reluctant to spend their money at all. Instead, they might revert to barter economy or use foreign currency whose value has risen.

Effect of money as a store value, when there is inflation money loses its real value or purchasing power as such people will prefer to store wealth in different assets like interest bearing investments.

Difficulties associated with measuring money

The value of money is usually estimated.

Exchange rates changes over time and this makes it difficult to know the worthiness or value of local currency in terms of other currencies.

Inflation makes money to lose its real value.
6.2 CREDIT

Credit means mean owing money or being owed money.

Obtaining a credit involves an arrangement whereby a person either;

- Borrows money, with an undertaking to pay it back in time with interest.
- Buys goods and services without paying for them immediately, but with an undertaking to pay for them in the future. This is called trade credit.

Lending or giving credit is the other side of the transaction. The person or organisation giving credit is the creditor and the borrower is the debtor.

Functions of credit

- For purchasing goods and services.
- Enables the lender to get interest.

The structure of credit

Credit can be structured in different forms and some of the structures are:

Short term credit, this is a credit that can be given and paid for within a short period of time. E.g. period of within a year.

Long term credit, this is a credit that can be given and paid for a long period of time, for instance more than a year.

Sources of credit

There are different sources of credit for businesses and some of the sources are listed below.

- Bank overdraft, these are short term loans that are given by banks to allow their customers overdraw their account by a certain limit.
- Trade credit, this is the credit from suppliers in the normal course of trade.
- Lease finance.
- Mortgage loans.
- Bank loans.
- Debentures.
- Hire purchase.

CREDIT CREATION AND THE BANKING SYSTEM

There are different types of banks which operate within a banking system e.g.

(a) Clearing banks, which operate the so called clearing system for settling payments (eg payments by cheque by bank customers)

(b) Retail banks, which are traditional high street banks. The term wholesale banks refer to banks which specialise in lending in large quantities to major customers. The clearing banks are involved in both retail and wholesale banking but are commonly regarded as the main retail banks.

(c) Merchant banks are banks which offer services, often of a specialised nature, to corporate customers.
(d) Commercial banks refer to any banks which make commercial banking transactions with customers

Main functions of the commercial banks are as follows

(a) Providing a payments mechanism – ie a way in which individuals, firms and government can make payments to each other.

(b) Providing a place for individuals, firms and government to store their wealth, for example in current accounts or deposit accounts.

(c) Lending money in the form of loans or overdrafts.

(d) Acting as financial intermediaries by accepting deposits and lending, and in doing so transforming the risk characteristics and maturity characteristics of the lending.

(e) Providing customers with a means of obtaining foreign currency or selling foreign currency, whenever they require it. Banks play a central role in the foreign exchange markets.

Banks also provide other services which are not banking in nature such as:

(a) Advising and assisting companies eg in take over bids, issuing shares on the stock market (merchant banking)

(b) Providing assistance to exporters and importers eg helping exporters to obtain payment from buyers abroad and importers to pay for goods they buy from foreign suppliers.

(c) Leasing

(d) Debt factoring services

(e) Executorship trustee services

(f) Giving investment advice

(g) Acting as insurance brokers

Liquidity, profitability and security: aims of the banks

A commercial bank has three different and potentially conflicting aims which it must try to keep in balance. These are as follows.

(a) Profitability. A bank must make a profit for its shareholders. The biggest profits come from lending at higher interest rates and:

   (i) Long term lending is usually at higher rates of interest than short term lending.

   (ii) Lending to higher risk customers will be at higher interest rates than lending to low risk customers.

(b) Liquidity. A bank must have some liquid assets
(i) It needs notes and coins (till money) to meet demands from depositors for cash withdrawals.

(ii) It needs a bank account to settle up debts with other banks.

(iii) A bank might also need to have some near liquid assets which it can turn into liquid assets quickly should it find itself with a need for more liquidity.

(c) Security. People deposit their money with banks because banks are regarded as stable and secure institutions

6.3 THE CENTRAL BANK

A central bank is a bank which acts on behalf of the government.

Functions of a central bank

(a) It acts as banker to the central government and holds the public deposits

(b) It is the central note issuing authority ie responsible for issuing bank notes

(c) It is a manager of National Debt

(d) It is a manager of the Exchange Equalisation Account

(e) It acts as advisor to the government on monetary economic policy.

(f) It acts as agent for the govt. in carrying out its monetary policies

(g) It acts as banker to the commercial banks.

(h) It acts as a lender to the banking system.

(i) It acts as a supervisor to the banking system.

9.5 MONEY AND CAPITAL MARKETS

A distinction is usually made between:

(a) Capital markets, which are financial markets for raising and investing largely long term capital, and

(b) Money markets, which are financial markets for lending and borrowing largely short term capital

Money markets operate as:

(a) A primary market in which new financial claims are issued, or

(b) A secondary market, concerned with the trading of previously issued financial claims.
Short term and Long term capital

Short term capital is capital that is lent or borrowed for a period which might range from as short as overnight up to about one year and sometimes longer.

Long term capital, is capital invested or lent and borrowed for a period about five years or more, but sometimes shorter.

Firms may obtain long term or medium term capital in one of the following ways

(a) As share capital
(b) As loan capital

STOCK EXCHANGE

A Stock Exchange is an organized capital market which plays an important role in the functioning of the economy.

(a) It makes it easier for large firms and the government to raise long-term capital, by providing a market place for borrowers and investors to come together.

(b) The Stock Exchange publicises the prices of quoted (or listed) securities, which are then reported in daily national newspapers.

(c) The Stock Exchange tries to enforce certain rules of conduct for its listed firms and for operators in the market, so that investors have the assurance that companies whose shares are traded on the Exchange and traders who operate there are reputable.

The price of shares on a stock market fluctuate up and down
CHAPTER 7

THE DEMAND FOR AND SUPPLY OF MONEY

LEARNING OBJECTIVES

By the end of this chapter, the students should be able to:

➢ Explain the determinants of the demand to cold money.
➢ Explain factors affecting money supply growth.
➢ Understand and explain the old and new quantity theory of money.

7.1 QUANTITY THEORY OF MONEY

This is the theory which holds that changes in the level of prices are caused predominantly by changes in the supply of money.

7.2 SCHOOLS OF THOUGHT ABOUT MONETARY THEORY

There are two broad schools of thought about monetary theory. These are the old quantity theory of money and new quantity theory of money. The old or classical theory of money has the monetarist view which was developed by Irving Fisher in 1911 and the Keynesian theory (1936).

(a) Monetarist view as developed by Irving Fisher: Old Quantity Theory

Monetarists are a group of economists who believe that changes in the money supply have a significant impact on an economy and that excessive growth of the money supply causes inflation.

The view of monetarist is that money supply and demand has influence on interest rates and inflation. It further shows that there is a relationship between the amount of money in the economy and the level of prices. This theory also took the view that demand for money is for spending on foreseeable transactions.

The money that is being referred to here is non interest bearing store of wealth. For example, bank notes and current bank accounts are money while time deposits are not money because they yield interest. Collectively all interest-bearing deposits are called bonds.

This theory has the following assumptions.

- **Velocity (V) of circulation is roughly constant value.** Velocity of circulation is the number of times money changes hands. It holds the view that money changes hands. For example a person receiving money can use it to make his/her own purchases. For example if A pays B K2 for transaction X, B can use the K2 to pay C for transactions X. Y and C can use the same K2 to pay D for transaction Z. If the three transactions X, Y and Z all occur within a given period of time then the money value of the transactions is: \( T = K2 \times 3 \text{ transactions} = K6. \) The total amount of money is the same K2 in circulation for all three transactions, but this money has exchanged hands three times. The velocity of circulation is 3 and money value (MV: the M is the money supply while V is the velocity of circulation) is 6.
• Number of transactions in the economy is fixed. This means number of transactions is either given (or known) or it is independent of the amount of money supply.

• There is the identity of the quantity theory of money. This identity shows that the money value of transactions (i.e. price x number of transactions) is the same as MV (money supply x the velocity of circulation). The identity is \( MV = PT \). MV must equal PT because they are two different ways of measuring the same transactions.

• Amount of money is determined by other factors and is independent of velocity of circulation (V), number of transactions (T) and price (P). This means that the money supply could be controlled by government including the central bank.

QUANTITY THEORY OF MONEY AND THEORY OF PRICE LEVELS

The quantity theory of money gives the identity \( MV \equiv PT \) because of the assumptions above.

The identity \( MV \equiv PT \) can also be restated to be quantity of theory of money equation as \( MV = PT \). This means that \( P = \frac{MV}{T} \).

Then the quantity theory of money has now become a theory of price levels. Since V and T are assumed to be constant, prices (P) will vary directly with increases or decreases in the amount of money supply (M) and it is changes in the money supply M that causes prices P to change, not changes in price that cause changes in the money supply. This means that increases in money supply causes inflation.

There is also another view by other economists that inflation occurs first causing money supply to rise in step.

Factors affecting money supply growth

The main factors that contribute to money supply growth are:

• Government borrowing. The amount of money that government borrows each year is called Public Sector Borrowing Requirement (PSBR) or Public Sector Net Cash Requirement (PSNCR). The higher the government borrowing the more is the increase in the money supply.

• The type of the lender from who government borrows. Lenders can be bank lenders or non-bank lenders. Money supply can grow if government borrows from banks than from non-bank sector since banks have the ability to create credit out of funds lend out to borrowers.

• Bank lending. Bank lending increases the money supply.

• Flows of money between a country and foreign traders/investors. If a country pays more to foreign traders than what it receives from foreign traders/investors money supply will decrease.

• Approaches to controlling the growth of the broad money supply

The broad approaches government can use to control growth in money supply are:
- Government should control or reduce size of the Public Sector Borrowing Requirement.
- Repayment of loan should be financed as much as possible by borrowing from non-bank private sector.
- Control the increase in bank lending by raising interest rates
- Control external and foreign currency items, for example, by keeping the balance of payments under control.

CRITICISMS OF MONETARIST (CLASSICAL) THEORY OF MONEY

- The quantity equation is not a theory as it does not state anything about the causes of changes in the quantities concerned like velocity, number of transactions and money supply.
- The theory can not help to predict what will happen if the variables change.
- The theory cannot be used as the basis to make predictions about the effects of changes in the money supply.

(b) Keynesians’ view

Keynesians are a group of economists who follow the ideas of John Maynard Keynes. They hold the view that market failure is a significant problem and that government intervention can improve the situation.

Keynesian views on the demand for money

The views of Keynes on the demand for money are explained in the concept of liquidity preference. Liquidity preference is the preference of people to hold on to their savings as money in liquid form rather than investing it. Liquidity preference is also called demand for money.

Keynes used the liquidity preference to explain how savings and investment might be temporarily different and how interest rate levels in the economy are arrived at

Motives for holding money

(i) The transaction motive. Households need money to pay for their day-to-day purchases. The amount of transactions demanded depends on income level. The amount of money demanded does not depend on interests.
(ii) The precautionary motive. People choose to keep money to cover an emergency. This motive is not affected by levels of interest as well.
(iii) The speculative motive. Some people choose to keep money take advantage of a profitable opportunity to invest in bonds which may arise (or they may sell bonds for money when they fear a fall in bonds’ market prices). If people holding money for this motive it means they are not using the money to invest in bonds. The demand for money for speculative motive is interest-elastic: meaning that if interest rise people will buy bonds in order to earn high interest but if interest rates fall people will sell bonds and have money in liquid form.
It must be noted that there is a minimum fixed demand for money held for transaction and precautionary motives and some demand for money for speculative motive varies with interest rates. This is shown in the liquidity preference schedule or curve below. **Liquidity preference schedule** is a graph which shows the relationship between rate of interest and the amount of money held.

**The Liquidity Preference Schedule or Curve**

![Liquidity Preference Schedule or Curve](image)

If the interest rate is to be lowered from \( r_3 \) to \( r_2 \), there will be an increase in the money supply. The quantity of money demanded will increase from \( Q_1 \) to \( Q_2 \). This means that when the interest rate is reduced the cost of holding money is lowered. As such the demand for money will be high as people will be holding a lot of money for transaction purposes. If the interest rate is further lowered down to \( r_1 \) the quantity of money demanded further increases to \( Q_3 \). This shows an inverse relationship between the rate of interest and the demand for money.

The liquidity preference could even become infinitely elastic at a particularly low interest rate. The region of the liquidity preference curve which approaches infinite elasticity is called the **liquidity trap**. The liquidity trap is an extreme state in which any increase in money stock is held as speculative (idle) balances. In liquidity trap any increase in the money supply, has no impact on interest rate and hence on aggregate demand. A liquidity trap implies the existence of a minimum rate of interest for the economy that is so low so that everyone switches from holding bonds to holding money.

**Keynesian view on interest rates and money demand and supply**

Since money supply is assumed to be fixed by government, then the size of money supply is perfectly inelastic with respect to in the rate of interest. Therefore, the level of interest would be reached by the interaction of money supply curve and money demand (which is the liquidity preference curve). Since the supply of money is fixed, but money demand increases, interest rate will decrease from \( r_0 \) to \( r_1 \) as the figure below shows. In other words, interest rate is determined by the demand for money.

**Changes in the interest rate**

Changes in interest rate may occur if there is an increase in the money supply from Money supply (\( \text{MS}_0 \)) to Money Supply (\( \text{MS}_1 \)). This is shown in the Figure below. In the diagram,
interest rates have gone down from \( r_0 \) to \( r_1 \) because money supply has increased from \( MS_0 \) to \( MS_1 \).

<table>
<thead>
<tr>
<th>Interest</th>
<th>MS0</th>
<th>MS1</th>
</tr>
</thead>
<tbody>
<tr>
<td>rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r_0 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( r_1 )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Money Demand

Therefore according to John Maynard Keynes, control of money supply will have an effect on interest rates in the sense that an increase in the supply of money will cause a rightward shift in the money supply function thereby reducing the rate of interest rate. This will increase the demand for money would make individuals use the money for investment purposes. This, therefore, will have an effect on the level of investment.

**THE NEW QUANTITY THEORY OF MONEY**

This is a theory that was developed by Milton Friedman in 1956.

Friedman argued that money is just one of the ways of holding wealth. He argued that wealth can be held as:

- Money
- Bonds
- Equities
- Physical goods
- Human wealth

Friedman re-stated the quantity theory of money as \( MV = PQ \)

Where \( M \) is the **Money supply**

\[
\begin{align*}
V & \text{ is the velocity of circulation of money} \\
P & \text{ is the average price level} \\
Q & \text{ is the physical quantity of national output per period (i.e. the real volume of economic output).}
\end{align*}
\]

The means that **PQ is the money value of national output.**

Monetarists argue that \( V \) and \( Q \) are independent of \( M \). Therefore, an increase in money supply \( M \) will tend to raise prices \( P \), via the direct transaction mechanism.

Money is demanded to facilitate transactions and rate of interest is determined by the demand and supply of *loanable funds*. This is shown in figure below.
The interest rate adjusts to bring saving and investment into balance. The vertical line represents saving—the supply of loanable funds. The downward sloping line represents investment—the demand for loanable funds. The intersection of these two curves determines the equilibrium interest rate.

As shown by the figure, an increase in the money supply, without any increase in demand for money, will shift the saving curve to the right from S1 to S2 thereby leading to an increase the amount of loanable funds available. Thus, the interest rates will fall and investment will rise from I1 to I2.

Monetarist also agrees that increase in money supply will lead to inflation.

**Direct Money Transmission Mechanism**

This is the link between changes in the money supply and output and the price levels. Increase in money supply will mean that the money supply will be greater than demand for money.

Demand for goods and services and financial assets will rise. The rise in consumption and investment will shift the total demand curve to the right and may cause a rise in the general price level.

Therefore through the direct transmission mechanism this is what will happen.

(a) Individuals will have more money than what they want
(b) The people will spend this excess money, buying not just bonds but also equities and physical goods.
(c) The greater demand for physical goods will boost expenditure in the economy and so the money value of national income will increase.
(d) However, a rapid increase in the money supply will increase spending at a faster rate than the economy will be able to produce more physical output.
(e) A rapid increase in the money supply will therefore cause inflation.

Therefore, according to monetarists, changes in the money supply will cause changes in the money value of national income.
Weaknesses in the monetarist theory

The following are the weaknesses of the monetarist theory.

(a) The velocity of circulation is known to fluctuate up and down by small amounts. This is not justifiable.
(b) Increases in prices will not affect all goods equally.
(c) Changes in inflation rate result from changes occurring in other countries.
(d) Prices take some time to adjust.

POLICY IMPLICATIONS

The following are implications for policy;

(i) Workers will demand high pay to cover any likely inflation.
(ii) In order to stimulate output, government should announce its target money supply.
(iii) In order to achieve some stability, then government should announce its targets for growth in the money supply.
(iv) Government should try as much as possible to control inflation. Controlling inflation can help because it will restore business confidence, then investment will increase and finally a controlled growth in the money supply will provide higher income for individuals to purchase the higher output.
CHAPTER 8

NATIONAL INCOME ANALYSIS

THE MEASUREMENT OF NATIONAL INCOME

By the end of this chapter, the student should be able to:

- Define the macroeconomic concepts of national income; GNP, GDP and NNP.
- Illustrate a simple circular flow of income model.
- Understand and explain the approaches used in measuring national income (expenditure, income and output approaches).
- Outline uses of national income statistics.
- Identify the main problems in attempting to measure national income

8.1 National income

National income can be defined as the money value of goods and services produced by a country in a one year.

8.2 MEASURES OF NATIONAL INCOME

Gross domestic product (GDP)
It is the sum of factor income earned in the output of goods and services within the domestic boundary of a country regardless of whether the income earned from that output is claimed by residents or foreigners.
GDP can be calculated by summarising the market value of all final goods and services produced in a year.

Gross national product (GNP)
GNP can be defined as GDP plus the amount of net income earned by the country’s inhabitants from property / investments from abroad less income accruing to foreign residents from investments in the domestic economy i.e. income citizens of a nation earn from home and abroad.
The income accruing to domestic residents from investments abroad less income accruing to foreign residents from investments in the domestic economy is called net income from abroad.

Net national product (NNP)
It is the official definition of national income.
Can be expressed as the difference between GNP and capital consumption allowance, where capital consumption is estimated annual depreciation.
Link between GDP, GNP and NNP (national income)

\[
\text{GDP} \quad \text{Plus} \quad \text{Net income to/from abroad}
\]
Equals
GNP
Less
Capital consumption allowance
National income (net) (NNP)

8.3 The circular flow of national income
This is a model of the aggregate economy which describes how national income flows forwards and backwards between households and firms.
Households supply firms with consumer spending (C) in return for a flow of goods and services.
Firms supply households with factor incomes (Y) in return for a flow of labour and other services.

This is illustrated as below

The circular flow of income and consumer expenditures

Income (Y=K1,000,000)

Households
Labour Services
Products and Services
Consumption Expenditure (C=K1,000,000)

Business Firms

In this case there are no taxes, no government spending, no savings, no investment, and no foreign sector.

Withdrawals
These are movement of funds out the cycle of income and expenditure between firms and households. They are also called ‘leakages’ because they tend to reduce the circular flow of income and aggregate demand.

Savings (S)
Households do not spend all their income on the output of domestic firms. However, they save some of it.

Taxation (T)
Some of the income is also taxed away by the government.
Imports (M)
Some of the income is also spent on imports (goods bought from other countries). The more we are taxed, the more we save and the more we spend on imports out of our current income, the less we will spend on domestic output.
It is assumed that only households pay taxes, save or buy imports.

Injections
These are movement of funds into the cycle of income and expenditure between households and firms.
Firms do not just produce goods to sell to domestic consumers. There is demand from corporate sector output due to:
Investment (I)
This is capital expenditure on output.
Government expenditure (G)
Expenditures made by government on good and services.
Exports (E)
Some of the output is also exported to other countries; exports earn income from abroad and therefore provide an injection into the country’s circular flow of income.
When injections exceed withdrawals, national income (Y) increases.
When withdrawals are greater than injections, national income falls.

Condition for equilibrium
National income is said to be in equilibrium when it is constant overtime. This results in injections being equal to withdraws
(I + G + W) = (S + T +M).

8.4 Measuring national income
There are basically three approaches of measuring national income, namely the income approach, the output approach, and the expenditure approach.

The income approach
This approach, in calculating GNP, involves adding together the income earned by residents and corporations of a country in the production of goods and services.
The calculation of GNP using the income approach can be summarised as below:

\[ \text{GNP} - \text{CCA} = \text{NNP} \]

The output approach
This involves adding together the value added of output (goods and services) from various sectors of the economy, namely agriculture, manufacturing, construction, transport and so on. For a given commodity, value added is the value of labour and capital services that take place at a particular stage of the production stage.

The expenditure approach
This method of calculating national income involves totalling the expenditure of various agents in the economy on final output. As such, the approach measures total expenditure on finished or final goods and services produced in an economy. Intermediate goods are not included to avoid double counting. The approach can be represented as follows
GDP = C + I + G + (X - M), where,
C = final consumption expenditure by households.
I = investment or gross capital formation
G = government consumption expenditure
X = exports
M = imports

8.5 Uses of national income statistics
➢ To measure the total wealth (standard of living) of a country. National income is commonly measured in terms of national income per head of the population.
➢ To compare the wealth of different nations.
➢ To measure the improvement or deterioration in national wealth and the standard of living.
➢ To assist the government in economic planning.

Difficulties faced when calculating national income
➢ Production includes goods and services paid for but excludes work done by a person for himself.
➢ Goods with serviceable life of several years are included in national income at their full value only in the year they are bought.
➢ Data from which that national income figure is estimated usually contain errors.
➢ Transfer payments – which do not affect national income, may be included in the national income.
➢ Public goods and services are valued at cost whereas outputs of private firms include profit in their valuation.

Problems involved in using GNP per capita (head) as an indicator of living standards.
➢ Lack of complete information concerning income earned by households and firms.
➢ Goods and services for which payment is not made are not taken into account.
➢ The statistics must be adjusted for inflation overtime using a price index, to give a real figure.
➢ Accuracy of the statistics particularly when making international comparisons.
➢ The needs of people in one country will differ with the needs of the other country.
➢ The share of GNP available for consumption, if GNP increases, but the additional resources are used for higher military spending (for example), the living standards may not have increased at all.
➢ Figures from illegal and underground activities are not captured in the national income figures.
CHAPTER 9

THE KEYNESIAN MODEL

LEARNING OBJECTIVES

By the end of this chapter, the students should be able to:

- Define aggregate demand and understand the components of aggregate demand.
- Explain factors affecting consumption, savings and investment.
- Understand how Keynesian theory explains economic activity.
- Understand the concept of the multiplier.
- Use aggregate demand and aggregate supply analysis to show how equilibrium output and price level are determined.

9.1 THE DETERMINATION OF NATIONAL INCOME

Determination of national income is an economic process by which national income equilibrium is determined. National income equilibrium is determined by the interaction of aggregate demand (AD) curve and aggregate supply curve.

AGGREGATE DEMAND

This is defined as the total planned spending at a given price level. Total spending can also be considered in relation to income. It is than called aggregate expenditure and it also consists of C+I+G+(X-M). Total spending falls as the price level rises and it rises as income rises.

Aggregate demand is a concept of fundamental importance in Keynesian economic analysis called demand-side economics. Demand-side economics is a way of allocating resources whereby the government attempts to influence the level and growth of aggregate demand (AD) hence the levels of national income, employment, rate of inflation, growth and the balance of payments position. It is also called Demand management. Demand management involves manipulation of national expenditure to achieve economic growth by influencing consumption expenditure (C), investment (I), government spending (G), and net exports (X-M).

Components of aggregate demand

Aggregate demand consists of C+I+G+(X-M)

(i) **Consumption (C)**

Consumption is the use of a good or a service by consumers (households) to satisfy a want or a need. In other words it is the amount households spend on goods and services to satisfy current wants.

Factors affecting consumption

- **Income.** The higher the income the higher is the consumption. Keynes argue that people spending is based on current income while Friedman argues consumption is based on people’s lifetime income. **Disposable income** is the income available for
households after paying taxes. This income can be used for consumption expenditure and savings. The proportion of income after direct taxation plus any state benefits which consumers spend is called **average propensity to consume (APC)**, and it is calculated by income spent on consumption divided by total disposable income (i.e. \( APC = \frac{C}{Y} \)). The proportion of extra income that is spent is called **marginal propensity to consume (MPC)**.

- **Wealth.** An increase in the value of people’s assets is likely to encourage people to spend more. This makes people afford loans and use assets like houses as security.

- **Availability and cost of credit.** The easier and cheaper it is to borrow, the more people are likely to spend. When people spend more than they earn they are said to be **dis-saving**.

- **Income distribution.** A less even distribution of income may reduce spending. This is because the rich who receive higher incomes will not significantly increase their spending and those with lower incomes will reduce spending by larger amounts.

- **Age structure.** Middle aged people tend to spend a lower proportion of their income than the youth.

- **Inflation.** When inflation is likely to rise people may be tempted to reduce consumption but at the same time save more in order to maintain the real value of savings.

- **Indirect taxes.** A rise in indirect taxes will likely reduce consumption as the goods and services become expensive.

**Savings**

Saving is disposable income which is not spent. The proportion of disposable income that is saved is called **average propensity to save (APS)** and it is calculated by disposable income saved divided by total disposable income (i.e. \( APS = \frac{S}{Y} \)). The proportion of extra income that is saved is called **marginal propensity to save (MPS)**.

**Factors affecting savings**

- **Income.** People tend to save when the level of income is sufficient to cover the necessities of life. Also as income rises the ability to save also rises.

- **Social attitudes.** The prevailing social attitude towards thrift (the careful management of money) affect saving because where thrift is considered a virtue, more income will be saved.

- **The range of financial institutions.** Financial institutions provide confidence and security to savers. This means where these institutions are available level of savings rise.

- **The rate of interest.** A rise in interest rate will increase savings.
- **Inflation.** Inflation tends to reduce the real value of money. Therefore, people may save more when inflation rises in order to maintain the real value of their savings.

- **Contracts.** Contractual saving is carried out through insurance companies, pension funds and building societies. The agreement is the one that forces the saver to contribute a certain sum of money periodically.

- **Government policies.** Government may encourage saving by, for example, allowing a certain amount to be saved in tax free saving schemes.

- **Corporate saving.** Companies save in order to build reserves which will act as a cushion against future business fluctuations and provide funds for future expansion.

- **Government saving.** Government saves when its income from tax revenue is greater than its expenditure.

**Relationship between consumption and savings**

If we ignore government spending (G), taxation (T), exports (X) and imports (M), then the households divide all their income between two uses:

- (a) consumption on goods and services, or
- (b) saving

Provided the national income is in equilibrium, we will have:

\[ Y = C + S \]

Conditions of equilibrium of national income can be derived as follows:

\[ Y = C + S \]

And

\[ Y = C + I \]

Then

\[ I = S \]

This can occur in the long run because in the short run savings and investment might not be equal.

If we take into account marginal propensity to consume and marginal propensity to save as we ignore government spending (G), taxation (T), exports (X) and imports (M), then we have: MPC + MPS = 1

**Consumption function**

Consumption function is a schedule showing the relationship between aggregate consumption expenditure and income. It is often assumed that marginal propensity to consume and the marginal propensity to save are constant proportions, and that a household will spend or consume:
(a) A fixed amount of money every period also known as autonomous or exogenous expenditure.

(b) Plus a constant percentage of its income (marginal propensity to consume, MPC). The MPC is the portion of disposable income that is consumed.

Similarly a national economy will do likewise.

The consumption function is stated as \( C = a + bY \). This shows that the marginal propensity to consume is \( b \); and the average propensity to consume (APC) will be the ratio of consumption to income i.e. \( \frac{C}{Y} = \frac{a + b}{Y} \).

The fixed amount \( a \) represents autonomous consumption. Autonomous consumption is consumption expenditure independent of the level of income.

The consumption function appears as follows in a graph.

![Figure 6: Income, consumption and savings in a closed economy](image)

In this figure 6, income must equal the sum of consumption and savings because it represents closed economy with no government sector. Consumption will always be a minimum amount, and at lower levels of national income (below \( Y^* \)) consumption will exceed national income. This means that households will be using up savings to buy goods.

**The Permanent Income Hypothesis**

This is a theory which states that people base consumption on what they consider their “normal” income. In doing this, they attempt to maintain a fairly constant standard of living even though their incomes may vary considerably from month to month or from year to year. As a result, increases and decreases in income that people see as temporary have little effect on their consumption spending.

As in the **life-cycle hypothesis**, people smooth out fluctuation in income so that they save during periods of unusually high income and dis-save during periods of unusually low income.
Example

An individual household has fixed spending of K100 per month, plus extra spending equal to 80% of its monthly income.

(a) When its monthly income is K800, its consumption will be: K100 + (80% X K800) = K740. Average propensity to consume is 740/800 x 100% = 92.5%

(b) When is monthly income is K1,000 its consumption will be: K100 + (80% x K1,000) = K900. Average propensity to consume is 900/1,000 x 100% = 90%

(c) The marginal propensity to consume is 80%

This is the production or maintenance of the real capital stock e.g. machinery, buildings, roads, which will allow the production of goods and services for future consumption. It is also called fixed capital formation.

Investment can be private sector investment and public sector investment.

Private sector investment. This is investment by private firms and will come from retained profits, new issue of shares, or borrowing.

Public sector investment. This is investment by government, local authorities and statutory bodies and this will be financed by taxation or borrowing. However a higher public sector borrowing requirement will increase interest rates in the capital markets and this causes crowding out in the private sector. Crowding out is the reduction in private sector investment because of increased interest rates resulting from public sector borrowing. Crowding in is a situation where there is an increase in public sector spending causing private sector spending to rise because the higher national income, arising from net government expenditure, will cause a rise in private sector investment and consumption.

Effects of crowding out

(a) Reduction in output
(b) Unemployment can result because some firms may close down
(c) It can lead to inflation because of having low output against huge demand.
(d) A country will be forced to import more than what it should export and this can result in trade deficit.
(e) In the long run living standards of people can go down.

Importance of investment

- It helps in the economic recovery of an economy. Investment can create growth through the workings of the multiplier. Multiplier is the ratio of a change in income resulting from a change in an investment.
Investment increases the capacity to produce and therefore to consume in future.

It is an important contribution to long term growth of an economy. This is because investment increases and replaces capital stock which is very important in production.

Factors affecting investment

- **The rate of interest.** Firms invest when the expected yield from investment exceeds expected cost. The expected yield is known as **marginal efficiency of capital.** As the amount of capital increases the marginal efficiency of capital falls.

- **Changes in technology.** Advances in technology will make machines more productive and are likely to stimulate investment.

- **Expectations.** If entrepreneurs are optimistic about the future they are likely to invest more.

- **Corporation tax.** Corporation tax is a tax on the profits of companies. Lower corporation tax will increase after – tax returns and will likely increase investment.

- **Government incentives.** An increase in government grants and investment tax allowances will likely increase investment.

- **Profit levels.** Higher profit will encourage firms to invest and will provide them with the finance to do so.

- **The rate of change of national income.** If the growth of national income increases, consumption will rise and firms will seek to increase their productive capacity which will make investment rise.

This is explained in the accelerator theory. **Accelerator theory** is principle that says that a change in the rate of growth will cause a greater percentage change in net investment (gross investment minus depreciation), and it applies to private sector investment. But the accelerator effect can work in the other direction! A slowdown in consumer demand can create excess capacity and may lead to a fall in planned investment demand.

- **Political and regulatory factors;** favourable political and regulatory environment will encourage investors.

**Why a change in the rate of growth of national income will not cause a greater percentage change in demand for capital goods.**

The following reasons account for this state of affairs.

- Entrepreneurs may not be convinced that the resulting change in demand will last and therefore will not adjust their productive capacity.

- Firms might initially have had spare capacity so that they may expand output without having to buy more machines

- The capital goods industry may not have any spare capacity and so may not be able to supply more capital goods.

- A change in technology may mean that output can be increased with a smaller percentage rise in investment.
Government influence on investment

The government can influence the level of private investment in the following ways.

(a) It can attempt to control interest rates, by reducing them in order to encourage higher volume of investments.

(b) It can provide direct encouragement to investing firms, by offering investment grants, perhaps directed at particular regions, or by providing tax incentives in form of tax allowances and tax holidays.

(c) The government can develop and announce an economic policy for continued growth and then achieving policy targets. All this can restore business confidence.

(d) The government can try to encourage technological developments by financing research schemes of its own and also by entering research partnerships with private firms.

(e) Government policy might be directed to influence volume of consumption. This is because consumption affects investment through the accelerator.

(f) The government can spend money itself, and higher the government spending might stimulate investment by private sector.

(iv) Government spending

This is government spending on state-provided goods and services including public and merit goods. Transfer payments in the form of social benefits (e.g. pensions, job-seekers allowance) are not included in general government spending because they are not a payment to a factor of production for output produced. They are simply a transfer from one group within the economy (i.e. people in work paying income taxes) to another group (i.e pensioners drawing their state pension having retired from the labour force or families on very low income).

Factors affecting government spending

The following factors, when they are on the higher side government spending will be higher as well.

- The level of economic activity
- The age structure of the population
- The level of provision of government financed or subsidized goods and services.

(v) Net Exports

- This is the difference income earned from exports and amount spent on imports. Net exports (X-M) reflect the net effect of international trade on the level of aggregate demand. When net exports are positive, there is a trade surplus (adding
to AD); when net exports are negative, there is a trade deficit (reducing AD). These are affected by:

- The price of domestic goods and services relative to the price of foreign goods and services.
- The quality of domestic goods and services relative to the quality of foreign goods and services
- Exchange rates.
- Income levels at home and abroad
- The effectiveness of the marketing of domestic goods and services relative to the effectiveness of the marketing of foreign goods and services.

**Aggregate demand (AD) curve**

The aggregate demand is a curve which shows the quantity of goods and services that households, firms, and the government want to buy at each price level. The aggregate demand curve will be downward sloping because at higher prices, total quantities demanded will be less.

**Why the AD curve slopes downward from left to right**

- A rise in price level reduces the real value of people’s income and wealth and hence decreases their ability to consume
- Higher prices increases people’s and firms’ demand to hold money for transaction purposes. This will raise interest rate and reduce demand for consumer goods (consumption) and demand for capital goods (investment).
- An increase in the general price level will make domestic goods and services less competitive against foreign goods and services and this will reduce demand for domestic goods.

**Shifts in Aggregate demand curve**

The aggregate demand curve will shift to the right (an increase in aggregate demand and more will be demanded) or shift to the left (a decrease in aggregate demand and less will be demanded) if there is a change in an influence on aggregate demand other than a change in the general price level.

**Causes of shifts in aggregate demand**

- An increase in the money supply will shift the AD curve to the right, while a decrease to the left.
- A rise in optimism will increase both consumption and investment.
- A fall in the exchange rate will increase demand for net exports because exports will be cheaper while imports become expensive.
- Government policy resulting in a reduction in taxes and/or an increase in government expenditure will raise aggregate demand.
• An increase in the expected rate of inflation will increase consumption as people forward their expenditure plans.
• If income rises abroad, demand for exports will rise.
• A rise in population size will increase demand for a wide range of goods and services.
  • A fall in the rate of interest will stimulate demand for consumer and capital goods.
  • An increase in wealth is likely to lead to an increase in consumption.

AGGREGATE SUPPLY

This is the total output all firms are willing to supply at each given price level. Economists distinguish between short run aggregate supply (SRAS) and long run aggregate supply (LRAS).

(i) Short run aggregate supply

Short run aggregate supply (SRAS) shows total planned output when prices in the economy can change but the prices and productivity of all factor inputs e.g. wage rates and the state of technology are assumed to be held constant. The Short run aggregate supply curve is upward sloping because higher output is associated with higher price.

Shifts in the short run AS

The short run aggregate supply curve will move to the right (an increase) and to the left (a decrease) as a result of a change in an influence other than a change in the general price level. Shifts in the short run aggregate supply curve are called supply side shocks.

Factors affecting short run aggregate supply

The following factors will cause a decrease in short run aggregate supply.

• A rise in wage rates will increase firm’s production costs and low output will result.
• A rise in cost of raw materials will decrease output.
• A rise in corporation tax will increase production costs and reduce output
• Unfavourable weather will reduce output in the agriculture sector.
• A decrease in productivity of factors of production will reduce output.
• Natural disasters may damage the firm’s ability to produce.

(ii) Long run aggregate supply

Long run aggregate supply curve (LRAS) shows total planned output when both prices and average wage rates can change – it is a measure of a country’s potential output and the concept is linked strongly to that of the production possibility frontier.

Long run aggregate supply curve
The long run aggregate supply curve is **vertical** because the economy is operating at full capacity and it indicates the maximum potential output possible that can be produced with given resources and given technology. The Keynesian view is that even in long run there can be unemployment so they think the long run aggregate supply curve will be **horizontal** at low levels of output and will become **vertical** at higher output levels. At low levels of output the curve is horizontal because with high level unemployment, output can be increase without a rise in costs. At higher levels of output, the curve will be vertical because the firm will begin to experience rises in costs as they have to compete for scarce labour, materials and capital goods. This is shown in the figure below.

**Figure 2: Long run aggregate supply curve**

![LRAS Curve](image)

**Figure 3: Shifts in the long run aggregate supply curve**

![Shifts in the LRAS Curve](image)
Causes of shift in the long run aggregate supply curve
The long run aggregate supply curve can shift to the right showing an increase in output due to:

- An increase in the supply of labour.
- An increase in human capital (resulting from improved health care, education and training)
- Increase in investment
- Technological progress
- Discovery of raw materials.
- Greater incentives to work.

SHORT RUN EQUILIBRIUM OUTPUT AND PRICE LEVEL

In the short run the AD curve is downward sloping and the AS curve is upward sloping. The point where AD equals AS is where the general price level and output level (real national income) will be determined.

However, there may be effects of supply side shocks. For example, if there is a decrease in AS, there will be an increase in the general price level and output will reduce as shown in the following figure 4.

Figure 4: Short run equilibrium
Figure 5: Long run equilibrium

Figure 5 shows that in the long run the economy will be at equilibrium where AD equals AS at the full employment. However, Keynesians argue that the long run equilibrium level of output can occur at any level of employment as the following figure 6 shows.

Figure 6: Long run equilibrium at any level of employment

An increase in AD, without an increase in long run aggregate supply will only result in a rise in the general price level. This is shown in figure 7 below where an increase in AD from AD$_0$ to AD$_1$, have increased price level from P$_0$ to P$_1$. This means that an increase in AD at full employment will be inflationary and there will be inflationary gap. Inflationary gap is the
extent to which the aggregate demand function would have to shift downward to produce the full employment level of income without inflation.

Figure 7: An increase in AD without an increase in AS in the long run

However, Keynesians argue that if AD increases without AS increasing at less than full employment but where shortages in resources are beginning to be experienced, both output and the general price level will rise or if it occurs at a low level of economic activity it will cause a rise only in output. This shows that there is deflationary gap. Deflationary gap is the extent to which the aggregate demand function will have to shift upward to produce the full employment level of national income. The following figure 8 shows an increase in aggregate demand raising output but having no effect on the general price level.

Figure 8. Increase in AD at less than full employment

Concept of ideal equilibrium national income

The ideal equilibrium national income is achieved where AD and AS are equal at the full employment level of national income, without any inflationary gap. i.e. where AD at current
price levels is exactly sufficient to encourage firms to produce at an output capacity where the country’s resources are fully employed. This is shown in figure 9 below.

Keynes argued also that for equilibrium national income to be achieved another factor is that total planned withdrawals must equal total planned injections. This is shown as $M+T+S = X+G+I$. According to Keynes short term differences between withdrawals and injection cause trade cycles.

![Figure 9: Ideal equilibrium national income](image)

**THE MULTIPLIER**

Multiplier is the ratio of the total increase in national income to the initial increase in national income. In other words, it is the measure of the effect on total national income of a unit change in some component of aggregate demand like investment, government spending and exports.

\[
\text{Multiplier} = \frac{\text{Total increase in national income}}{\text{Initial increase in national income}}
\]

Multiplier in a closed economy is equal to $1/\text{MPS}$, i.e. it is the reciprocal of the marginal propensity to save.

**Types of multiplier**

- **Investment multiplier**
  It is the measure of the effect on total national income as a result of a unit change in investment.

  \[
  \text{Investment multiplier} = \frac{\text{Eventual change in national income}}{\text{Initial change in investment spending}}
  \]

- **Government spending multiplier**
  It is the measure of the effect on total national income as a result of a unit change in government spending.
Government spending multiplier = \( \frac{\text{Eventual change in national income}}{\text{Initial change in government spending}} \)

- **Export multiplier**

It is the measure of the effect on total national income as a result of a unit change in exports.

Export multiplier = \( \frac{\text{Eventual change in national income}}{\text{Initial change in export}} \)

Export multiplier = \( \frac{\text{Eventual change in national income}}{\text{Initial change in export}} \)

**The multiplier in an open economy**

The multiplier in an open economy is equal to:

\[
\frac{1}{s + m + t}
\]

Where \( s \) is the marginal propensity to save

\( m \) is the marginal propensity to import (this is the amount of any increase in income that will be used to buy imports)

\( t \) is the **marginal propensity to tax** (this is the amount of any increase in income that will be paid in taxes)

**Importance of the multiplier**

The multiplier helps government to decide how the national income can be increased very fast. This is by increase expenditure or dealing with the components of aggregate demand. This can have important implications for government when it is planning for growth in national income.

**Limitations of the multiplier**

- It is only relevant to a demand deficient economy.
- Leakages may reduce the value of the multiplier
- There may be a long period of adjustments before the benefits of the multiplier are felt.
- Consumption function in advanced economies is more volatile. As such the multiplier is less reliable in predicting changes in national income resulting from changes in any component of aggregate demand.

**The paradox of thrift**

This is situation where the decision to save more, by reducing income, results in a fall in saving. An increased desire to save does not necessarily result in a higher level of saving. This is the case because households may increase savings without a corresponding increase in investment. The amount of income saved by people is not necessarily invested because people might choose to hold on to their savings as money rather than to invest the savings.
CHAPTER 10
PUBLIC FINANCE

LEARNING OBJECTIVES
By the end of this chapter, the student should be able to:

- Define the term public finance.
- Explain the economic role of government.
- Explain the terms budget, budget deficit and budget surplus.
- Explain sources of government income and describe the main principles of taxation.
- Explain government expenditures and classify it in various categories.
- Define national debt and explain its impact on current and future generations.
- Outline the different types of fiscal policies and identity factors that determine the effectiveness of fiscal policy.
- Explain how expansionary and contractionary fiscal policies affect the economy and how they can be used to eliminate recession and how they can be used to prevent inflation respectively.

10.1. DEFINITION OF PUBLIC FINANCE
Public finance is the traditional name of the revenue and expenditure activities of government. It is concerned with economic principles and problems of the public sector. The subject matter has been greatly extended with the development of topics such as cost–benefit analysis and out-budgeting. Public finance has three broad elements which are: expenditure, income and borrowing.

10.2 THE ECONOMIC ROLE OF GOVERNMENT
The economic role of government. Some of the important economic roles of the government are as follows:

- The government creates laws of ownership and contract and then provides the courts to enforce these laws.
- Government intervenes in market transactions to correct what are called ‘MARKET FAILURE’. These are solutions when markets do not work well.
- Government also intervenes to redistribute income by taking from the ‘haves’ and giving to the ‘have nots’.
- Government also plays a part in influencing the overall level of price and in accepting to stabilise the economy against extreme fluctuations in income and employment.

10.3 BUDGET
Budget can be defined as a document containing current and capital government expenditure as well as current and capital government revenue. The budget is a major instrument for regulating the overall economic situation in developed economies.

**Budget Deficit**

Budget deficit is a situation where the current expenditures are in excess of the current revenue or income, usually with reference to the government. Most frequently these are used to describe the situation where government income, tax receipts, fails to cover government expenditure. In this case the government must borrow to make up the difference, so that there is public sector borrowing requirements (PSBR).

**Budget Surplus**

Budget surplus is a situation where current income or revenue is in excess of current expenditures, usually with reference to government. In this case there is a negative PSBR that is a Public Sector Debt Repayment (PSDR).

10.4 **SOURCE OF GOVERNMENT INCOMES**

Most of government income comes from domestic sources. However the short fall in revenues of the total required comes from the external sources.

The government income which is sourced domestically is from taxes, from demands from state corporations from asset sales, and services charges and fees of some government Departments such as passport fees, road tax, postal charges and other licences and from borrowing. However the major (principal) source of government income is taxes.

There are various types of taxes in Malawi. The various types of taxes include personal income tax (Pay As You Earn), Corporate/business tax, customs duties, excise duties, Value Added Tax (Vat), and withholding tax (Customs and Excise Act, Chapter. 42.01; Taxation Act, chapter 42.01; Taxation Act chapter 41.01; see 11 and 12; VAT, No. 7 of 2005).

Generally taxes are classified in two different ways: direct and indirect taxes. Direct taxes are generally based on a tax payers income/wealth, for example PAYE. Indirect taxes are those taxes which are collected by the revenue authority from an intermediary (supplier) whether attempts to pass on the tax to the final consumer, for example customs and excise duties collected by the MRA.

10.5 **PRINCIPLES OF TAXATION**

Adam Smith mentions four principles of taxation. These are

1) **Equality**

A tax system should be based on an individual’s ability to pay and should be equitable.
2) **Certainty**  
When a tax is imposed, the government should be fairly certain of the yield and the tax should be easily understood by all concerned.

3) **Convenience**  
The taxes should be arranged so that collection is convenient. This means that the payment of tax should ideally be related to how and when people receive and spend their income. For example, PAYE is deducted when wages are paid and VAT is charged when goods are bought.

4) **Economic.**  
Taxes should be economic, that is the cost of collection should be small relative to the yield.

Some other principles of a good tax include:
- Flexibility/adjustability.
- A tax should be adjustable so that rates may be up and down.
- Absence of disincentive effects on hard work or enterprise.

Three ways of collecting tax from individuals are as follows:
- Regressive way: this takes a higher proportion of a poor person’s salary than of a rich person’s.
- Proportional way; this takes the same proportion of income in tax from all levels of income.
- Progressive way: this takes a higher proportion of income in tax as income increases; that is the amount of tax is adjusted to fall most heavily on the rich.

10.6. **GOVERNMENT EXPENDITURE**

Government expenditure represents a second element of public finance after government income. It is an injection in the circular flow of income and as such is an important source of increase in the level of national income.

The government expenditure comprises the central government and the local government expenditure as well as financial transfers from central and local government to public corporations.

Government expenditure can be examined in various ways, for example:

- By department (ministry)-department of health, ministry of defence, department of trade and industry, and so on.
- By function: health, social, security, employment, housing, and transport.
- By category –Direct calls by government on labour and other resources, transfer payments to individuals or companies.

Government expenditure can also be examined as either current account expenditure (such as paper clips for the civil service, or text books for schools) or capital account expenditure (such as expenditure for a new school or hospital).
Government expenditure can also be examined as exhaustive expenditure or transfer payments. The term exhaustive expenditure is used to government expenditure in return of goods and services that count as part of current output.

Among their many uses exhaustive expenditures are tools used to fill the gaps in what free markets provide. For example, public goods, such as national defence, the legal system, etc. Transfer payments are payments not made in return for any contribution to current output. Rather, they are transfer of income from one group in society for example one group of tax payers to another group with special needs. Examples of transfers are old age pensions, unemployment insurance and supplementary benefits, welfare payments, disability payments, and a lot other expenditures made by the modern welfare state are all transfer payments. The special feature of such payments is that recipient often has a high degree of freedom as to how they want to use their income. Their main purpose, therefore, is to offer distribution of income.

10.7. NATIONAL DEBT.

The third element of public finance is borrowing by the central government which is known as national debt. National debt can be defined as the amount of debt owed by the central government of a country to its various creditors. These creditors may be nationals of the country or foreign nationals (for example foreign banks, international monetary fund’s or other international financial institutions). National debt becomes necessary when the money raised from taxation is insufficient to cover the government expenditures, and hence the government has to borrow the extra money that it needs.

The national debt exists in the form of debt instruments which are comprised of marketable debt and non-marketable debt. Marketable debt may either be short term debt which consists of treasury bills, or the long-term debt which consists of gilt-edged securities, which are sold to investors and traded on the stock exchange. Non-marketable debt is composed of national savings (e.g. National Savings Certificates) and any non-marketable loans raised by the government.

In Malawi the national debt exists in the form of treasury bills and savings bonds.

Limit to the size of a national debt, servicing the national debt and the burden to society.

The major factor is setting effective limit to the size of a national debt is probably the ability to pay.

To service the national debt, a government must pay interest on the debt and make capital repayment when they fall due. However the problem of making capital repayments can be overcome, if required, by taking out new loans when old loans mature.

If the loan is obtained from the private sector of the country’s economy, the national debt and servicing the debt involve the transfer of funds between different sections of society. When the government borrows, it takes money from one group and spends it on other sections of the society. When government pays interest it will raise money in taxes from the rest of the society.
and pays this money to its debtors. This also involves a transfer of funds. Hence, the national debt and servicing the national debt involves:

- A redistribution of funds within society, through government borrowing and spending or through taxation to pay debt interest;
- Borrowing to spend ‘now’ and only repaying the debt with interest later. In other words society benefits now, and the repayment burden falls on society in later years, perhaps in some cases as long as a generation or later.

When money is borrowed from abroad, the flow of funds in obtaining the money and in repaying the debt crosses national boundaries, and so there are implications for the balance of payments and the exchange rate of the domestic currency.

Repaying a debt to foreign debtors also places a burden on society, because the money raised from taxes to service the debt must be paid abroad.

**National debt and public sector borrowing requirement (PSBR)**

The public sector borrowing requirement or PSBR is the annual excess of spending over income for the public sector—not just central government. If the entire public sector had a balance budget, they would be nil. When there is an annual excess of income over expenditure, some of the national debt can be repaid and there is a public sector debt repayment (PSDR).

In order to reduce the size of PSBR, a government must either:

(i) Reduce its expenditure; or
(ii) Raise its income from taxation (or to a lesser extent by selling off public companies to the private sector through privatisation).

**10.8. FISCAL POLICY.**

Fiscal policy is government action to collect money and spend money with the purpose of influencing the conditions of the national economy.

Two types of fiscal policies can be distinguished demand side fiscal policy and supply-side fiscal policy.

**Demand side fiscal policy.**

This is fiscal policy which involves the use of taxation (the word fiscal is derived from fiscal, the Roman Emperor’s Privy Purse from which he paid for the administration of the Roman Empire) and government spending to regulate the aggregate level of the economic activity or to influence aggregate demand. The basic principle of fiscal policy is that by judicious use of taxation and spending, government can offer the level of economic activity or influence aggregate demand and this work towards the achievement of their four main macroeconomic goals. These four macroeconomic goals in essence are adequate economic growth, stable
prices, full employment (i.e. low levels of employment) and a healthy or favourable balance of payments.

Fiscal policy can be expansionary or contractionary.

**Expansionary fiscal policy.**

This is a policy under which the government acts to increase aggregate demand by adjusting its budget during the year. This can be done by increasing its purchases of goods and services, by increasing transfer payments to individuals and organisations or by decreasing taxes. Of course government can choose to stimulate aggregate demand by reducing taxes and increasing spending. Expansionary fiscal policy can be used to increase national income and reduce unemployment that prevails when the economy is in a recession.

**Contractionary Fiscal policy.**

This is a policy under which the government acts to restrain aggregate demand by decreasing spending or increasing taxes, or both. A contractionary fiscal policy can be used to put downward pressure on price level, thereby combating inflation in periods when the economy is overheating.

Such a policy results in a reduction of government deficit or a movement towards budget surplus.

**The effectiveness of fiscal policy.**

The effectiveness of fiscal policy will depend on a number of factors, some are as follows:

1. The accuracy of forecasting. Government would obviously like to act as swiftly as possible to prevent a problem of excess or deficient demand. The more reliable are forecasts of what is likely to happen to aggregate demand, the more able will the government be to intervene quickly.

2. The timing of the effects. It is no good simply being able to predict the magnitude of the effects of fiscal policy. It is also necessary to predict how long they will take. If there are long time lags with fiscal policy, it will be far less successful as a means of reducing fluctuations.

3. The extent to which changes aggregate demand will have the desired effects on output, employment, inflation and the balance of payments.

4. The extent to which fiscal policy has undesirable side effects, such as higher taxes reducing incentives.

**Supply-Side Fiscal Policy.**
This is fiscal policy that emphasises government policies that increase aggregate supply in order to achieve long run growth in real output, full employment, and a lower price level. These policies seek to influence long run growth in real output through government subsidies and tax reductions.

By increasing investment and work effort, these programmes aim to shift the aggregate supply curve for the country outward at a faster rate than would be the case.

The effectiveness of such policies depends on the responsiveness of workers, savers, and investors to increase in the net returns to work, saving, and investment over the long run. According to the supply sider’s cuts in marginal tax rates-the tax rates on extra income are likely to increase both work and investment in the long run. They argue that this will ultimately increase aggregate supply in the long run, thereby contributing in the higher real output and employment without inflation.
CHAPTER 11

BUSINESS CYCLES AND ECONOMIC GROWTH

By the end of this chapter, the student should be able to:

- Explain what business (trade) cycles are.
- Define the term accelerator, and the accelerator-multiplier model of the trade cycle.
- Understand the term economic growth.
- Discuss factors affecting economic growth.
- Analyse the benefits of economic growth.
- Outline the costs of growth.
- Distinguish economic development from economic growth.
- Explain the concept of economic reorganisation.

11.1 THE NATURE OF TRADE CYCLES

Definition of trade cycles

The term trade cycle refers to the continual sequence of rapid growth in national income, followed by a slowdown in growth and then a fall in national income. In other words, it is a series of fluctuations in the levels of national income. Trade cycles are also called business cycles or economic cycles.

Some features of trade cycles

- The whole economy experiences fluctuations rather than fluctuations in a particular industry.
- Recurrence of the trade cycles are also a common feature.
- Occurrence of contractions and expansion at the same time.

Phases or elements of trade cycles

The trade cycle has the following elements

- Recession.
- Depression.
- Recovery.
- Boom.

Recession

This is a phase in which there is a decline in national income.

This phase has the following characteristics

- Rise in unemployment levels.
- Demand for products falls.
• Investments become unprofitable.
• A lot of businesses fall.
• If it takes a longer period of time, it can result into severe depression.

**Depression /trough**

At this stage, the economic activities are grounded down and investments stop rapidly. Depression is also called **slump** or **downward swing**.

**Characteristics of depression**

- Business confidence becomes minimal.
- Demand declines progressively.
- Existence of unused capacity in different industries.
- Prices of goods and services falls.
- Losses are experienced.

**Recovery**

Recovery occurs when national output starts to increase slowly. It can be manifested by;

- Increasing levels of employment.
- Production picks up.
- Demand rises.
- Business confidence grows.
- Profits start to increase.

**Boom**

This is where national output is rising at a faster rate than anticipated. There is great expansion of productivity and aggregate demand is high. Boom is also called the **upsing**

**Features of boom**

- Huge profits are realised.
- Investment increases rapidly.
- Higher consumer spending.
- Prices picks up.
- Full capacity is achieved.

Diagram illustrating phases of business cycle
11.2 Summary of pre-Keynesian theories of trade cycle

- Recovery after a slump begins with a rise in investment. It was believed that a rise in investment was caused by a fall in interest rates to the extent that borrowing became profitable, due to the fall in wage rates that would lead to an increase in investment.

- As investment increases, more labour will be employed. As a result of increased demand for labour, wages rise leading to an increase in household income. This would lead to an increase in consumption and hence stimulate further investment.

- Eventually, the upswing flattens out. As it was believed at the beginning that the downturn was caused by over-investment in capital goods during the period of boom. Surplus capacity in these industries eventually leads to redundancies, culminating in fall in household income and consumption, marking the beginning of the downturn.

11.3 ECONOMIC GROWTH

The term economic growth refers to the long term expansion of a country’s productive potential.
Economic growth reflects the economy’s productive potential by producing greater output of goods and service in each year.
Economic growth can be measured by the increases in the real GNP per head of a population. 
Economic growth leads to an increase in the living standards of people and an increase in employment.

Forms (types) of economic growth

Balanced growth
This means that all the sectors of the economy are growing at the same rate.

Unbalanced growth
This is where some sectors of the economy are growing at a faster rate than others.
Actual growth
This is the actual increase in the real level of a nation’s output.

Potential growth
This is the rate at which the economy could grow if all resources were used efficiently.

Sustainable growth
This is the expansion of the economy that is concerned with the long term growth of physical output.

Causes of economic growth
There are different causes of economic growth of which some are short-run and others are long run.

Short run causes
- **An increase in aggregate demand**, this stimulates an increase in national income when one of the components of aggregate demand increases.
- Transfer of economic resources from areas of low productivity to areas of higher productivity also causes the change in the rate of economic growth.

Long term causes of economic growth
This arises from the increase in the quantity and or quality of the factors of production in the economy.

Some of the ways in which economic growth can occur in the long run are:

- **Investing in worker training**: Provide necessary training to workers to enable them acquire skills that can result into increased productivity.
- **Investing in new technology**: This can be due to innovative ideas and technology resulting into production of more output using the same factors of production.
- **Government policy**
  - The government can put measures/policies and guidelines towards the achievement of economic growth.
- **An increase in net investment**
  - This results in an increase in the productive capacity of the economy by producing capital items.
- **Availability of natural resources**
  - The rate at which the natural resources are extracted also affect economic growth.
- **Sufficient factors of production**
  - When the factors of production namely land, labour and capital are sufficient; they help in increasing the national income.

Benefits of economic growth
• **Improvements in the living standards of people**, since economic growth means in the increase of wealth, it increases the disposable income of the households hence an increase in the amount of consumption by the households.

• Enables the government to provide more social services in an economy.

• **Income redistribution**, economic growth makes it easier to redistribute income through the tax system. The increase in income makes a reduction of income inequalities possible without actually having to lower everyone’s income.

• **National defence and prestige**, a country which has economic wealth attains economic power. This makes it easier to bear the expense of arms and space race and hence attain a military power, such achievements makes it prestigious.

• **Provision of aid to the poor countries**, a country which is rich or experiences economic growth finds it easier to assist the poor countries in different ways. It can provide development aid to the poor countries.

**THE COSTS OF ECONOMIC GROWTH**

• Economic growth can result in depletion of natural resources. Growth will usually entail faster use of earth’s resources.

• Degradation of the environment

• Growth activities tend to create pollution of air and water and generally deterioration of the environment.

• Can result in serious structural unemployment, growth can often only be attained by increased productivity through technological progress. If this is labour saving technological progress, a good proportion of the workforce may be restricted thereby making it redundant causing serious structural unemployment.

• Involves sacrifice of current consumption by expanding investment which involves the sacrifice of current consumption.

• Economic growth puts pressure on economic resources and this results in inflation.

**Economic reorganisation**

This refers to the changes which must be made within a country when its old industries are facing a decline and new industries need to be developed to take their place.

**Motive towards economic reorganisation**

• To encourage firms to move into new growth industries.

• To encourage new investment by firms: in order to have up to date technology and to increase output capacity.

• To encourage training, so that a skilled labour force is available to do the work in the new industries.
CHAPTER 12

ECONOMIC DEVELOPMENT AND POLICIES

This is the general improvement in the living standards of people in an economy through the provision of different social services such as infrastructure etc.

Classifications of countries

Countries can be classified in the following ways:

**Developed countries.** These are countries that have a higher GDP per capita. Examples are the USA, Germany, Japan, UK and Canada.

**Emerging economies (newly industrializing countries NICs).** BRICS is an acronym for emerging economies of Brazil, Russia, India, China and South Africa.

**Least developed countries.** These are countries that have low GDP per capita. Most of these countries are found in south of the Sahara and some Asian countries.

Features of least developed countries

Some of the features of least developed countries include:

- Low levels of employment, a higher percentage of the population is unemployed.
- Low level of investment due to lack of technical skills and education.
- Reliance on agriculture, much of the labour force is engaged in agriculture in spite of the need for specialisation.
- Low life expectancy.
- Inadequate industrial and social infrastructure.

Causes of underdevelopment

- Poverty.
- Unemployment.
- Inflation.
- Budget deficits.
- Balance of payments.

UNEMPLOYMENT AND INFLATION

Definition of unemployment

According to the International Labour Organisation, unemployment refers to the number of people who are out of work, wanting a job, have actively looked for a job for the past four weeks and are available to start work within two weeks.

It can also be defined as a measure of the number of people unemployed.

Unemployment cannot be simply defined as the number of people without jobs because such a wide definition would include children who are too young to work, pensioners who are retired and housewives and others who choose not to take up paid employment. Since these groups
pose no serious economic problems, it is correct that they should not be included in the unemployment figures.

Types of unemployment

Structural unemployment
- This type of unemployment arise due to structural changes in an industry of the economy that result into mismatch of skills of the unemployed and the requirements of potential employers.

Frictional unemployment
- This type of unemployment comprises of individuals who are between jobs (workers who have left one job and are looking for another job).
- It can also be described as the minimum number of people who are not employed.

Cyclical unemployment
- Occurs when aggregate demand is too small, there being a deficiency of demand for goods and services. Since demand for labour is derived, the lack of demand for goods and services will also lead to labour deficiency and hence cyclical unemployment.

Seasonal unemployment
- This type of unemployment is caused by marked seasonal patterns of demand. In other words there are fluctuations in demand across the year. For example in tourism industry, farming etc.

Technological unemployment
- This occurs as a result of the introduction of new technology, which displaces labour.

Real wage unemployment
- This occurs when real wages are too high, i.e. they are above the market equilibrium level.

Costs of unemployment

The economic cost
- This is the loss of output which could have been produced had the unemployed been in employment.
- The unemployed labour represents loss of resources and with it a resulting lower standard of living.

The cost of the ex-chequer (Government)
- This is the cost of paying benefits to the unemployed, social security and the opportunity cost of the taxes the unemployed would have paid.

The social cost
• Unemployment brings in social problems such as family unrest, increased crime rate, in long term this leads to demoralisation.

**Relationship between unemployment and inflation**

• Full employment is not achievable in an economy without some price inflation; an attempt to increase the level of employment might cause a higher rate of inflation.
• Reduction in unemployment might be associated with a rising rate of inflation.

**Trade-off between unemployment and inflation**

**The concept of trade off** illustrates a choice which involves sacrifice.

This relationship was discovered by A.W. Phillips which in general implies that to reduce unemployment inflation will rise and vice versa. A curve known as the Phillips curve can be drawn linking unemployment and inflation as follows.

- The curve crosses the horizontal axis at a positive value for the unemployment rate. This means that zero inflation will be associated with some unemployment.
- It is not possible to achieve zero inflation and zero unemployment at the same time. Furthermore, the shape of the curve means that the lower level of unemployment, the higher the rate of increase in inflation.

**Ways of reducing unemployment**

• Government can spend more money directly on jobs by hiring more civil servants.
• Encouraging growth in the private sector of the economy. When aggregate demand is growing, firms will want to increase output to meet demand and so will hire more labour.
• Training in job skills, so as to provide a skilled workforce which firms need and will pay for.
Note
The term `full employment’, does not imply that everyone has a job. There will always be a certain natural rate of unemployment.

INFLATION

The term inflation refers to a persistent increase in the general level of prices which reduces the purchasing power or real value of money.

When the prices rise at a very fast rate it is called hyperinflation. This is a situation in which there is a continuous tendency for prices to rise, and the increase in output is less than the increase in spending in money terms.

Measuring inflation

-Inflation is measured by the percentage change in a price index. The price index used to measure the impact of inflation on households is the consumer price index (CPI) or the retail price index (RPI). This index is a measure of the changes in the average price of a basket of those goods and services on which most households spend their income.

Main Types and causes of inflation

There are two main types of inflation namely:

- Demand-pull inflation.
- Cost-push inflation.

Demand-pull inflation

- This type of inflation occurs when there is excessive demand for goods and services than the economy’s ability to supply. This pulls prices to a situation where there is too much money chasing too few goods.

- The other way in which demand-pull inflation occurs is when there is rise in credit lending by the banks. Borrowers use their loans to spend more and there is an increase in the money supply because of excessive borrowing by the government. This is sometimes called deficit spending.

The graph below illustrates demand- pull inflation
Control of demand-pull inflation

Demand-pull inflation can be remedied in the following ways;
- Deflationary fiscal policy, where increased taxes and or reduced government spending lowers aggregate demand.
- Deflationary monetary policy, where reducing the growth of money supply and / or raising the rate of interest lowers demand.
- Stimulating output by increased productivity.

Why high interest rates reduce the rate of growth in consumer spending

When interest rates are high, there can be a reduction in the rate of growth in consumer spending manifested in the following ways;
- Borrowers pay more interest out of their income, and this leaves them with lesser income.
- When interest rates are high, people are also deterred from borrowing and this result in reduced spending with borrowed funds.
- Higher interest rates stimulate a saving culture hence a lesser spending of their income on consumption.

Cost-push inflation

- This type of inflation occurs when the costs of factors of production, notably raw materials and wages, rise regardless of whether or not they are in short supply.
- This appears to be particularly the case with wages; the work force anticipates inflation rates and demands wage increase to compensate, thus initiating a wage-price spiral.
- An example of cost-push inflation is import cost push inflation. This is where there is a rise in price of imported raw materials.
Control of cost-push inflation

- Encouraging greater productivity.
- Use of price and income policies to control wages and prices.
- De-regulating labour markets.

Effects of inflation

- Investments may be discouraged as rising inflation puts pressure on interest rates.
- Balance of payment effects: high inflation can push exporters out of the world markets leading to a deteriorated balance of payment position and a weak currency.
- Rise in unemployment especially in export processing industry.
- Re-distribution effects; high inflation can reduce the real value of a debt hence redistribution of wealth from creditors to debtors; Can also make the distribution of income less even, since those with fixed incomes like pensioners fall behind those able to keep up with the cost of living.
- Uncertainty in the true value of money and prices. This makes planning difficult both for firms and households.

MONETARY POLICY AND SUPPLY SIDE ECONOMICS

Monetary policy

This refers to the setting of targets for specific measures of the money supply and using interest rates and other measures to achieve desired changes in the economy. Basically monetary policies are concerned with controlling money supply and the rate of interest.

Relationship between the money supply, aggregate monetary demand and the price level

This is the money transmission mechanism which links how changes in the money supply affect the output and price levels in an economy.

Generally, an increase in money supply in an economy leads to a reduction in the interest rates which in turn will lead to rise in aggregate demand for goods and services in the economy. The increased demand for goods, services and financial assets will then cause an increase in their price.

The general price level may rise as a result of a rise in the aggregate demand which shifts the aggregate demand curve to the right as illustrated by the graph below.
Monetary policy instruments
Some of the monetary policy instruments that assist the government in achieving its objectives are:

Open market operations
This refers to the sale and purchase of bills and other securities by the central bank on the open market (stock exchange). Open market operations affect the volume of commercial bank reserves and hence the overall cost and availability of credit.

When the central bank purchases government securities in the open market, commercial bank’s reserves are increased and as a result the volume of the bank credit also increases. This constitutes expansionary monetary policy.

When the central bank sells the government securities, there is a decrease in commercial banks reserves resulting into a reduction of the volume of bank credit
In this way, the central bank is able to reduce or increase the funds available in the open market but also to control the level of interest rates by influencing the conditions in the money market. This constitutes contractionary monetary policy.

The bank rate of interest
The central bank can operate as buyer or a seller in the money market so as to influence the lending rate of interest. Thus the central bank can restrict the demand for credit by higher interest rates thereby slowing down the rate of monetary expansion.

Liquidity Reserve Ratio
These are amounts that commercial banks are required to keep to reduce their liquidity and ability to supply credit.

The commercial banks will hold still funds (non operational balances) that are too small to have any significance.

Moral suasion
This is a situation in which the central bank liaises with the commercial banks to limit the amount of lending. This is done with the aim of controlling supply of money into the economy.

Qualitative, quantitative and prudential controls
These controls focus on directives on who should receive loans, the amount or limit of lending and the commercial banks overview as to ensure that they have adequate capital structure and liquidity.

The exchange rate
Higher interest rates imply a high price of exports and lower prices of imports. The higher interest rates tend to reduce inflationary pressures by forcing domestic firms to lower their prices in the markets so as to remain price competitive.
Types of monetary policies
Monetary policies can be either contractionary or expansionary.

Contractionary monetary policy
This is a policy which seeks to reduce aggregate demand in an attempt to reduce the inflationary pressures or correct a balance of payment deficit.
This involves increasing the interest rate and reducing the growth of money supply.

Expansionary monetary policy
This is a policy which seeks to increase aggregate demand to raise the production levels and increase employment.
This is done by reducing the interest rates and stimulating the growth of money supply.

Monetary policy and fiscal policy (Fiscal policy to be under separate section)
Fiscal policy affects the monetary policy and vice versa.
Assuming that the government spends more than its ability to raise its revenue, then it will require a net borrowing. And if this net borrowing is financed by the banking sector, other things being equal, the money supply will increase.

When the bank borrows from the non banking sector, the money supply will not be affected as the bank deposits are transferred to the public sector from the private sector.

Whenever there is an increase in net borrowing, interest rates will be affected.

Significance of the monetary policy
- The monetary policy will enable the government to control the quantity of money (money supply) in the economy.
This in turn helps to reduce inflation.

Drawbacks of using monetary policy
- There are many players involved in the economy; as a result it becomes difficult to control money supply.
- It takes time for the interest rates to start working efficiently.
- There is no complete independence on the monetary policy by the central government.

Supply side economics
Supply side economics is concerned with formulation of economic policies that will advocate improving the supply of goods and services rather than measures that affect aggregate demand. This is important as it can result in long term economic growth and increasing prosperity.

Features of supply side economics
- The direct taxation rates have a major influence upon aggregate supply through their effects upon the incentive to work.
- Government has limited role in the economic system.
- The free market economy automatically generates the highest level of national income and employment available in the economy.
• The labour market is not flexible due to the existence of trade unions and other restrictive practices that retain wages at high levels. This in turn creates unemployment and restricts aggregate supply.

Supply side policies

This refers to a set of government policies which aim to change the underlying structure of the economy. They aim to improve the supply potential of the economy, the economic performance of markets, industries, individual firms and workers within those markets.

The main objectives of supply side policies
Some of the main objectives of the supply side policies include the following:
• Improving labour productivity.
• Increasing the competition between firms to encourage efficiency.
• Increase investment by firms.
• Increase people’s incentives to work.
• Improving the geographical and occupational mobility of labour.

Supply side policies to improve competition and efficiency in product markets

The following are policies in the product market

• Privatisation
This is the transfer of assets from the public sector to the private sector.

• Deregulation
This involves loosening and removing some of the laws and regulations that restrict competition
• Encouraging free trade.
• Encouraging entrepreneurship culture.

Supply side policies to improve the quality and quantity of labour

• Improving training and education
The government should provide training schemes and subsidise private sector training in order to ensure that the labour force is equipped with necessary skills.

• Reducing the rate of tax
A reduction in the rate of income tax will encourage some people to work for long hours, and this will increase output.

• Reduce the power of trade unions
Other trade unions can cause unemployment by pushing wage rates up above the equilibrium level and so reducing the power of trade unions will maintain the amount of labour force in existence.

- **Investment grants**
  Increasing the level of investment grants can also stimulate economic growth and will generally increase the supply of labour in the market.

**Government intervention**

Supply side economists argue against government intervention in the following ways:

**Arguments**

- Price regulation distorts the signalling function which is essential for markets to reach equilibrium point.
- Wage rates distort the ability of the labour market to be in full employment.
- Government can increase taxes which can act as a disincentive to hard working.
- Public ownership of resources can lead to inefficiency and this affects the profit motive.
- Demand management will tend to be inflationary in the long run.
- Government grants and subsidies can encourage inefficiency in other industries.

**The significance of supply side policies**

- Supply side policies can help in increasing the potential output of the economy.
- Raises productivity which in turn reduces inflationary pressures.
- Can also result in improving the balance of payment position of the economy by increasing the price level and producing high quality goods and services.
CHAPTER 13

INTERNATIONAL TRADE AND FINANCE

LEARNING OBJECTIVES

By the end of this chapter, the students should be able to:

- Discuss the importance of international trade
- Distinguish between the absolute advantage and comparative advantage
- Describe forays of protectionism and explain its costs and benefits.
- Identify the key components or accounts of a country’s balance of payments.
- Identify and explain the key exchange rate systems and their advantages and disadvantages.
- Explain the term “terms of trade”.
- Understand the role of WTO and IMF in international trade and finance.

13.1 TRADE

The term trade refers to the buying and selling of goods and services. International trade then refers to the buying and selling of goods and services between different countries.

Necessity for international trade

- Fostering of international cooperation, this leads to interdependence of countries.
- To make sure that economic resources are allocated more efficiently throughout the world.
- The need to eliminate monopolies from getting established in an economy.
- To ensure the availability and mobility of resources between different countries.

Benefits of international trade

- Increased competition, buyers have the choice to select a wide range of suppliers from different countries, rather than a single country. This improves product quality hence extending consumer choice.
- Economies of scale can be achieved easily for organisations which are successful in international markets as they can be able to grow large and produce more outputs with reduced average costs.
- Development of new technologies and ideas, this facilitates a conducive environment for the development of new products and production processes and the spread of these ideas around the world
- Leads to increased international specialisation, because countries tend to use scarce resources more efficiently and can produce at comparatively low cost and import items that they do not have a comparative advantage.

The concept of comparative advantage and absolute advantage
The principle of comparative advantage and absolute advantage can be well explained when the following assumptions are held:

- There are two countries.
- Only two goods are produced.
- Limited resources in each country.
- There is constant productivity.

**Absolute advantage**

A country is said to have an absolute advantage in the production of a good or service when it is more efficient than another country in the production of that good.

Suppose that there are two countries; X and Y

<table>
<thead>
<tr>
<th>Industries</th>
<th>Product M</th>
<th>Product N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country X</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Country Y</td>
<td>200</td>
<td>400</td>
</tr>
</tbody>
</table>

One worker in country X can produce either 500 units of product M or 1000 units of N in a year. A worker in country Y can produce 200 units of product M or 400 units of product N.

Then, country X has the absolute advantages in both industries (its productivity per worker is higher in both product M and N).

**Comparative advantage**

The concept of comparative advantage shows the ability to produce at a lower opportunity cost than other countries or firms.

This occurs when two countries produce the same goods; in this case, the law of comparative costs is applied.

This law states that the two countries can gain from trade when each concentrates on the production of that good in which it has the greatest comparative advantage. This principle can be illustrated as below:

Assuming that

<table>
<thead>
<tr>
<th>Industries</th>
<th>Product M</th>
<th>Product N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country X</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>Country Y</td>
<td>10</td>
<td>150</td>
</tr>
</tbody>
</table>

30 350
In this case, in terms of the resources used, the costs of production in both industries are lower in country X. If we consider the opportunity costs, the picture is rather different. In country X the ‘cost’ of a single unit M is ten units of product N, in devoting resources to the production of a single unit M in country X there is a sacrifice in terms of ten units of product N forgone. The opportunity cost of a single unit M is fifteen units of N. Country X has therefore the comparative advantage in the production of product M.

The opportunity cost of a single unit of M in country Y is 15 units of product N. Country X has therefore, a comparative advantage in the production of product M and country Y has the comparative in the production of product N. i.e. in country X, the cost of a unit of product N is 1/10 of a single unit of product M while in country Y the cost is 1/15 of product M. In terms of the output sacrificed, product N is cheaper in country Y than in country X. If trade is to take place between these two countries, X should be the producer of product M and Y should be the producer of product N.

13.2 Protectionism (trade barriers)

These are trade practices pursued by a government to restrict the level of imports, either because of the harm the imports cause to particular domestic industries or in order to minimize the adverse effects imports have on the balance of payments.

The measures government can use to limit the level of imports
There are various ways in which the government can limit the level of imports, some of the ways are:

Imposing tariffs
This is tax levied on imported goods with the result that the imports become more expensive and so less attractive to customers.

Quotas
Government can impose a quantitative limit of the imported goods into the country.

Embargoes
Government can also impose a total ban on certain imports from a certain country.

Exchange controls
Certain exchange controls may be imposed by the government which will enable it to limit the availability of foreign currency and so curtail imports

Granting of subsidies
Government may grant subsidies to domestic firms to reduce costs and eventually prices making the subsidised goods more competitive than imports.

Positive effects of protectionism
- Measures might be necessary to counter dumping or surplus production by other countries at an uneconomically low price.
• Protects infant industries from foreign competition. This assists in the development of a new industry, which might not otherwise get established due to international competition.
• Reduces a large and persistent deficit on the current account of the balance of payments without the use of harsh expenditure reducing demand management policies.
• Measures are taken against imports of cheap goods that compete with higher-priced domestically-produced goods and so to preserve output and employment in domestic industries.
• Helps declining domestic industries to survive and ensure their sustainability.

Adverse effects of protectionism
• Prevents firms from realising the full potential benefits of free international trade.
• Implementation of import barriers might lead to retaliation by other countries.
• Because of retaliation by other countries, protectionists measures directed at reducing a balance of trade deficit are unlikely to be achievable. Imports might be reduced but so too exports.
• Economic growth is unlikely to succeed amongst countries of the world.
• Reduces the volume of international trade and this result in reduction of specialisation, greater competition and benefits of economies

13.3 BALANCE OF PAYMENTS (BOP)

Definition of the term balance of payments

The term BOP refers to the statistical accounting recording of a country’s international trade transactions with other country’s during a period of time.

The structure of BOP

The structure of BOP consists of the current account, the capital account, the financial account and the international investment position.

The current account

The current account measures the flow of expenditure on goods and services and broadly indicates the income gained and lost.
It comprises the balance of visible trade and the balance of invisible trade

The visible trade balance

This measures the value of the country’s exports minus the value of the country’s imports in the country’s currency.
The visible trade is often referred to simply as the balance of trade, which is rather a loose term used to refer to the whole of the current account balance which, includes the invisible trade.

**The invisible trade**

Measures the value of services exported minus the value of services imported in a country’s currency.

Examples of invisible trade include services such as banking, tourism, insurance, communication, interest and profits on foreign investments etc.

The current balance is therefore obtained by adding together the balance of visible trade and the balance of invisible trade.

The current account is of great importance as it reflects the international competitiveness of an economy.

**Current transfers**

These are payments and receipts where there are no international trade transactions.

These include:

- Central government transfers in form of taxes, payments to and from donor agencies, social security payments abroad, bilateral aid etc.
- Transfers from other sectors, these are receipts from donor agencies to pay other beneficiaries, tax on income private gifts etc.

**The capital account**

The capital account measures the net transactions in assets and liabilities, that is the external assets (exports of capital) minus the external liabilities (imports of capital).

The capital account also includes government investment grants and debt forgiveness.

Further to that, the purchase or sale of particular assets such as land by a foreign embassy, patents, trademarks, copyrights, franchise and leases will also be reflected in the capital account.

**The financial account**

The financial account consists of credits and debits

**The credits**

This reflects the amount of foreign investments money entering into the economy. The sum of these foreign investments is recorded as credits.

**The debits**

This reflects the amount of money investments abroad. These amounts go out of the economy and are usually recorded as debit items.

**The international investment position**
This measures the stock of assets and liabilities items which has been built overtime. Mainly reflects investments that have been undertaken in the economy.

Net errors and omissions

The position of the BOP reflects the total inflow (credits) and outflow of money (debits).

As such, when the components of the BOP are added they must be equal to zero. However, some items might not be recorded; either they have not been accounted for or there was an error in recording the actual figure. These are referred to as net errors and omissions.

The balancing item

The balancing item (figure) appears in the balance of payment accounts because of errors and omissions in collecting statistics for the accounts.

Balance of payment deficit

This is when the total payments to other countries are greater than total receipts from other countries. This means that an economy is obtaining certain goods and services (imports) without paying them out of the existing income.

BOP deficit occurs as a result of:
- Overvaluing the exchange rate, which makes exports more expensive while imports cheaper.
- High levels of income in the domestic economy which may increase the appetite for imports.

If the deficit is both large and persistent, the economy can suffer in the long run.

Effects of BOP deficit
- Loss of reserves may lead to loss of confidence in the economy.
- Weakens the local currency thereby reducing the attractiveness of inward investment.
- Leads to reduced flow of capital transactions.
- Raises unemployment level hence reducing economic growth.

Correcting the negative effects of BOP deficit

There are two broad strategies of reducing the BOP deficit.
- Expenditure reducing policies.
- Expenditure switching policies.

Expenditure reducing policies
- This involves the use of deflationary policies such as increases in interest rates, cuts in government spending and increases in taxation.
Current account deficit implies that the country is spending much on imports than it is earning from its exports, so one approach is to cut spending on imports.

However, reducing the level of imports might cause recession and can significantly increase poverty. As such the government can have an alternative in expenditure switching.

**Expenditure switching policies**

- This involves switching spending in favour of domestic producers, in preference to foreign producers.
- One expenditure strategy is to raise import barriers so that they should limit the amount of imports.
- Another strategy is currency devaluation (or depreciation).
- Devaluation is the lowering of the exchange rate in a fixed exchange rate system.
- Depreciation means an automatic downward adjustment of the exchange rate in a freely floating exchange rate system.

A reduced exchange rate implies lower terms of trade: export prices will be reduced (as the domestic currency is cheaper for the rest of the world to buy), while imports will be more expensive (since foreign currency is more costly for domestic residents to buy).

This will lead to an increase in export volumes and a decrease in import volumes.

**13.4 Terms of trade**

Terms of trade refers to the rate at which a country can exchange its exports for imports.

Changes in terms of trade can be measured as the ratio of two price index numbers; the export price index and the import price index.

Terms of trade = \( \frac{\text{export price index}}{\text{import price index}} \times 100 \).

**An increase in terms of trade**

The terms of trade will increase overtime if the exports prices of a country rise relative to its import prices.

**Causes of an increase in terms of trade**

- Currency appreciation.
- Relative high domestic inflation.

An increase in terms of trade implies an improvement in the terms of trade.

**Decrease in terms of trade**

A decrease in terms of trade will occur when the import prices of a country rise relative to the prices of its exports.

**Causes of a decrease in terms of trade**
• Currency depreciation (or devaluation).
• Relative low domestic inflation.
A decrease in terms of trade will mean deterioration in the terms of trade.

**Balance of payment surplus**
BOP surplus occurs where the total receipts from other countries is greater than the total payments made to other countries.
• BOP surplus stimulates economic growth.
• An increase in foreign exchange reserves.
• Leads to an increased flow of capital transactions.

**Balance of payments equilibrium**
BOP will be in equilibrium when:
• The level of credits is equal to the level of debits.
• The exchange rate remains stable overtime.

### 13.5 EXCHANGE RATES

**Definition**
An exchange rate can be defined as the rate at which one country’s currency can be traded for another country’s currency. It is the price of one currency in terms of another.

**The foreign exchange market**
This is a situation where currencies are traded. It consists of traders who buy and sell world currencies on behalf of individuals, firms, banks and other institutions.
Foreign currency can either be bought or sold on the spot, or can be forwarded at a future date upon an agreement of a signed contract.

**Exchange rate systems**
There are different exchange rate systems, some of which are: fixed exchange rate system, freely floating exchange rate system and managed exchange rate system.

**The fixed exchange rate system**
This is an exchange rate system which is fixed or pegged against the value of another currency. This means that every country must use its official reserves to create an exact match between supply and demand of its currency in the foreign exchange rate market, in order to keep the exchange rate unchanged. Using the official reserves will therefore cancel out a surplus or a deficit on the current account and non official capital transactions in their balance of payment.

**Advantages of a fixed exchange rate system**
- Makes international trade more stable, it removes uncertainty of what the exchange rate is going to be.
Gives no room for speculation in the market, this cannot lead to fluctuations in the fixed exchange rate systems.

Leads to credibility of macroeconomic policy, reducing expectations of inflation and allowing for lower interest rates than would otherwise be possible.

Disadvantages of fixed exchange rate system
- There are burdens in adjusting the balance of payments; they tend to fall on the domestic economy.
- Maintaining the interest rates higher, would cause a reduction in demand in the domestic economy in order to maintain the external value of your currency.

Freely floating exchange rate system
This is an exchange rate system that is left to the free play of market forces of demand and supply for foreign currency.
This entirely depends on domestic demand for foreign goods and services, and on foreign demand for domestic goods and services. Expectedly these change daily; there will also be daily changes of exchange rates, hence the name floating exchange rates.

Advantages of freely floating exchange rate
- Floating exchange rate systems are more flexible than fixed exchange rate systems, they tend to stabilise the balance of payments automatically.
- Rapid inflation will not have a damaging effect on the country’s exports, since the currency will depreciate overtime to make exporters more competitive on world markets.
- There is a great deal of freedom to pursue an independent monetary policy, setting interest rates to achieve domestic policy objectives.

Disadvantages of a freely floating exchange rate system
- A floating exchange rate system can lead to uncertainty in international trade both for the trader and the investor, since they are unsure about the future exchange rate.
- Can give rise to speculation and speculation can lead to fluctuations in the exchange rate.

Managed floating exchange rate system
This is an exchange rate system which involves determination of the exchange rate by the market demand for and supply of the currency with no pre-determined target for the exchange rate.

The central bank is prepared to buy or sell domestic currency on the foreign exchange rate market or to change interest rates if necessary.
Factors that affect exchange rate
- Speculation by traders.
- The political stability of the country.
- Government policies.
- Natural resources of the country.
- The rate of inflation.
- Growth in the money supply.
- Interest rates.
- Relative economic growth.
- Current account performance

Devaluation and revaluation of the currency

Devaluation of the currency
Devaluation of a currency can be defined as a deliberate government decision to reduce the external value of its currency in terms of other currencies.

Revaluation of the currency
This is the increase of the country's external value of its currency against all other currencies that are part of the fixed exchange rate regime.

Appreciation and depreciation of the currency

Appreciation of the currency
This is an increase in the external value of a country’s currency, in terms of all other currencies under a floating exchange rate system.

Depreciation of the currency
This can be defined as a fall in the external value of the country’s currency in terms of other currencies under a floating exchange rate system.

Government intervention in foreign exchange market
The government can exercise control over the foreign exchange market in the following ways:
- The government can sell its own currency in exchange for foreign currency; this is done with the aim of keeping down the exchange rate of its domestic currency. The selling of the domestic currency in exchange for foreign exchange would mean an increase in its foreign reserve.
- The government can also buy its own currency and pay for it with the foreign currencies in its official reserves. This will be done with the aim of keeping up the exchange rate when market forces are pushing it down.
- The government can intervene by changing the domestic interest rates and so either attracting or discouraging investors in financial investments which are denominated in the domestic currency.

Consequences of exchange rate policy
The introduction of a policy aimed at controlling the exchange may be done to:
• Rectify a balance of trade deficit, by trying to bring about a fall in the exchange rate.
• To stabilise the exchange rate of its currency, exporters and importers will then face a less risk of exchange rate movements wiping out their profits. A stable currency increases confidence in the currency and promotes international trade.
• To emulate economic conditions in other countries.
• To prevent a balance of trade surplus from getting too large, by trying to bring about a limited rise in exchange rate.

Single currency agreement
This is an agreement by different countries to use a single currency.

Arguments for a single currency
• Price transparency, it becomes much easier to compare prices across member countries, which should increase competitive pressures and help to keep prices down.
• Reduction in costs of transaction, the cost of changing one currency to another is eliminated and this saves money.
• Zone of monetary stability, if it is well managed, the member countries could enjoy relatively low interest rates, low inflation and high economic growth.
• Reduced rate of uncertainty.
• Increased foreign investment, investments into other countries will increase due to reduced uncertainty, lower inflation and lower interest rates.
• Completion of a single market, the single currency encourages a more rapid growth of trade between member countries and this stimulates specialisation, economies of scale and innovation.

Drawbacks of a single currency
• There can be inflexibility as a result of applying one set of interest rates.
• Loss of independent monetary policy.
• Imbalances may arise as different countries have different costs and this creates problems.
• The single area currency maybe too diverse and not have sufficient mobility of labour across it to be optimal currency area.

Special drawing rights

This is a unit of account that was created by International Monetary Fund (IMF) in 1969.
SDRs are defined in terms of a basket of five major currencies used in international trade and finance.
It is created by averaging the major five currencies namely: the British pound sterling, the Euro, Japanese Yen and the United States Dollar.
It is an international reserve asset used to settle international debts by transferring governments accounts held at the IMF.
Some currencies are pegged to the SDR.
13.6 INTERNATIONAL ECONOMIC INSTITUTIONS AND CORPORATIONS

World Trade Organisation (WTO)

The WTO was formed in 1995 to replace the General Agreement on Tariffs and Trade (GATT). The GATT was signed by 23 countries in 1947 as an attempt to promote free trade.

Aims of WTO

- To free up the trade barriers on global scale.
- To prevent the growth of protectionism.
- To eliminate the discrimination in international trade.

The international monetary fund (IMF)

This is the central institution of the international monetary system established in 1944 following the Bretton wood conference.

Aims of the international monetary fund (IMF)

- Lending money to member countries that are experiencing BOP problems to restore short run stability.
- To facilitate the expansion and balanced growth of world trade.
- To supervise the exchange rate practices of member countries and to encourage the free convertibility of national money into the monies of other countries.
- To reschedule debts when countries are facing debt problems.

CHAPTER 14

GLOBALISATION

LEARNING OBJECTIVES

By the end of this chapter, the students should be able to:

→ Explain the term globalisation.
→ Discuss the effects of globalisation.
→ Explain the different levels of regional integration.
14.1 GLOBALISATION

Globalization (or globalisation) describes a process by which regional economies, societies, and cultures have become integrated through a global network of communication, transportation, and trade. The term is sometimes used to refer specifically to economic globalization: the integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology. However, globalization is usually recognized as being driven by a combination of economic, technological, socio-cultural, political, and biological factors. The term can also refer to the transnational circulation of ideas, languages, or popular culture through acculturation.

THE NEGATIVE EFFECTS OF GLOBALIZATION

Opponents of globalization point out to its negative effects. Some of them are listed below.

- Developed nations have outsourced manufacturing and white collar jobs. That means less jobs for their people. This has happened because manufacturing work is outsourced to developing nations like China where the cost of manufacturing goods and wages are lower. Programmers, editors, scientists and accountants have lost their jobs due to outsourcing to cheaper locations like India.
- Globalization has led to exploitation of labour. Prisoners and child workers are used to work in inhumane conditions. Safety standards are ignored to produce cheap goods.
- Job insecurity. Earlier people had stable, permanent jobs. Now people live in constant dread of losing their jobs to competition. Increased job competition has led to reduction in wages and consequently lower standards of living.
- Terrorists have access to sophisticated weapons enhancing their ability to inflict damage. Terrorists use the Internet for communicating among themselves.
- Companies have set up industries causing pollution in countries with poor regulation of pollution.
- Fast food chains like McDonalds and KFC are spreading in the developing world. People are consuming more junk food from these joints which has an adverse impact on their health.
- The benefits of globalization are not universal. The rich are getting richer and the poor are becoming poorer.
- Bad aspects of foreign cultures are affecting the local cultures through TV and the Internet.
- Enemy nations can spread propaganda through the Internet.
- Deadly diseases like HIV/AIDS are being spread by travellers to the remotest corners of the globe.
- Local industries are being taken over by foreign multinationals.
- The increase in prices has reduced the government’s ability to sustain social welfare schemes in developed countries.
- There is increase in human trafficking.
- Multi-national Companies and corporations which were previously restricted to commercial activities are increasingly influencing political decisions.

THE POSITIVE ASPECT OF GLOBALIZATION

Globalization has a positive side as well. Supporters of globalization argue that it is good and beneficial. Some of their arguments are listed below.
- Globalization has created the concept of outsourcing. Work such as software development, customer support, marketing, accounting and insurance is outsourced to developing countries like India. So the company that outsourced the work enjoys the benefit of lower costs because the wages in developing countries is far lower than that of developed countries. The workers in the developing countries get employment. Developing countries get access to the latest technology.
- Increased competition forces companies to lower prices. This benefits the end consumers.
- Increased media coverage draws the attention of the world to human right violations. This leads to improvement in human rights.

THE FUTURE

Globalization is a tool that should benefit all sections of mankind. One cannot ignore its negative effects. These must be addressed for the world’s peace and prosperity.

14.2 REGIONAL INTERGRATION

Regional integration is a process in which states enter into a regional agreement in order to enhance regional cooperation through regional institutions and rules.

FORMS OF REGIONAL INTEGRATION

Five main types or forms of regional integration, classifying them by rising degree of intensity are:

i. **Preferential Trade Agreement (PTA)**, which is formed with the reduction of custom duties (mainly tariffs) on trade among members relative to those on trade with non-members. There is also provisional of special quotas which allow preferential access of their quotas. An example of PTA is a trade agreement between the EU and the African Caribbean and the Pacific (ACP), e.g. Lome conventions.

ii. **Free Trade Area (FTA)**, which involves the elimination of tariffs and quotas on the trade among member countries. Members continue to pursue their own independent policies with respect to trade with non-members. For Example SADC FTA.

iii. **Customs Union (CU)**, which goes a step further than the FTA as in addition to free trade within the union, there is a common external tariff (CET) against non-members. For example Southern African Customs Union (SACU) involving South Africa, Namibia, Lesotho, Swaziland and Botswana.

iv. **Common Market (CM)**, which is a CU that allows for the free movement of factors of production among member countries. Thus, it encompasses intra-union free trade, a common external tariff against non-member countries and free movement of factors of production (labour and capital) within the union. An example is the proposed East African Community.

v. **Economic and Monetary Union (EMU)**, which is a common market in which there is a single currency and monetary policy, and in which major economic policies (particularly fiscal policy) are coordinated or harmonized. Often, there is compensation policy, which involves transfer of income to poorer or disadvantaged members of the Union. An example, are countries in EU.
ECONOMIC EFFECTS OF REGIONAL INTEGRATION

MONETARY UNION

A monetary union refers to two or more countries with a single currency, or different currencies having a fixed mutual exchange rate monitored and controlled by one central bank (or several central banks with closely coordinated monetary policy). Below is an example.

EXAMPLE OF A MONETARY UNION

The European Monetary Union

Among the European states, EMU officially stands for Economic and Monetary Union. Other countries also use EMU to refer generally to the European Monetary Union. EMU is the agreement among the participating member states of the European Union to adopt a single hard currency and monetary system. The European Council agreed to name this single European currency the Euro. The European states decided that the EMU and a single European market were essential to the implementation of the European Union, which was created to advance economic and social unity among the peoples of Europe and to propel Europe to greater prominence in the international community.

History of the EMU

In 1979, the European Council adopted the European Monetary System, known as EMS, which employed an exchange rate mechanism, or ERM, to encourage participating countries to keep the fluctuations of their currency exchange rates within an acceptable band. The permissible limits of the ERM were derived from the European Currency Unit, or ECU, a referential currency calculated from an average of the participating countries' national currencies. In 1988, Jacques Delors, the president of the European Commission, chaired a committee which proposed a three-stage plan to reach full economic union, including the establishment of a European Central Bank and a single currency which would replace any existing national currencies. With each stage, the monetary policies of the participating countries would become more closely entwined, culminating in full convergence in the EMU.

The Maastricht Treaty: Founding Document for the EMU

Plans for the EMU were formalized in provisions within the Maastricht Treaty, which founded the European Union. The Maastricht Treaty was signed in 1992, and subsequently ratified by all of the member states. Some countries approved the treaty by a public vote, while other countries ratified the treaty through a legislative vote. The Treaty set up the conditions, or "convergence criteria," which each member state in the European Union must meet before it could join the EMU.

These conditions for EMU membership were considered necessary because when the member states join the EMU, domestic economic crises in one member state will affect all of the other member states. To participate in the initial formation of the EMU, each member state had to meet the following five convergence criteria by 1998: (1) the national legislation governing the country's financial system had to be compatible with the treaty provisions controlling the European System of Central Banks; (2) the country had to achieve a rate of inflation within 1.5% of the rates in the three participating countries with the lowest rates; (3) the country had to reduce its government deficits to below 3% of its gross national product; (4) the country had
to keep its currency exchange rates with the limits defined by the ERM for at least two years; and (5) the country had to keep its interest rates within 2% of the rates in the three participating countries with the lowest rates.

The Founding Member States of the EMU

Eleven of the fifteen European Union member states initially qualified to join the EMU in 1998. Those states were: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. As part of the EMU, these eleven countries then made up the world's second-largest economy, after the United States. Some analysts have suggested that only by using flexible definitions did Belgium and Italy meet the deficit-related criteria. Two countries, Greece and Sweden, failed to meet the convergence requirements in time to join the EMU in the first round. Sweden failed to satisfy two of the conditions: laws governing Sweden's central bank were not compatible with the Maastricht Treaty, and the currency exchange rates in Sweden were not sufficiently stable for the previous two years. Greece failed to meet all of the requirements. These countries were to be re-evaluated every two years to determine if they were to meet the requirements for joining the EMU. The two remaining members of the European Union, the United Kingdom and Denmark, chose not to join the EMU immediately. Both of these countries made provisions in the Maastricht Treaty that preserved their right not to join the EMU. To ensure stable currency exchange rates among all of the European Union member states, the currencies of those states that did not qualify to join the EMU or that chose not to participate in the EMU initially were linked to the single European currency of the EMU, the Euro, by a new currency exchange rate mechanism, known as ERM2.

The Launch of the Euro

On January 1, 1999, the currency exchange rates of the eleven participating member states became permanently fixed, marking the beginning of the third and final phase of the EMU. On this date, the Euro became a legal currency. Citizens in participating countries now can write checks, use credit cards, and write traveler's checks denominated in Euros. Banks and businesses now have the option of using Euros to transact business. The production of the first Euro coins and banknotes began on January 1, 1999. An estimated 12 billion banknotes and 80 billion coins were minted initially. On the first of January, 2002, the participating countries began to remove their national currencies from circulation. By the first of July 2002, the old national currencies were no longer legal tender, and all transactions were to be conducted in Euros. Once they were retrieved from circulation, the old national coins and banknotes were destroyed.

As an integral part of the EMU, a new monetary institution was founded in Frankfurt, Germany—the European Central Bank (ECB). The ECB sets monetary policy for the EMU independently from the influence of any of the national governments or any other outside influence. The ECB together with the central banks of all of the states in the European Union form the European System of Central Banks (ESCB), which is charged by statute with maintaining price stability. The ESCB implements the monetary policy of the ECB, and administers the foreign exchange reserves of the participating member states, among other tasks.

Advantages of the Euro

The conversion to a single European currency provides a number of advantages. Use of the common Euro eliminates the currency exchange fees from the cost of doing business between
the European states. Companies are able to quickly compare prices with their competitors, which may encourage competition and may result in lower prices for consumers.

By encouraging stability and efficiency, proponents of the EMU hoped that the use of the Euro would stimulate economic growth and may reduce the unemployment rates in the participating member states.

International investors were likely to diversify their portfolios with Euros, encouraging more investment in the European continent. The European states wanted the Euro to become one of the premier currencies in the international financial market, alongside the dollar and the yen.

**Criticisms of the EMU**

Concerns about the EMU centre around loss of national sovereignty for each of the individual participating states. Some fear that the participating states may not be able to pull out of a national economic crisis without the ability to devalue its national currency and encourage exports.

Others worry that the participating European states will be forced to give tax breaks to compete with each other and that companies may have to lower wages for their employees and to lower prices on goods that they produce. Because taxes continue to be levied at the national level and not by the EMU, tax policy cannot be used as a tool to help individual states that may be experiencing an economic downturn. In this way, the EMU differs from the United States which has both a single federal monetary policy and a primarily centralized tax system. In the United States, the residents of an individual state with a lagging economy can pay less tax and the residents of another state with a soaring economy can make up some of the tax deficit.

In the EMU, because tax policy is not centralized, the other states cannot help out an individual participating state that is economically troubled by shouldering a greater proportion of the tax burden. Also, because the participating EMU countries vary so much culturally, the labour force in these countries is not nearly as mobile as between the states of the United States. Because the labour force is fairly stationary, problems of high unemployment may persist in certain individual EMU states while other countries may not be able to fill positions with qualified employees. Finally, some countries (like the United Kingdom) may fear that joining the EMU may pull their country down to the economic equivalent of the least common denominator, saddling them with the economic problems of countries with a less successful economy.
REFERENCES


APPENDIX

TC 5 ECONOMICS PAST EXAMINATION QUESTIONS AND ANSWER BANK

Inflation

(a) What is inflation?
(b) How would you differentiate “demand pull” inflation from import cost inflation?
(c) If interest rates are high enough, there should be eventually a reduction in the rate of growth in consumer spending leading to a reduction in inflation
(d) Explain three ways in which this situation would occur
(e) Name and explain four undesirable consequences of inflation

Exchange rates

(a) Distinguish between “free-floating” exchange and a “rigidly fixed” exchange rate system
(b) Explain the factors that tend to influence the exchange rate.
(c) In relation to currencies, define and distinguish the following terms:
   i. Devaluation and revaluation
   ii. Depreciation and appreciation
(d) State the drawbacks that can arise from the depreciation of Malawi kwacha.

Trade cycles

i. What are trade cycles?
ii. Explain the three views about pre-Keynesian theories of trade cycles
iii. Explain three ways in which the government may reverse the downswing of a trade cycle
iv. State three ways in which a government may influence private investment in an economy

National income

(a) List the withdrawals from and any injections in the circular flow of national income

Assume that the following data relates to an African country

US MILLION

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross National Product</td>
<td>4000</td>
</tr>
<tr>
<td>Net National Product</td>
<td>3750</td>
</tr>
<tr>
<td>National Income</td>
<td>3350</td>
</tr>
</tbody>
</table>

i. Calculate the capital consumption allowance
ii. Calculate the indirect tax
(b) Explain why most poor countries, have usually their GNP being less than their GDP
(c) Explain the weaknesses of using national income per capita as a guide to comparing the standard of living in different countries

**Demand and supply**

The table below shows price, quantity demanded and quantity supplied of bananas

<table>
<thead>
<tr>
<th>Price (kwacha / unit)</th>
<th>Quantity demanded Units per week</th>
<th>Quantity supplied Units per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>50</td>
<td>18</td>
</tr>
<tr>
<td>27</td>
<td>Y</td>
<td>X</td>
</tr>
<tr>
<td>40</td>
<td>Y – 15</td>
<td>30</td>
</tr>
<tr>
<td>50</td>
<td>25</td>
<td>Y</td>
</tr>
<tr>
<td>70</td>
<td>23</td>
<td>49</td>
</tr>
</tbody>
</table>

You are also given the following information:

X : Y = 5 : 9 and X + Y = 70

(a) Calculate the equilibrium price and the equilibrium quantity.

Assume there was an increase in the quantity supplied at each price of 32 units per week

i. Show the quantities supplied; and

ii. The new equilibrium price and the new equilibrium quantity

(b) State whether or not the product in question is inferior

(c) Name any three factors that would affect the supply of bananas

(d) What is meant by the term market supply curve?

(e) Distinguish between a movement along a supply curve and a shift in the supply curve itself. Illustrate your answer with a diagram

(f) What are the effects of the following changes on the demand for margarine?

   i. A rise in the price of butter
   ii. A fall in consumers income

Explain your answers with diagrams

**Production**

(a) Explain the term “factors of production”

(b) Explain the importance of the following factors in the production process of a firm:

   i. The human factors
   ii. The non human factors

**Economies of scale**
(a) Explain the difference between economies of scale and returns to scale
(b) What is meant by the term decreasing returns to scale?
(c) Does this mean the same as diminishing marginal returns? Give reasons for your answer
(d) What is meant by vertical expansion of a firm?
(e) State possible motives for vertical expansion of a firm
(f) Define the term “diseconomies of scale”
(g) State and explain six reasons for diseconomies of scale
(h) Explain the sources of economies of scale

9 Panchenga Holiday Resort is one of the many resorts and lodges operating along the Mangochi beach. It has been operating for more than fifteen years offering slightly differentiated hospitality services to its clientele. Most customers have described Panchenga Holiday Resort as, “medium, neither big nor small”.

Required:

(a) In what market structure does Panchenga Holiday Resort belong? 2 marks
(b) Mention two long-run characteristics of firms operating in the market structure mentioned in (a), above. 4 marks
(c) With the aid of a graph, explain the likely output and pricing levels for Panchenga Holiday resort. 10 marks
(d) Mention one advantage and one disadvantage to consumers, of firms operating in a market structure like the one in which Panchenga Holiday resort is operating. 4 marks

(TOTAL: 20 MARKS)

What is meant by the term “cross elasticity of demand”?  
Distinguish between substitutes and complements

State the differences between cross elasticities of substitutes and complements

Provide the numeric values, terminology and description of elasticities of demand depicted in the following diagrams

```
<table>
<thead>
<tr>
<th>Price (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
</tr>
<tr>
<td>P2</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
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<table>
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<tr>
<th>D</th>
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</thead>
</table>
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NOT FOR SALE