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**Chalimbana University**

**Integrity. Service. Excellence**

**DIRECTORATE OF DISTANCE EDUCATION**

***BPE 2100: PRINCIPLES OF ECONOMICS***

**First Edition 2018**

Chalimbana University

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# ACKNOWLEDGEMENTS

The Directorate of Distance Education wishes to thank Taonga Muzumara for writing the Principles of Economics module.

# MODULE OVERVIEW

**Pre-requisite: None**

## Introduction

Welcome to the course ‘Principles of Economics’ the course intends to bring to you the economic decision makers or agents, namely households and firms in resource allocation in trying to solve the economic fundamental problem of scarcity. Nevertheless, it also introduces you to thetotal (aggregate) picture of the country economy as it focuses on broad issues such as growth of production, the number of unemployed people, the inflationary increase in prices, government deficits, and levels of exports and imports. Hope you will enjoy the course and contribute positively.

## Rationale

Understanding economics will help the learners to develop a skill of logical reasoning. However, choice is at the heart of all decision-making units; Individuals, businesses and governments are all faced with making choices in situations where resources are scarce. This is where economic as a course is vital, because it applies to most aspects of everyday life.

## Aim

The aim of this course is to help learners understand economic concepts and apply the microeconomic principles to decision making in a business environment. The course will also help the learners understand the general macroeconomics environment and its effect upon markets and business organisations.

## Learning Outcomes

At the end of this course, students should be able to:

* Analyse and understand the economic decision makers (Household, Firms )
* To Understand and evaluate the aggregate picture of the country economy.

## Summary

The module looks at the micro and macro economics

## Recommended Readings

Begg, D., S. Fischer and R. Dornbusch. (2003) *Economics* (7th Edition). London: MaGraw-Hill.

Case,K,.Fair R. and Oster, M. (2007),*Principles of Economics*, 8th Edition Pearson Education International.

Grifﬁths, A. and Wall, S. (2005) *Economics for Business and Management,* FT/Prentice Hall.

Hardwick, P. B. Khan and J. Langmed (2006) *Introduction to Modern Economics*, 5th Edition London: Longman.

Heather, K. (2004*) Economics Theory in Action*, 4th edition, Prentice Hall.

Ison, S and Wall, S. (2009) *Economics* 4th Edition London: MaGraw- Hill

Parkin, M., Powell, M. and Matthews, K. (2005) *Economics*, 6th edition, Prentice Hall

## STUDY SKILLS

As an adult learner, your approach to learning will be different to that of your school days: you will choose when you want to study, you will have professional and/or personal motivation for doing so and you will most likely be fitting your study activities around other professional or domestic responsibilities.

Essentially you will be taking control of your learning environment. As a consequence, you will need to consider performance issues related to time management, goal setting, stress management, etc. Perhaps you will also need to acquaint yourself with areas such as essay planning, searching for information, writing, coping with examinations and using the internet as a learning resource.

Your most significant considerations will be *time* and *space* i.e. the time you dedicate to your learning and the environment in which you engage in that learning.

It is recommended that you take time now before starting your self-study to familiarise yourself with these issues. There are a number of excellent resources on the web. A few suggested links are:

<http://www.how-to-study.com/>

The “How to study” website is dedicated to study skills resources. You will find links to study preparation (a list of nine essentials for a good study place), taking notes, strategies for reading text books, using reference sources, test anxiety.

<http://www.ucc.vt.edu/stdysk/stdyhlp.html>

This is the website of the Virginia Tech, Division of Student Affairs. You will find links to time scheduling (including a “where does time go?” link), a study skill checklist, basic concentration techniques, control of the study environment, note taking, how to read essays for analysis, memory skills (“remembering”).

## TIMEFRAME

You are expected to spend at least 18 hours of study time on this module. In addition, there shall be arranged contact sessions with lecturers from the University during residential possibly in April, August and December. You are requested to spend your time judiciously so that you reap maximum benefit from the course.

**NEED HELP?**

In case you have difficulties during the duration of the course, please get in touch with your lecturer for routine enquiries during working days **(Monday-Friday)** from 08:00 to 17:00 hours on Cell: +260963804004**; E-mail:** [**adsikalumbi@gmail.com**](mailto:adsikalumbi@gmail.com)**; website:** [**www.chau.ac.zm**](http://www.chau.ac.zm)**.**You can also see your lecturer at the office during working hours as stated above.

You are free to utilise the services of the University Library which opens from 07:00 hours to 20:00 hours every working day.

It will be important for you to carry your student identity card for you to access the library and let alone borrow books.

**LIST OF EQUIPMENT**

In this module you will need the following tools;

1. A scientific calculator.
2. A graph paper

## ASSESSMENT

In this course you will be assessed on the basis of your performance as follows:

**Continuous Assessment 50%**

Assignment 10%

Project 15%

2 Tests of equal weight 25%

**Final Examination 50%**

**Total 100%**

*PART A*

*MICROECONOMICS*

UNIT 1

**THE NATURE AND SCOPE OF ECONOMICS**

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* 1. **Introduction**

Welcome to the first unit of the economics module. In this unit I will begin by giving a definition of economics and make a distinction between the different branches of economics. Further the basic concepts will finally and the actors in a market economy.

* 1. **Learning Outcomes**

|  |
| --- |
| Outcomes  After studying this unit, the students should be able to:   * Define Economics and make a distinction between micro-and macroeconomics, positive and normative economics. * Understand the economic problem * Explain the basic concepts of: scarcity, rationality, opportunity costs, PPF, marginal concepts, sunk costs. * Determine the actors in a market economy: households, firms, government, and external sector. * Distinguish the models (static models, dynamic models and comparative models), graphs and math. |

TimeTime Frame: in this unit you are expected to spend approximately

* + 2 hour 30 minutes’ study time
  + 2 hours in class

**Content**

**1.3 Definition of Economics**

Economics comes from the verb to economise, and this means making ends meet. Thus been said,it is important to highlight to you that there is no one deﬁnition of economics, although a useful starting point is the well-established deﬁnition provided by Lord Robbins as long ago as 1932. He deﬁned economics as the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses (Ison and Wall, 2007). Therefore,our definition will be;**Economics is a social science that deals with how society attempts to allocate limited resources which have alternative use to meet the unlimited human wants and needs**.However, at ﬁrst reading this may appear a difﬁcult deﬁnition to understand; however, if it is studied in more detail it can be seen to offer a useful insight. Nevertheless, we can dissect the deﬁnition as follows:

(a) Economics is a ‘social science’ in that it uses scientiﬁc methods to study human behaviour.

(b) Human needs are unlimited whereas resources are in limited supply, hence the problem of scarcity. Scarcity is limited resources fighting against unlimited wants and needs.

(c) The resources can be put to alternative uses in order to meet certain unlimited wants and needs, such as the building of a power station, a new hospital, a new school, and roads. Since resources are scarce, choices have to be made as to how resources are utilised.

At this point in time I’m under the impression that we have fully understood what economics is. However, as we proceed we are now going to look at the branches of economics and these are:

**1.3.1 Microeconomics**

This branch of economics we call it a smaller unit. Just the name micro itself means small.We call it small because it deals with individual economic decision makers or agents, namely households and firms.

Thehouseholds happens to be you and you are theresource owners and you supply factors of production to firms/ companies in form of labour and the firm pays you wages for using your labour. Firms in general demand and pay for factors of production from households and in return, supply goods and services at a price to households.

If we pose for a moment and reflect we will realize that the salary we get after offering our labour, we use it to buy goods and services, the goods can either be mealie-meal, sugar, TVs, fridges, beds, phones, clothes, shoes e.t.c; Services can be water bills, TV levy, car service, toll gate, DSTV subscription and so on, all these are goods and services produced by either the organization or firm we are working for or other firms.This interaction between the individual decision makers (Firms and Households is known as the **circular flow of income** and it is dealt with in detail at a later UNIT.

**1.3.2 Macroeconomics**

**In this branch of economics, we are goingto** look at the economy as a whole, total (aggregate) picture of the country economy. It focuses on broad issues such as growth of production, the number of unemployed people, the inflationary increase in prices, government deficits, and levels of exports and imports. Microeconomics and macroeconomics are not separate subjects, but rather complementary perspectives on the overall subject of the economy and macroeconomics has two types of policies for pursuing these goals: monetary policy and fiscal policy which we are going to look at in detail later in the module.

**1.3.3 Positive economic**

When we look at positive economics, we will see that it is concerned with issues such as how individuals behave in trying to maximise their satisfaction from a given income level or how ﬁrms behave in maximising their proﬁts. Positive statements deal with what is or what will be statements that can be empirically tested. For example, if theZambian government increases income tax it will lead to a fall in the level of consumer expenditure is a positive statement because it can be checked against the evidence and proved correct or incorrect.

**1.3.4 Normative Economics**

On the other hand, we will see that for normative economics it deals more with value judgements statements which include the words should or ought. For example, income should be distributed more equally in Zambia or Zambia wining the world cup is a normative statement. Unlike a positive statement, there is no way of proving it correct or incorrect.

**1.4 Economic Problem**

At this particular point in time I am going to look at the fundamental economic problem which is the allocation of scarce resources among alternative uses. Resources can be (human, physical, time and ﬁnancial) these resources are limited in supply while us human being needs and wants are limitless, we always want more and more. For example we need basic food, clothing and housing but there are also desires for other items which we call wants such as DSTV decoder, TVs, fridges stoves, phones e.t.c. Probably at the level of the individual and certainly for humankind as a whole, human wants are unlimited. If you think about your own situation, some of the goods and services you require, you will be able to obtain with the scarce resources such as income available to you. There are likely, however, to be other items you would like to have but are unable to obtain because of limited resources. The same economic problem faces all individuals, organisations and societies and this is as a result of unlimited wants and limited resources.

With that being understood by everyone reading this module, I will highlight that the existence of scarcity and choosing between competing ends creates decisions that must be made regarding resource allocation. However, in order to achieve this the following questions are asked:

1. What to produce
2. How to produce
3. For whom to produce
4. Where to produce
5. How to distribute etc.

However, before we start looking at the basic concepts, pose and explain the economic problem and how do you solve this problem in your everyday life? If you managed, congratulations but if you are still not comfortable read again.

**1.5 Basic Concepts**

The basic concept we will be looking at are key concepts in economics that will be used throughout the module**.**

**1.5.1 Scarcity**

Scarcity is a fundamental economic problem which is as a result of unlimited wants/ needs and limited resources. All economic activities revolve around trying to solve this problem. We say a resource is said to be scarce if the demand at a zero price exceed the available supply. It is important that we note that there is no scarcity for free goods such as air and water because only economic goods are presumed to be scarce in supply, and that is to say, they cannot at one time meetall the demand of humans.

**Examples of Scarcity**.

1. After poor rainfall, Maize crops did not grow well resulting in a scarcity of a staple food for Zambian people.
2. Over-fishing in LakeKariba can result in a scarcity of a type of fish.

**1.5.2 Choice**

Why do we make choices in life? We make choices as a result of scarcity. Choice is the act of choosing between or among the alternatives. Making a choice is another fundamental problems of economics because it requires a rational evaluation of each of the available alternatives.

**Example of Choices**

1. When you wake up to go to work or school in the morning, you probably would have loved to sleep just a little more, but then you have to wake up and leave for work, because you must earn a living. In this scenario, it can be rightly assumed that you have foregone sleep in order to go to work.
2. Another example is a famous phrase people use nowadays that ‘there is no such a thing as free lunch’, and that is perhaps the best way of saying it, even if someone is offering to buy you lunch, you have to sacrifice time which you would have spent doing something else.

Due to scarcity of resources, one therefore has to make a choice of which want to satisfy. By making a choice, it is inevitable that one will have to forego another one. This option that has been foregone is usually called an opportunity cost.

**1.5.3 Opportunity Cost**

We are going to define opportunity cost as the best alternative foregone in making choices or it can also be defined as the next best alternative that has been given up for the alternative that was chosen. In order to understand this opportunity cost definition, it is important that we look at the examples given below. However, it is important to note that opportunity cost is not applicable to non-economic or free good. If food is free, then nothing has been sacrificed in order to obtain it

**Examples**

1. The opportunity cost of going to college is the money you would have earned if you worked instead.
2. If a gardener decides to grow carrots, his or her opportunity cost is the alternative crop that might have been grown instead (potatoes, tomatoes, pumpkins, etc.

What other examples can you give in your explanation of opportunity cost? After having taken into consideration that you have define and understood the above three mentioned concepts we now look at the opportunity cost.

**1.5.4 Production Possibility Curve/ Frontier**

With the above mentioned concepts the relationship between scarcity, choice and the best forgone alternative which is opportunity cost is exhibited by a production possibilities curve or frontier, also known as the transformation curve, opportunity cost curve. The PPF will help to explain the important economic concept of opportunity cost (Case, Fair and Oster, 2007).To simplify, assume the production possibility curve or frontier (PPF is the boundary which shows a combination of two or more goods, the economy can produce when they fully employ or utilize the resources in the most efficient way. Resources being the factors of production (labour, capital, land, entrepreneurship and technology) and they should be used without any wastage. This means that all production should be done within the curve/boundary /frontier. Inside the boundary it will show that resources are underutilized and outside the boundary it is unattainable.

Therefore, with the PPF, the production of one good can only be increased by sacrificing the production of the other good.

Fig: 1 Production Possibility Curve

Good Y is Mealie-Meal

M1

(B2, M2) . (B5, M5)

(B3, B3)

(B4, M4)

.(B6, M6)

B1Good X is Butter

The graph above is drawn for Zambia and assumes that only two standard products may be produced. E.g.mealie-meal and butter.

The economy can produce M1 mealie-meal if all resources are devoted to the production of mealie-meal: B1 if all the resources are the resources are devoted to the production of butter. Alternatively, the country may choose any combination of mealie-meal and butter along the frontier. e.g. M2 mealie-meal and B2 butter or M3 mealie-meal and B3 butter. This illustrates the choice issue facing the society that is deciding on the allocation of resources between mealie- meal and butter.

If the economy is not using resources efficiently, or resources are not used, then it output of guns and butter will be somewhere inside the curve. e.g. M6 and B6, not as much is being produced as it could be. However, any point outside the curve suggest that it is not attainable with the current level of resources, so the country needs to increase the factors of production and increase efficiency or improvement in technology. M5 and B5

**Note**: The resources are the same resources for both the goods e.g same factors of production (Capital, Land, Labour, Entrepreneurship),same time, same materials and so on)

**1.5.5 Rationality**

Rationality for economics simply means that when you make a choice, you will choose the thing you like best. This is very different from the way we normally think about rationality. Usually when we talk about rationality we use it to mean sensibility or reasonable. To economists as long as you are doing what you want given your situation, you are acting rationally.

**1.5.6 Scale of preference.**

Scale of preference is another important economic concept which is the list of unsatisfied wants arranged in order of priority. To solidify this definition allow ourselves to reflect on moments we go to buy goods or services for our consumption. We often list the goods we want first, then the least important follows. For example food, house, phone, car.. e.t.c.

**1.5.7 Marginal Concepts = Additional Concepts**

**Marginal Utility, MU** is the additional satisfaction that you derive or gain from consuming or buying an extra unit of product or services. For example when you are hungry for Nshima the first bite of nshima will give you more satisfaction and as you go on eating there is always an additional satisfaction.

**Marginal cost**, **MC** is the additional cost of producing one extra unit of output. As a company or maybe you are running a business, the more unit you produce the more additional cost you incur such more electricity, more labour, more wages to pay increased number of workers e.t.c.

**Marginal Revenue MR** is the additional revenue from the sale of one more unit of output. The more you sell your units, be it clothes, bags, phones, talk time or anything the more additional revenue you will incur.

**Sunk Costs -** A sunk cost is a cost that has already been incurred and cannot be recovered. For example, ZESCO sinks K40 million on Human Resource Management Information System, that cost is sunk because it was a one-time expense and cannot be recovered once spent.

**1.6 Factors of Production**

From the above explanations we came across the factors of production several time and at this particular moment we will discuss them in details**.** The first one will be land.

**1.6.1 Land**

Landis more than a place where any productive activities are carried out such as the site of materials etc. Land represents productive resources that are provided by nature - such as land, air, water, forests, coal, iron ore, oil, copper, etc. used in the production of a good.

**1.6.1.1 Characteristics of Land**

1. Land is a free gift of nature, that is, land come to being without any cost to man.
2. The supply of land is fixed in the short- run (limited in supply).
3. Land is heterogeneous, that is land is composed of many materials.
4. Land is not geographically mobile, but occupationally mobile.
5. Land is subject to the law of diminishing returns

**1.6.1.1.1 The Law of Diminishing Marginal Return**

The law of diminishing marginal returns is very important especially if you are employing people on a fixed piece of land. This law states that, if extra units of a variable factor are added to a fixed factor, output will rise. However, after a point, the rate of rise of output will decline. This is the point of diminishing marginal returns.

Number of workers Output per year Addition to Output

1 200 200

2 410 210

3 500 90

4 450 -50

**Fig: 2 the law of Diminishing Returns**

Output 500

per

year 450

400

350

300

200

0 1 2 3 4

Number of workers

**Note:** that diminishing returns start after the second worker is employed, when the additions to output start to decline from 210 to 90, and eventually being negative. It is no longer worthwhile to employ more workers on only one hectare of land because it costs more to employ than the additional revenue from an additional worker. Additional workers can only be employed when more land is acquired, but this can only be achieved in the long run were land become variable.

**1.6.2Labour**

Unlike land and capital, labour is variable because it changes both in the short run and long run.In order for you to produce more units of goods, you need to employ people. Therefore, labour is said to be any form of human effort exerted in production. It is all of the work that laborers and workers perform at all levels of an organization.

**1.6.2.1 Characteristics of Labour**

1. It is supplied by human beings
2. It is both geographically and occupationally mobile
3. The supply of labour is limited in the short run because it requires time to train for example skilled labour.
4. Labour is perishable for example, when someone with a skill dies.
5. Labour is heterogeneous meaning that it has many forms e. g. skilled and unskilled

**1.6.3 Capital**

Capital is aman-made factor of production used by labor to produce a good and service. Example of capital includes tools, factories, machines, etc.

Capital can be classified as:

1. Fixed capital: capital which does not change form during and after the production activity.
2. Floating capital: This is capital which changes with the form during and after production activity.

The classification of capital into fixed and floating will depend on the nature of the business, of the individual or a firm. For example vehicles are classified as fixed by a non-motor company but classified as floating by a motor company or a motor dealer.

**1.6.3.1Characteristics of Capital**

1. Capital is created by human beings therefore it is a material factor.
2. Capital is heterogeneous meaning that it has many forms e.g. Fixed and Floating.
3. Capital is subject to the law of diminishing returns.
4. Capital is both geographically and occupationally mobile, but the occupationally mobile has some limitations.
5. The supply of capital is fairly inelastic in the short run.

Note: An example to qualify the law of diminishing return as a characteristic of capital is that the more you use a machine the more it wears out and produces less desired results.

**1.6.4 Entrepreneur**

An entrepreneur is you running a firm or a company and;

1. Combine all the factors of production to produce goods and services in order to make a profit,
2. Is a risk bearer
3. Spot out business opportunities and capitalize on them.

**1.7 Economic Systems**

As we continue enjoying reading the module, we now look at the economic systems. Economic system refers to the approach taken when dealing with the economic problem of allocating, distributing and utilising resources. There are three broad types of economic system, namely the market economy, where resources are allocated through the forces of demand and supply, the planned economy (no longer to be found to any great extent) where resources are allocated via the government or some centralised planning authority, and the mixed economy which contains features of both the market and planned economies.

**1.7.1 Capitalist Economy or a free market**

In the market economy the decision making units are households and private business organisation, land and capital are privately owned. The What? How? and For Whom questions are answered through the market mechanism of demand and supply. Consumer decides what they would have preferred to be produced, businesses deliver goods and services and decides how they will do so, who gets what is determined by the income and wealth of people and the way they decides to spend it and one example of a Capitalist/ free market economy is the United states of America, Germany, France, Italy.

**1.7.1.1 Advantages**

1. The system is efficient; it operates automatically through prices to provide information / signals for the producer and consumer decision and to coordinate these decisions.
2. Producers concern with profit promotes technical efficiency
3. The system responds to consumer preferences to supply the combination of consumer goods and services that consumer prefer.
4. There is a wide dispersion of economic power, clear incentives and freedom for people to make their own economic choices.

**1.7.1.2 Disadvantages**

1. The system does nothing to discourage socially undesired side effects of production such as pollution.
2. The system is unable to supply public goods. Public goods are goods that must be provided communally because there consumption is non- excludable; no one can be prevented from consuming these goods. Example of public goods and services include streetlights, roads and defense and public services.
3. The system implied marked inequalities in income and wealthy distribution and therefore in consumption possibilities.
4. The system might be judged to supply too little of some socially desirable goods and services such as education and health to few people.

**Note:** Despite these countries having this type of economic system the government comes in to provide the public goods that this system fail to provide.

**1.7.2 Planned (Command) Economy**

In the planned Economicsystem, the government makes production decisions on what how and for whom to produce on behalf of the community, for the benefit of everyone. An attempt is made to create a new social order, where everyone is happy.

**1.7.2.1Advantages**

1. Adequate resources are devoted to community goods and merit goods.
2. An attempt is made to distribute resources equally.
3. There is full utilization of resource, no unemployment of resources. Sometimes, workers are employed simply to keep them occupied.
4. Monopoly powers are used in the interest of the community, no self-interest.
5. There is certainty into production and improving mobility by directing resources, including labour.
6. Inefficiencies, which result from competition, are eliminated
7. Weaker members of the society are well taken care of; their basic needs such as food, clothing and shelter are met by the government.

**1.7.2.2 Disadvantages**

1. Lack of sensitivity and initiative, and even if the resources are fully employed, they are used inefficiently.
2. There is too much bureaucracy.
3. Errors are easy to make so there are either surpluses (wastage) or shortages, resulting in black markets.

**1.7.3 Mixed Economic System**

There are few countries that follow entirely the market or the planned Economic system. Examples of socialist countries are Cuba and North Korea. In practice, most economies in the world make decisions and choices regarding resource allocation by adopting both free market and planned Economic policies. They do not make a complete choice between the two extremes, in order to enjoy the best of both ‘worlds’, thus following the ‘middle of the road’.

Economic wealth is divided between the private and the public sectors. The major difference is the extent to which an economy is ‘leaning’ towards a market or a planned Economic system. A good example is Zambia, just after independence from Britain, the country was following a planned economic system and under the Movement for Multi-Party Democracy (MMD), the country is more towards mixed economic system. Yet it is still maintains a mixed Economic system.

In a mixed economy a government can have three-quarters of production carried out by private enterprises through the market, while the government is directly responsible for the other quarter. Government involvement is necessary because there is need for public provision of **merit goods** such as education and health, which are deemed to be worthwhile for everyone. The market forces cannot provide for **public goods**, such as defence, police, justice and national parks. Government involvement may also be in the form of public deterrence of commodities considered being harmful to society like beer and cigarettes.

As the name implies, a mixed economy is a form of system where all activities in production, as well as those performed by private and government entities, blends capitalism with various kinds of regulations. However, more and more people these days are wondering what this type of economy is all about, causing them to study it and discover its advantages and disadvantages.

Discussion 1.1

|  |
| --- |
| 1. Discuss the advantages and disadvantages of a mixed type of economic system? 2. Why do you think most economies have a mixed economic systems? |

**1.8 Actors in a Market Economy**

Economics assumes that these individual economic units behave rationally:

Firms or producers always try to maximise their profits.

Households or consumers always try to maximise the satisfaction or utility they derive from their income.

Governments always attempt to maximise the welfare of society.

summary**1.9 Summary**

Congratulations, you have reached the end of this unit. In this unit you have learnt what economics is, you have made a distinction between the different branches of economics. Assimilated the basic concepts and furthermore understood the actors in a market economy. In the next unit, I will discuss demand and supply.

**1.10 Review Assessment**

Activity 1.2

|  |
| --- |
| 1. What is the opportunity cost for sand stapled on in the river and sand for building? 2. What is the Opportunity cost of oxygen in hospitals and the God made oxygen? 3. Maria can read 20 pages of economics in an hour. She can also read 50 pages of sociology in an hour. She spends 5 hours per day studying.   a. Draw Maria’s production possibilities frontier for reading economics and sociology.  b. What is Maria’s opportunity cost of reading 100 pages of sociology? |

Unit 2

Demand and Supply

--------------------------------------------------------------------------------------------------------------------------------------

* 1. **Introduction**

Now that you have learned the fundamental economic problem of scarcity and choices, we then proceed to a very interesting topicwhich will open your eyes to the market interaction. Yes I’m talking about demand and supply.

**2.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this UNIT, the students should be able to:   * + Define Demand and the explain the law of demand   + Establish the Demand schedule, demand curve & demand function   + Discuss the Determinants of demand (demand shifters)   + Describe Supply and the law of supply   + Derive the Supply schedule, supply curve & supply function   + Explain the Determinants of supply (supply shifters)   + Determine the Market equilibrium |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**2.3 Market**

Let us begin the topic with the definition of a market; what is a market? Well in this particular case a market for a product is not a particular place but rather any situation in which the buyer and seller of a product communicate with each other for the purpose of exchange. The collective actions of the buyers in the market determine the market demand for a particular product while the collective actions of the sellers determine the market supply. It is the interaction of these two forces (known as market forces) which determines the market price for the product.

**2.4 Demand**

For any definition of demand to be accepted it must consist of the following terms.

1. Willingness to buy
2. Ability to buy
3. A determined market price

Therefore we define demand has the willingness and ability to buy a given quantity of a commodity at a particular market price at a given point in time.

Willingness without ability does not constitute and affect demand. For willingness to constitute demand, it must be willingness and ability. **Market demand** is the total quantity, which all customers are willing and able to buy at a particular price.

**2.4.1 The Law of Demand**

The law of demand states that (ceteris paribus) meaning all things being equal or holding all things equal:

The high the price the less quantity demanded and the lower the price the more quantity demanded.

This will be illustrated in the example below.

**2.4.2 The Demand Schedule**

Below is Mrs Ngoma’s demand schedule for apples in the month of February.

|  |  |
| --- | --- |
| **Price (K)** | **Quantity Demanded in (Unit)** |
| 250 | 0 |
| 200 | 5 |
| 150 | 10 |
| 100 | 15 |
| 50 | 20 |

**2.4.2.1 Demand Curve**

The information represented by the demand schedule will be graphically illustrate below.

Price

D

D

Quantity

As we look closely to the demand curve, it is showing that a ‘normal’ demand curve is sloping downwards from left to right, as the prices changes. Do not confuse quantity demanded with demand the two are different. With the law of demand, we look at the quantity demanded.

|  |
| --- |
| * You may want a particular product but you do not have the money to pay for it or you may have the money to pay for a product but not desire it. Does this constitute demand? |

**2.4.3 Determinants of Demand**

We are all aware that demand for a particular good or service depends on a number of factors other than price.

The following are the main determinants of demand:

**2.4.3.1 Household income**

An increase in income leads to an increase in demand and everyone becomes better off to spend on the goods and services that you were not able to afford. On the other hand a decrease in income will make you poorer and demand falls.This shows that there is a positive relationship between household income and goods and services. For exampleMonde earned her wages through piecework, in a month she approximately made K100 and bought goods limited to her income. But when she makes more than her usual K100, she buys more goods with the addition income she earns. On the other hand when she makes less than the usual K100 she buys less of the goods and sometimes leaves out entirely other goods.

**2.4.3.2 The price of other goods**

The prices of other goods can either be **substitute** or **complementary goods**an example of substitute products are tea and coffee, so you can substitute one for the other or vegetables such as rape for chibwabwa. Impwa for eggplant. Further it could be different cellular phone service providers like Airtel, MTN and Zamtel are very close substitutes of each other. However, if you find that the price of one good is high you switch to its substitute with the lower price making the demand of the expensive substitute to fall.

|  |
| --- |
| Note: The price of one substitute can cause the demand of the other substitute to either decrease or increase. |

The other goods are **complementary** goods or those goods that are jointly demanded such as cornflakes and milk, cars and fuel, or cell phones and sim cards. For complementary goods, just a slight change in the price of one good also causes a change in the demand for the other good, however, an increase in the price of milk causes a reduction in the demand for cornflakes.

|  |
| --- |
| Note: The rise in the price of a compliment cause a decrease in the demand of another compliment and a fall in the price of a compliment brings about an increase in the demand of another compliment. |

**2.4.3.3 Changes in tastes and fashion**

A changein the taste and fashion can cause demand either to rise or fall;an example could be if it becomes tasteful in Zambia that people should drink wine after meals, the demand for wine will go up. An introduction of Color TV made the demand of black and white TV to fall.

**2.4.3.4 Advertising**.

Advertising is important in inﬂuencing the level of demand for a product. Successful advertising of a product will shift the demand curve to the right although successful advertising of a substitute product by a competitor will shift the demand curve for the product in question to the left. Advertising can also be linked to the previous factor in that a main function of advertising is to change tastes.

**2.4.3.5Weather Conditions.**

Some goods are only demanded during a particular season. e.g. the demand for fertilizer to seasonal farmer is high only during rain season meanwhile the demand falls during dry season.

**2.4.3.6 Population**

An increase in population creates a larger market for goods and services, demand increases whereas the shrinking population reduces the demand of the goods and service thereby shifting the demand curve inwards. An example is urbanization where people move from rural areas to urban areas.

With the above alluded factors, these determinant factors changes the whole entire curve. Which we can say that a change in demand is a shift in the whole demand curve either to the right or to the left, indicating an increase or a decrease in demand respectively.

Price

D2 D D1

Quantity

In the diagram above, a decrease in demand shifts the demand curve to the left from DD to D1D1 and an increase in demand would shift the demand curve to the right from DD to D2D2.

**Activity 2.1**

|  |
| --- |
| What effect would you expect a fall in income to have on demand of the following?  a) For a normal good/product?  b) For an inferior good/product?  c) For a giffen good? |

* 1. **Supply**

For any definition of supply to be accepted it must consist of the following terms.

1. Willingness to sell

2. Ability to sell

3. A determined market price

Supply can be defined has the willingness and ability to sell a given quantity of a commodity at a particular market price at a given point in time.

Willingness without ability does not constitute and affect supply. For willingness to constitute supply, it must be willingness and ability. Market supply is the total quantity, which all firms are willing and able to supply at a particular price.

**2.5.1 The Law of Supply**

Holding everything equal (Ceteris Paribus). The law of supply states that the higher the price more quantity supplied and the lower the price less quantity supplied.

**2.5.2 The Supply Schedule**

Unlike demand with an inverse relationship between quantity demanded and price, there is a positive relationship between the quantity supplied and price. The amounts that producers or sellers are willing and able to sell at various prices at any given time tend to be high at high prices, and low at low prices.

Below is Mrs Ngoma’s supply schedule for apples in the month of February.

|  |  |
| --- | --- |
| **Price (K)** | **Quantity Supplied in (Unit)** |
| 250 | 20 |
| 200 | 15 |
| 150 | 10 |
| 100 | 5 |
| 50 | 0 |

**2.5.3 Supply Curve**

The information represented by the supply schedule will be graphically illustrated below.

|  |
| --- |
| A change in price never shifts the supply curve for any good, it results in a movement along a supply curve. This is **a change in the quantity supplied.** |

Price S

Quantity

**2.5.4 A Change in Supply**

The supply curve shifts only if there is a change in the conditions of supply either than price. If supply conditions change, a different supply curve must be drawn, unlike a change in the quantity supplied due to price changes,

**2.5.5 Determinant of Supply**

The following are the main determinant on supply:

1. **A rise in the price of the factors of production or an increase in the cost of production**. A rise, for example, in the price of labour used in the production of mealie- meal would make that product more costly and less proﬁtable to produce and would lead to a shift in the supply curve to the left. If, however, there was a fall in the price of a factor of production used in the production of chocolate it would lead to a shift in the supply curve to the right.
2. **A change in the state of technology.** This would inﬂuence supply in that if there was an improvement in the technology used to produce mealie- meal, it would lead to an increase in the proﬁtability of that product and, therefore, more would be supplied. This means that there would be a shift in the supply curve to the right.
3. **Weather Conditions**. Weather only affects particular products such as agricultural output such as maize, Soya beans, e.t.c. will inﬂuence supply because the level of proﬁt made on that product will be affected
4. **Taxes and Subsidies. Taxes-** are treated as costs, subsidies are benefits to a firm. An increase in taxes reduces supply, while a reduction in taxes tends to increase the supply. A subsidy is when the government pays part of the costs in order to encourage the production of goods. Increased production increases supply.
5. **Other factors** such aswork stoppage, strikes, fire, riots etc, can lead to a reduction in supply.

Price D

S1

P1

S

P s2

0 Q Quantity

**2.5.6 Price Determination**

The equilibrium market price is the price at which consumers want to buy equals the price at which producers want to sell.

Price D S

S D

O

Q

Quantity

At the equilibrium price, there are neither surpluses nor shortages. The price is stable unless there are changes in either supply or demand conditions listed above under changes in demand and supply.

Note that the marginal utility of consumers vary, with some consumers willing and able to pay for a product than the prevailing market price, since they are paying less, there is a **consumer surplus**.

A producer surplus also arises when some suppliers are willing to sale at less than the prevailing market price, since they are selling at a higher price there is a **producer surplus**.

Price

S

Consumer Equilibruim Point where Dq= Sqat that price

surplus

Producer D

surplus Quantity

**Example 1**

Let us suppose we have two simple supply and demand equations

**Qd = 20 – 2P**

**Qs = -10 + 2P**

To find where QS = Qd we put the two equations together

20-2P = -10 + 2P

20+10= 4P

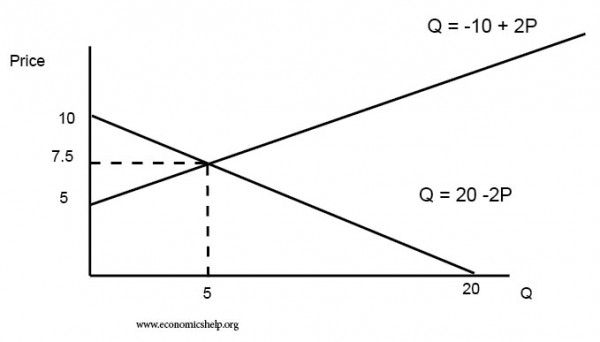
30/4=P

**P = 7.5**

To find Q, we just put this value of P into one of the equations

Q = 20 – (2×7.5)

**Q= 5**



|  |  |  |
| --- | --- | --- |
|  | **Qd   = 20 – 2P** | **Qs = -10 + 2P** |
| P | **Qd** | QS |
| 0 | 20 | -10 |
| 1 | 18 | -8 |
| 2 | 16 | -6 |
| 3 | 14 | -4 |
| 4 | 12 | -2 |
| 5 | 10 | 0 |
| 6 | 8 | 2 |
| 7 | 6 | 4 |
| **7.5** | **5** | **5** |
| 8 | 4 | 6 |



**Note** The demand curve shows the amount of goods consumers are willing to buy at each market price.

A linear demand curve can be plotted using the following equation.

**Qd = a – b(P)**

Q = quantity demand

a = all factors affecting price other than price (e.g. income, fashion)

b = slope of the demand curve

P = Price of the good

**From the above explanation let us attempt the following:**

**Activity 2.1**

|  |  |  |
| --- | --- | --- |
| **Price** | **Quantity Demanded** | **Quantity Supplied** |
| **250** | **0** | **20** |
| **200** | **5** | **15** |
| **150** | **10** | **10** |
| **100** | **15** | **5** |
| **50** | **20** | **0** |

1. Determine the Market Equilibrium?
2. Explain and give an example of a demand and supply function?

**2.6 Price Changes**

Shifts in the supply or demand curves will change the equilibrium price and quantity.

If for example, there is a large increase in consumer’s income, the demand curve will shift to the right from D to D1 signifying an increase in the demand for goods and services. The new equilibrium price is OP1 and the quantity also increases to OQ1.

Price D1

S

D

P1

D

O Q Q1 Quantity

* 1. **Disequilibrium in the Market**

The objective of maximizing profits provides the incentive for firms to respond to changes in price. Considering that the forces of demand and supply are at play in this system. If the price is above the equilibrium at OP1, there is excess supply, surpluses. At this high price, producers are encouraged to supply more, but the quantity demanded at this high price is less.

At prices below the equilibrium at OP2, there is excess demand, shortages. Producers supply few quantities at low prices while more consumers are willing and able to purchase products at low prices. Excess demand causes an upward pressure on price resulting in a rise in price and output.

Price D S

Excess supply

P1 P2

Excess demand

Quantity

**2.8 Government Intervention**

In this section we are also going to look at how government intervene in price regulation. However, government policy of taxation and subsidy interfere with the working of the free market system.

**2.8.1 Maximum Price (Price Ceiling)**

If the government thinks that the price determined by the market forces of supply and demand for a product or service is high, the government might decide to set a maximum price that is the price should not go beyond the amount stipulated by the government. Maximum prices are normally set to encourage the consumption of goods and services, considered to be essential, and therefore should be affordable to everyone (Case, Fair and Oster, 2007).

**2.8.2 Minimum Price (Price Floor)**

This is set in order to protect producers. If the government feels that the price set by the market forces of supply and demand is too low for producers to earn a decent standard of living them a minimum price is set. This meaning that the goods should not be sold below the amount stipulated by the government (Case, Fair and Oster, 2007).

summary**2.9 Summary**

We have come to the end of the unit and it is my hope that we have understood demand and supply including the law of supply and demand. Further, the determinant of demand and supply should be fully assimilated and finally, we should be able to determine themarket equilibrium price and quantity. The next unit we will look consumer choice theory

**UNIT 3**

**CONSUMER CHOICE THEORY**

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**3.1Introduction**

Welcome to yet another interesting unit, this topic will enlighten on why consumer behave the way they do and how the market demand is derived at.

**3.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying thisunit, the students should be able to:   * Make a budget and preferences (indifference curves), concept of utility (cardinal, ordinal and marginal utility), * Appreciate deriving the demand curve using indifference curves. * Explain the market demand curve * Describe the elasticity of demand. * Discuss consumer surplus. |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**3.3 Demand and Consumer Behaviour**

Recall that demand is a model of consumer behaviour. It attempts to identifythefactors that influence the choices that are made by a consumer. Consumers derive satisfaction (utility) from their choices. The objective of the consumer is to maximize the utility that can be derived given their preferences, income, the prices of related goods and the price of the good for which the demand function is derived. An individual’s demand function can be thought of as a series of equilibrium or optimal conditions that result as the price of a good changes.

There are two approaches that may be used to explain an individual’s demand function: utility analysis and indifference analysis. The two approaches are compatible. Utility is the capacity of a good (or service) to satisfy a want or simply the satisfaction that is obtained from the consumption of a given good or service. It is one approach that explains the phenomenon of value. The value a consumer places on a unit of a good or service depends on the pleasure or satisfaction he or she expects to derive from having or consuming it at the point of making a consumption (consumer) choice.

**3.4 Consumer Choice and Utility**

Consumers, however, cannot have everything they wish to have. Because consumers’ choices are constrained by their incomes. That is they have to choose within the limits of their incomes, consumers make their consumption choices by evaluating and comparing consumer goods with regard to their “utilities.” Utility is subjective and cannot be measured directly.

**3.5 How to Measure Utility**

Cardinal Utility: Measuring utility in “utils”:

This involves attaching a specific number to a bundle of goods

For instance, Musonda derives 10 utils from having one slice of pizza but only 5 utils from having a burger.

Ordinal Utility: Measuring utility by comparison

This involves ranking of bundles of goods in the order of satisfaction derived from the consumption of them. For instance, Mutale prefers a burger to a slice of pizza and a slice of pizza to a hotdog. Often consumers are able to be more precise in expressing their preferences.

For example, we could say:

Mutale is willing to trade a burger for four hotdogs but she will give up only two hotdogs for a slice of pizza. We can infer that to Mutale, a burger has twice as much utility as a slice of pizza, and a slice of pizza has twice as much utility as a hotdog.

**3.6 Utility and Money**

Because we use money (rather than hotdogs!) in just about all of our trade transactions, we might as well use it as our comparative measure of utility.



Note: This way of measuring utility is not much different from measuring utility in utils

**3.7 Marginal and Total Utility**

1. **Total utility** is the total amount of satisfaction a consumer derives from the consumption of all of the units of a good  or a combination of goods over a given consumption period, ceteris paribus.
2. **Marginal utility** is the amount of satisfaction a consumer derives from the consumption of an additional unit of a consumer good (during a given consumption period), ceteris paribus.

Total Utility versus Marginal Utility

Total Utility =TU= f (Preference)

Marginal Utility = MU= Change in Total Utility

Change in Quantity

**3.7.1 The Law of Diminishing Marginal Utility**

Over a given consumption period, the more of a good a consumer has, or has consumed, the less utility an additional unit contributes to his or her overall satisfaction (total utility). Alternatively, we could say: over a given consumption period, as more and more of a good is consumed by a consumer, beyond a certain point, the marginal utility of additional units begins to fall in other words, the Law of diminishing marginal utility states that as a larger quantity of a good is consumed in a given period, total utility will increase at a decreasing rate and eventually when maximum utility is reached, additional units of a good will lead to a reduction in total utility

Total and marginal utilities can be presented in both table and graphical form

|  |  |  |
| --- | --- | --- |
| Units | Total Utility | Marginal Utility |
| 0 | 0 | - |
| 1 | 10 | 10 |
| 2 | 15 | 5 |
| 3 | 17 | 2 |
| 4 | 17 | 0 |
| 5 | 14 | -3 |

**Graph for this space**

**Activity 3.1**

|  |
| --- |
| 1. Come up with a table of Total and Marginal utility 2. Illustrate the table in graphical form 3. Explain the relationship |

**3.8 Indifference Curve Analysis**

Consumers choose how to allocate their money to buy a bundle of different goods. To explain how these choices are made, economists assume that consumers have a set of tastes. These tastes may differ among individuals. Consumer preferences are essentially a ranking of the different bundles of goods. This ranking is assumed to satisfy certain properties. Some of these properties must always hold, some can be violated. Different sets of combinations of various goods are represented in an indifference map (shows different indifference curves).In other words, an indifference map is a set of indifference curves. A higher indifference curve shows a greater amount of satisfaction and a lower one, less satisfaction. Thus, indifference curves show an ordinal rather than a cardinal measure of utility

**3.9Graphical Presentations of preferences**

To represent preferences graphically, we use indifference curves and indifference maps.

Activity 2.1

|  |
| --- |
| 1. Draw indifference curves 2. Show which indifference curve yield more satisfaction and why? |

An indifference curve is the set of all bundles that make a consumer indifferent.If we plot all indifference curves we get an indifference map.

**3.10 The Marginal Rate of Substitution (MRS)**

The slope of the indifference curve at a given point is called the marginal rate of substitution (MRS).It is the maximum amount of a good that the consumer is willing to give up in order to gain one additional unit of the other good and still remain on the same indifference. It is the rate at which the consumer is willing to exchange one good for an additional unit of another good and still be able to get the same level of utility

**3.11 Nature of Consumer Preferences**

To be able to make consistent predictions about consumer behavior, all preferences must satisfy the three assumptions below:

Completeness: When facing a choice between any two bundles of goods, a consumer can rank them so that one and only one of the following statements is true:the consumer prefers the first bundle to the second; orthe consumer prefers the second bundle to the first; orthe consumer is indifferent between the two bundles.

**3.12 Properties of Indifference Curves**

Indifference curves have the following basic properties

1. Indifference curves for two “goods” are generally negatively sloped downward to the right. Indifference curve being downward sloping means that when the amount of one good in the combination is increased, the amount of the other good is reduced.
2. The slope of an indifference curve reflects the degree of substitutability of two goods for one another. This means that: Indifference curves cannot be horizontal straight lines. with horizontal straight lines, it would mean that as the amount of one good is increased while the amount of the other good remains the same, the consumer would remain indifferent between the various combinations
3. Indifference curves cannot slope upward
4. Upward sloping indifference curve means that the amounts of both goods increase as one moves to the right along the curve. If this were the case, it would mean that combination which contains more of both goods would give the same satisfaction to the consumer  as the combination which has smaller amounts of both goods
5. Indifference curves are generally convex to the origin, reflecting the principle of diminishing marginal rate of substitution. A concave indifference curve would mean increasing MRS which would violate the principle of diminishing MRS.
6. Indifference curves never cross or intersect. This means that only one indifference curve will pass through a point in the indifference map

**3.13 The Consumer’s Budget Constraint Line**

The consumer’s budget line shows all the different combinations of the two commodities that a consumer can purchase, given his or her money or income and the prices of the two goods Consumer can afford to purchase a bundle if its cost is less than or equal to his/her income for that period: More formally, the bundle of goods S and B is affordable if:

**3.14 Consumer Equilibrium Maximizing Utility**

A consumer is in equilibrium when, given personal income and price constraints, the consumer maximizes the total utility or satisfaction from his or her expenditures. In other words, a consumer is in equilibrium when, given his or her budget line, the person reaches the highest possible indifference curve. Utility is maximized at the point of tangency between the budget line and the indifference curve. Choice principle suggests a consumer will choose the highest-ranked available option

Graphically, this means:

1. A bundle on the budget line, not below it
2. A bundle on the highest indifference curve that touches the budget line
3. at the point of tangency, the slopes of the budget line and indifference curve are equal

Recall that:

Slope of the indifference curve is -MRSXY

And slope of the budget line is -PX/PY

Thus at an interior solution:

MRSXY=PX/PY

**3.15 Utility Maximizing Rules**

A rational consumer would buy an additional unit of a good as long as the perceived dollar value of the utility of one additional unit of that good (say, its marginal dollar utility) is greater than its market price.

**The Two-Good Rule**

                 MUI          MUH

              ---------  = ----------

                  KPI             KPH

Consumers’ spending on consumer goods is constrained by their incomes:

Income = Px Qx + Py Qy + Pw Ow + ….+Pz Qz

While the consumer tries to equalize MUx/Px , MUy/ Py, MUw/Pw,………. and MUz/Pz, to maximize her utility her total spending cannot exceed her income.

**Group Activity 1**

|  |
| --- |
| Banda’s budget line relating good X and good Y has intercepts of 50 units of good X and 20 units of good Y.  If the price of good X is K12, what is Banda’s income?  What is the price of good Y?  What is the slope of the budget line?  A consumer spends all her income on food and clothing.  At the current prices of Pf = K10 and Pc = K5, she maximizes utility by purchasing 20 units of food and 50 units of clothing  What is the consumer’s income?  What is the consumer’s marginal rate of substitution of food for clothing at the equilibrium position? |

**3.16 Elasticity**

The law of demand states that an increase in price causes a decrease in the quantity demanded, while a decrease in price causes an increase in the quantity demanded.

Elasticity measures the degree of responsiveness or sensitivity of demand to a change in price.

If a small change in price causes a big change in the quantity demanded then demand is elastic.

However, if a big change in price causes only a small change in the quantity demanded, then it is inelastic.

**3.17 Price Elasticity of Demand (PED)**

It is measured by the formula: % change in quantity demanded

% change in price

There is an inverse relationship between price and quantity, as such the sign is negative.

Note that the sign is always ignored when interpreting the elasticity value.

**3.18 Income Elasticity of Demand (YED**)

The elasticity measures are alike, the definition of income elasticity of demand is similar to that of price elasticity of demand, but price is replaced by income.

Income elasticity of demand measures the degree of responsiveness or sensitivity of demand to changes in income.

The formula = percentage change in quantity demanded

Percentage change in income

### 3.19 Cross Elasticity of Demand

Cross elasticity of demand measures the sensitivity of demand for one good to changes in the price of another good. The formula for cross elasticity of demand (XED) is given below.

**The formula for cross elasticity of demand**

XED = percentage change in quantity demanded of Good A

percentage change in price of Good B

**Activity**

|  |
| --- |
| **Discuss**   1. Categories of price elasticity of demand 2. Categories of Cross elasticity of demand 3. Categories of Income Elasticity of Demand 4. Categories of price elasticity of supply |

**Summary**

Congratulations team, I know by now have been enlighten on why consumer behave the way they do and how the market demand is derived at.

UNIT 4

Theory of the Firm

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**4.1 Introduction**

Welcome to this UNIT of the economics module. In this unit we are going to look at the theory of the firm with our attention drawn to the cost behaviour and revenue in an attempt to maximize the profits.

**4.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this UNIT, the students should be able to:   * Explain the objectives of the firm. * Describe the production in the short-run; technology, production function, diminishing returns, marginal product, average product, total product, marginal cost, average cost, total cost. Graphical illustration. * Identify production in the long-run; returns to scale, * Distinguish between short- and long-run. * Explain supply curve of a firm, market supply curve. Comparative statics. * Analyse producer surplus |

TimeTime Frame: in this unit you are expected to spend approximately

* + 2hour 30 minutes’ study time
  + 2 hours in class

**4.3Firms and their Objectives**

These are companies or organizations that are in business to provide goods and services in an economy. Having revealed who these firms are, it is also important to mention that they are key players in aneconomy and their main objective is to maximize profit.

**4.4 Production in the Short Run and Long Run**

The production of goods and services requires inputs of the factors of production,it is important to distinguish between production in the short run and in the long run. The **short run** is defined as a period when at least one factor of production is in fixed supply that is a combination of both variable and fixed factors. This is normally taken to be capital because it is not possible to construct a new factory or purchase new machinery overnight. It is, however, possible to employ extra units of labour and to purchase extra raw materials in the short run, hence they are called the variable factors. The plant size is fixed in the short run. Short run costs, then, are the wages, raw materials.

In the long run, all of the factors of production can be varied.

The ***long run*** is a time period long enough for a firm to change the quantities of all resources employed, including the plant size. Long run costs are all costs, including the cost of varying the size of the production plant.

|  |
| --- |
| Note- **Short Run** is a period of time for which at least one of the factors of production is fixed.  **Long Run** is a period of time for which all of the factors of production can be varied |

**4.5 Production Function**

Qx = f(F1, F2,...F n)

Where: Qx = the output of product x over a period of time f = the functional relationship F1, F2 ...F n = the factor inputs

So the output of product x is a function of (depends on) the inputs of land, labour and capital. The above equation can be simpliﬁed to give the following: Qx = f (L, K)

Where: L = the quantity of labour K = the quantity of capital

**4.6 Total Costs**

Total expenses incurred to producing a given amount of a good by a firmand is abbreviated by TC and is found by adding together variable and fixed costs.

TC= V C + FC

**4.7 Variable Costs**

Variable costs, VC, depend on how many (the output) goods are being made. If just one more unit is made then total variable costs rise. Variables costs are costs that vary with output. Examples include the following: Wages paid to casual workers, the cost of buying raw materials, electricity.

VC = TC – FC

**4.8 Fixed Costs**

Fixed costs, FC, are independent of output. Fixed costs have to be paid out even if the factory stops production. Fixed costs are costs that do not vary with output. Examples include the following: Monthly salaries paid to managers, any interest paid on loans, rent paid for the use of premises.

FC = TC – VC

.

|  |  |  |  |
| --- | --- | --- | --- |
| **Output** | **Total Fixed Unit** | **Total Variable Costs** | **Total Cost** |
| 0 | 20 | 0 | 20 |
| 1 | 20 | 40 | 60 |
| 2 | 20 | 70 | 90 |
| 3 | 20 | 100 | 120 |
| 4 | 20 | 120 | 140 |
| 5 | 20 | 160 | 180 |

Costs  **TC**

180

**TVC**

20 **TFC**

0 Output

Reflection

|  |
| --- |
| Can you give some examples of fixed costs and variable costs for a firm known to you? |

1. **Average cost**, AC or**average total cost (**ATC) is the cost of producing one item, it is sometimes called per unit cost. It is calculated by dividing total costs by total output.

(ATC = TC/Q).

ATC also equals AFC + AVC.

1. **Marginal cost**, MC is the cost of producing one extra unit of output, and is calculated by dividing the change in total costs by the change in output.

MC = ∆TC/∆Q

1. **Average fixed cost** is the total fixed cost divided by the level of output (TFC/Q).It will decline as output rises.
2. **Average variable cost** is the total variable cost divided by the level of output

(AVC = TVC/Q).

**Activity 4.1**

From the data provided above for the Total Cost, Variable Cost and the Fixed Cost; Let us fill in the blank spaces below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Output** | **Average Variable Cost** | **Average Fixed Costs** | **Average Total Costs** | **Marginal Costs** |
| **0** |  |  |  |  |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |
|  |  |  |  |  |

**4.9 Total Revenue (TR)**

This is the money the firm gets back from selling goods and is found by multiplying the number sold, Q, by the selling price, P.

TR = (Q x P)

1. **Average revenue AR**, is the amount received from selling one item and equals the selling price of the good, the price per unit.

AR = TR

* + 1. Q

1. **Marginal Revenue MR** is the change in total revenue from the sale of one more unit of output.

MR = ∆TR

∆Q

1. **Profit -** Firms are profit maximisers. Profit is calculated as the difference between total revenue and total costs.

P =TR - TC

1. Total revenue and total cost both vary with output. Total revenue starts from zero and increases gradually, then flattens out as output and sales increase.
2. Total costs do not start from zero due to the element of fixed costs, they accelerate and become steep as output increases.
3. Profits are at a maximum where the vertical distance is greatest, as shown in the diagram below.

Revenue TC

and

Costs

TR

Quantity

Profit maximising position

If MC is lower than MR, then profit increases by making and selling one more unit of output. However, if MC is higher than MR, profits fall if one more unit is made or sold.

If MC is equal to MR, then the profit maximizing position has been reached, as shown below.

Profits are maximized where **MC = MR.**

**AN IMPERFECT MARKET A PERFECT MARKET**

MC Revenue MC

RevenueMR and

and Costs

Costs

MR

Quantity Quantity

In Economics, the stated objective of firms is profit maximization, and it is attained where **MR = MC.**

**4.10 Production in the Long-Run and Returns to Scale**

We looked at the short run and now we turn to the long run where all factors are variable. As we proceed with this unit we are going to discover that in the long run, firms have combinations of factors of production that result in low average costs. The factors that cause average costs to decline in the long run as output increases are known as **economies of large-scale production**, commonly known as economies of scale. The shape of the long run average cost (LRAC) curve however, depends on whether;

Output increases more in proportion to inputs, when there are economies of scale andthe LRAC decline to show increasing returns to scale. Output increase in the same proportion as inputs indicating constant returns to scale.

Cost

Output

Economies Constant Diseconomies

of scale returns of scale

to scale

**4.11 Economies of Scale**

These indicate that as the output or plant size increases, the average costs per unit decreases or falls, they are reductions in long run average total costs achieved when the whole scale of production is expanded. Economies of scale only occur in the long run, as they are associated with the alteration of some or all of the firm’s fixed factors. The economies of scale are either internal (within the firm) or external (originating outside the firm) (Parkin, 2005).



|  |
| --- |
| Discuss the internal and external economies of scale? |

**4.12 Diseconomies of Scale**

These are problems of growth, unlimited expansion of scale of output may not necessarily result in ever-decreasing costs per unit. There may be a point beyond which average costs begin to rise again.

Cost

Output

.Activities 4.2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Output | TC | TVC | TFC | ATC | ATVC | ATFC | MC | | 0 | 15 | O | 15 | - | - | - | - | | 1 | 30 |  |  |  |  |  |  | | 2 | 35 |  |  |  |  |  |  | | 3 | 39 |  |  |  |  |  |  | | 4 | 45 |  |  |  |  |  |  | | 5 | 60 |  |  |  |  |  |  | |
| **Questions**   1. Complete the table above? 2. Plot the AC and the MC on graph paper. (Remember to plot the MC at the mid point, i.e. between 1 and 2, 3. Outline the relationship between total, average and marginal cost. |

Activity 4.3

|  |
| --- |
| From the following data of a firm:    **Output Total cost Price**  0 40 9  10 70 8  20 100 7  30 140 6  40 180 5  50 200 4  i) You are required to calculate at each level of output   * 1. The firm’s total revenue   2. The firm’s marginal revenue and average revenue   3. The firm’s fixed costs   4. The firm’s marginal cost   5. The firm’s average cost   6. The firm’s profit levels |

summary**4.13 Summary**

I must commend you for reaching this far and I know that we are confident enough in explaining the theory of the firm with our attention drawn to the cost behaviour and revenue in an attempt to maximize the profits.

**UNIT 5**

**MARKET STUCTURES: PERFECT COMPETITION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5.1 Introduction**

The market structureto be learned in this unit is the perfect competition. In this type of a market structure the forces of demand and supply determine the price. However,looking into the characteristics of a perfect competition we further unveil its cost structures.

**5.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this UNIT, the students should be able to give an explanation of:   * + Discuss market structures, classification of markets based on different criteria.   + Define perfect competition, underlying assumptions.   + Explain equilibrium. Importance of the concept.   + Describe market equilibrium and efficiency. Graphical illustration.   + Distinguish between long-run vs. short-run. |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**5.3 Markets**

In this unit we are going to look at Market Structures. To begin with a market is not necessarily a geographical or physical location where people buy and sell like at the city center market in Lusaka. But rather a Market is an exchange mechanism, an interpersonal institution that brings together buyers and seller (both actual and potential) of particular products or services. Markets are classified according to number and size of buyers and sellers, the type of product bought and sold, the degree of mobility of resources, and the extent to which information is accessible ZICA(2009)

**4.4 Market Structures**

Markets are categorized into either perfect or imperfect based primarily on the degree of competition, the number of firms supplying or selling the product, whether the product bought is homogeneous (identical) or differentiated and whether firms can easily enter or exit the market.

The perfect market structure is composed of perfect competition, while the imperfect market structure is made up of monopoly, monopolistic competitionand oligopoly.

**4.5 Perfect Competition**

[](https://www.google.com/imgres?imgurl=https://c8.alamy.com/comp/CXWR6J/tomato-for-sale-at-the-soweto-wholesale-fresh-market-lusaka-zambia-CXWR6J.jpg&imgrefurl=https://www.alamy.com/stock-photo-tomato-for-sale-at-the-soweto-wholesale-fresh-market-lusaka-zambia-50968810.html&docid=9XI-DLfOeLkFCM&tbnid=ihKeyvCdZ_mCvM:&vet=1&w=1300&h=951&bih=650&biw=1024&ved=2ahUKEwjq1bvohYnfAhUPYxoKHcZEDfEQxiAoBXoECAEQGQ&iact=c&ictx=1)

Source: Alamy.com (2018)

**4.5.1Perfect competition has the following characteristics:**

When we look at perfect competition, this is where wefind;

1. Many sellers and buyers in the market
2. Both buyers and sellers are small, they lack market power to influence the price of product.
3. The price is determined by the market forces of demand and supply.
4. Individual producers and consumers are “price takers”.
5. The product being traded is homogenous each firm’s product is the same as what the competitor is selling on the market.
6. There are no barriers to entry, firms are free to enter and exit the market.
7. There is perfect knowledge of market conditions. This perfect information is available to everyone, buyers and sellers at no extra cost.

**4.5.2 Demand curve of a firm under perfect competition**

No individual firm has market power, the market forces of demand and supply for the product determine the price. It is for this reason thatthe price = average revenue = demand curve (P = AR = D)

D S

P P = AR = D

S

o

Quantity Quantity

The demand curve for the individual firm operating under a perfect market is a horizontal line. At a given price of OP, the firm can sell as much as it can, whatever is taken to the market is bought, and demand is infinite. However, if an individual firm increases in price, even by a very small margin, demand reduces to zero, since there is perfect market information, the product is homogenous and there are many sellers.

**4.5.3 Short Run Equilibrium Position**

The short run is defined as a period when at least one of the factors of production is fixed, therefore it is possible in the short run for individual firms to make supernormal profits or losses. Supposethe price determined by the market forces of demand and supply is high due to high demand relative to supply.

Price Costs

D S and MC

Revenue

P MR

AC

0 Quantity 0 Q Quantity

The firm maximizes its profits when the price and output combination is such that the marginal revenue of an additional unit of output is equal to the marginal cost of producing it. This is at output OQ were MC = MR. At this level of output, the AR (representing TR) is much higher than AC (representing TC). In short, the price charged is greater than the long run average costs incurred, the difference are the supernormal profits made by the firm (represented by the shaded area). Alternatively, the firm can make losses if the price determined by the market forces of demand and supply is low. This can happen when market demand is low while market supply is high. The firm maximizes profits at output OQ where MC = MR, at this level of output, AC is much higher than AR and the firm makes losses.

**4.5.4 Long Run Equilibrium Position**

There are no barriers to entry, firms are free to enter and to exit. Profits and losses can only occur in the short run. Where profits are made, they are competed away through the entry of new firms and where losses are made, firms will leave.

**AC**

**REVENUE**

**MC**

**AND**

**COSTS**

**P= AR= MR**

**Q**

**QUANTITY**

**0**

The firm maximizes its profits at OQ where MC = MR. At this output level, AR is also equal to AC. Individual firms earn normal profits only, in the long run.In addition, at this level of output, AC is also equal to MC, the firm is operating at its most cost effective point, where costs are at their lowest level, an indication that the firm is technically efficient.

The unique feature of the long run equilibrium position is that all firms in the industry have MR = MC = AC = AR = P = D.

summary**4.6 Summary**

The perfect competition market structure has been reviewed. The unit has also brought out the characteristics of a perfect competition and we unveiledits cost structures.

**UNIT6**

**MARKET STUCTURES: MONOPOLY**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.1 Introduction**

After having looked at the perfect competition structure, we now turn to the monopoly. In this unit we are going to look at the definition of monopoly. Graphical illustration of monopoly case and how to regulate a monopoly

**6.2Learning Outcome**

|  |
| --- |
| Outcomes  After studying this unit, the students should be able to give an explanation of:   * + Define Monopoly.   + Illustrate monopoly graphically.   + Analyse and regulate monopoly |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**6.3 Monopoly**

In this market structure, one firm is the sole supplier of a product or service that has no close substitutes. The firm makes up the industry.

[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwjioYu3gYrfAhUnzIUKHSeIBRcQjRx6BAgBEAU&url=https://zambia.co.zm/news/headlines/2010/06/25/zesco-needs-616m-for-new-rural-lines/&psig=AOvVaw2qqRBnYoW5q1ViMhZ5kbsR&ust=1544144625841717)

Source fq.com (2018)

**6.3.1 Characteristics of a Monopoly**

The following characteristics features must be met for a monopoly to exist.

1. There is only one supplier of the product or services
2. The product or service has no close substitutes
3. There are barriers to entry

**6.3.2 Demand Curve of a Monopoly**

A monopolist being the sole supplier has market power and therefore the firm is a “price maker”. However, the firm can only determine either the price or the quantity, but not both at the same time. At high prices, few quantities are bought, while at low prices, demand is high. Therefore, the monopolist is faced with a downward sloping “normal” demand curve.

Price

P = D = AR

Output

**6.3.2 Equilibrium Position**

The firm maximizes its profit at OQ where MC = MR. The price charged, the average revenue is greater than the average cost. This difference is the supernormal or Economic profits earned by the monopolist, represented by the shaded area of the rectangle. The monopolist is likely to earn supernormal profits in both the short run and the long run because of the barriers to entry, the supernormal profits are not competed away by other firms.

The equilibrium position is illustrated in the diagram below.

**AC**

**MC**

**Q\***

**P**

**0**

**PRICE**

**OUTPUT**

**CO**

**LMR**

**Economic Profit**

**6.4 Price discrimination**

Price discrimination means charging different prices to different groups of consumers for the same product or service. Price discrimination is the same product or service being sold at different prices in different markets. Example of Price Discrimination a car manufacturer who sells cars cheaply in export markets than on the localmarket.Electricity and water charges are lower for domestic use than for commercial use. Generally, discrimination is by income, time, place or customer.

**6.4.1 Basic conditions to practice price discrimination**

For price discrimination to be possible, practicable and profitable, certain conditions must be fulfilled.

1. Control supply of product, which means imperfections in the market.
2. Discrimination is not possible under conditions of perfect competition.
3. Consumers should be members of separate markets to prevent resale of the product.
4. Elasticities of demand must be different so that different prices may be charged.
5. High prices are charged for inelastic markets and low prices for elastic markets, and profits are maximized.

**6.5 Regulations of monopolies**

Governments regulate monopolies by forming monopoly regulation commissions to correct the many inefficiencies resulting from lack of competition.

Activities

|  |
| --- |
| Compare and Contrast a Monopoly and a perfect competition |

summary**6.6 Summary**

So far we have looked at the monopoly, beginning with thedefinition. Graphical illustration of monopoly case and how monopolies are regulated.

**UNIT 7**

**MARKET STUCTURES:**

**MONOPOLISTIC COMPETITION AND OLIGOPOLY**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.1 Introduction**

At this particular juncture we have exhausted two market structure; perfect competition and monopoly. Now we turn to the other last two the monopolistic competition and oligopoly market structure. In this unit we look at the characteristics.

**7.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this unit, the students should be able to give an explanation of:   * Discuss the characteristics of monopolistic competition and Oligopoly |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**7.3 Monopolistic Competition**

Monopolistic completion refers to market structure in which there are a large number of small firms all competing with each other producing goods and services which are slightly differentiated from their competitors.The theory of monopolistic competition incorporates features of both perfect competition and monopoly. As with perfect competition there are a large number of ﬁrms in the market and there is freedom of entry into the industry. However, unlike perfect competition each ﬁrm produces goods and services which are slightly different from those of their monopolistic competition refers to market structure in which there are a large number of small firms all competing with each other producing goods and services which are slightly differentiated from their competitors. The theory of monopolistic competition incorporates features of both perfect competition and monopoly. As with perfect competition there are a large number of ﬁrms in the market and there is freedom of entry into the industry. However, unlike perfect competition each ﬁrm produces goods and services which are slightly different from those of their competitors (Ison, and Wall, 2009).

The existence of such product differentiation means that ﬁrms have a certain degree of monopoly power, so that if they raise their price they do not lose all of their customers, even though they produce products which are close substitutes. This is because some consumers prefer their (differentiated) product, even at a higher price. If they lower their price, they do not gain all those who currently buy the (now more expensive) rival products because some consumers prefer these (differentiated) rival products. The result is a downward sloping demand curve, albeit a relatively elastic demand curve. Thus a monopolistically competitive ﬁrm is not a price taker facing a perfectly elastic demand curve at the going market price. Product differentiation can be reinforced through advertising which produces an element of brand loyalty (Ison, and Wall, 2009).

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**Example of a monopolistic Competition Below:**

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwiwsPPiiYrfAhURWhoKHURlCl4QjRx6BAgBEAU&url=http://oppa-econ-style.blogspot.com/2012/11/monopolistic-competition-vs-oligopoly.html&psig=AOvVaw2GiVfmK4OKn1l3FI17I5Zj&ust=1544146905519907)

[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwiZ-fe9iorfAhWyxYUKHYnJCt8QjRx6BAgBEAU&url=https://www.thinglink.com/scene/452472953880182784&psig=AOvVaw2GiVfmK4OKn1l3FI17I5Zj&ust=1544146905519907)

Source: Thingling (2018)

**7.4.1Characteristics of monopolistic competition**

1. A large number of sellers or firms in the market
2. A large number of buyers
3. There are no barriers to entry, firms are free to enter and leave the market.
4. The products are not homogeneous but are differentiated through product differentiation and non-price competition, such as the use of brand names, attractive packaging, extensive advertising, offering guarantees, good after sales services etc.

**7.5 Oligopoly**

This is a market structure with a few large firms. The number of firms is few, but the capital involved is large. The huge amounts of capital act as natural barriers to entry.

The oligopoly market structure is based on a number of assumptions, which makes it rather different from the market structures studied earlier. It may be a perfect oligopoly, which means the product is homogeneous, such as the oil marketing companies in Zambia, oryx, Engen, Petroda, Kobil, Total, Engen, etc. Alternatively, the product maybe differentiated, this is known as imperfect oligopoly. An example is the Japanese motor vehicle manufacturers like Nissan, Toyota, Honda, Isuzu.

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwievYyVjIrfAhVLEVAKHRI_BLkQjRx6BAgBEAU&url=http://www.libelium.com/libelium-iot-technology-helps-to-monitor-traffic-volume-in-petrol-stations-to-empower-sales-strategy/&psig=AOvVaw0FKUfyB8DXRX8E4aVv2Gxk&ust=1544147360300489)

[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=&url=https://commons.wikimedia.org/wiki/File:Total_Petrol_Station_-_Tong_Road_-_geograph.org.uk_-_440804.jpg&psig=AOvVaw0FKUfyB8DXRX8E4aVv2Gxk&ust=1544147360300489)

**[](https://www.muvitv.com/2017/03/woodlands-residents-oppose-construction-of-filling-stations/)[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwihyOnMjYrfAhWPM-wKHYI9C6YQjRx6BAgBEAU&url=https://placesmap.net/ZM/Vuma-Filling-Station-733388/&psig=AOvVaw04E5h-JXesU9bHos0VirKA&ust=1544147934289194)  
Source Ornit.com (2018)**

**7.5.1 Characteristics**

1. Interdependence between firms, this is because an individual firm is uncertain of the behaviour of rival firms.
2. Price stability
3. Non-price competition between firms

|  |
| --- |
| In what way does a monopolistic and oligopoly market structurediffer from the perfect competition and monopoly. |

summary**7.6 Summary**

Confidently we say that the characteristics of monopolistic competition and oligopoly market structure have been understood.

**UNIT 8**

**MARKET EFFICIENCY AND WELFARE ECONOMICS**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8.1 Introduction**

Welcome to another interesting and exciting unit. In this unit we sit comfortably and enjoy as it will highlight the following equity, efficiency, perfect competition, Pareto efficiency and market failure

**8.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this UNIT, the students should be able to give an explanation of:   * Discuss equity and efficiency. * Explain Perfect competition and Pareto efficiency * Describe market failure |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**8.3 Equity and Efficiency**

**Equity –** Thisusuallyoccurs if a society distributes its economic resources fairly among its people. Different opinions about fairness, however, cause people to debate how resources should be allocated and are a primary determinant of political affiliation. People who think markets provide a generally fair distribution of output among the population tend to oppose government intervention in the marketplace. This is the position of most traditional conservatives, who usually favor a very limited government role in the economy. People who think markets create an unfair distribution of output tend to favor a larger role for government in the redistribution of wealth. Traditional liberals tend to favor this position.

Some systems of resource allocation may be efficient without being fair. Other systems may be fair without being efficient. Societies choose different types of political and economic systems based in large part on different perceptions and valuations of efficiency and equity.

**Economic efficiency**–On this note, this occurs when a society obtains the largest possible amount of output from its limited resources. Each country in the world has labor, capital, and natural resources. Countries differ, however, in the sizes of their population (and thus their labor force) and the types and quantities of capital and natural resources. Regardless of its resource endowment, however, a society can produce some maximum quantity of output if it uses its resources wisely. This output is composed of goods and services. A good is a tangible commodity or piece of merchandise that is produced for sale, such as a car, a sweater, or a book. A **service** is useful labor that does not create a tangible commodity or piece of merchandise. Examples of services are haircuts, financial and legal advice, and many forms of entertainment.Economic efficiency is an important consideration for societies that desire more goods and services. Being efficient with resources allows a society to satisfy more needs and wants than if the resources are allocated inefficiently.

When a society chooses to have a government, then citizens pay taxes to generate revenue for the provision of government services. Efficiency and equity are also the two primary criteria used to evaluate tax systems**.**

**8.4 Perfect Competition and Pareto Efficiency**

**Pareto efficiency-** An allocation is Pareto-efficient for a given set of consumer tastes, resources and technology, if it is impossible to move to another allocation which would make some people better off and nobody worse off.

For example it is Pareto-efficient if the train company price discriminate by offering student discounts to fill in their seats otherwise empty seats. If every market in the economy is a perfectly competitive free market, the resulting equilibrium throughout the economy will be Pareto-efficient.

**8.5 Market failure**

Market failure occurs when the price mechanism fails to account for all of the costs and benefits necessary to provide and consume a good. The market will fail by not supplying the socially optimal amount of the good.

Prior to market failure, the supply and demand within the market do not produce quantities of the goods where the price reflects the marginal benefit of consumption. The imbalance causes allocative inefficiency, which is the over- or under-consumption of the good.

The structure of market systems contributes to market failure. In the real world, it is not possible for markets to be perfect due to inefficient producers, externalities, environmental concerns, and lack of public goods. An externality is an effect on a third party which is caused by the production or consumption of a good or service.

Activity

|  |
| --- |
| What is economic efficiency? How does it apply to our day today life? |

summary**8.6 Summary**

In this unit we highlight the following equity, efficiency, perfect competition, Pareto efficiency and market failure.

*PART B*

*MACROECONOMICS*

***CHAPTER 9***

***NATIONAL INCOME***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**9.1 Introduction**

In this unit we are going to look at the circular flow of income. This important principle describes how money moves between the different sectors in the economy. As money is circulating the expenditure of one sector is the income of another sector.

Outcomes**9.2 Learning Outcomes**

After studying this chapter, the students should be able to:

|  |
| --- |
| * Explain Circular Flow * Establish the National Income Accounting * Appreciate Simple Keynesian theory of employment (determinants of national income; income and expenditure model) * Describe Consumption and saving * Explain Investment * Examine the multiplier |

TimeTIME FRAME

Time Frame- in this unit you are expected to spend approximately

* + 2 hours’ study time
  + 2 hours in class

**CONTENT**

**9.3 Circular Flow**

Let us look at a closed simple economy where there are only two sectors, firms and households. Firms employ labor to produce goods and services and spends on labor whereas households receive income for providing labor. Household income is spent on goods and services from firms.

Moreover, we all need to buy goods. Sometimes those goods are groceries, while other times those goods are clothing for an important event. Whatever the goods might be, purchasing them forms a crucial piece in a functioning economy.

Simply put, each time we buy a good we are contributing to the economy. In this module, we'll look at how those purchases are just part of a bigger piece of the economic puzzle. You see, the economy works in a circular motion known as the circular flow diagram in economics.

**HOUSEHOLDS**

**FIRMS**

**Income**

**Consumption**

**Goods Market**

**Factor Markets**

**Source: Wall (2009)**

**9.3.1 The Role of Households**

Let's take a look at the role of the consumer, or the households. In a circular flow diagram, households consume the goods offered by the firms. However, households also offer the firms with factors of production so that the firms can produce products for the household to later consume.

For example, households may supply land to produce goods or they may offer themselves in the form of labor. Households also offer capital, which is a monetary form of investing that helps firms create products for consumption. All three forms (land, labor, and capital) are offered to firms so that they can make products that households need and consume.

**9.3.2 The Role of Firms**

Now let us look at the role of firms. The main function of the firms is to offer goods. In order to do this, firms take the factors (land, labor, and capital) from households and convert products into goods and services that consumer’s need and want which are bought by the Household.

**9.4 National Income Calculations**

Parker (2005) highlights when you are calculating national income you have to use three main approaches or methods;

The following are the approaches:

**9.4.1 Expenditure approach**

The economic wealth created in a period can be measured by the amount of expenditure on the goods and services that are produced by the nation’s economy. The expenditure will be incurred by consumers, the government and foreign buyers of exports. Expenditure on imports represents wealth created by other countries, and so the value of expenditure on imports must be deducted from the total expenditure figure.

Expenditure by firms is excluded to avoid double counting. Firms buy goods and services which become costs of the goods and services that they produce and sell value of wealth created by suppliers of raw materials and components and the providers of services to other firms.

**9.4.2Income approach**

This approach measures the income of individuals from employment and self-employment, the profit of firms and rent on property.

**9.4.3Value Added or Output approach**

This approach measures the value added by all activities that produce goods and services

**Example:**

Suppose that a small national economy consists of one firm. During a certain period of time, the firm undertakes certain transactions.

It imports raw materials from abroad costing K400, 000

It hires labour who are paid K900, 000

It sells all its output for K2, 000,000 and so makes a profit of K700, 000

It pays its post-tax profits of K400, 000 to shareholders as dividends

The country’s government taxes the labour force K200, 000 and the company K300, 000. The firm’s sales of 2,000,000 are to the three types of customers.

Domestic consumers spend K1, 100,000. This K1, 100,000 is post tax wages earned by the labour force (K700, 000) plus K400, 000 in dividends earned by company’s shareholders.

The government spends K500, 000 it has raised in taxes

Foreign buyers spend K400, 000 required.

Calculate the GDP

**The Expenditure Approach**

**K** 1,100,000

Consumers expenditure 500,000

Government expenditure 1,600,000

400,000

Add exports 2,000,000

400,000

Subtract imports 1,600,000

GDP

**The income Approach**

**K**

Income from employment (pre-tax) 900,000

Gross profit (pre-tax) 700,000

GDP 1,600,000

**The value added or output approach**

**K**

Output from firms at sales value 2,000,000

Less cost of goods purchased from outside firms 400,000

GDP 1,000,000

1. **The National Output or the Value Added Method -**This is the total of consumer goods and services investment goods (including additions to stocks) produced by the country during the year. The production of goods and services in different sectors of the economy is added together. For example what is produced in the agriculture and fisheries, forestry, manufacturing, hotels, banking, national defense, education, health sectors etc, is all added together to arrive at the national income using the output method.
2. **National Income -**Using this approach, the total factor incomes received by persons and firms for the provision of factors of production, is added. Income from employment, trading profits, rent and interest are all added together to arrive at the national income using the income method.
3. **National Expenditure** -This involves adding together all total amounts spent on final goods and services by households, central and local government, including what is spent by firms on the net additions to capital goods and stocks in the course of the year.The calculation of the national income using the expenditure method is what is known as the **aggregatedemand**. This total spending is made up of consumption expenditure, plus investment expenditure, plus government expenditure, plus net exports (that is exports minus imports)(Olson and wall, 2009).

**9.5 Gross Domestic Product (GDP)**

The GDP is the first value arrived at in the national income calculations, before any adjustments are made. This is often referred to as the value of the output produced in the country during one year and if it increases in real terms, then it is a sign that the economy has grown. The GDP is calculated at **market prices,** but after taxes are deducted and subsidies are added, the GDP is at **factor cost**.

**9.6 Gross National Product (GNP)**

This refers to the value of the output produced by residents of a country in a year. It is arrived at after including the output produced by companies and individuals of a country but they are based abroad. In addition, output produced by foreigners and overseas companies in that country is deducted.

ReflectionWhat is GDP and GNP?

**9.7 Consumption And Saving**

From the circular flow of income, spending by households is termed consumption expenditure. It is an endogenous part of the circular flow of income. Consumption expenditure depends on an individual’s income; it is therefore a function of income. Savings is defined as the part of income not spent, it is a withdrawal or a leakage from the circulation flow of income. Therefore consumption and savings are two sides of the same coin and the consumption function tells us not only how much households consume, but also how they save. The factors that influence consumption naturally affect savings (Case, Fair and Oster, 2007).

**9.8 Investment Expenditure**

Investment is spent on the production of capital goods (houses, factories, machinery, etc) or on net additions to stocks such as raw materials, consumer goods in shops, In national income analysis, investment takes place only when there is an actual net addition to capital goods or stocks. However, investment is a major injection into the circular flow of income and affects national income and aggregate demand. Investment through the multiplier is needed to achieve Economic recovery. Investment is very dynamic, it determines future shape and pattern of economic recovery (Case, Fair and Oster, 2007)..

**9.9 The Multiplier Principle**

In the multiplier principle, an increase in investment affects income and consumption, while under the accelerator, consumption affects investment. When the economy is expanding, and income as well as consumption is high, then the business sector is encouraged to produce more goods. Thus investment increases. The increase in investment leads to an increase in income and consumption, and so on (EM, 2013). For example if the government decides to build a big hospital in Zambezi district costing K10 million, the increase in government expenditure through the construction of the hospital provides incomes to the factors of production employed in the construction of the hospital. Part of the K10 million goes to the contractor as profits, part of it goes to the workers as wages and part of it is used for the purchase of building materials. The three groups who will earn the income will spend it.

summary**Summary**

We have come to the end of this unit. So far we have looked the concept of national income, including circular flow, national income accounting, the classical theory of employment, the simple Keynesian theory of employment, consumption and saving, investment and the multiplier. In our next unit we shall focus on the concept of unemployment. I urge you to read on!

**Review Assessment**

|  |
| --- |
| 1. Describe the classical theory of full employment 2. Name two injections into the circular flow of income 3. Explain why the level of investment is considered to be important in any economy? 4. Explain the simple Keynesian theory of employment. 5. How might governments encourage a high level of business investment? |

***CHAPTER 10***

***UNEMPLOYMENT***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**10.1Introduction**

Our focus in this unit is on unemployment. As much as possible, we shall look at the meaning and the measurements of unemployment, types of unemployment causes, cure and effects of unemployment. I shall explain this in detail below.

**10.2 Learning Outcomes**

After studying this chapter, the students should be able to:

|  |
| --- |
| Outcomes   * Explain the meaning and measurements of unemployment * Understand natural unemployment * Identify the types of unemployment (search, structural, seasonal, residual, demand-deficient, and excessive real wage) * Bring out the causes and cure Effects |

Time Time Frame- in this unit you are expected to spend approximately

* + 2 hours’ study time
  + 2 hours in class

CONTENT

**10.3 Unemployment**

**Unemployment** can be defined as the number of people of working age who are willing and available to work at current wage rates, but not currently employed.

Unemployment is measured as # of unemployed x 100

Total workforce

**10.4 Natural Unemployment**

[Natural unemployment](https://www.investopedia.com/terms/n/naturalunemployment.asp) is often defined as the lowest rate of unemployment an economy will reach. It is natural because its causes are things other than the problems caused by a bad economy. For instance, one part of natural unemployment is frictional unemployment. This type of unemployment is caused by situations like new graduates just starting their search for a job, people leaving a job to move to another city, or people quitting their jobs to look for a better one. No matter how robust the economy is, there will always be people who are unemployed while in such situations (Samuelson, 2003).

Another part of natural unemployment is structural unemployment, which is where workers fail to find jobs and employers with available jobs fail to find workers.  This problem is created by some inherent long-term change in the economy.  Two of the most common economic changes creating structural unemployment are technological advances and rapid relocation of available jobs. Another factor that makes up natural unemployment is surplus unemployment.  This occurs when wage controls are put in place by unions or minimum wage laws.  This causes employers to cut their workforce to stay within budgetary constraints (Samuelson, 2003) .

**10.5 Types of Unemployment**

1. **Aggregate demand or cyclical unemployment-** This is unemployment exist when there is general deficiency in demand for labour is the country
2. **Seasonal unemployment -** Seasonal unemployment is experienced especially in agriculture and tourism industries because of the seasonality nature of the industries. At the period when activity is low, that is out of the season, demand for labour is low.
3. **Underemployment-**This is whereby people accept jobs for which they are overqualified. This is a result of low wages especially in the public sector. People are prepared to be underemployment in the private sector because of high pay.
4. **Disguised employment-** This is whereby many people are employed to do the same job that can be done by fewer people.
5. **Structural unemployment-** Zambia is applying the IMF/ World Bank Structural Adjustment programme. This has especially affected the parastatals sector and the public sector. Thus there has been increasing unemployment in this sector
6. **Frictional unemploymen**t is of a short-term duration. It refers to secondary school or college graduates who are searching for jobs, as well as individuals who are in between jobs, the transitional period between workers leaving one job and starting another. Frictional unemployment is also an indication of imperfections in the market such as lack of knowledge, the geographical immobility of labor or a mismatch between the requirements of the employers and the available skills of the unemployed

**10.6 Causes of Unemployment**

In an economy the causes of unemployment cannot be underestimated, the causes of unemployment will be broadly divided into demand and supply factors:

Demand deficiency unemployment is caused by lack of demand for goods and services, and as a result, firms lay off workers. This is usually when the economy is in the recession stage of the economic or trade cycle and there is little economic activity. Keynesians argue that a shortage of aggregate demand is one of the key causes of unemployment. Monetarists view Supply side factors such as strong trade unions demanding for high wages as causes of unemployment as firms employ less labor while the supplyof labor increases (Olson and Wall, 2009).

**10.7 Measures taken to Combat Unemployment**

The various measures are taken to combat unemployment such as;

1. **Promotion of education for employment-** Efforts are underway to teach various skills right from primary schools.
2. **Control of population growth -**The government has put up population control campaigns through such organizations as Planned Parenthood association of Zambia.
3. Spending money directly on jobs for employing more civil servants
4. Encouraging growth in the private sector.

**10.7 Undesirable Effects of Unemployment**

1. **Loss of output to the economy.** The unemployed could be producing goods and services and if they aren’t, then GDP is lower than it could be
2. **Loss of tax revenue.** Unemployed people are not earning and therefore they are not payingtax. The government has lost out.
3. **Increase in government expenditure.** The government has to pay out benefits to support the unemployed
4. **Loss of profits.** With higher employment firms are likely to do better and make better profits. If they make less profit because of unemployment, they may have less funds to invest.
5. The unemployment people may lose their skill in the long run.
6. People may lose their self-esteem and confidence as a result of being unemployed.
7. Unemployed people may engage themselves in bad social vices such as thefts, prostitution, vandalism and heavy beer drinking
8. **Increasing inequalities in income.** The poor become poorer

summary**Summary**

In this unit we have looked at unemployment. By now you should be in position to explain the meaning and measurements of unemployment, the types of unemployment, causes and cure, and the effects of unemployment

**Review assessment**

|  |
| --- |
| 1. Distinguish between Structural unemployment and cyclical (demand deficiency) unemployment? |

Unit 11

**GOVERNMENT SECTOR**

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* 1. **Introduction**

In this unit we look at the government sector. Under this topic we will also look at public finance, the budget and debt management, taxation and its principles, direct and indirect taxes, other sources of public sector finance and fiscal policy.

* 1. **Learning Outcomes**

|  |
| --- |
| Outcomes  After studying this chapter, the students should be able to:   * Define and explain Public Finance. * Examine The budget incl. debt management * Outline Taxation and its principles * Explain Direct and indirect taxes * Identify other sources of public sector finance * Understand the Fiscal Policy. |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**11.3 Public Finance**

Public finance deals with finances of the Government, which is reflected in terms of expenditure and revenue. The Governments spends their income on the provision of a variety of services that the private sector does not provide. Examples of such services are defence, internal security, education, health.

**11.4Three Elements of Public Finance**

There are three board elements in public finance:

**Expenditure** – the government spends money. Government expenditure has several purposes, for example:

1. To provide goods and services such as roads, health services, police services, public buildings
2. To provide payment to certain members of society, such as old age pensioners and the unemployed
3. To provide finance to encourage investment by private industry, for example by means of grants.

**Income** - Expenditure must be financed, and the government must have income.

Most government income comes from taxation. Some income is obtained from direct charges to users of government services such as health services.

**Borrowing**- To the extent that a government’s expenditure exceeds its income it must borrow to make up the difference. The amount of money that government must borrow each year is referred to as the public sector borrowing requirement or PSBR

**11.5 Budget**

A budget a plan by government concerning what it wants to spend and so how much it needs to raise in income or borrowing.

The government needs to make a plan in order to establish how much taxation there should be and what firm the taxes should take and so which section of the economy the money should come from.

When government’s income exceeds its expenditure-we say that the government is running a budget surplus.

When the government’s expenditure exceeds its income, so that it must borrow to make up the difference – we say that the government is running a budget deficit.

**11.6 The National Debt**

The national debt is the amount of debt owned by the government of a country to its various creditors. Creditors may be nationals of the country or foreign nationals (perhaps foreign banks, government, or IMF, World Bank). Zambia’s external debt is around $ 7.2 billion. After the attainment of the HIPC completion point, the HIPC completion point, the country’s creditors have cancelled most of Zambia’s debts and the external debt has reduced to about $500 million (EM, 2013).

**11.7 Services the National Debt and the Burdens on Society**

To service the national debt, a government must:

1. pay interest on the debt
2. Make capital repayment when they fall due
3. Services the national involves
4. A redistribution of funds within society, through government borrowing and spending, or through taxation to pay debt interest.
5. Borrowing to spend now and only repaying the debt with interest later. In other words, society in later year. Repaying a debt to foreign creditors also places a burden in society, because the money raised from taxes to services the debt must be paid abroad

**11.8 Government Expenditure**

Government capital expenditure refers to government spending on investment goods. This means spending on things that last for a period of time. This may include investment in hospitals, schools, equipment and roads. Government current expenditure refers to government day to day spending. This means spending on recurring items. This includes salaries and wages that keep recurring, spending on consumables and everyday items that get used up as the good or service is provided

**11.9 Government Revenue**

This is mostly from taxation. However, taxation has other functions besides covering central and local government expenditure.

**11.10 Taxation**

In his book wealth of nation’s Adam Smith described the “canons” or principles of taxation as follows.

1. **Equity**

Taxes should be levied according to the ability to pay of the taxpayer.

1. **Certainty**

The tax should be certain and easily understood by all concerned.

1. **Convenience**

The tax should be convenient to pay, not involving the taxpayer in time-consuming activities

1. **Economy**

The tax should be cheap to collect.

**Further features of a good tax system to be identified can be:**

1. Evasion should be difficult
2. It should not harm initiative
3. It should be adjustable so that rates may be altered down or up.

**11.11 Direct and Indirect Taxation**

A direct tax is one, which is levied on wealth, or income such as income tax, corporation tax, and capital gain tax.

An indirect is levied on expenditure such as VAT. Zambia’s current VAT rate is 17.5%.

Excise duty on beer and spirits as well customs goods imported from outside the country

**11.11.1 Advantages of Direct Taxation**

Direct taxes on income can be fair and equitable by being design as progressive, or proportional to the degree desired.

Because of their progressive nature they also stabilize the economy, automatically taking more money out of the system during the boom and less on during depression.

Moreover, because they are more difficult to pass on, they are less inflationary than indirect taxes.

Taxpayers know what their tax liability means.

**11.11.2 Disadvantage**

They act as a disincentive to work.

When income tax is levied at high rate, it could perhaps discourage both the geographical and occupational mobility of labor

In some cases, individual and companies may resort to tax evasion, which is the illegal non payments of taxes

A direct tax on profit is likely to act as a disincentive to risk-taking enterprise

**11.11.3 Advantage of Indirect Taxes**

Indirect taxes can be used to encourage or discourage the production or consumption of certain goods and services.

Indirect taxes are cheap to collect. Traders and companies are required to act as collectors of VAT in Zambia, this reducing the administrative burden on govt.

Indirect taxation is a relatively flexible instrument of economic policy. The rates of indirect taxes may be change to take effect immediately

**11.11.4 Disadvantage of Indirect Taxes**

Like taxes on income, indirect may be evaded by some. The so called black economy in which cash payments are made and income is not declared for taxes is indeed large and widespread in the self-employment section.

Indirect taxes tend to be regressive. A broadly levied indirect tax like VAT is likely to be quite regressive because the poor member of society spends a very much larger fraction of their income than very rich people

**11.12 Progressive Taxes**

These are taxes where the proportion of tax paid increases as income, wealth or expenditure increases

**11.12.1 Advantages**

They are levied according to the ability to pay

Progressive taxes enable a government to redistribute wealth from the rich to the poor in society

Indirect taxes tend to regressive and progressive are needed to counter balance regressive taxes in the system, and so make the tax system as a whole more fair

**11.12.2 Disadvantages**

Higher taxes on extra corporate profits might deter entrepreneurs from developing new companies because the potential increase in after-tax profits would not be worth the risks involved in undertaken new investments.

Individuals and firms that suffer from high taxes might try to avoid or evade paying tax.

**11.13 Regressive Taxes**

In the case of a regressive tax, a greater proportionate tax burdens falls on those least able to afford it. These are taxes where the proportion of tax paid decreases as income, wealth or expenditure increases

One in when the average tax rate falls as income levels rate

**11.13.1 Advantages**

Relatively easy to collect

Easy to collect

**11.13.2 Disadvantages**

It is not fair or equitable

It is expensive to collect

**11.14 Fiscal Policy**

Fiscal policy is concerned with government spending (an injection into circular flow of income) and taxation (a withdrawal).

If government spending is increased, these will be an increase in the amount of injections, expenditure in the economy will rise and so national income will rise.

If government taxation is increased, there will be an increase in withdrawals from the economy, and expenditure and national income will fall. A government might deliberately raise taxation to take inflationary pressures out of the economy (EM, 2013).

Fiscal policy can be used to reduce unemployment and provide jobs. For examples:

More government spending on capital projects would create jobs in the construction industries.

Government funded training schemes are a means of spending by government to improve training.

A government might tax companies on the basis of the numbers and pay levels of people they employ. Government spending however might create inflationary pressures, and inflation tends to create more unemployment. Fiscal policy must therefore be used with care, even to create new jobs (EM, 2013).

**Review assessment**

1. The revenue of the Zambian Government is mostly from taxation. Distinguish between direct and indirect taxes giving two examples of each.
2. Explain the principle of a good tax system
3. What is the difference between fiscal policy and monetary policy?
4. What are the objectives of fiscal policy?

Unit 12

**THE MONETARY SECTOR**

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**12.1 Introduction**

Welcome to this interesting topic, the monetary sector. In this unit we are going to define money and look at the functions of money. However, as we go down and appreciate the monetary sector, we will unveil the banking sector and look at the central bank of which in this particular topic is the bank of Zambia. Further the Monetary policy.

**12.2 Learning Outcome**

|  |
| --- |
| Outcomes  After studying this chapter, the students should be able to:   * Define money * Explain the banking system and the Central Bank. * Explain the Monetary Policy |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**12.3 Money**

Money is defined as anything that is generally acceptable in repayment of a debt. It is a medium of exchange, a legal tender. Basically anything or any asset that is acceptable to the public as medium of exchange can be considered money.

**12.4 The Function of Money**

1. **Medium of exchange**

Money is used for buying and selling goods and services. It allows buyers and sellers to make transaction without resorting to barter.

1. **Measure of value and unit of account**

Money is a measure of and unit of account, making possible the operation of the price system and automatically providing basis for keeping of accounts.

1. **Standard of deferred payment.**

It is a standard of deferred payment-the unit in which loans and future contracts are fixed provided its value is stable. People can make a contract or an agreement now to exchange goods or settle a debt in the future, agreeing now in monetary units the payment to be settled in the future.

1. **Store of wealth or value**

It is a store of wealth the most convenient way of keeping any income, surplus to present needs

**12.5 Commercial Banks**

Commercial banks are financial intermediaries with a government license to make loans and issue deposits, including against which cheques are drawn.

**The main functions of commercial banks are as follows:**

1. **Providing a payment mechanism,** which enables individuals and firms to pay by cheque the banks are also a source from which individuals and firms can obtain notes and coins.
2. **Providing a place for individuals, firms and government to store their wealth**
3. **Lending money** in form of loans and overdrafts
4. **Acting as financial intermediaries** by accepting deposits and lending, and in doing so transforming the risk characteristics and maturity characteristics of the lending
5. **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.

The banks also provide a wide range of other commercial services to customers such as:

1. Advising and assisting companies, for examples advising firms in a takeover bid and assisting companies to issue shares on the stock market.
2. Providing assistance to importers and exporters for example helping exporters obtain payment from abroad
3. Leasing
4. Giving investment advice
5. Executorships and trustee services
6. Selling pensions

**12.6 The Central Bank**

A central bank is the principal financial institution in the country and act as a regulator of the banking system. It does not deal directly with the public but rather provides services to the commercial banks and the government and manages the money supply for the good of the economy rather than for maximization of its own profits

The Bank of Zambia (BOZ) is the central bank for Zambia and it was established on the eve of independence in 1964. It is responsible for the supervision of the whole banking system and for the government monetary policy (EM, 2013).

**The main functions of the central bank (Bank of Zambia) are:**

1. It acts as banker to the government and holds public deposits.
2. It is the central note issuing authority in Zambia-it is responsible for issuing bank notes in Zambia.
3. It managers the exchange Equalization account (that is Zambia’s foreign currency reserves)
4. It acts advisor to the government on monetary policy.
5. It is the manager of the national Debt- it deals with long – term and short term borrowing by the central government debts.
6. It acts as a banker to the commercial banks. Commercial bank keep a bank account with the bank of Zambia
7. It acts a lender of the last resort to the banking system. When the banking system is short of money, the Bank of Zambia will provide money the banks need at a suitable interest rate.
8. It carries out various international monetary duties on behalf of the government and represents it on its dealing with foreign central banks, World Bank, International monetary Fund (IMF).

**12.7 Monetary Policy**

Monetary policy is decisions and actions of the government regarding the supply of money and its price (the rate of interest). An increase in the money supply, which is loose monetary policy leads to a lot of borrowing and spending. With too much money in circulation, inflation as well as an external trade deficit is the likely result. To reduce the money supply, the central bank has to curtail the borrowing and spending by limiting the commercial bank’s capacity to create credit, create deposits and therefore ‘create money.

Reflection

What instruments does central bank uses to control the money supply

summary**Summary**

Well done, you have come to the end of this unit, by now you should be in position to explain the concept of money, the banking system and the central bank, and the monetary policy.

**Review Assessment**

1. Give a brief explanation of the characteristics of money
2. Give an explanation on why people demand money

**Unit 13**

**INFLATION**

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* 1. **Introduction**

I would like to commend you for reaching this far in your reading, this unit will help us understand inflation, causes and cure. Furthermore we will look at the effects.

* 1. **Objectives**

|  |
| --- |
| Outcomes  After studying this chapter, the students should be able to:   * Define Inflation * Explain the Causes and cures * Outline the effects of inflation |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**13.3 Inflation**

Inflation is usually defined as a sustained increase in the general price level. We measure it as the annual percentage increase in prices.

**13.3.1 Types and causes of inflation**

1. **Demand-pull inflation**

Zambia has suffered from demand-pull inflation, as it is evident that aggregate demand Zambia increases faster than output.

The incomes of the workers have always been increasing without corresponding increase in goods produced. This has had the effect of pulling up the prices.

Another cause of demand-pull inflation in Zambia is increase in government spending at a higher rate than increase in taxation. In order to meet such expenditure levels the government borrows from banks. This leads to increase in money supply which in turn fuels inflation.

1. **Cost –push inflation**

One form of inflation that Zambia has suffered is cost push inflation. Causes of cost push inflation in Zambia include the following:

Increases in wages without corresponding increase in output. One factor behind this has been the negotiating power of unions and the fear by politicians to lose popularity

Increases in price imported goods

Increases in interest rates and exchange rates

1. **Imports cost-push inflation.**

Import cost push inflation occurs when the cost of essential imports rises regardless of whether or not they are in short supply. For Zambia, oil has been an essential import and in times of drought maize becomes an essential import as well.

1. **Expectational inflation**

This means that, regardless of whether the factors that have caused inflation are persistent or not, inflation will be expected. To protect future incomes, wages and prices will be raised by the expected amount of future inflation. This can lead to the vicious circle known as the **wage – price spiral,** in which inflation becomes a relatively permanent feature because of people’s expectations that will occur.

**13.4 Measures to Combat Inflation**

The best way to combat inflation will depend on the causes of it, we are going to look at the following measures as a way to combat inflation.

**Cost – push inflation**

1. Reduce indirect taxation
2. Encourage an appreciations of the currency
3. Introduce a price and incomes policy to free price and wage increase.

**Demand –pull inflation**

1. Reduce government spending
2. Control the supply of money
3. Increase income tax to reduce consumer spending

Reduce people’s ability to borrow by increasing interest’s rates

**Import cost – push inflation**

Take steps to reduce the quantities or the price of imports. Such a policy might involve either an appreciation or a depreciation of the domestic currency.

**Expectational inflation**

The government must pursue clear policies that indicate its determination to reduce the rate of inflation.

**13.5 Undesirable Effects of Inflation**

1. People on fixed incomes are unable to buy so many goods
2. Creditors (saver) loser because the loan will have reduced purchasing power when it is repaid.
3. Industrial disputes may occur if workers are unable to secure wage increases to restore their standard of living.
4. **Uncertainty in the value of money.** Resource allocation and decision – making are harder and business may defer long term decisions.
5. **Balance of payments.** If the rate of inflation is higher than trading partners, exports become relatively expensive, imports relatively cheap and balance of trade and unemployment will suffer
6. **Resource costs of charging prices.** Substantial labor time is spent on planning and implementing price changes, and customers have to spend more time making price comparisons.

summary **Summary**

In this unit so far, we have looked at what inflation is? its causes and cures and effects. I should congratulate you for reaching this far. In the next unit we shall focus on the external sector.



**Review Assessment**

1. How might governments use monetary policy to reduce the rate of inflation?

Unit 14

**EXTERNAL SECTOR**

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* 1. **Introduction**

I would like to commend you for reaching the end of the module of the economics module. In this unit I will end with explaining trade, balance of payment and exchange rate.

* 1. **Objectives**

|  |
| --- |
| Outcomes  After studying this chapter, the students should be able to:   * Explain International Trade * Understand the Balance of Payments * Understand the Exchange Rates |

TimeTime Frame: in this unit you are expected to spend approximately

* + 1hour 30 minutes’ study time
  + 2 hours in class

**14.3 Trade**

What is trade? Trade is a basic economic concept involving the buying and selling of goods and services, with compensation paid by a buyer to a seller, or the exchange of goods or services between parties. Trade can be done locally or internationally. International trade is the voluntary exchange of goods and services between people in different countries. It involves exchanging goods and services across international boundaries (Parkin, 2005).

**14.4 Why Nations Trade**

Nations engage in international trade for many reasons that include the following:

Resources are not evenly distributed among countries. Some goods can only be availabl**e** in other parts of the world through trade

Skills and technology are also not distributed evenly. While some countries have a high level of technological development others are still at early stages of development

**14.5 Free Trade**

Free trade refers to a situation where the flow of goods and services across international boundaries is not hampered by any artificial barriers. Opening up of trade among nations leads to greater world production of traded goods in turn this leads to an increase in economic welfare.

**14.6 Benefits of Trade**

Engaging in international trade gives firm access to large markets which enable them to take advantage of economies of scale

1. Companies can buy raw materials, spare parts and machinery more easily and more cheaply.
2. Consumers can also gain from international trade for the following reasons:
3. They can be purchase goods not made in their own countries
4. They can have access to greater variety of products.
5. They can benefit from increased competition in the form of lower priced and better quality products.
6. By enabling the principle of division of labor to be extended to the international level international trade increases world output and hence raises the standard of living.

**14.7 Balance Of Payments**

The balance of payments is an account showing the financial transactions of one nation with the rest of the world, it records flows of funds between residents of a country and overseas residents, normally for a period of one year. The balance of payments consists of two parts, the current account and the transactions in external assets and liabilities, known as the capital account.

The current account is made up of the visible and the invisibles account, while the capital account shows the inflows and the outflows of foreign currency. The overall balance shows how the difference between current and capital accounts is financed.

In theory, the balance of payments always balances because of the double entry system used in recording transactions. However, in practice, there is need to include a balancing item, which is created by errors and omissions in measuring the figures. A balance of payments deficit indicates that what was paid out is greater than what was received. The deficit can be adjusted by devaluation and deflationary measures as well as direct controls (EM, 2013).

What is a Balance of Payments Account? Describe its composition.

**14.8 Exchange Rate**

An exchange rate is the price paid for obtaining one unit of foreign currency like the dollar. Like all prices for goods and services the price for buying foreign currency can be determined by the forces of supply and demand in the absence of government intervention

**14.8.1 Factors Influencing the Exchange Rates**

Factors influencing the exchange rate include the following:

1. Availability of natural resources wanted by other countries e.g. copper, oil ,Gold etc production and supply of such natural resources improves a country trading is position international trade.
2. The political stability of a country. A country with uncertain political future is likely to suffer from a withdrawal of investment and donor support.
3. Government intervention which may take the form of exchange controls, import controls, import control or import tariffs.
4. The demand and supply of goods and services between countries influences the demand and supply of foreign currencies.
5. Demand for currency to invest in other countries and the supply of foreign currency to firms disinvesting in the country.
6. A continual deficit in a country balance of payments current account leads to loss in international confidence which in turn leads to a fall in exchange rate i.e. the local currency loses value.
7. Speculation some people specialize in buying and selling foreign currencies. If this is done on a large scale it affects the exchange rate.
8. The purchasing power parity theory. The theory explains the connection between the exchange rate for a foreign currency and the rate of inflation. According to the purchasing power parity theory, a country where prices are always rising will tend to give a falling exchange rate i.e. the local currency will tend to lose value against foreign currencies.

**14.8.2 Fixed Exchange Rate**

This is where the government keeps the exchange rate at a fixed level, but if it cannot control inflation, the real value of the currency will not remain fixed

Countries in a fixed rate system will rely heavily on specific weapons to maintain exchange rate stability which include the following:

1. Official reserves (I.e. foreign currency owned by the government) that can be used to intervene in the foreign exchange markets to prevent the currency from either falling below or above its upper limit.
2. Domestic policies to inflate or deflate the economy. Deflationary policies, such as a higher interest rates higher taxation and lower government spending can be introduced to strengthen the local currency. The opposite of these measures could be inflationary and their introduction could weaken could weaken the currency.

**14.8.3 The Free or Floating Exchange Rate**

A floating exchange rate is an exchange which is completely left to the free play of market forces and there is no official intervention at all. The equilibrium rate of exchange is determined by the forces of demand and supply on the foreign exchange market.

**Discussion**

Is a system whereby exchange rates are allowed to float, but from time to time the government will intervene in the foreign exchange market?

summary**14.9 Summary**

Congratulations for reaching the end of this unit and module.This unit is concluding with trade, balance of payment and exchange rate. However, I must mention that I wish you all the best as you apply the economics knowledge and principles in our day to day life.

**God’s Blessings**