‘A’ LEVEL ECONOMICS

STUDY PACK
THIRD EDITION

‘A’ Level Economics Study Pack

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Foreword

I had the opportunity of discussing this book with several educationists, teachers and students when it was in the process of making, and I felt at once that it was likely to prove unusually useful. It gathers together a great deal of information which must otherwise be delved for in many books and all this is arranged judiciously and on practical lines. The authors' outlook might be described as one of liberal commonsense clarity, simplicity of expression, and examination - skills - focused. Our study packs are there to offer a canvas for Zimbabweans to showcase their best ideas to help transform the country into a knowledge- based society where citizens are free to express their creativity, knowledge and ingenuity. We have set challenging objectives, but we believe that only by striving to achieve the highest, can we elevate ourselves above the elements which tend to hold our country back. However, if your see anything where you feel we may have failed to deliver, and where we may have failed on issues such as content, depth, relevance and usability, please let us know by using the contact numbers (09) 61226/61247, 0773 247 358; or Box 2759 Byo; email at turnupcollege@yahoo.com. We are here to listen and improve.

In my days as a teacher and as a student I should have welcomed this book warmly because:

(i) It approaches the syllabus wholistically
(ii) It uses simplified expression
(iii) It has an in-depth coverage of content
(iv) It provides examination skills at the earliest stage of studying
(v) It provides local, international and commonplace examples; illustrations and case studies.
(vi) It provides intelligent questions and answers of the examination type on a chapter by chapter basis
(vii) Last but not least, it provides a clear platform for self-evaluation as one prepares for the final examinations.

I have no doubt that learners and educators would as well find this book to be the best. It is certainly a manual for success. Every one would find it worthy to have his own copy. I should not be surprised if the Turn-up College Study Pack became the best resource in school and out of school.

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ACKNOWLEDGEMENTS

I must express great thanks to teachers and other employees at Turn-Up College who worked faithfully to build up this resource. My gratitude is also extended to all outsiders contributors, particularly Mr. N. Masiyandima (a former lecturer at the National University of Science and Technology who later joined the Economic Research Department of the Reserve Bank of Zimbabwe) for his crucial effort to standardize the material in this resource. In a similar honour, I am grateful to Mr. C. Ronney, Mr Peresu and E Madzingira, veteran Economics teachers, who worked out the final nitty-gritties of the study pack.

PREFACE

The vision of the Turn-Up Study Packs Project is to create a self-sufficient information base for the student. With this aim in mind, this Study Pack provides all the necessary topical material in a simplified manner. Thereafter, the Study Pack provides a wide range of examination-type questions at the end of each topic area.

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Course Outline

This study pack is designed to cover the 'A' level syllabus 9158/1/2/3. The content has been synthesised and is tailor made to suite 'A' level candidates.

Paper 1 of the examination covers 40 multiple-choice questions

Paper 2 covers the data response questions. These are compulsory questions, each carrying 20-marks. A data response question can be based on any of the following aspects:

1. Comprehension
2. Statistics
3. Graphical data
4. Or a combination of the above

Comprehension

- This relates to a passage and candidates are asked to read and answer the questions based on the passage.

STATISTICS

This relates to quantifiable data on tables where candidates are asked to do computations based on these comprehension questions and are expected to make deductions and generalisations.

GRAPHICAL DATA

Graphs are given which picture an economic situation. Candidates are required to read and interpret such graphs, make comparisons and match economic theory interpretations where necessary.

The questions set can either be on:

a) Data given
b) Stimulus response
c) Or a combination of the above.

Data response questions

These questions are mainly based on data given where one has to write evidence from the given data to support one argument.

STIMULUS RESPONSE QUESTIONS

The data given stimulates one to think of other relevant information after being stimulated by what is given. This should be readable economics. This encourages the candidate to bring

in further ideas from different parts of the syllabus rather than viewing each topic as an isolated component.
Normally the last part of the question on data response requires judgment and is open ended.

MARK ALLOCATION

The mark allocation in a data response question gives a clue of how much content both quality and quantity is injected. The solutions given should be developmental and to the point.

OBJECTIVES OF THE EXAMINATION

1. Knowledge
   a) Knowledge of the terminology of economics
   b) Knowledge of specific facts relating to economics and economics situations.
   c) Knowledge of general and specific methods of inquiring and of the main sources of information about economic matters and ways of presenting economic information.
   d) Knowledge of the main concepts of particular principles and formulae applied within the field of economic and of the more economics theories held.

2. **Comprehension**

a) The ability to understand and interpret economic information presented in verbal, numerical, and graphical form and to translate such information from one point to another.
b) The ability to explain familiar phenomena in terms of the relevant principle.
c) The ability to apply known laws and principles to problems of a routine type.
d) The ability to make decisions about economic knowledge or about given data.

3. The ability to apply selected known laws and principles to problems which are unfamiliar or are prevented in a moral manner.

4. **Analysis and synthetics**

a) The ability to distinguish between statements of fact, statements of value and hypothesis statements.
b) The ability to recognize unstated consumption.
c) The ability to make valued references from material provided.
d) The ability to examine the implication of a hypothesis
e) The ability to recognise ideas into a new unity and to present them in an appropriate manner.
f) The ability to make valid generalisations.

5a) Evaluation

The ability to evaluate the reliability of the material.

b. The ability to check that conclusions drawn are consistent with given information and to discriminate between alternative explanations.
a) The ability to detect logical fallacies in arguments.
b) The ability to appreciate the role of the main concepts and models in the analysis of economic problems.

EXPRESSION

The ability to organise and present economic ideas and statements in a logical for and appropriate manner.

(Source: Joint Matriculation Board Exams, Council, General Certificate of Education Regulations and Syllabus, 1979).

Paper 3 cover essays. There are 12 questions of which the candidate has to answer only 4 questions.

Maile and Jerkin s summarised good habits which should be accommodated and practiced throughout the 'A' level; course:

- Relevance
- Or familiarisation
- Style
- Presentation
- Accuracy

(Questions and answers in 'A' level Economics, 9).

Relevance.

It is important for one to brain-storm any given question and it is proper for one to answer the question set rather than twist the question to what one thinks is meant by the question. It would be proper to underline key terms and phrases to group the content of the question.

Organisation.

The next stage is to make a formal plan, which is developmental. One's brain stormed ideas are now arranged in a logical and coherent manner.

Style

Roger Jenkins says this involves writing an answer, which is:

a) Precise
b) concise and
c) Identifiably economics.

d) Presentation

This calls for good English and logical developmental essays.

Accuracy

One has to present identifiably economics rather than waffle on unfounded matters. Diagrams must be properly drawn and labelled.

CHAPTER 1

THE SCOPE OF ECONOMICS

Chapter objectives

After reading and retaining comprehension of the contents of this chapter you should be able to:

1. Define the term Economics" and explain its major classes
2. Explain the relevance of the following terms to Economics; public goods, private goods merit goods, demerit goods and free goods.
3. Describe the crucial roles played by price in Economics.
4. Distinguish between Macro Economics and Micro Economics
5. Explain all the factors of production.

INTRODUCTION

We can define economics as:

- Economics is a science of scarcity. It is the study of mankind behaviour in processes of production, exchange, distribution and consumption that seek to maximize material well-being from the limited resources available.
- It is the study of how people behave when faced with the problem of scarcity.
- It is a social science that deals with the allocation of scarce resources. It is closely related to such social sciences as ethics, politics, sociology and others in that it deals with human behaviour.

The study of economics can be classified into normative and positive economics, depending on whether one is looking at proven facts or subjective statement. Alternatively, the study of economics can be at micro or macro level. Both aspects are going to be looked into in this book.

NORMATIVISM VERSUS POSITIVISM

Economics of positivism deals with economic principles, laws and facts that can be objectively verified. These include issues such as the law of demand and supply. Normative economics deals with subjective statements such as what ought to be done or what is good or bad in a society. Normative economics involve individual opinion and unsubstantiated value judgments or insights. These include issues on fairness, equality, etc

PROBLEMS OF NORMATIVE ECONOMICS

1. It cannot be experimented as it deals with human behaviour rather than with physical properties;
2. Any measurements used or applied are only approximate and even so take time to collect;
3. It deals with human behaviour, which can change from time to time;
4. Economic studies are rarely distinct from those of other sciences - as state planning of the economy increases, so that area which economics overlaps with politics increases.
5. It cannot directly measure welfare, as it is impossible to measure satisfaction because it is a personal feeling, which cannot be measured objectively.

THE NATURE AND METHODOLOGY OF ECONOMICS

Economics is a social science. This means that an economist attempts to understand economic problems rationally and systematically by collecting and sifting facts before coming to any conclusions or theories. In this case economists used a method very similar to that of scientists but their job is made more difficult by the fact that he cannot set up controlled laboratory experiments. Instead of studying objects, the economist has to study man and his economic decisions. Economic study, like any other social science, moves from abstraction to generalization. Economists collect data from many economic agents. In the data there are always outliers and inconsistent behaviours!, but the economist reads general or average behaviours or trends to come up with widely predictable conclusions, laws, theories and principles.

ECONOMIC PROBLEM

Resources are scarce. Scarce resources are used to make goods and services. Resources that are not scarce are free goods, which do not have value. These include free air that we breathe or desert sand.

NEEDS AND WANTS

All people have the same basic needs. People usually want more than they need and human wants are without limit. This is because the resources needed to make goods and services are scarce as compared with people's wants and this is the centre of the economic problem. Nobody can have sufficient goods to satisfy all their needs and wants, so people must choose which wants they will satisfy. Scarce resources have alternative uses.

Ceteris paribus

This refers to the "other things being equal" assumption. Only the variables under investigation are investigated while the rest will be held constant. This assumption is necessitated by the inevitable fact that when one tries to investigate a relationship in economics, other variables will be changing such that it is always difficult to ascertain cause and effect in economics. In making conclusions, therefore, economists have to assume that other factors are kept constant.

PUBLIC GOODS

These are goods whose consumption by one party does not reduce the amount available to others. Public goods are also referred to as collective consumption goods. These goods have two main characteristics, that is, they are non- rivalry in consumption and secondly are non-excludable in consumption.

Non- rivalry. Non - rivalry in consumptions means that consumption by one part does not reduce the amount available to others.

Non-exclusive. Non- exclusive implies that one cannot be excluded from consuming the good by any other party. Even if one pays for them, once they are produced it would be very difficulty to prevent non-payers from enjoying the good. This is often referred to as the free rider problem.

Largely because of the feature of non- exclusivity, it means the price mechanism fails to play its signalling and rationing role. Since the price mechanism is non- functional, there is no incentive to produce public goods. Thus, if left to the price mechanism to decide on the amount to produce there will be under or none production of public good. The marginal cost of producing public goods is zero and thus, they cannot be priced. In order to correct the market failure to produce public goods, the government in the majority of cases intervenes and produce them on behalf of the general public because they are desirable for their social benefits. Consumers pay indirectly for the production of public goods through taxations, which is the major source of finance of public goods. Example of public goods include defence, police, roads, street-lighting, public parks just to mention but a few.

Private Goods

These are goods whose consumption by one party reduces the amount available to others. They can be priced and hence there are incentives for producers to produce them since the scope for profit maximisation is wide. They include, bread, cars shoes just to mention but a few. Thus whenever it is possible to put a price on the product then the product in question is a private good. Private goods also have two defining features: they are rivalry in consumption and also excludable in consumption.

Rivalry in consumption implies that consumption by one party reduces the amount available to others. The feature of exclusivity means that owners of a private goods can prevent none payers from their consumption. This is usually enforced through property rights.

N.B. One can convert public goods into private goods by assigning property rights - copy rights, trade marks *or even brand name.*

Merit Goods

These are goods that when consumed their social benefits outweigh private benefits. They are desired for their positive externalities. Examples includes education and health care just to mention but a few. It is possible to price merit goods. However, if left to the market mechanism they will be under consumed and hence the government has to intervene through the construction of public schools, public hospital, etc or by subsidising their production.

Demerit Goods

These are goods whose consumption by an individual results in greater social costs compared to private costs. If left to the price mechanism demerit goods will be overproduced and hence the government has to intervene through the tax instrument and direct regulation to reduce or stop their consumption. Examples include pollution, public smoking, noise etc.

Free Goods

These are goods, which are produced at zero cost of production, for example, air. It follows that free goods are not economic goods because their supply is unlimited and we cannot charge a price on them.

THE ROLE OF THE PRICE

Price is the value of good or service expressed in monetary terms. The price plays three crucial roles in economics. These can be stated as (i) signalling, (ii) rationing and (iii) rewarding.

We have already come across the term scarcity in this chapter and it would be crucial at this juncture to put into perspective how the price mechanism attempts to deal with the issue of scarcity.

Signalling Role

Factors of production are scarce and hence have to be distributed and allocated amongst competing ends. The role of the price is to signal to factor owners in which sector of the economy they should employ their scarce resource and fulfil their profit maximising objective. Given for instance two alternatives maize and brick making production with each fetching $35m and $2m respectively per tonne, a rational producer will employ more of its resources in maize production where returns per tonne are high. Thus, the price has signalled the sector where scarce resources should be employed.

Rationing

The price can ration scarce resources amongst competing ends. If for example two firms want to employ an engineer and there is only for simplicity one engineer on the market, the firm which offers the highest salary will most likely attract our engineer, ceteris paribus. If firm A offers our engineer $20 000 per month and firm B offers, $12 000, firm A is most likely to employ the engineer and hence we have managed to deal with the issue of scarcity through the price mechanism. This analysis can be extended to any range of economic goods that we come across.

Rewarding

As already encountered elsewhere factors of production have factor payments that come along with them. There is nothing for free. Land receives rent, capital, interest, labour, wages and enterprise profits or losses, all these have to be expressed in monetary terms. For example, you can decide that your labour will cost you $3m in payments, the $3m is the reward that we are talking about. This can also be extended to the remaining factors of production. One can only attract scarce resource if he or she is prepared to part away with money (our price in this case).

Divisions of Economics

The term economics was derived from the Greek word Oikonomikos, meaning the study of how households use scarce resources to provide for their endless needs and wants. Economics was divided into two major groups as follows:

Oikonomikos (Economics)

Micros (micro)

Makros (macro)

- A small picture
- A study of small economies
- Study of individuality

- A study of large economics
- A large picture
- Study of aggregates, totality or the whole

Differences between micro and macro - economics

Micro	**Macro**
- Study individual units	- The study of totality of the economy
- For example price of bananas	- For example Consumer price index (CPI/ RPI)
- Supply of bananas etc	- Aggregate demand
	- Aggregate supply etc

GENERALIZATIONS

These are the principles, theories, laws or models made by economists. The derivation of these principles is the task of economic theory.

THE FALLACY OF COMPOSITION

The fallacy observes that what is true or correct for an individual part may not be true for the whole. For example if a farmer makes a bumper harvests in his 2 hectare in Matopo this does not necessarily mean that there has been a bumper harvest in Zimbabwe. A single spectator increases his visibility of a soccer match by standing up, but if all spectators stand up they will not necessarily improve their visibility.

CAUSE AND EFFECT FALLACY

This is the fallacy of cause and effect. Because many factors change simultaneously in reality, one can not easily ascertain that A has happened because of B, ie it's not necessarily true that when one event proceeds another, the first event necessarily caused the second for example a bird crows before dawn but this does not mean that it is responsible for the sun rise.

The Factors of Production

These are scarce resources available for use in the production of goods and services to satisfy wants. These resources are the inputs into a production process from which an output of goods and services emerges.

Factors of production can be grouped under four headings.

LAND

Land is all the natural resources given to man by nature and can be used in the process of production. This includes the fertile soil vital to the growth of plants, minerals such as gold and oil and animals for their meat and skins are known as material resources. It also represents all gifts of nature in the productive system for example farmland, rivers and woodlands.

LABOUR

Labour is the physical and mental effort provide by individuals to make goods and services. This effort is necessary in the production process. The greater the number of workers and the better educated and skilled they are, the more a country can produce.

CAPITAL

Capital consists of all man made factors in the production process for example dams, equipment, machinery. These resources which help to produce many other goods and services are known as capital.

ENTREPRENEURSHIP

This involves the ability to organize all the other factors of production and willingness to take risks in order to undertake production. Business know–how, or the ability to run a production process is known as entrepreneurship. The people with entrepreneurship skills are called entrepreneurs. They are the people who undertake the risks and decisions to make a firm run successfully.

GOODS AND SERVICES

A consumer good is any good that satisfies consumers' wants. These are usually tangible commodities classified as durable for example cars, computers and non-durable for example food, petrol.

Sometimes our wants are satisfied by someone doing something for us. These are called consumer services. Examples include services of a doctor, teacher, policemen, etc.

EXAMINATIONS TYPE QUESTIONS

MULTIPLE CHOICE

1. Which one is not a normative statement?
   A. The government should be more worried about unemployment as compared to inflation in the economy.
   B. The inflation rate in Zimbabwe in November 2005 is above 400%.
   C. Equitable distribution of income and wealth leads to economic growth in an economy.
   D. Should the government increase the interest rate in order to reduce the problem of inflation?
2. What is a merit good?
   A Good that is provided by the government.
   B A good with extensive external benefits to society.
   C A good whose private benefits to the consumer exceed the social benefits of consumption to the whole society.
   D A good whose social costs to the society exceed the private costs incurred by the consumer.

ESSAYS

1 (a) With illustrative examples; explain the differences between normative statements and positive statements. [10]

(b) Discuss the benefits of equitable distribution of income and wealth in an economy. [15]

2 The basic economic problem is not so much the amount of production from scarce resources but rather how the resulting products are distributed. You are required to:

(a) Explain the statement [5]
(b) Show how different economies have tried to resolve the problem. [10]
(c) Consider the difficulties they face in so doing. [10]

CHAPTER 2

GRAPHS AND THEIR MEANING

Chapter objectives

After reading and retaining comprehension of the contents of this chapter you should be able to:

1. Differentiate between dependent variables and independent variables giving examples of each.
2. Distinguish between direct and inverse relationships and represent these on a straight line linear equation.
3. Account for the shape of a firm's average total cost curve in both the short and long run.

PURPOSE OF GRAPHS

Graphs or functional relationships are not necessarily economic theory or an explanation of any unknown theory. They are simply a simplification of reality. The discipline of economics, therefore, starts from known facts and theories to graphical or functional representation of such information. Graphical representation of facts has several advantages, which include the following:

1. To visualize and understand important economic relationships.
2. Summarise important economic relationships.

DEPENDENT AND INDEPENDENT VARIABLES

Dependent variable

Is the outcome, which changes due to a change in the independent variable. A variable is a measure that can change from time to time or from observation to observation.

For example - Price = f (Income, Season, Population, Price of substitutes, etc……)

Price is the dependent variable.

Independent variable

It is a variable, which causes the change in the dependent variable. In the above representation, income, season, population and price of substitutes are all independent variables, which determine the price level. In graphical representations, price and cost data are always placed on the vertical axis while quantities in relation to price and cost data are on the horizontal axis.

Other examples

VARIABLE	DEPENDENT	INDEPENDENT
1. Income Consumption	Consumption	Income
2. Ticket price a Attendance	Attendance	Ticket price
3. Savings Income	Savings	Income
4. Study time Exam score	Exam score	Study time

Graphic representation of a dependent and an independent variable

y- axis

PLOTTING POINTS

The points are plotted by drawing perpendiculars from the appropriate points on the vertical and horizontal axes. These perpendiculars intersect at a focal point which locates the particular dependent – independent combination. Then the general relationship between dependent and independent variables exists for all graphs.

DIRECT AND INVERSE RELATIONSHIPS

These are represented by a straight line with a general equation denoted by $y = mx + c$

Where m = is the slope of the line
C = is the intercept, the y – axis
Y = dependent variable
X = independent variable

By a direct relationship means that the two variables change in the same directions ie when one quantity increases the other also increases in the same direction. This relationship is shown by an upward sloping line. An example is that of demand and income.

By an inverse or negative relationship means that the two variables change in the opposite direction i.e. when one quantity increases the other quantity decreases. This relationship is shown by a downward sloping line. An example is that of price and quantity demanded.

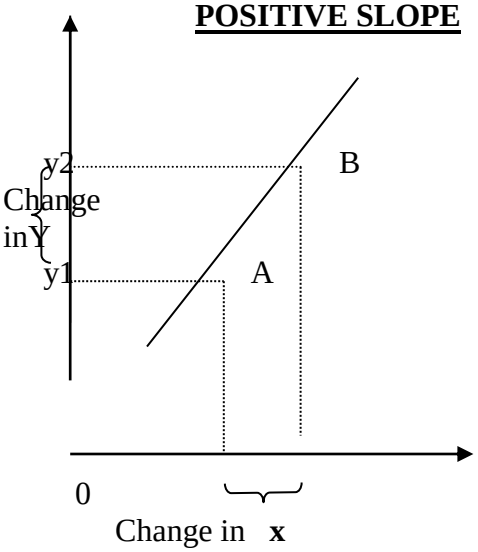
THE SLOPE OF THE LINE

This is the gradient of the line. This is the ratio of the vertical change to the horizontal change involved in moving between two points

Slope = $\frac{\text{Vertical change}}{\text{Horizontal change}}$

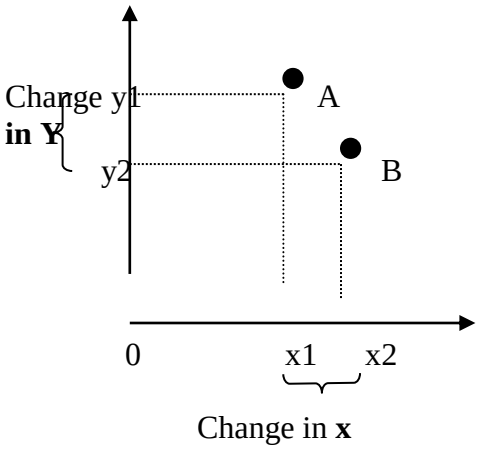
For a positive slope, the gradient will be positive and the line slopes upwards despite its position in the 4 quadrants.
For a negative slope the gradient will be negative and the line slopes down wards despite its position in any of the four quadrants

POSITIVE SLOPE



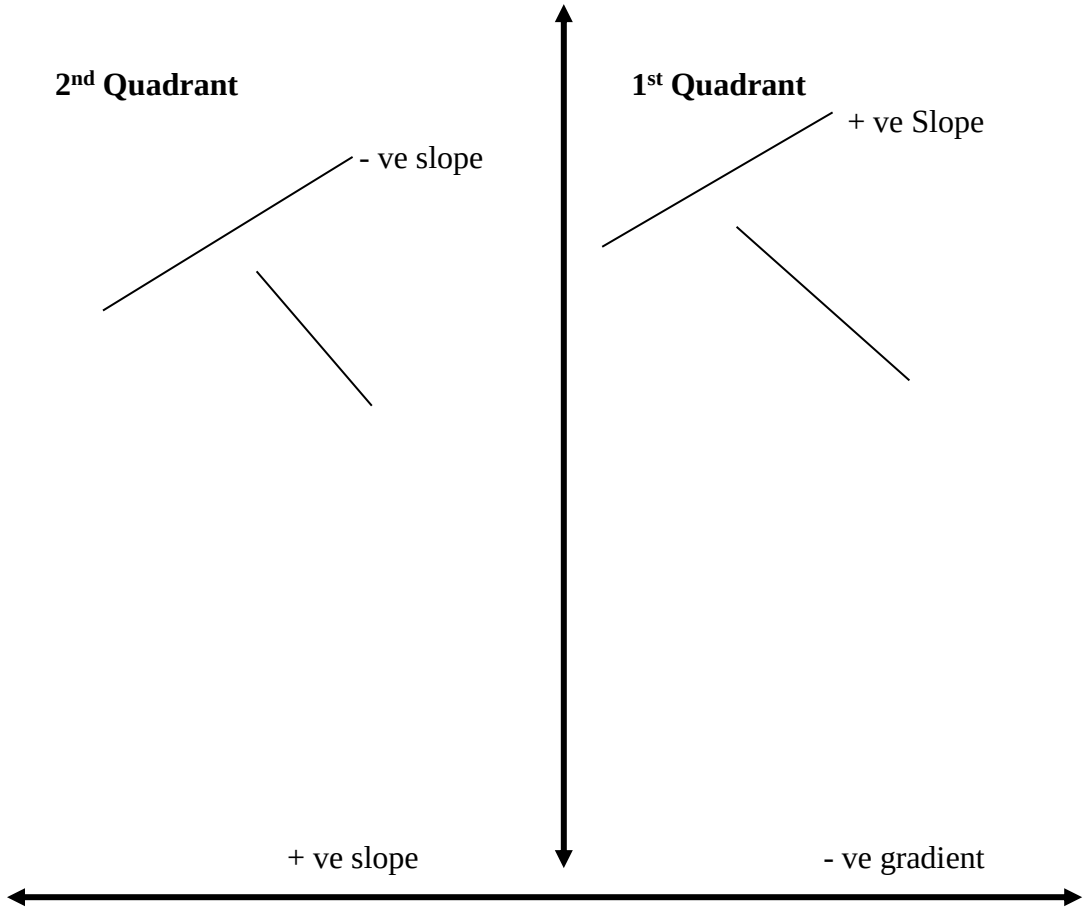
Change in $Y = \frac{y2 - y1}{x2 - x1}$ Change in X

NEGATIVE SLOPE

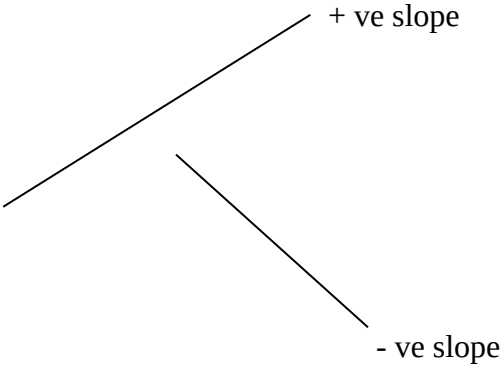


Change in Y = y2 – y1

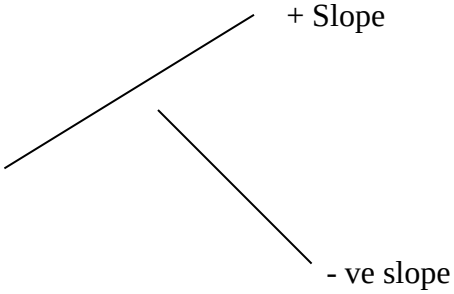
Change in X x2 – x1



3rd Quadrant



4th Quadrant



EQUATION FORM

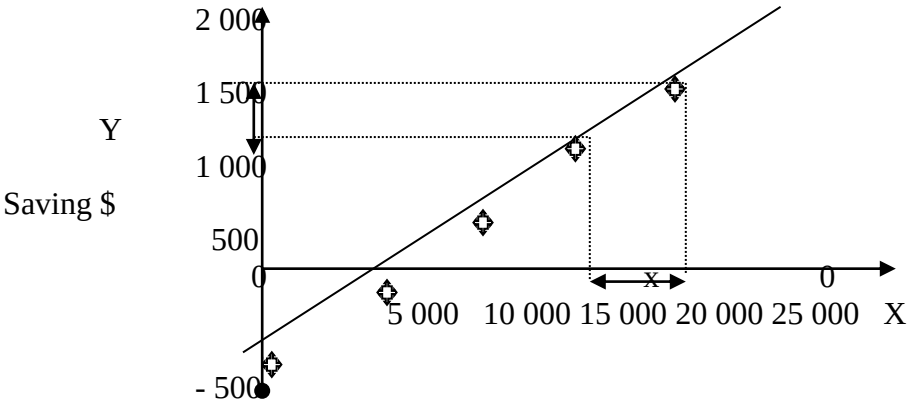
The equation y = mx +c explained earlier allows one to determine the independent at any level of the dependent.

The following table contains data on the relationship between saving and income

INCOME	**SAVINGS**
$	$
20 000	1 500
15 000	1 000
10 000	500
5000	0
0	- 500

THE SAVINGS FUNCTION

Savings depend on income. As a result savings is the dependent while income is the independent. The graph would appear as follows:



The slope of the line is determined by finding the distance $y/x = \frac{1\,500 - 1\,000}{2\,000 - 15\,000}$

$= \frac{500}{5\,000}$

= <u>0.1</u>

The intercept is –500

The equation of the line is s = 0.1 Y – 500

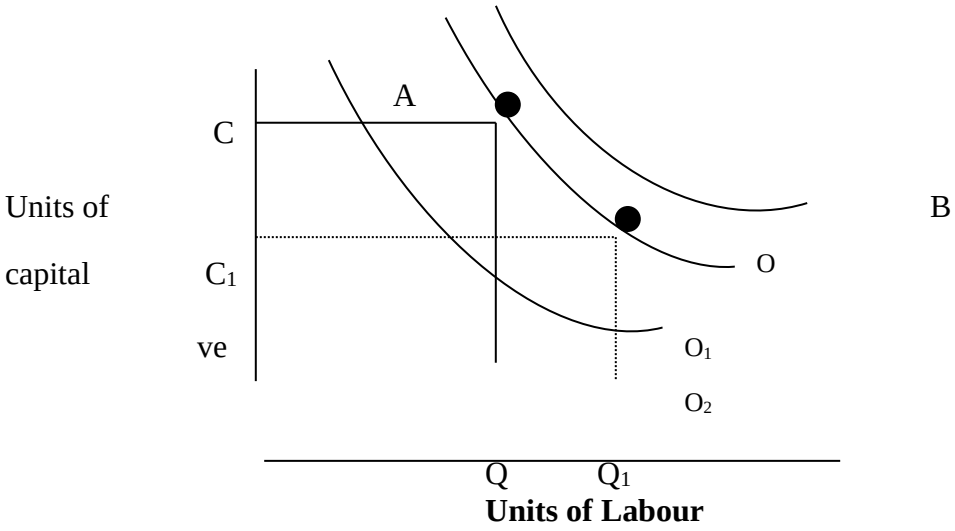
Where S = savings; Y= income

The slope shows how much savings will go up for every $ 1 increase in income while the intercept shows the amount of savings occurring when income is zero.

When income is $ 12 500 savings will be

S = 0.1 x $ 12 500-500
= $ 1 250 – 500
= $ <u>750</u>

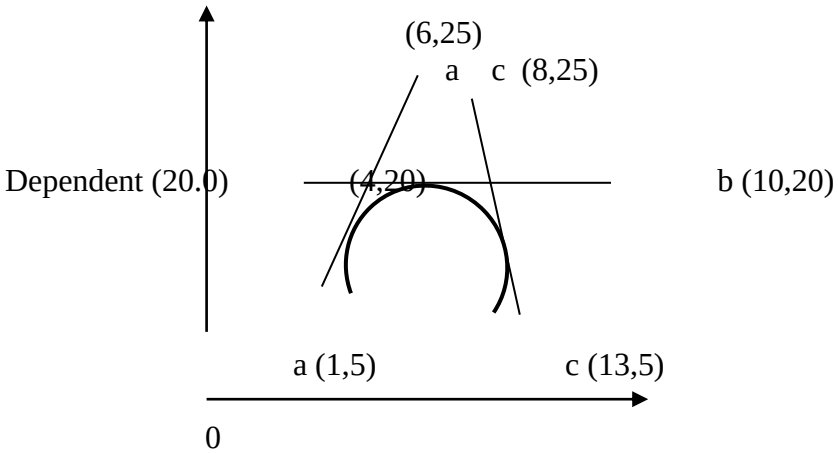
The problem of accommodating three variables in a graph can be resolved through the use of contour or iso-lines as depicted in geography ‘contour maps’. Each contour line shows different combinations of capital and labour which yield the same output O.



In the diagram above C + Q = O is the combination of capital and labour at A that produce output O. C1 and Q1 is another combination of capital and labour that produce output O. The entrepreneur will have to choose between the two combinations, depending on their relative prices. Higher levels of output imply greater amounts of both labour and capital. Conversely different combinations will be achieved with O_1 and O_2 respectively.

THE SLOPE OF A NON – LINEAR CURVE

The slope of a curve can only be measured at some point on the curve. This is the slope of a tangent to the curve at a point :-



i) slope of aa = $\frac{25 - 5}{6-1}$ = $\frac{20}{}$

(ii) Slope of bb = $\frac{20 - 20}{10 - 4}$ = **0**

(iii) slope of cc = $\frac{25 - 5}{8 - 13}$ = $\frac{20}{}$

5 -5

= +4 **= -5**

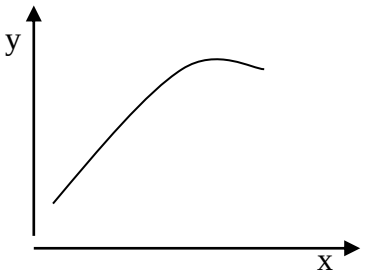
The slope of a line depends on the choice of units denominating the variables and are specially relevant for economics because they measure marginal changes

The slope of a horizontal line is zero.

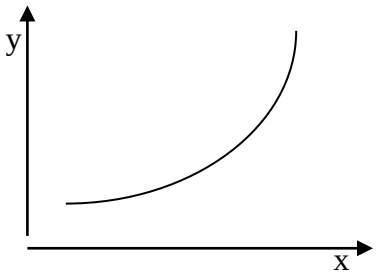
The slope of vertical line is infinite.

Changing slope along curves

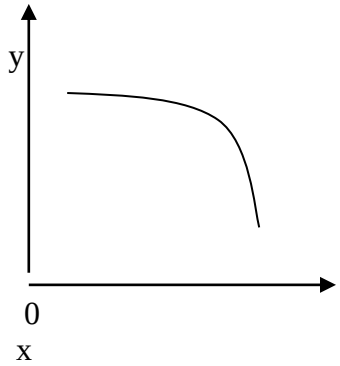
a) Positive and decreasing



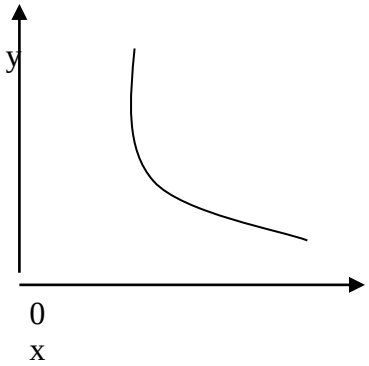
b) Positive and increasing



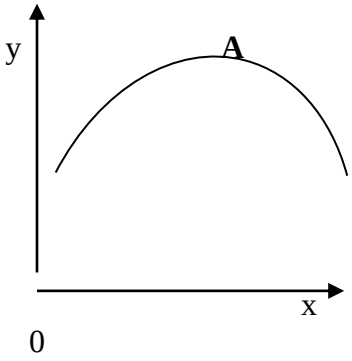
c) Negative and increasing



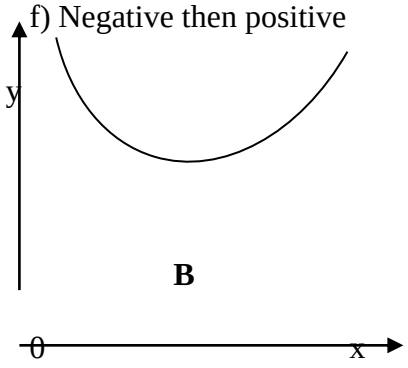
d) Negative and decreasing



e) Positive and then negative



f) Negative then positive



EXAMINATION TYPE QUESTIONS
ESSAY

1. (a) Explain what is meant by diminishing returns? [10]

(b) How do diminishing returns relate to the shape of the firm's cost curves? [15]

2. How does the determination of short-run costs differ from costs in the long- run? [25]

3. For what reasons might the long-run average cost curve eventually rise and how might firms try to avoid this? [25]

4. Account for the shape of a firm's average total cost curve in both the short and long run. [25]

CHAPTER 3

THE ECONOMIZING PROBLEM

Chapter objectives

After Reading and retaining comprehension of this chapter you should be able to:
1.Understand the importance and scope of the economic problems.
2.Explain the fundamentals of Economics.
3.Illustrate diagrammatically opportunity costs, choice and scarcity.
4.Outline the factors which account for the shift in the production possibility frontier.

Economic Problems

The central economic problem that faces human kind and is the problem of scarcity of resources amongst competing ends or alternatives. Factors of production are not just sufficient to meet unlimited human wants.

- Needs and wants are unlimited – they are endless or infinite
- Resources are scarce; they are limited in supply or are finite.
- Hence individuals or societies must make rational decisions in order to satisfy their needs and wants.

This can be shown as follows:

Needs and wants	**Resources**
- Money	-Land
- Clothes	-Capital
- Food	-Labour
- Shelter	-Enterprise
- Education	
- Entertainment	
- Textbooks	
[Unlimited]	**[Limited]**

SCARCITY

This is defined, as the availability of limited resources to meet unlimited nature of human wants that the resources are meant to satisfy. Scarce goods are referred to as economic goods because supply is always less than demand.

Choice

Scarcity of resources gives birth to choice. Choices have to be made anywhere scarce resources should be employed. Choices made, however, are not random or by chance, they are premised instead on rational behaviour by economic agents to maximise their desired

goals. These could include profit or utility maximisation for firms and individuals respectively.

OPPORTUNITY COSTS

Choices made by economic agents in pursuit of their goals result in sacrifices being made. This sacrifice is referred to as opportunity cost. It follows from the rationale that given limited scope for choice as a result of constraints on resources some alternatives have to be forgone in order to arrive at the attainment of other alternatives. Thus in some way, opportunity costs refers to the forgone alternative. The concept of opportunity costs implies that there is no free lunch in economics.

WE CAN NOW HIGHLIGHT THE THREE CONCEPT BY THE FOLLOWING EXAMPLE

A student may have to decide on the use of available time (time is a scarce resource). A student presented with two options, to go for a movie or study is expected to decide on the optimum use of this resource called time. If the student decides to go for study instead of movie, the opportunity cost the student faces is the forgone alternative, that is, failure to go to the movie. We can extend this analysis to a macro-economic level where the government faced with scarce resource may have to decide on the best alternative use of its resources. A government may have $40m available to meet the following priority needs –road and hospital construction. If the government decides to build a road, the opportunity costs to the country is the forgone alternative, that is, the hospital that could have been constructed.

Opportunity cost is thus not expressed in monetary terms, but instead refers to the next best alternative forgone. Due to scarcity of resources economic agents are called to prioritise on the best use of available resources.

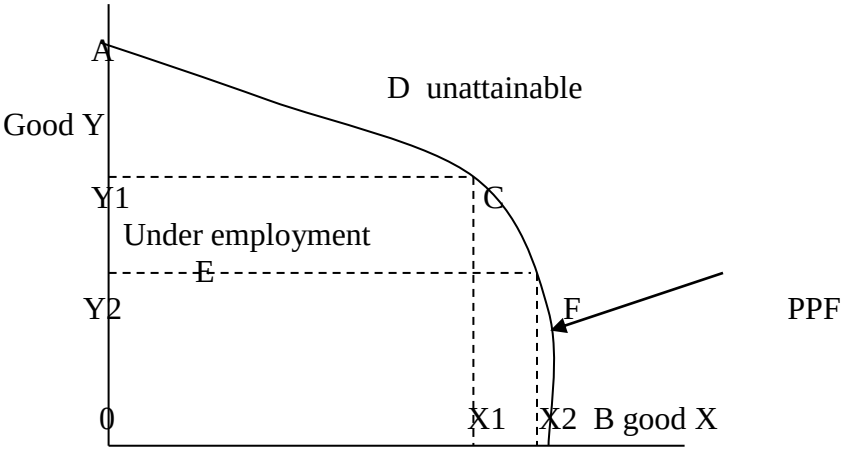
The Production Possibility Frontier (PPF)

This is a curve, which joints different combinations that an economy is able to produce at a given time given its scarce resources, ceteris paribus. This concept is used to explain the concepts of scarcity, choice and opportunity cost.
In order to explain the concepts of scarcity, choice and opportunity cost using the PPF we shall hold the following assumptions to be true.

(i) There are only two goods being produced in the economy (good x and good y).
(ii) The state of technology is constant.
(iii) Resources are fixed both in terms of quantity and quality.

We can now illustrate diagrammatically opportunity costs, choice and scarcity as below.

3.1.1 The Production Possibility Frontier



Given fixed resources, an economy may decide to allocate its resources to the production of good Y i.e. at A and this will result in zero production of good X. Thus the alternative forgone, the none production of good X represents opportunity cost. Alternatively, the economy may decide to allocate its scarce resources to the production only of good X as represented by B. This will result in the opportunity costs of good Y that could have been produced. Ideally, however, economies do not operate at the extremes but seek to strike a balance in the production of both goods X and Y.

Given resources, limited resources as defined by the PPF 'AB', an economy may produce at or inside the PPF. Producing at any point along the PPF such as at C means that there is full utilisation of resources or full employment of resources. There are no resources lying idle. There is thus, full employment of resources. It is not possible to produce at D because of limited resources. The economy can only produce at D if there are changes in, for example, factor inputs, changes in population, discovery of new materials, changes in technology just to mention but a few. Production at D is only possible thus when there is economic growth. Producing at point E or within the PPF implies under utilization of resources or inefficient utilization of resources. Moving form E to the boundary "AB" does not mean economic growth but rather mean that there is full utilization of resources.

We have already highlighted somewhere that scarcity of resources implies that choices have to be made on the employment of the same and this ultimately results in opportunity cost. From the above illustration, we can decide to produce at F instead at C. However, production at F which represents an increase in good X is only possible when we reduce the production of Good Y. Thus for production of good X to increase from X^1 to X^2, good Y has to be reduced from Y^1 to Y^2. It follows that this sacrifice Y^1 Y^2 represents our opportunity cost. We can extend this analysis to any point on the PPF and the results are the same. More has to be given up of one good in order to increase production of the other. It is possible to deduce that as long as resources are scarce opportunity cost is always increasing.

N.B. Producing at any point on the PPF implies efficient utilisation of resources whilst producing within the PPF implies inefficient utilisation of resources.

Shift in the PPF

The PPF may shift inwards or outwards depending on factors of production. An outward shift of the PPF is referred to as economic growth and may be as a result of the following factors.

Investment

Increase in investment has the effect of increasing the output of both goods, ceteris paribus. It also implies that workers have the purchasing power to buy more of the output being produced.

Population

Growth in population, ceteris paribus, results in increased demand for output. It also means a large pool of the workforce, which contributes to increased output.

Discovery of new resources

The discovery of new resources may lead to increased investment and hence output.

Technology

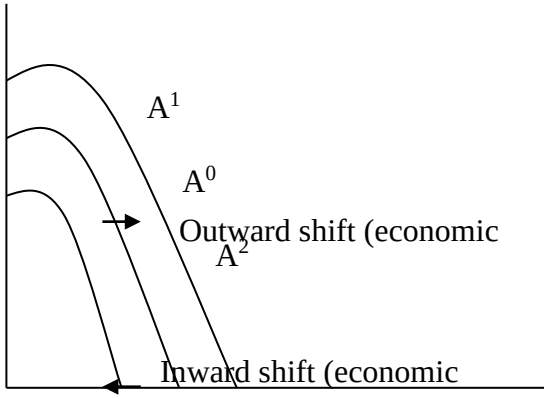
Advanced technology may enable a country to increase the production of both goods.

If the factors are treated in the reverse mode, the result is a shift inwards of the PPF which is referred to as economic decline. It should be noted that moving from producing at a point inside the PPF to a point at the PPF will not result in economic growth. It only implies that there is now efficient utilization of resources.

Economic growth and economic decline may be represented as below.

Shift in the PPF

Good Y

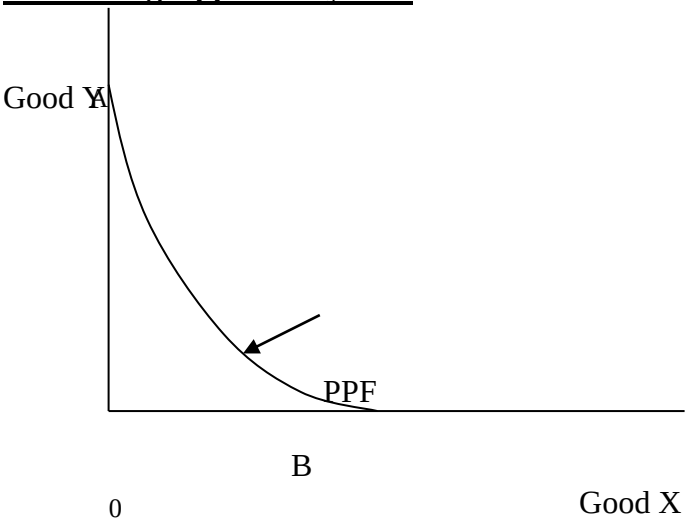


Exceptional PPF

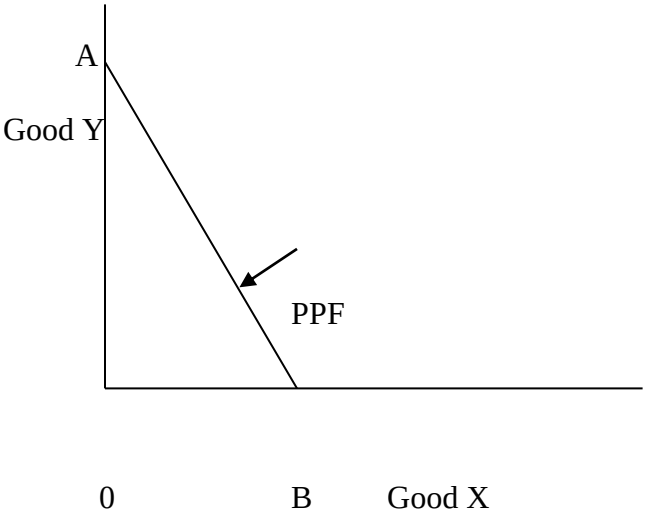
Whilst the PPF is used to illustrate in most case the concept of increasing opportunity cost, it is possible to encounter cases of decreasing and constant opportunity cost.

These scenarios are depicted below.

Decreasing Opportunity Cost



Constant Opportunity Cost



N.B. Increasing opportunity costs are depicted by a PPF that is convex to the origin, decreasing opportunity costs by PPF that is concave to the origin whereas constant opportunity costs are depicted by a straight line.

EXAMINATIONS TYPE QUESTIONS

ESSAY

1. Illustrate the practical importance of the concept of opportunity cost. [25]

2. A firm may expand horizontally, vertically or by diversification.
   (a)What advantages might a firm hope to gain if it were able to grow in each of these ways? [10]
   (b) What disadvantages might result? [15]

CHAPTER 4

The Economic Systems

Chapter objectives

After reading and understanding the contents of this chapter, considering some of the examination type questions, you should be able to:
1. Define the term, "Economic systems" and explain its basic components.
2. Explain the features, advantages and disadvantages of a free market command economy and mixed economy.
3. Discuss the efficiency implications on how the basic economic questions are answered in a command economy.
4. Account for the reasons why most countries are changing from the command to market economies.

Economic systems are the institutional arrangements in various countries that assist in solving the fundamental economic problems faced by societies.

The system must find answers to the following problems

1. What to produce?
2. What quantities to produce?
3. How and where to be produced?
4. For whom to produce?
5. How to produce more?

SIX BASIC COMPONENTS OF AN ECONOMIC SYSTEM

OWNERSHIP OF RESOURCES

1. The role of private sector
2. Allocation of resources
3. Ownership of means of production
4. Degree of freedom of choice
5. The role of the government.

1. THE FREE MARKET SYSTEM

In a free market system, the price system plays a critical role of allocating and distributing resources and final commodities. The price performs the following functions:

a) Signals to customers the cost of purchasing a good or service, hence what to buy and what not buy; and
b) Signals to producers the revenue they will receive from selling the goods or services; hence what to produce and what not to produce.

FEATURES OF A FREE MARKET

1. The resources are allocated by the workings of the price mechanism;
2. Resources are privately owned;
3. Factories are privately owned;
4. Producers are motivated by the need to earn private profits; and
5. Government has very limited part to play.

ADVANTAGES OF THE FREE MARKET ECONOMY

Consumer sovereignty

Consumers are able to tell producers what to produce through the price mechanisms. Since there are many producers in the market, consumers are able to exercise their freedom of choice, that is, decide which producers to deal with without any decisions being made on their behalf by another economic agents.

Quality products and low prices

Producers are likely to improve on the quality of their products in order to attract a quality conscious consumer. This increased competition results in improved product quality. In addition, increased competition results in low prices being charged as producers compete amongst themselves to attract additional custom.

INVESTMENT AND EMPLOYMENT

The free reign that is given to firms on the fundamental question of how, when and what to produce promotes enterprise amongst the country's citizens. This results in increased investments which opens up employment opportunities. In addition to this, increased investment results in economic growth.

STANDARD OF LIVING

Standard of living is likely to be high in a free market economy because of increased product quality and accompanying low prices which results in low levels of inflation. Low levels of inflation imply high purchasing power for the consumer. High purchasing power translates into a large consumer basket.

EFFICIENCY

The free market economy is said to be more efficient in the allocation and distribution of scarce resources. Producers produce goods which have high demand, and this means scarce resources are employed where they are likely to be fully utilized.

DISADVANTAGES

INSTABILITY

The free market economy is associated with price instability. Prices change according to the dictates of consumer tastes and preferences.

MARKET FAILURE

Market failure refers to the inability of the price mechanism to produce goods that have a zero price, that is, public goods and to regulate the production of negative externalities such as pollution. Public goods will not be produced by profit maximizing firms because they

cannot be 'sold', producers are unable to prevent free riders from their consumption. Negative externalities such as pollution will be overproduced, as a firm has no incentive to internalise them. Social costs are therefore, very high under free market enterprise economy.

INEQUALITY IN INCOME DISTRIBUTION

The free market promotes inequalities in the distribution of income. The rich, that is, those with factors of production become rich and those without become increasingly poor.

Consumer exploitation

Consumers are only able to exercise their freedom of choice if firms remain competitive. However, since there is no government regulation small firms may be swallowed by large firms culminating in monopolies. Once this situation obtains consumers can be exploited, that is, charged high prices or face poor quality products since there are no longer alternatives on the market.

CENTRALLY PLANNED/COMMAND ECONOMIES

Planned economies are characterized by the existence of central planning with regard to resource allocation as well as the allocation of finally produced goods and services.

Features

1. Resources are allocated by a central planning authority.
2. Resources are owned and run by the state
3. Factories are owned and run by the state
4. Prices are controlled and regulated by the central planning authority.

ADVANTAGES OF THE COMMAND BASED ECONOMY

Low levels of inflation

Low prices can be maintained through the use of price controls. This results in low levels of inflation. Low levels of inflation translates into high levels of standard of living.

Provision of public goods

The government through the imposition of tax can raise funds to provide public goods. These would have been under produced or not produced at all under free market based economy. The government can also subsidies the provision of merit goods.

Externalities

The government can also regulate the production through the manipulation of the taxation tool. Social costs are therefore, are likely be low ceteris paribus.

Income Equality

The government seeks to bridge the gap between the rich and the poor. This can be done by imposing high taxes on high-income groups and low tax on low-income groups. This is known as progress tax system. The government can also promote through various initiative programmes by the marginalised group (read poor) that seek to promote wealth generation.

CONSUMER PROTECTION

Consumers enjoy high degree of protection from the government. The government ensures low prices by setting price benchmarks (price controls) and regulates the standard of products produced through its various acts. Monopoly power is restricted through anti-monopoly legislation.

DISADVANTAGES OF THE COMMAND ECONOMY

INEFFICIENCY

The economic system is characterised by high levels of inefficiency. The 'visible hand' of the government can lead to mis- allocation of resources. This results when the government orders the production of product even though there is no demand for it.

Poor quality products

There is no incentive for firms in a command-based economy to be innovative, hence, products produced are likely to be poor. Moreover, production is undertaken by monopolies. Monopolies are well known for their abuse of the consumer since the consumer has no alternatives.

LOW LEVELS OF INVESTMENT AND EMPLOYMENT

Government regulation can stifle innovation resulting in low levels of investments. No one firm is comfortable with being dictated to on how to run its operations and hence local and foreign investors will opt for other investment destinations where there is freedom of enterprise. It follows therefore from low level of investments that employment opportunities are low.

BUREAUCRACY

Several layers of decision-making will delay decisions being arrived at. This has the cost of losing out business to competitors from other countries with free decision-making room. It also contributes to high levels of corruption, which can destroy the social fabric.

Shortages and rationing

Shortages can also result especially if the government imposes price controls on private enterprise. This is because producers may feel that the price controls erode their profit margins and hence to protest this action, they can withdraw their products from the market.

N.B. Advantages and disadvantages treated here are not exhaustive; the reader is advised to research more on these.

THE MIXED ECONOMY

This represents a blend of the command and free enterprise economy. It borrows features from both economic systems in order to minimize the negative aspects of the two. The price

system is to some extent allowed to allocate resources. The Government plays the crucial role of producing and providing public and merit goods and services as well as providing a legal framework within which private institutions conduct their business operations. Almost all countries follow this economic system.

In Zimbabwe, for example, whilst individuals are free to participate in the production of goods, the state still has a role in providing public goods and merit goods. It also regulates the operation of private companies through the use of laws. The financial resources from taxation for example individual tax, corporate tax and others normally fund these public goods.

The rational behind mixed economic systems is to reduce the demerits of both command and market economies. Otherwise the blend allows for competition to take place while the government provides public and merit goods

Multiple Choice

1. Which one is not a characteristic of a pure command economy?

A All decisions are made by the central planning authority.
B Shadow prices are used to ration scarce goods and services.
C The price mechanism alone allocates resources.
D Goods are produced for everyone in the society.

2. A mixed economy is an economy:

A Which is partly run by government and partly run by individuals.
B In which prices are determined by forces of demand and supply.
C Whose assets are owned by both locals and foreigners?
D Which is made up of agriculture and manufacturing industries?

EXAMINATION TYPE QUESTIONS
ESSAYS

1 Discuss the efficiency implications on how the basic economic questions are answered in a command economy. [25]

2. (a)How are resources allocated in a command economy? [10]

(b) Discuss why most countries are changing from the command to market economies.15]

3 Why may a 'black market' exist in tickets for a special event such as a football cup final? Illustrate your answer with a diagram. [25]

CHAPTER 5

THE THEORY OF SUPPLY AND DEMAND

Chapter objectives

After reading this data and understanding the contents of this chapter considering some of the data response questions you should be able to:

1. Define the term "demand" and describe its law.
2. Using the demand schedule, draw up the demand curve.
3. Explain the determinants of demand and supply and show how they are represented on the demand curve and of the supply curve respectively.
4. Differentiate between a change in demand and changes in quantity demanded.
5. Understand the low of supply and use it to draw the supply curve.
6. Distinguish between a change in supply and changes in quantity supplied.
7. Define the terms, "Elasticity of demand" and "Elasticity of supply."
8. Understand the differences between the price elasticity of demand. Income elasticity of demand and cross elasticity of demand.
9. Describe the types of elasticity of demand and supply showing these on the graph.
10. Outline the determinants of price elasticity of demand and elasticity of supply.
11. Explain the relevance of the concept of elasticity to economies.

THEORY OF DEMAND

Demand refers to the willingness and ability of consumers to buy goods and services at a given price in a given period of time.

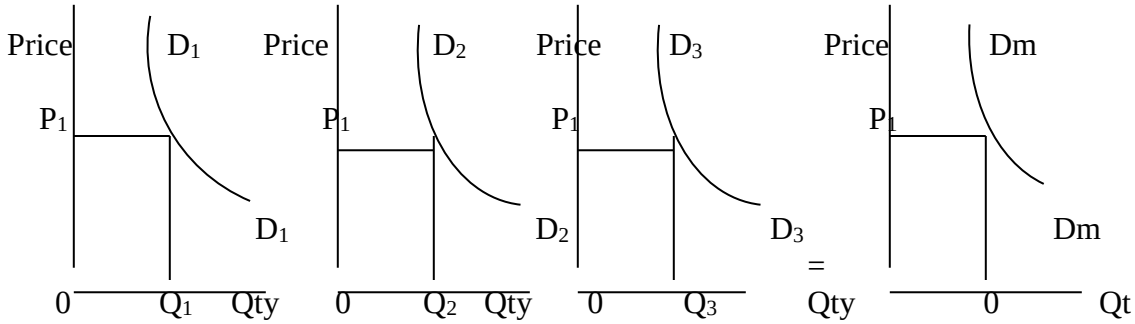
THE LAW OF DEMAND

The law of demand stipulates that there is a negative relationship between quantity demanded and price of the commodity. All factors being equal, an increase in price results in less quantity being demanded. However there are exceptional cases to this law, for example jewellery is more demanded the higher the price.

INDIVIDUAL AND MARKET DEMAND

Individual demand schedules when summed up will give a market schedule. Graphically this would be illustrated as follows:

Market 1 Market 2 Market 3 Overall Demand



Theoretically, the market demand curve is the sum of the individual demand curves at the same price P_1. The quantity demanded Qt is the sum of the individual quantities demanded i.e $Q_1 + Q_2 + Q_3 = Qt$

DEMAND SCHEDULE

It is the illustration of the relationship between quantity demanded and price using a table.

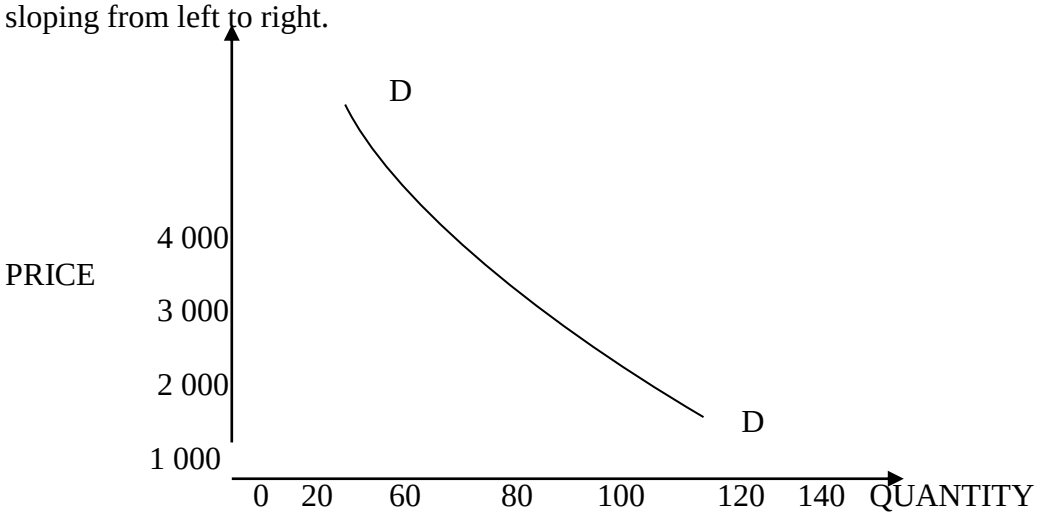
Illustration

The following table relates the quantity demanded of oranges at different price levels.

Price of oranges ($)	**Quantity demanded per day**
500	100
1000	80
1500	60
2000	40
2500	30
3000	25
3500	20

DEMAND CURVE

It is a graphical presentation of the relationship between quantity demanded and price. It is extracted from the demand schedule. Ceteris Paribus, the demand curve is downward sloping from left to right.



DETERMINANTS OF DEMAND

These are factors that may result in changes in demand holding the price of the product to be constant. Determinants of demand result in the parallel shift either outwards or inwards of the demand curve depending on the direction of changes in the determinants.

Commodity's own price

The product's own price as a determinant of demand is based on the law of demand.
Holding other factors constant, an increase in the price of the product results in a decrease in the quantity demanded.

DISPOSABLE INCOME

An increase in disposable income will lead to more being demanded at constant prices. This has the effect of shifting the demand curve outwards, to the right. A decrease in disposable income will induce consumer to demand less at constant prices of a given product. This will result in an inward shift in the demand curve.

POPULATION

If there is an increase in population, demand for a product may also increase in response at constant prices. This will shift the demand curve outwards. A decrease in population results in the opposite.

CHANGES IN TASTES AND PREFERENCES

Changes in fashion (tastes and preferences) in favour of a good will lead to an increase in demand at constant prices whilst the opposite is true.

GOVERNMENT POLICY

A government policy can also affect the demand of a particular product. If for instance, the government imposes a sales tax on a product, the demand for the product may be reduced, ceteris paribus in response to this government action. The opposite is true.

EXPECTATIONS

Future expectations can also affect demand for a particular product. If consumers anticipate that the product is going to be scarce in the future, they may 'hoard', that is, buy in advance even though the price has not been reduced to cushion themselves against these future shortages. The opposite is true.

CHANGES IN PRICES OF OTHER GOODS

Relationships between products may also affect demand for respective goods. If products are substitute or complements, changes in their prices can affect demand for the related product. For instance, if the price for beef increases, we expect demand for substitutes, say pork, to increase even when the price of pork remains constant. This is the case of substitutes. We can also include complementary goods in our analysis. If the price for cars is reduced, for instance we anticipate demand for petrol, ceteris paribus, to increase. The opposite is true.

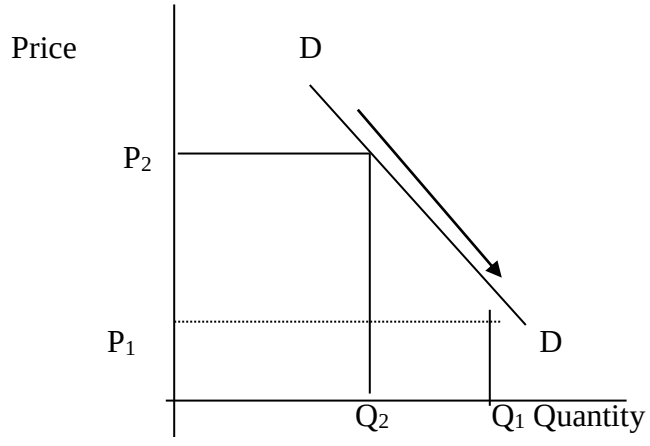
Changes in weather conditions or seasons

Some goods are more demanded in winter for example blankets, heaters, and tea as compared to summer seasons.

N.B. The list for determinants presented here is not exhaustive and readers are kindly recommended to look for others. Also in our treatment the statement ' the opposite is true' has featured prominently. It is, however, not advisable for examination candidate to use it. Rather the candidates are expected to tell the examiner what the 'opposite' is.

Changes in quantity demand

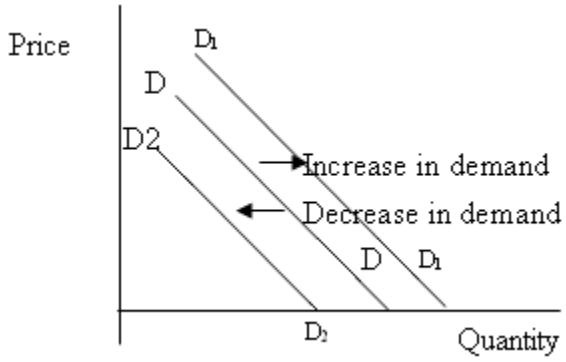
This is the movement along the same demand curve as covered by price changes.



The above diagram shows a change in demand as caused by varying price. If the price is increased from P_1 to P_2, quantity demanded decrease from Q_1 to Q_2.

Change in demand

It is the shift of the entire demand curve either to the left or right. A right shift signifies an increase in demand while a shift to the left shows a decrease in demand.



As illustrated by the above diagram a shift of demand curve from D to D_1 shows an increase in demand while a shift from D to D_2 shows a decrease in demand.

DIFFERENCES BETWEEN A CHANGE IN DEMAND AND CHANGES IN QUANTITY DEMANDED.

A change in quantity demanded is caused by a product's own price, while a change in demand is caused by all other determinants of demand for the product except its own price.

Exceptional demand curves

These are demand curves that slope upwards from the left to the right, showing that more is demanded at higher prices.

Example: -

a) Goods of snob effect

These are goods which are bought for prestigious purposes. Examples include luxurious goods such as jewellery. More of these goods are demanded at higher price.

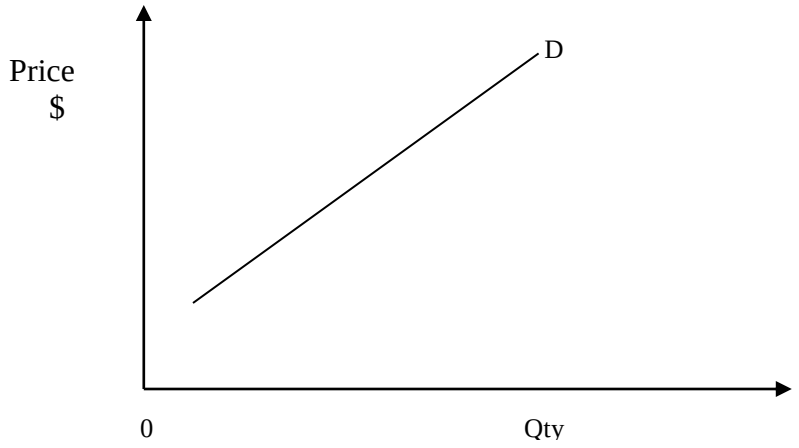
b) Giffen goods

These are inferior goods. The demand for them falls as price falls.

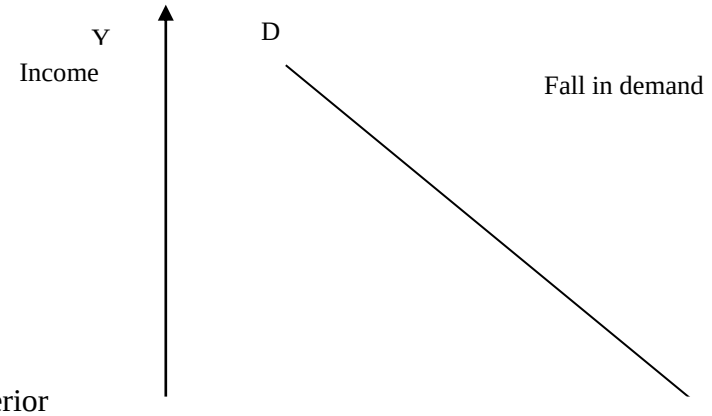
c) Fear of a future rise in price

If consumers anticipate an increase in the prices of goods, this results in the increase in quantity demanded for these goods in the short run.

Exceptional demand curve

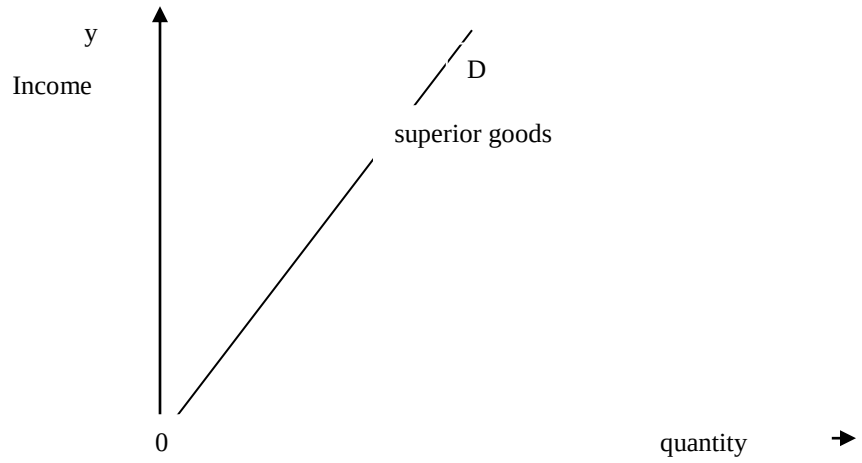


Inferior goods – these are also known as Giffen Goods from Sir Robert Giffen's studies, such goods demand falls as income increase and falls as the price falls. This can be shown as follows:



Inferior goods have a negative relationship with price and income.

Superior goods – these are also known as normal goods, goods of ostentation, superior goods or goods of prestige or status whose demand increases as price and income increases. Hence they have a positive relationship with both price and income. Diagrammatically they are shown as follows:



THEORY OF SUPPLY

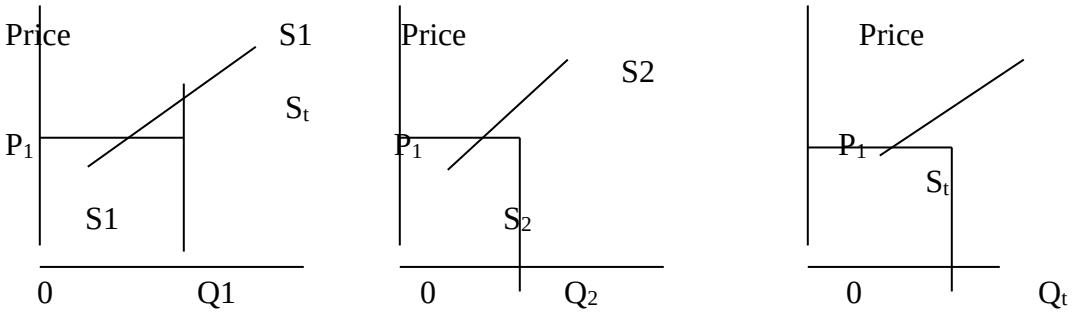
Supply refers to the quantity that suppliers are willing and able to offer for sale at a given price in a given time.

LAW OF SUPPLY

The law of supply states that more is supplied the higher the price i.e. there is a positive relationship between quantity supplied and price. The rationale behind increased supply at higher prices is the aim to maximize profits.

INDIVIDUAL FIRMS AND MARKET SUPPLY CURVES

Individual supply schedules when summed up will give a market supply schedule. Graphically, this would be illustrated as follows:



Theoretically, the market supply curve is the sum of the individual firm's supply curves at the price P1. The quantity supplied Qt is the sum of the individual quantities supplied Q_1 + Q_2 = Qt.

SUPPLY SCHEDULE (MARKET)

A supply schedule shows the relationship between quantity supplied and price in the form of a table.

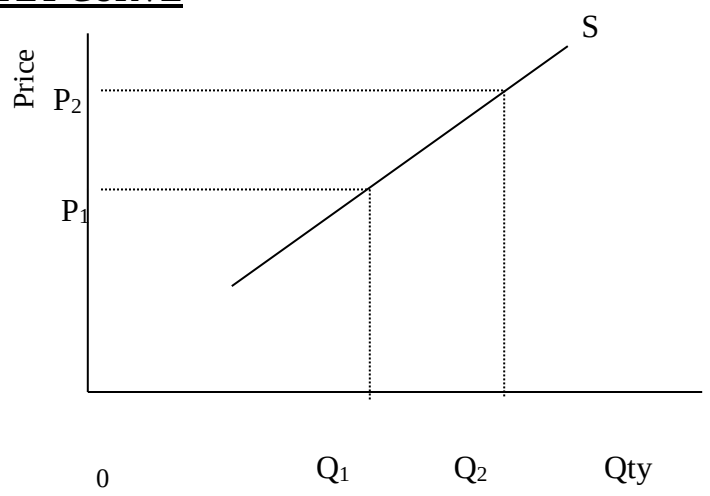
The following supply schedule relates to the quantity supplied of apples at different prices per day.

Price ($)	**Quantity Supplied in Units**
500	50
1000	80
1500	100
2000	140
2500	160
3000	200
3500	250
400	300
4500	350
5000	450
5500	580

SUPPLY CURVE

It shows the relationship between price and quantity supplied in the form of a graph. The typical supply curve slopes upward from left to right showing a positive relationship between quantity supplied and price.

THE SUPPLY CURVE



The above diagram illustrates the supply curve. It shows that more is supplied the higher the price. If price is increased from P_1 to P_2, quantity supplied increases from Q_1 to Q_2

DETERMINANTS OF SUPPLY

Determinants of supply refers to factors that might affect supply at given prices. As the case with determinants of demand, determinants of supply affect the position of the supply curve in the price- output space.

Product's own price (Change in quantity supplied)

A change in a commodity's own price results in changes in quantity supplied. An increase in price increases quantity supplied and vice versa. Own price, therefore, explains the law of supply.

CLIMATIC CONDITIONS

Climatic conditions may affect supply on to the market. This is especially true when firms produce seasonal goods. We expect supply to be high during the 'season' for the respective good and to be low during off-season. In addition, supply for agricultural products is expected to be high during a bumper harvest and low during a drought.

GOVERNMENT POLICY

Government can formulate a policy that hinder or encourage supply. If the government reduces corporate tax for instance, firms are able to increase capacity and supply more to the market whereas, the opposite would result if tax is increased. The government can also give firms subsidies to cover part of their production costs. This will lead to more being produced at constant prices. The opposite would result if subsidies are removed.

TECHNOLOGY

State of the art technology results in more being produced at constant prices than when the firm uses manually labour. The opposite is true. In addition to the above, new advanced technology may also result in low production costs encouraging the firm to produce more at constant prices.

NEW DISCOVERIES

Discoveries of new sources of cheap raw materials may lead to more being supplied at constant prices, whilst the exhaustion of sources of raw materials may lead to reduced supply.

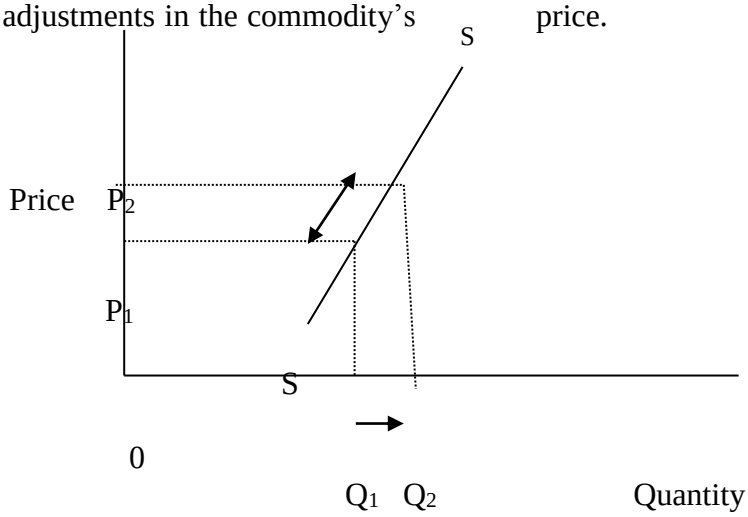
New firm Entries

The entrants into the market may shift supply inwards due to reduced market share whereas, the exit of firms may lead to more being supplied. If looked from another angle, entrance by new firms may increase the supply of the product in the market. Exit of firms from the market may reduce supply.

N.B. Determinants of supply lead to a parallel shift in the supply curve depending on whether the factors have moved in favour or against the product in question. The reader is also encouraged to add to the list above.

A CHANGE IN QUANTITY SUPPLIED

A change in quantity supplied is depicted by movements along the same supply curve. It is caused by adjustments in the commodity's price.



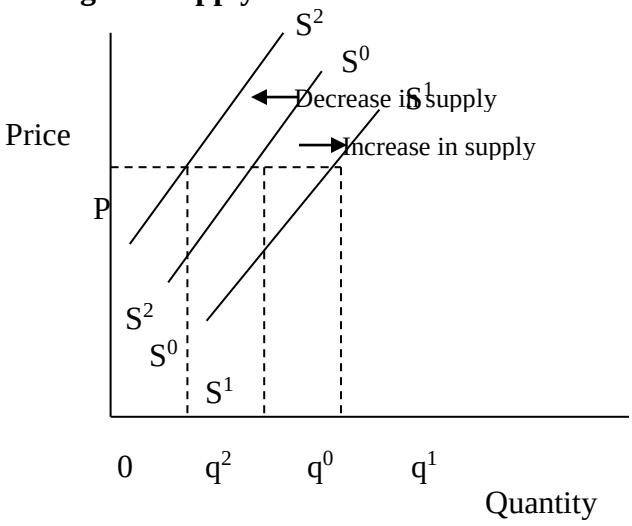
The arrow above shows movements along the same supply curve. If price is increased from P_1 to P_2 quantity supplied increases from Q_1 to Q_2.

CHANGE IN SUPPLY

Changes in supply results from changes in the determinants of supply. These changes have the effect of shifting the supply curve either outwards or inwards depending on the direction of changes in the determinants.

We depict the changes through a parallel shift in the supply curve as below.

Changes in supply



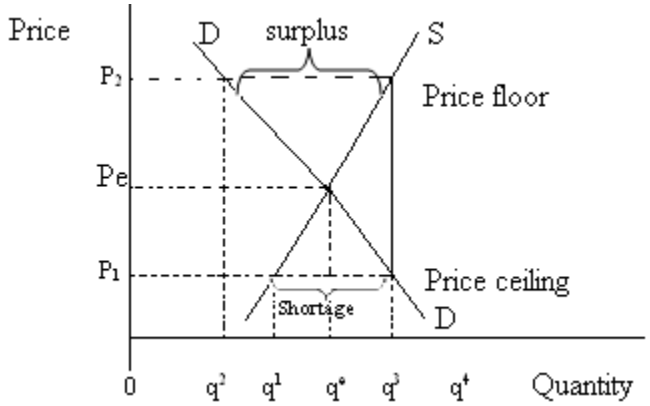
From the above illustration price of own good P, remains constant whereas it is possible for quantity supplied to shift from for instance S^0 to S^2 or from S^0 to S^1. A shift from S^0 to S^2 is interpreted as a decrease in supply and occurs when the determinants of supply move against the product. The supply can also alternatively shift from S^0 S^1 which is interpreted as an increase in supply. This is brought about by changes in the determinants of supply, which are in favour of the good in question.

Please note that the price of the good remains constant even when changes in supply occur.

EQUILIBRIUM PRICE (MARKET PRICE)

The equilibrium or market price is the price that is determined by the interaction of demand of and supply (market forces). At equilibrium price, quantity demanded is equal to quantity supplied.

Equilibrium Price



From the above diagram, if the price is P^2 there is surplus on the market. This is because consumers are demanding q^2 whereas suppliers are supplying q^3. In order to eliminate this surplus, suppliers are forced to compete amongst themselves by reducing their prices until they reach P^e which is the equilibrium or market price. If the price is P^1 , only q^1 is supplied on to the market but at the same price, consumers are demanding q^4 of the good resulting in scarcity. Consumers will have to compete amongst themselves by offering a higher price to suppliers in order to obtain the scarce good. This competition will continue until a price is reached where suppliers and demanders are in agreement, that is, the equilibrium price. At the equilibrium price, in this case, P^e quantity supplied and demanded is q^e, which is the equilibrium quantity. Thus any price below or above P^e will result in disequilibrium in the market.

PRICE FLOOR

It is the setting of a minimum price above the equilibrium level to prevent prices from dropping. Floor prices or minimum prices are usually put by Governments to protect the incomes of producers, such as farmers. This is shown by P^2 in diagram above. Floor prices always create surpluses in commodity markets.

PRICE CEILING

A price ceiling exists when the price is fixed below its market level. The aim is to protect customers from price increases. P^1 on the above diagram shows the price ceiling which leads to an increase in quantity demanded, and a decrease in quantity supplied and thus causing shortages. Price ceilings are usually associated with black or parallel markets.

THE ELASTICITY CONCEPT
ELASTICITY OF DEMAND

Elasticity of demand is the sensitivity of demand to changes in the determinants of demand. There are as many elasticities of demand as there are the determinants of demand. There are, however, three types of elasticities of demand that are commonly of practical importance. These are:

a) Price elasticity of demand;
b) Income elasticity of demand;
c) Cross elasticity of demand;

Price elasticity of demand (PED)

This refers to the response of quantity demanded to changes in the price of a product. It can be calculated from the following formula: -

$$PED = \frac{\%\ \text{Change in quantity demanded}}{\%\ \text{change in price}}$$

If the statistic calculated is less than one (PED $<$ 1), it means PED is inelastic. Inelastic PED is usually associated with necessities, that is, goods with no close substitutes. PED of less than one means that a higher than proportionate change in the price is followed by a less than proportionate change in quantity demanded as consumers do not have a wider scope for substitutes.

Price elasticity of demand of greater than one (PED>1) means that a less than proportionate change in price is followed by a higher than proportionate change in quantity demanded. This is usually the case with luxury goods. A slight change in the price is followed by a large change in quantity demanded because consumers have immediate substitutes.

If the results from the calculation give a PED of one (PED = 1), then we are dealing with unitary elasticity of demand. A slight change or higher change in price results in proportionate change in quantity demanded. Please note that there is no definite category of goods or service for this PED that are known. What is known definitely is that goods can have price elasticity of demand from less than one (inelastic), equal to one (unitary) to greater than one (elastic). We also have to ignore the sign ($\pm$) in the statistic because the law of demand postulates that there is a negative relationship between price and quantity demanded.

Income Elasticity of Demand (YED)

Income elasticity of demand refers to the response in quantity demanded to changes income. It is calculated using the formula below:

$$\text{YED} = \frac{\text{\% change in quantity demanded}}{\text{\% change in income}}$$

If the results obtained are positive it means we are dealing with normal goods and if they are negative then we are dealing with inferior goods. Unlike the case with PED where the sign is not important or is ignored totally, with YED the sign is equally important, as is the statistic. It shows the direction of our relationship, that is, whether we are dealing with normal or inferior goods. The statistic measures the degree or strength or weakness of the relationship. Thus, YED splits goods into two broad categories – normal and inferior goods.

Cross Elasticity of Demand (CED)

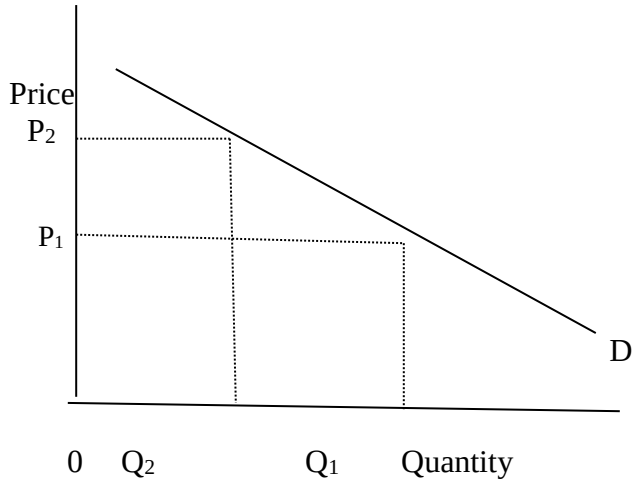
Cross elasticity of demand measures the responsiveness of quantity demanded to changes in the price of another good, say good **X**. It is calculated from the following formula.

$$\text{CED} = \frac{\text{\% change in quantity demanded of } \mathbf{Y}}{\text{\% change in price of } \mathbf{X}}$$

The statistic helps us to classify goods into either complementary or substitute goods. As is the case with the YED, the sign as well as the statistic is equally important in this classification. If the results obtained are positive, it means we are dealing with substitutes goods whereas negative result is associated with complementary goods. Thus, the sign gives the direction of the relationship, that is, whether we are dealing substitute or complementary goods. The statistic measures the strength or weakness of the relationship.

THE NATURE OF DEMAND CURVE

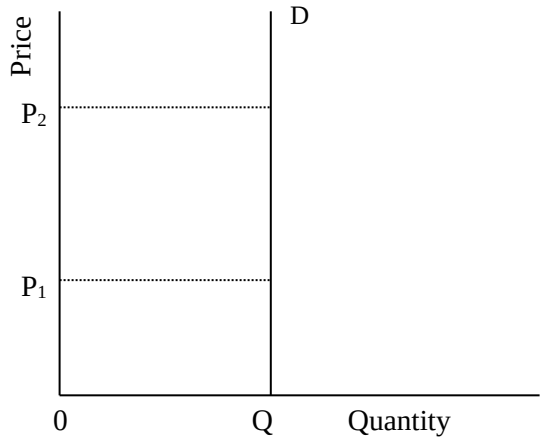
Price elastic demand



This demand curve is highly responsive (assuming same scaling on both axis) to price a change that is if price is increased from P_1 to P_2, quantity demanded decreases from Q_1 to Q_2.

Perfectly inelastic demand curve

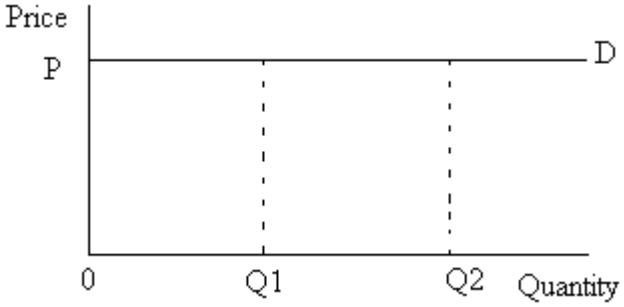
This demand curve shows that quantity demanded does not change as price changes. Elasticity of demand = 0



If the price is increased from P1 to P2 quantity demanded does not change, it remains static at Q.

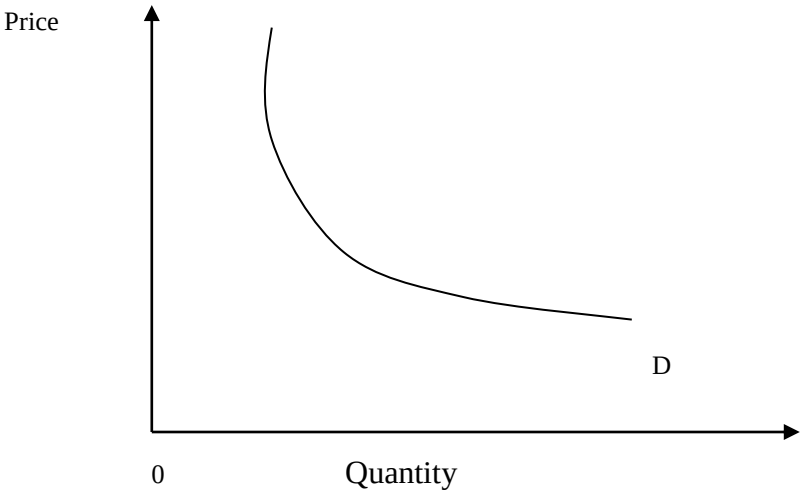
PERFECTLY ELASTIC DEMAND CURVE

It is a demand curve which is fixed at a certain price level.



UNITARY ELASTIC DEMAND CURVE

This is when there is an equi-proportionate change in quantity demanded to changes in price.



With this demand curve, elasticity of demand is equal to 1.

Determinants of price elasticity of demand

TIME PERIOD
Price elasticity of demand is inelastic in the short run because of limited scope for choice (alternatives). If the price of good changes consumers take long to adjust their expenditure. In the long run as the scope for substitute increases, price elasticity of demand becomes elastic.

AVAILABILITY OF SUBSTITUTES
The price elasticity of demand of goods that have close substitutes is likely to be elastic compared with goods which have no close substitutes.

THE NATURE OF THE PRODUCT

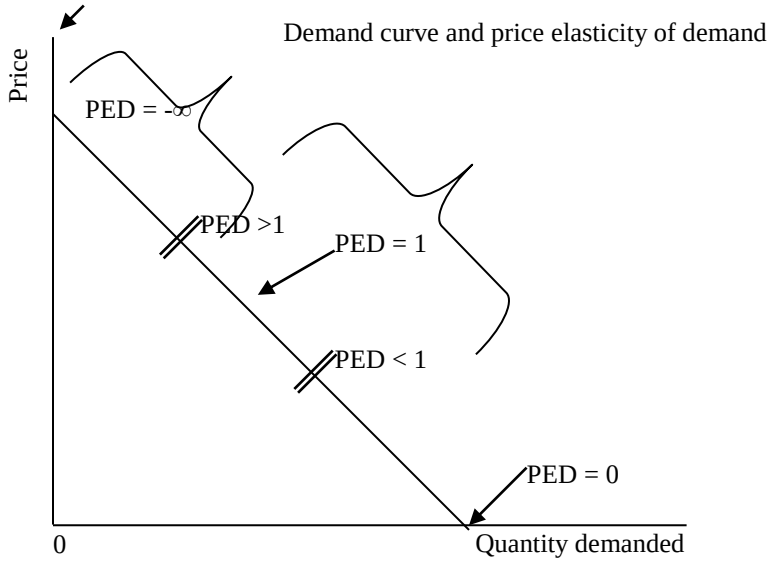
If the good in question is a necessity, price elasticity of demand is inelastic. Luxury goods are on the other hand, associated with elastic price elasticity of demand.

HABIT
There are some habit-forming goods such as smoking or alcohol drinking which exhibit inelastic price elasticity of demand. Habit-forming goods are treated as 'necessities' – quantity demanded responds marginally to a significant change in the price.

Proportion of Income
If a consumer spends a small proportion of his or her income on a good, the PED for the good will be inelastic. Changes in price does not affect greatly consumption of the good. If the consumer spends a larger proportion of his or her income on a good. PED is elastic. Changes in the price of the good affects the consumer's budget and hence the budget should be realigned to take into account these changes.

Number of uses to which a commodity can be put
The demand curve and elasticity of demand

The price elasticity of demand changes as one moves along the demand curve. The difference elasticities are shown by the following demand curve.



IMPORTANCE OF ELASTICITIES

The business world

- Firms analyze the demand of their products and this will help them price their products
- Price elasticity of demand analysis is the key to success of an organisation
- Firms charge high prices on in elastic goods in order to maximise revenue and low prices on elastic goods.

Segmentation

The produce can segment (divide) the market according to different price elasticities of demand. A producer can successfully charge a higher price in a market with a low PED and a low price in a market with a high PED to maximise revenue.

THE GOVERNMENT

- There is need for the Government to analyse the elasticities of goods if they need to raise income.
- Indirect and direct taxes can be charged on goods and income. The government can maximise revenue from taxation if it imposes tax on a good or service with a low PED than on a good with PED since with the former consumers do not have alternatives and are unlikely to reduce the expenditure on the good or service significantly.
- Government can subsides products, which have an elastic demand.

To raise income

This is normally used by Trade Unions when bargaining wage increases for their members. This now depends on the elasticity of demand for the products they produce as demand for labour is a derived demand. Trade unions can successfully negotiate a wage increase if the demand for the final product is price insensitivity since a wage increase can be accommodated by increasing the price of the final product.

Correction of the balance of payment (BOP)

The BOP can be corrected by manipulating the exchange rate. A devaluation of the exchange rate is likely to increase exports on one hand and reduce imports on the other hand ceteris paribus. This should go a long way in reducing the BOP deficit however if exports and imports exhibit inelastic PED the results of this policy prescription is likely to be less than desirable. Thus a devaluation of the exchange rate is likely to yield desirable results if the price elasticity of exports and imports respectively is elastic.

PRICE ELASTICITY OF SUPPLY

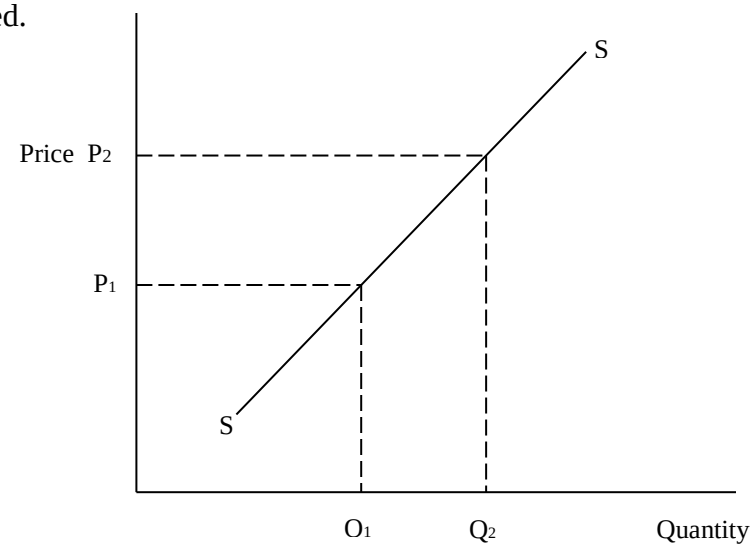
Price elasticity of supply is the measure of the responsiveness of quantity supplied to changes in price.

$$PES = \frac{\%\text{ change in quantity supplied}}{\%\text{ change in price}}$$

TYPES OF ELASTICITY OF SUPPLY

a) Elastic supply curve

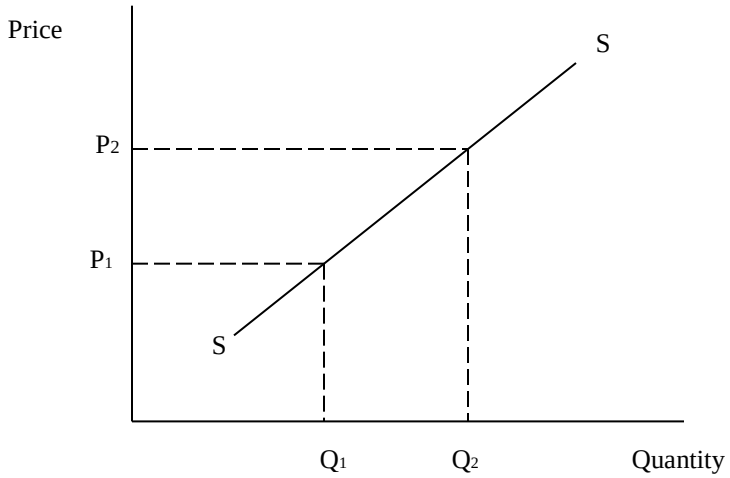
Supply is said to be elastic if a small change in price yield a greater change in quantity supplied.



If the price is increased from P_1 to P_2, quantity supplied is also increased by a greater margin from Q_1 to Q_2.

b) Inelastic supply curve

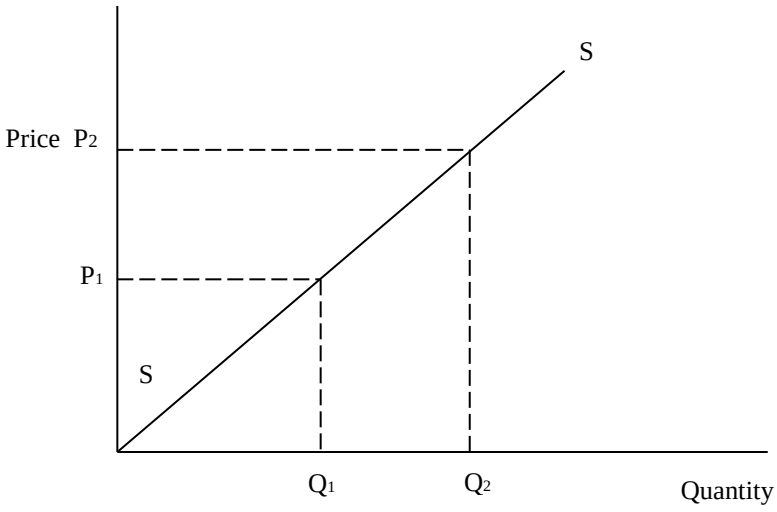
Supply is inelastic if a greater change in price yields a smaller change in quantity supplied.



Inelastic supply has a smaller percentage change in quantity supplied compared to a percentage change in price, i.e. PES is between 0 and 1.

C) UNITARY ELASTICITY OF SUPPLY CURVE

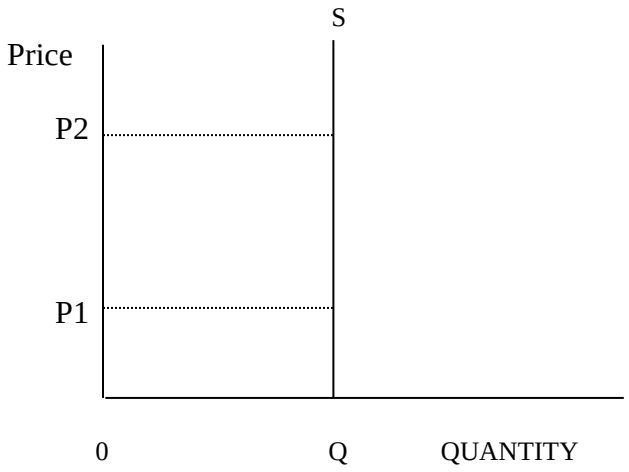
Elasticity of supply is unitary if the percentage in quantity supplied is equal to the percentage change in price.



Price elasticity of supply is equal to one.

d) <u>Perfectly inelastic supply curve</u>

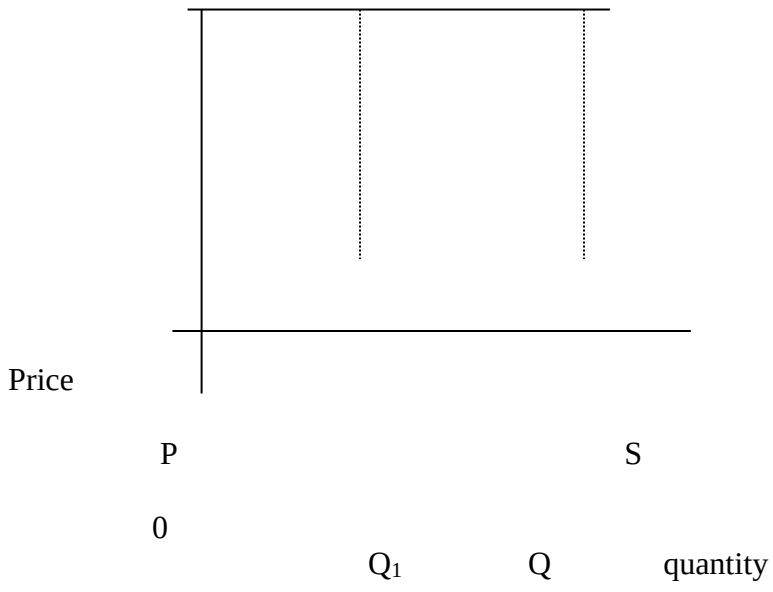
Supply is perfectly inelastic if the percentage change in price does not have any effect on quantity supplied.



The above diagram illustrates perfectly inelastic supply, where a price increase does not affect the quantity supplied. It therefore follows that PES = 0

E) <u>PERFECTLY ELASTIC SUPPLY CURVE</u>

Perfectly supply curve shows that suppliers are prepared to offer different quantities of their goods at the same price.



Price elasticity of supply is infinite at large.

DETERMINANTS OF ELASTICITY OF SUPPLY

TIME PERIOD

In the short run period supply is likely to be inelastic, as production cannot be increased due to constrained capacity. Supply becomes elastic in the long run as producers can increase capacity and hence output.

CAPACITY UTILISATION

Supply is inelastic at full capacity as there is no way production can be increased in response to changes in prices. However, when operating at below capacity, it is possible to respond to changes in the price by increasing production.

AVAILABILITY OF STOCK

Where a product can be stored without loss of quality or undue expense, supply will tend to be elastic, at least while stocks last.

FACTOR MOBILITY

The greater the mobility of the factors of production, the greater the elasticity of supply.

The level of trade barriers

An open economy can have elastic supply if goods can be imported, however, this may lead to balance of payment problems.

Price elasticity of demand and total revenue

The total revenue that a firm earns by varying its price is dependent on the price elasticity of demand. If faced with elastic price elasticity of demand for its product, a firm can maximise total revenue by reducing the price than increasing it. Faced with inelastic demand, a firm can maximise its total revenue by increasing than decreasing its price. Changes in the price when the firm is faced with unitary price elasticity will not change total revenue. Thus the resulting total revenue is the same whether there is a decrease or increase in total revenue.

We can illustrate the different scenario as below in summary

PED	Changes in price	Effect on TR
Inelastic	Increase decrease	Increase decrease
Elastic	Increase decrease	Decrease increase
Unitary	Decrease increase	No change no change

The theory of demand and supply at a glance

Determinants of demand

These are variables or factors which can shift the demand curve other than the price of the good and can be shown in the equation.

QD = f(Pg; Y, A, M, E, C)

Where

Pg – prices of other goods for example complementary and substitute.
Y – changes in disposable income
A – advertising / consumer awareness
M – market size / number of consumers
E - consumer exploitations
C – climatic/ weather changes

DETERMINANTS OF SUPPLY

These are factors which cause shifts in the supply curve or those factors which create a change in supply.

These can be summarized in the mnemonic **COWPING**

CO – Cost of production
W – weather/ climatic changes
P – prices of other goods
I – innovation / technology
N – number of suppliers/ firms
G – government policies for example taxes, prices, subsidies price ceilings and price floors.

Price ceiling – this is the maximum price below the market / equilibrium price whose effects are as follows:

- Protects consumers
- Reduces price
- Increases demand
- Increases consumption
- Has an income effect on the consumers

- Improves consumers' living standards
- Reduce supply
- Leads to artificial shortages
- Leads to grey, underground as black market hence an increase in price that's fueling inflation.

Price floor – this is the minimum price above the market price.

- The price is set to promote investments and competition among producers or suppliers.
  Its general effects are as follows:
- Protects infant / new industries
- Increases the price
- Creates inflation
- Reduces demand
- Increases supply leading to surplus

EXAMINATION TYPE QUESTIONS

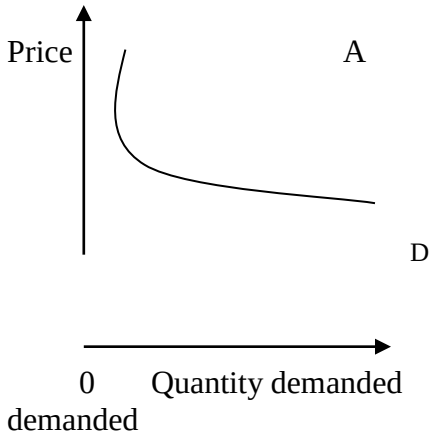
MULTIPLE CHOICE

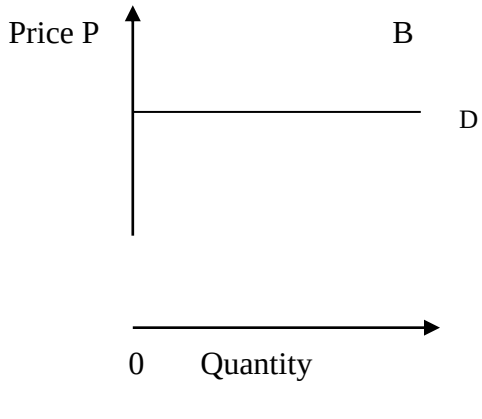
1. All other factors shift the demand curve for an Economic textbooks, except:
   A Increase in the number of people studying Economics.
   B An increase in the price of a substitute textbook.
   C A change in people's incomes.
   D A change in the price of an Economics textbooks.

2. When can the demand for a product be said to be price inelastic?
   A An increase in the price of a product raises its quantity demanded.
   B An increase in the price of a product increases expenditure on it.
   C A fall in price increases quantity demanded of a product.
   D A fall in the price of a product reduces expenditure on it.

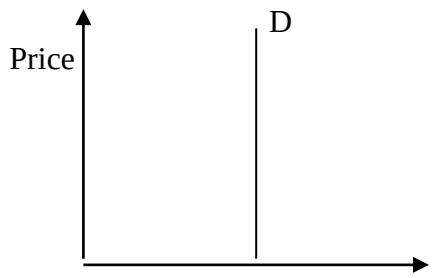
3. What is effective demand?
   A Amount of a good a consumer is willing to buy at a given price.
   B Quantity of a good a producer is willing to sell at a given price.
   C Desire to buy a good backed by the ability to do so.
   D Desire to buy a good through credit purchase.

4. Which diagram shows unit elasticity of demand at all points of the demand curve.



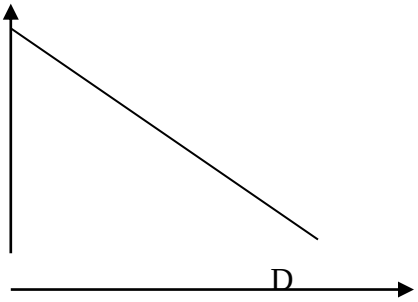


D



0 Quantity demanded

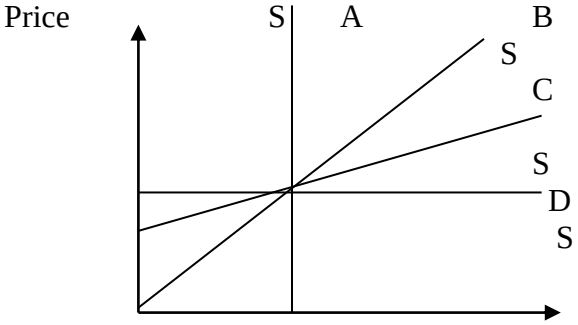
C



0 Quantity demanded

2. What will increase the price elasticity of demand for a product?
   A Availability of perfect substitutes for a product.
   B Expenditure on a product takes a small fraction of the household's total expenditure.
   C Consumers are becoming addicted to the product.
   D Demand for a product considered in the short-run.

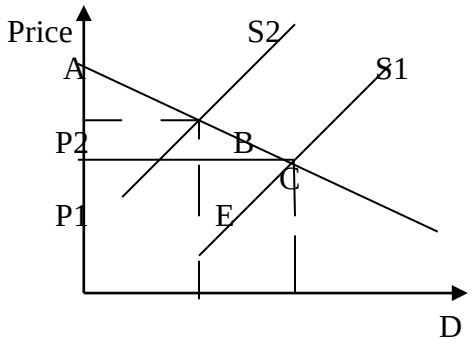
3. The diagram below shows supply curves with different degrees of price elasticity of supply.
   Which curve A, B, C, or D is inelastic at all points on the supply curve?



4. Goods X and Y are related. Cross elasticity of demand for X and Y has a large positive co efficient. When income increases demand for both goods also increases.
   What type of goods are X and Y?
   A Substitutes and normal goods
   B Substitutes and inferior goods
   C Complements and normal goods.
   D Complements and inferior goods.
5. Which statement on applicability of elasticity of demand is correct?

A The greater the elasticity of demand for the agricultural product, the greater will be the fluctuations in price from period to period.
B The more inelastic the demand curve, the lower is the firm's ability to shift the incidence of a tax to consumers.
C An import duty is most effective in improving the balance of payments when domestic demand is price inelastic.
D Devaluation is most effective in improving the country's balance of payments when local demand for imported goods and foreign demand for the country's exports are both price inelastic.

6. The diagram below shows the interaction of demand and supply curves.
Following a shift of the supply curve from S1 to S2, which area represents the loss in consumer surplus.



A ABA
B ADE
C CEQ1Q2
D BCED

7. The consumer has a choice of three goods X, Y and Z to consumer in order to maximise her utility.
The condition of equi-marginal utility will be:

A $\frac{Mux}{Px} = \frac{Muy}{Pz} = \frac{MUz}{Py}$

B $\frac{MUx}{Py} = \frac{Muy}{Pz} = \frac{MUz}{Px}$

C $\frac{MUx}{Px} = \frac{MUy}{Py} = \frac{MUz}{Pz}$

D $\frac{MUx}{Pz} = \frac{MUy}{Px} = \frac{MUz}{Py}$

8. Demand for factors of production is said to be derived demand. Derived demand means:
   A A factor is not demanded for its sake, but for the goods and services it produces.
   B Demand for factors of production is perfectly elastic.
   C Demand for an individual factor of production is the market demand.
   D Demand for a factor of production is the same as demand for the goods and services it produces.

ESSAYS

1. (A) EXPLAIN THE FACTORS THAT INFLUENCE PRICE ELASTICITY OF DEMAND FOR PUBLIC URBAN TRANSPORT [10]
(B) GOVERNMENT HAS IMPOSED PRESUMPTION TAX IN ORDER TO AVOID TAX EVASION BY PUBIC TRANSPORT OPERATORS. DISCUSS THE RELEVANCE OF PRIZE ELASTICITY OF DEMAND OF THIS TAX.
[15]

2. (a) Using illustrations, explain the derivation of the short-run supply curve. [12]
   (b) Analyse the factors which lead to a shift in the short-run supply curve of a product.

2. (a) Explain the factors that influence market supply of a product. [10]
   (b) Discuss the effects of an increase in an indirect tax on:
   (i) The production of asbestos
   (ii) The road transport.
   [15]

DATA RESPONSE QUESTIONS

1. KENYA EYES BIODIESEL AS COST OF FUEL RISES

NAIROBI

The prevailing high cost of fossil diesel in Kenya has spurred renewed interest in biodiesel as an alternative source of energy.
Private sector firms and organisations have upped the stakes in producing biodiesel from methylester, a vegetable- based derivative obtained from jatropha, croton, palm oil and coconut among other plants. Interest in biodiesel globally has been attributed to its non-offensive exhaust fumes. The fuel does not cause irritation in the eyes and is environmentally friendly and more biode gradable.
The rising cost of petroleum products and electricity has created an immediate need for new thinking towards alternative fuels. Biodiesel can be used in any diesel engines in the same way as conventional diesel fuel. Energy for Sustainable Development Africa (ESDA), an interest group, reckons that interest in biodiesel is riding on the back of the high cost of diesel (automotive gas oil).

(a) (i) What has led Kenya to look for an alternative source of energy.
[2]
(ii) Give any two advantages to society of using this source of energy.
[2]
(b) State possible reasons for a rise in the cost of fuel.
[4]
(c) (i) What is the likely effect on the price elasticity of demand of petroleum products after the development of a new product?
[2]
(ii) Explain any two advantages of the production of this new product to society.
[4]
(d) Discuss the benefits of competition in production to society.
[6]

BOOK PUBLISHERS FACE HARD TIMES

By Japhet Dube

WRITERS in Zimbabwe are going through tough times, as book publishers no longer publish books due to lack of customers.

This emerged during a monthly meeting of the Bulawayo chapter of the Zimbabwe Writers' Union (ZWU) held recently at Amakhosi Township Centre.

The chairman of the Bulawayo branch, Philbert Khumalo, said because of the economic difficulties that the country was presently going through, many people could not afford to buy books as they considered them a luxury.

"The book industry is depressed as witnessed by the fact that writers have written a lot of manuscripts, but publishers are saying they have suspended publishing because its 'unprofitable," said Khumalo.

Tapiwa Muchechemere of Longman Publishers confirmed to Chronicle that the going was tough for both the book publishers and authors as people were only buying textbooks and not fiction.

"We are currently not publishing fiction because there are no customers. I believe the economic hardships are making people concentrate on basic necessities rather than buy books, which many feel, are a luxury. The only books that are being bought are the school text books," he said Khumalo appealed to the Government to subsides the cost of books in order to sustain the writers and the whole book industry

"Book reading is critical in any society as it develops the mind and creativity in society, so we as writers feel the Government should make the books cheaper and easily accessible to all for the benefit of both the writers and the general public," he said.

The writers also complained about the royalties being offered by book publishers, saying they were too little. Authors only get 10 percent of the price of the book.

"The percentage of royalties is very small and you have to sell large quantities to receive a reasonable figure. However, as authors we also sympathize with publishers as they are also in a tight situation because, the cost of the paper has increased tremendously," said Khumalo.

A t the same meeting, a new executive committee- was elected for the Bulawayo branch. The new members of the executive are Khumalo (chairman), Bernard Ndlovu (vice), the position of secretary went to Sibongile Mnkandla, while veteran writer, Ndabazinhle Sigogo, was elected treasurer.
Ishmael Penyai and Mihla Sitsha were elected as committee members. Khumalo said the new committee has set up a programme to run workshops on writing skills for upcoming writers.

(a) From the extract, explain why the book industry is depressed.
[2]

(b) (i) What is meant by the term ‘royalties?’
[2]

(ii) How may subsides from government increase royalties received by writers?
[2]

(c) (i) Identify the factors that influence demand for books, as outlined in the extract.[4]

(ii) Suggest the price elasticity of demand for school textbooks and books for fiction. Justify your answer.
[4]

(d) Examine the effects of a decline in the demand for a product such as a textbook.
[6]

CHAPTER 6

CONSUMER BEHAVIOUR

Chapter objectives

After reading and retaining comprehension of this chapter you should be able to:

1. Define the term "Utility" and explain the low of diminishing marginal utility.
2. Explain the properties of indifference curves and represent it on the diagram.
3. Describe the concept of Consumer Equilibrium and show it on the diagram.
4. Illustrate the substitution and income effect of a price change on the indifference curve.

The theory of consumer behaviour is about how the consumer with a limited income determines his expenditure and consumption pattern with a view to maximize his utility or satisfaction. The rational consumer strives to get the most satisfaction from every dollar or cent spent on any commodity that he buys.

UTILITY

Utility is the satisfaction a consumer obtains when he consumes a commodity. It depends on the circumstances of the consumer, preference, taste and expectations.

THE LAW OF DIMINISHING MARGINAL UTILITY

Marginal utility (MU) is the extra satisfaction that a consumer derives from consuming an extra unit of a commodity. The law of diminishing marginal utility states that as the consumer consumes more and more of a commodity, the extra utility derived from the successive units falls continuously. An example is often given of a thirsty person. The first glass of cold water will definitely gives her the highest satisfaction. As she takes the second glass, the third and so on of the glass, they will provide her with declining satisfaction.

UTILITY MAXIMIZATION BY THE RATIONAL CONSUMER

A rational consumer who seeks to maximize satisfaction from a limited (inadequate) income should, at the margin, consume a commodity up to a point where marginal utility from the last dollar spent on the commodity is equal to the price (P) of the commodity.

$$\text{i.e. } P = MU$$

If MU is greater than the price paid, then the consumer obtains more total satisfaction by buying and consuming more of the commodity. As he does that MU will converge to the commodity's price (the law of diminishing marginal utility). If MU is less than P, then the consumer will be making a 'loss' on the last unity consumed, so there will be need to reduce quantity consumed until MU equals P.

When consuming more than one commodity, the consumer will maximize utility when consuming where utility per dollar spent on the last unit of each of the commodities is equal across all the commodities.

$$\text{ie } \frac{MU_x}{P_x} = \frac{MU_y}{P_y} = \ldots\ldots\ldots = \frac{MU_z}{P_z}$$

Preferences and demand / Indifference curve analysis

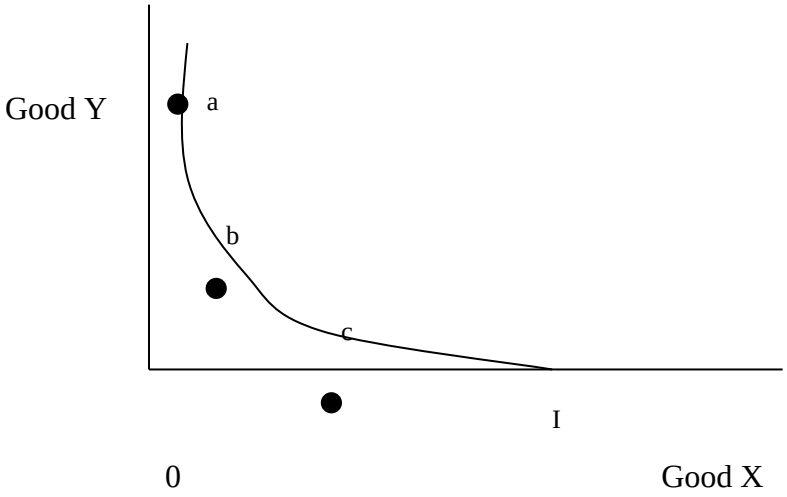
This section presents the basic theory of consumer choice. The individual consumer is assumed to have fixed preferences and to be consistent in his behaviour. A fixed amount of money, called the budget, is allocated among available choices and the theory examines the most efficient allocation.

Definition of terms

INDIFFERENCE CURVE

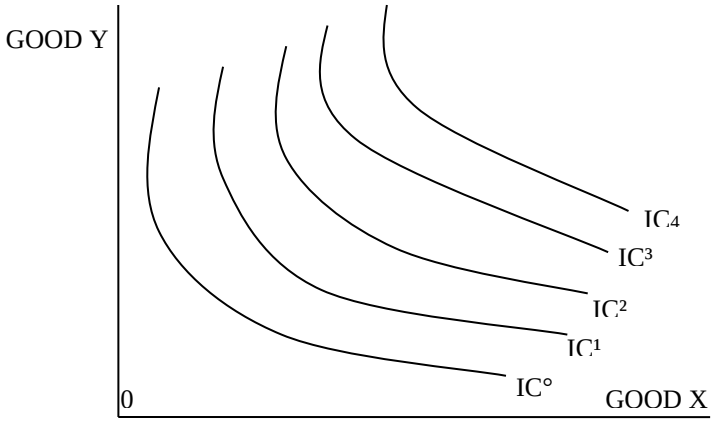
This is a curve that joints a combination of two goods that yield the same level of satisfaction, ceteris paribus. We can illustrate by way of diagram below:

Indifference Curve



From the above indifference curve I, points a, b and c and other various points which lay on the indifference curve yield the same level of utility.

INDIFFERENCE MAP



Along each indifference curve the consumer is indifferent to alternative combination of goods X and Y. The higher the difference curve, the higher the level of satisfaction. From the indifference map above, IC^4 yields the highest level of satisfaction whilst IC^0 yields the lowest level of satisfaction. In other words, the consumer derives the highest level of satisfaction as he moves from the origin. Thus, the highest indifference curve is preferred to a lower one.

The slope of IC indicates the amount by which consumption of one good must be given up or decreased, in order to increase consumption of the other good for the individual to remain indifferent (same level of satisfaction). This slope is called the marginal rate of substitution in consumption. It is assumed that this decreases as consumption of good X increases, so that indifference curves are convex.

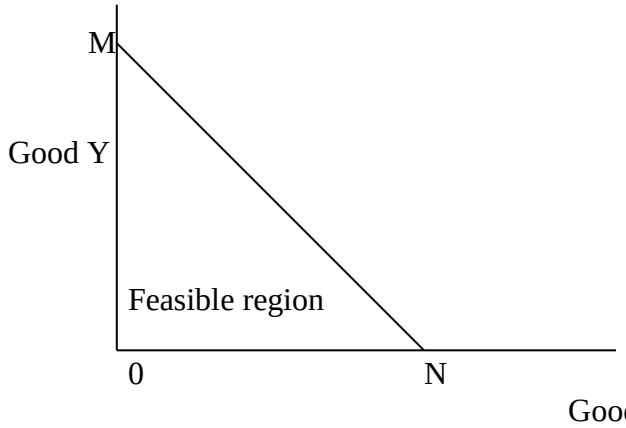
Properties of indifference curves

1. No two indifference curves may cross each other
2. The slope always downwards i.e. they are convex, ceteris paribus.
3. The higher to the origin the indifference curve, the higher the level of satisfaction, ceteris paribus.

Choice with a limited budget

The consumer is assumed to be faced with market prices of different consumer goods, which are beyond his control. A constraint is then imposed on the amount of money at his disposal- budget constraint. Only a limited number of combinations of purchases, therefore, is possible and these alternatives can be represented diagrammatically as below.

The budget constraint



The consumer from the above diagram has a fixed amount of money (income) represented by MN, which we shall refer to, as the budget line. Any purchases of goods X and Y respectively is only possible if it lies on the budget line MN or below. This means that a consumer cannot purchase a combination of goods X and Y that lies on any position above MN. Thus MN represents our budget constraint.

The budget constraint

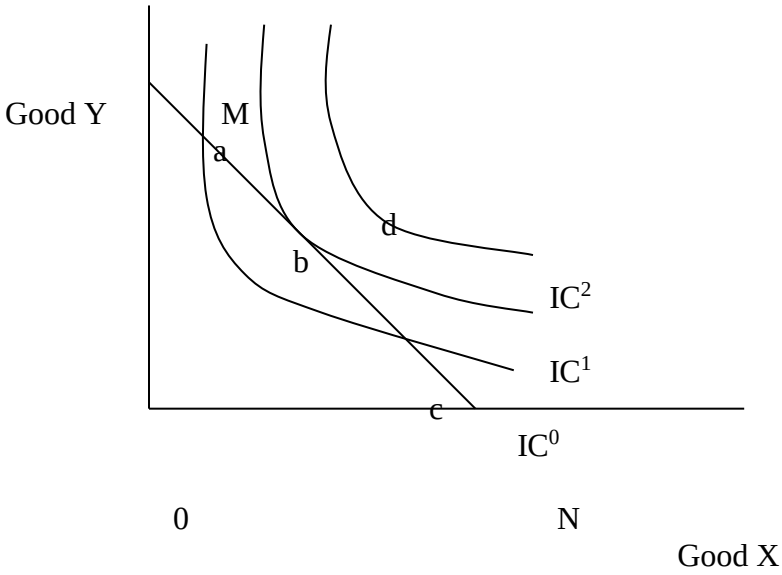
Faced with two alternative goods X and Y, our consumer can purchase any quantity of good X (Q^x) at given market prices (P^X) and quantity of good Y (Q^y) at given market prices for good Y (P^y). Assuming that our income is β, our budget constraint would be represented as follows.

$BC = Q^x P^x + Q^y P^y \leq \beta$

Consumer Equilibrium

It is now possible to provide a description of the efficient consumption choice (consumer equilibrium). The budget constraint specifies the feasible range of alternatives. An individual with insatiable desires will prefer to reach the highest indifference curve consistent with this constraint. We can represent this position as in the diagram below.

Consumer Equilibrium



From the diagram above our budget constraint is MN. Given the budget constraint, the consumer is capable of operating on either IC^0 or $IC^{1.}$. Indifference curve IC^2 is unattainable given our budget constraint. Thus restricting our analysis to IC^O and IC^1, we can determine our equilibrium position (efficient consumption).
Positions a, b, and c lie on the same budget constraint MN meaning that the consumer is able to consume at either of the positions. Positions a and c lie on the same indifference curve IC^0 and derive the same level of satisfaction. If, however, our consumer wishes to maximize his utility given the budget constraint, he is best advised to consume at position b because it is on a higher indifference curve and this derives higher satisfaction than positions a and c even though the three uses the same level of income (MN). Thus, our consumer reaches consumer equilibrium only when he consumes at a position where the budget constraint and the indifference curve are tangent, in our analysis at b. At b the slope of indifference curve equal the slope of the budget constraint. Thus, the marginal rate of substitution is equal to the rate of exchange (the price ratio). In the event that the consumer moves from position b, the results are that he will yield less and less levels of satisfaction because he ends up consuming at lower indifference curves.

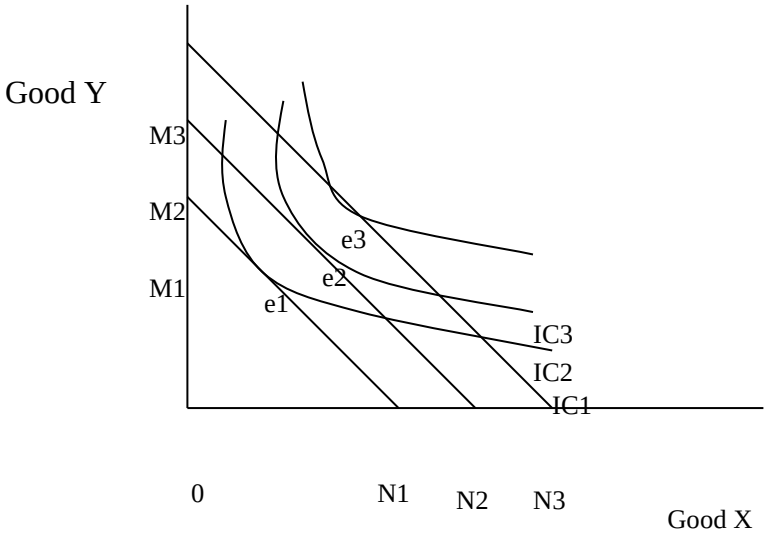
N.B. At the level of equilibrium, MR Sxy.

Where MRSxy is the marginal rate of substitution, Px and Py are the respective prices for goods X and Y, When this equality does not hold, the individual can increase utility by moving to a higher indifferent curve.

Changes in the budget

The slope of the budget line (constraint) depends only on relative prices (price ratio). Thus an increase in the budget line causes a parallel shift outward in the budget line. This is shown in the diagram below.

The effect of a change in the budget



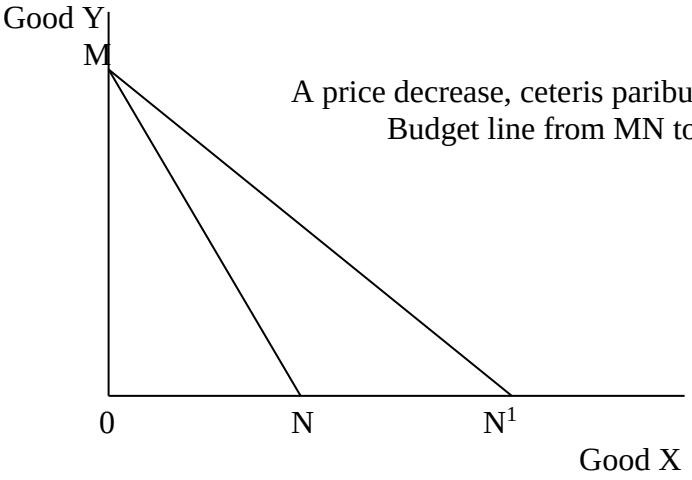
For a given set of prices, a higher money budget shifts the budget line upwards. The points e^1 e^2 e^3
trace out a budget consumption curve as the budget constraint shifts from MN^1, MN^2 and MN^3. Thus, with a higher level of income the consumer is able to increase the consumption of both goods, X and Y and moves from a lower indifferences curve to a higher indifferent curve.

N.B. The budget constraint can either move upwards or downwards depending on whether income has increased (upward shift) or has decreased (downward shift).

Changes in the prices

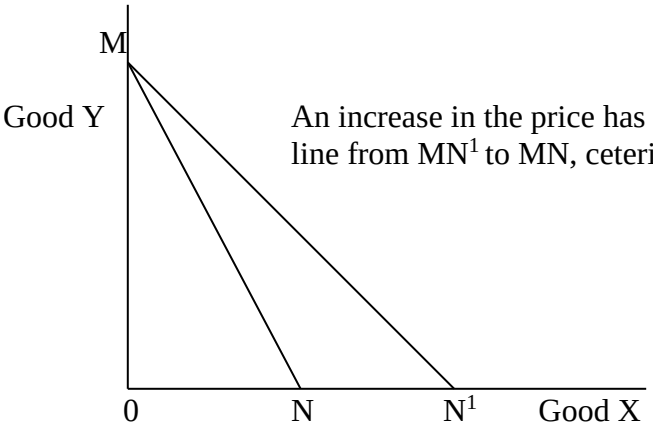
Changes in prices of one of the goods will result in a pivotal shift of the budget line.
Assuming that there is a decrease in price of good X or an increase the effect of these changes would result in the following budget constraints.

A decrease in price



A price decrease, ceteris paribus, will result in a pivotal shift of the Budget line from MN to a new budget line MN^1.

An increase in price



An increase in the price has the effect of shifting the budget line from MN^1 to MN, ceteris paribus.

SUBSTITUTION AND INCOME EFFECT FOLLOWING A PRICE DECREASE

We can now analyze the substitution and income effect of a price change. Though it is an established fact that price changes swing in both directions, we shall restrict our analysis to a situation where there is a price decrease in good X.

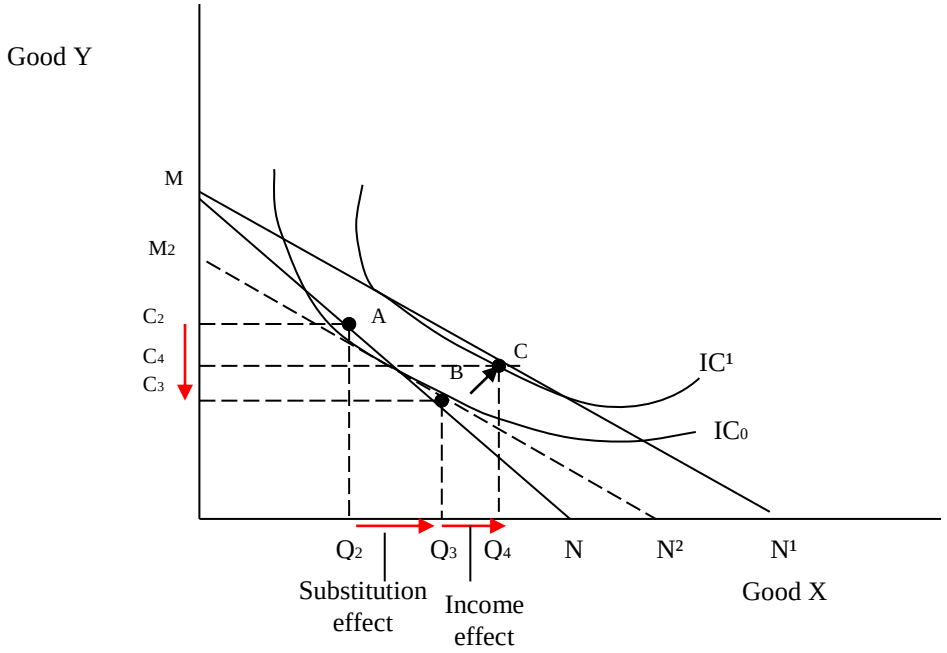
Substitution and income effect of a price change

In order to analyze the effect of a price decrease on quantity demanded, we need to make the following assumptions.

1. There are only two goods, goods X and Y.
2. Consumer tastes and preferences are constant.
3. Consumers are faced with market prices they can hardly influence.
4. Consumers have limited income.

The last two assumptions mean that consumers are faced with a budget constraint.
It is postulated that a price decrease should lead to an increase in quantity demanded according to the law of demand. The increase in quantity demanded is largely due to the income and substitution effect. We can establish the two effects through diagrammatical expositions as below.

Substitution and income effect of a price decrease



From the above illustration the initial equilibrium position is at A where the budget line MN is tangential to the indifference curve IC^0 . Following a decrease in price of good X consumers move to a higher indifference curve IC, and establish consumer equilibrium at C. As expected a price decrease in good X increases quantity demanded from q^1 to q^2. This increase in quantity demanded is however, brought about by two effects, substitution of the relatively expensive good, good Y with a cheap good, good X as well as the income effect which is a rise in real income due to a fall in prices which enables the consumer to consume more of both goods that is operating at C.
However, in order to distinguish these two effects we will have to draw an additional imaginary budget line M^2N^2 sometimes referred to as compensating budget line drawn parallel to the new budget line MN^1. This compensating budget line has the same level of income as the new budget line MN^1 and is drawn such that it is tangential to the initial indifference curve, IC^0. The essence is to analyse on would happen given the same level of income at C if the consumer was to operate at the initial indifference curve with this level of income. From the illustration above, it can be seen that given the level of income M^2 $N^{2.}$, consumers would move from A to B. This is due to substitution effect. Consumers are substituting good Y for X, i.e. reducing consumption of good Y and increasing consumption of good X. Thus, the substitution effect is positive. However, due to increased real income brought about by falling prices, consumers are able to demand more of both good X and Y. This is illustrated by the difference between B and C. Thus the income effect is positive.

The substitution and income effect work in opposite direction. In the case of normal goods, that is goods whose demand increases with increases in income vice versa, the substitution effect and income effect reinforce each other. As a result demand increases as price decreases.

N.B. We can also extend the analysis of a price decrease and the substitution and income effect to the case of inferior goods. Inferior goods are goods whose demand decreases as income increases, vice versa. In the case of inferior goods the substitution effect is so large that it offset the income effect leading to a decrease in quantity demanded as price decreases. The relationship between income and substitution effects explains why a demand curve may slope upwards (the case of inferior goods) or downward (the case of normal goods. In the case of normal goods the income effect and substitution effect reinforce each other resulting in a downward sloping demand curve. However, in the case of inferior goods the substitution effect is so strong that it offsets the income effect.

EXAMINATION TYPE QUESTIONS

Multiple choice

1. Good X has a downward sloping demand curve, the income effect of the price change works in the opposite direction to the substitution effect and the income effect is smaller than the substitution effect.
   This is a description of:
   A A normal good
   B An inferior good
   C A given good
   D Veblen good.
2. The slope of the budget line shows:
   A The marginal rate of substitution between the two goods.
   B The diminishing marginal utility as the consumer, consumes more of one good.
   C The marginal rate of transformation
   D The relative prices of the two goods.
2. Which one is not a property of an indifference curve?
   A An indifference curve is made up of combinations of goods which yield the same level of satisfaction to the consumer.
   B A higher indifference curve yield a greater level of satisfaction than the one below it.
   C An indifference curve is concave to the origin.
   D Indifference curves never cross.

ESSAYS

1. (a) Using the substitution and income effect, explain the downward sloping demand curve for bread.
   [12]
   (b) Discuss the factors, which influence demand for a good such as bread. [13]

2. To what extent can the Marginal Utility theory explain consumer behaviour. [25]

Clothing industry hit by poor demand

Business Reporter

The local clothing industry has been hit by poor demand in the first quarter of this year as a result of falling incomes and proliferation of second hand imports, industry officials have said.

The Zimbabwe Textiles and Manufacturers Association (Zitma) said in submissions to the Government that some companies may have to reduce operations to cut costs.

"There is a decline in demand for the locally produced goods. In the event that the situation remains unchanged there is a likelihood that some companies will be forced to shut down," said Zitma at the official commissioning of the Clothing Industry Pension Fund Complex last week. While the production capacity of the industry had increased to 30 percent in the first quarter from 10 percent at the end of last year, industry officials warned that profits would be hit hard as a result of depressed demand.

Zitma warned that local and foreign direct investments in the industry would decline because of poor performance of the sector.

"Investment levels will continue to decline as both the local and foreign investors stay away from the industry because of (the) depressed demand and competition from some Asian countries," said Zitma.

It said that most companies were exploring markets in the Southern Africa Development Community.

However, analysts said the clothing and textile industry was slow to respond to the changing trade environment.

"There is the need for clothing industry firms to match their products with international standards to increase earnings," said Mr. Edward Potsiwa, an economic analyst.

He said that the industry should add value to products to capture export market. Mr. Potsiwa said that the drop in local demand could improve if clothing industry firms can surpass the quality of imported products.

"Most local people are buying the imported commodities owing to quality therefore the textile industry can address the challenges by producing high class products," he said.

Another economic commentator with Kingdom Financial Holdings Limited, Mr. Witness Chinyama said that the recovery of the clothing industry required adequate funding from economic stakeholders.

"Both the private sector and the Government should play a leading role in funding developmental programmes," he said. The clothing industry has the capacity of creating 5 000 jobs yearly.

(a) From the extract, identity factors that led to a decline in demand for locally produced clothing.
[4]

(b) Explain how companies cut costs by reducing operations.
[2]

(c) (i) Suggest and explain ways in which the local companies can fight competition from foreign produced products.
[4]

(ii) Suggest and explain ways in which the government can help local textiles industry from depressed demand for their products.
[4]

(d) Discuss the benefits of competition in an industry.
[6]

CHAPTER 7

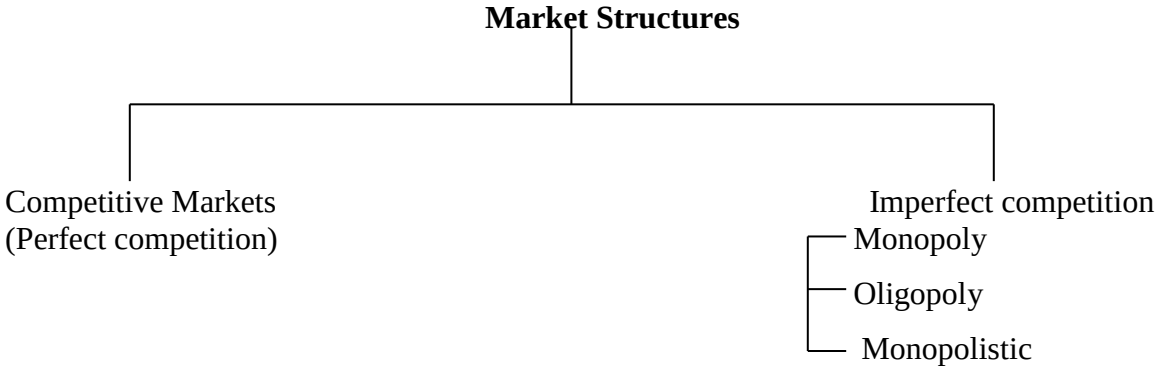
MARKET STRUCTURES

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:

1. Distinguish between the short run and the long-run.
2. Understand the differences between total costs, average costs, variable costs and marginal costs.
3. Explain the features of perfect competition monopoly, monopolistic competition and oligopolies.
4. Illustrate abnormal profits in the short-run of perfect competition and monopolistic competition.
5. Compare and contrast the long run of firms in perfect competition and monopolistic competition.
6. Appreciate the economic evaluation of perfect competition monopoly, monopolistic competition and oligopoly
7. Describe the conditions necessary for price discrimination by a monopolist.
8. Understand the "concept of cartels" by oligopoly competition.

In making their strategic decisions, firms must take into account the nature of markets they are operating in. This will assist them in selecting the factors of production to be used and the techniques to be used.



THE SHORT RUN

This describes the time period in which at least one factor of production is constant, usually capital and other factors can be varied, in most cases labour. Thus in order to increase production in the short-run where the capacity is limited, increase in factor costs can only be attributed to variable factors for example, labour and raw materials to mention but a few.

THE LONG RUN

This is the time period in which all factors of production are variable. Increasing the capacity, i.e., capital can thus increase production.

N.B. It is only in the short run that costs can be categorised into variable and fixed costs. In the long-run all production costs become variable.

TOTAL REVENUE

This is the revenue obtained from selling a product. It is obtained by multiplying the selling price and the quantity sold. (TR = P x Q) where TR is total revenue, P is the selling price and Q is the quantity sold.

AVERAGE REVENUE

This is the selling price obtained by dividing the total revenue and the quantity sold. (AR = TR/ Q.)

MARGINAL REVENUE

This is the additional revenue obtained from selling an additional unit of production. In order to obtain the marginal revenue the following calculation should be done: (TR – TR) / Q

EXERCISE 1

Calculate total revenue, average revenue and marginal revenue from the following information. Webstrations Trans International is involved in the production and selling of personal computers. It sells its products at $100 each. In a 5 day, week period it managed to sell 9 PCs. However, due to increased demand, it opened shop on the 6^{th} day and said 3 pc. Using any or all of the above information answer the above question.

TOTAL COST

This is total production cost incurred from producing all products available for sale. It is calculated by multiplying the cost of producing a single unit by the quantity produced (TC = C x Q) where TC is the total cost, c = cost per unit and Q = quantity produced.

TOTAL VARIABLE COSTS

This is calculated by multiplying the variable cost per unit by the quantity produced (TC = AVC x Q).

AVERAGE COST

This is the cost per unit of production calculated by dividing total cost by the units of production produced (TC/ Q).

AVERAGE VARIABLE COST

FIXED COSTS

These costs do not vary with the level of production. They remain the same despite the level of production. This, therefore means that they are incurred even when, production is at zero.

AVERAGE FIXED COSTS

These are fixed costs per unit of production obtained by dividing total fixed costs (TFC) by quantity produced (Q) . AFC = TFC /Q

MARGINAL COST

This is the additional cost that one incurs from producing an additional unit of production.

N.B. In order to arrive at the total cost of production one has to sum up the total fixed cost and the total variable costs. (TC = TFC + TVC). It follows, therefore, that average total cost (ATC) is the summation of average variable cost (AVC) and average fixed costs (AFC). ATC = AVC + AFC

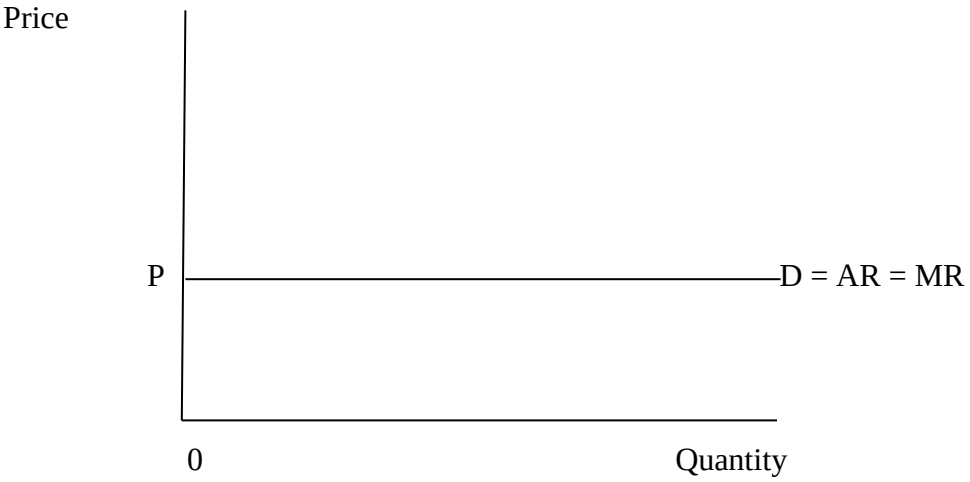
EXERCISE 2

From the following information, calculate the following TC, TVC, ATC and AFC.
Webstration Trans International has produced 100 personal computers, incurring fixed costs of $1 200 and average variable costs of $6. Using any or all the information above attempt the question above.

N.B. Fixed costs are incurred irrespective of whether the firm is producing or not whereas variable costs vary with the level of output. At zero output, they are also zero and fixed costs equal total cost at this level. As output increases total costs begin to rise in response to a rise in variable costs.

INDIVIDUAL FIRM'S DEMAND CURVE

The demand curve of a perfectly competitive firm is perfectly elastic i.e. it is horizontal and at a constant price level.



The demand curve is horizontal. If the firm's price is below P, the firm will be making losses and if it is above P, the demand for the firm's product will be zero.

Since the firms sell all units at the same price, marginal revenue is always equal to price which is also equal to average revenue

CONDITIONS OF PROFIT AND OUTPUT MAXIMISATION

In order to maximise profits and output, firms are expected to produce at a level of output where marginal revenue (MR) is equal to marginal cost (MC).
MR = MC, this condition implies that the firms is operating at an equilibrium output and there is no incentive to move from this position as operating at any other level the firm will be worse off.

Where marginal revenue is less than marginal cost, rational behavior will force firms to reduce out put until the equilibrium position is arrived at thus when MR < MC, in order to maximise profits firms should reduce output.

Where on the other hand, marginal revenue is greater than marginal cost (MR >MC) rational profit maximising behavior dictates that the firm should increase production until the equilibrium position is attained.
Thus when MR > MC, profit maximising behavior will result in more output being produced.

In summary, the following conditions hold.
When: MR >MC - Increase output
MR =MC - equilibrium output
MR <MC - reduce output

Whereas the marginal revenue and marginal cost functions are used to determine output, in order to determine profits and losses we use the average revenue (AR) and average total cost (ATC).
Normal profits or the break- even point, a point where neither profits or losses are made occurs when AR = ATC.
Abnormal profits a position where total costs equal total revenue occurs when average revenue is greater than average costs. (AR > ATC).
On the other hand, in order to establish when a firm is making losses, the following conditions should obtain. Average revenue should be less than average costs (AR < AC).

In summary when; AR >ATC, the firm is earning supernormal or abnormal profits.
AR = ATC, normal profits are earned
AR <ATC, losses are incurred.

Given the forgoing information it is now possible to describe the short- run and long- run of our market structures, perfect competition, monopoly, monopolistic competition and oligopoly all inclusive.

Perfect Competition

This is a market structure where the price and output are by and large determined by what was termed the 'invisible hand' by Adam Smith in simpler terms, the market forces of demand and supply.

We shall illustrate the conditions of perfect competition in the short and long run. The objective is to distinguish abnormal profits from normal profit positions of a perfectly competitive firm as well as the position of loss making.

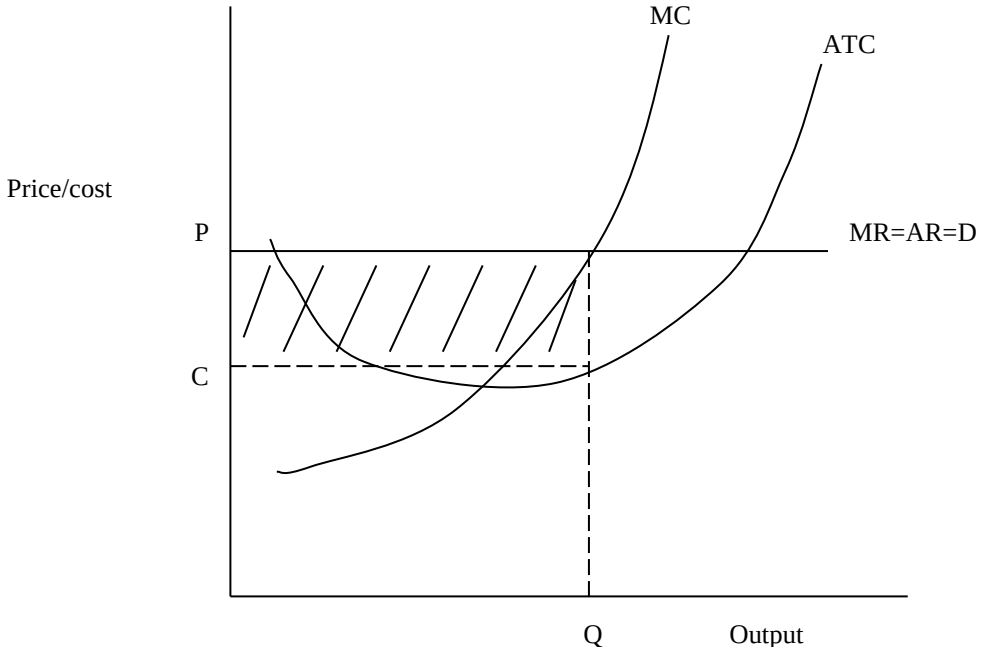
Perfect competition in the short run

Perfectly competitive firms earn abnormal profits in the short run. However we need to state the underlying assumptions of perfect competition. We shall assume the following:

(i) There are many buyers and sellers of the product, that is, firms are price takers.
(ii) Firms are producing a homogenous product, that is one cannot differentiate one product made by one firm from the other.
(iii) There are no barriers to entry and exit, firms can enter or exit the market whenever they are comfortable.
(iv) There is perfect information in the market that is consumers are fully conscious of product prices obtaining in the market.
(v) There are no transport costs involved
(vi) Firms seek to maximise profits by producing where marginal revenue (MR) equal marginal costs (MC).(MR = MC)

As already mentioned somewhere else, the short-run of perfect competition is characterised by abnormal or supernormal profits and firms produce at a level of output where MR = MC and average revenue (AR) is greater than average total cost (ATC). (AR > ATC). This scenario of supernormal profits can be illustrated through diagrammatical expositions as below.

Abnormal profits in the short-run of perfect competition

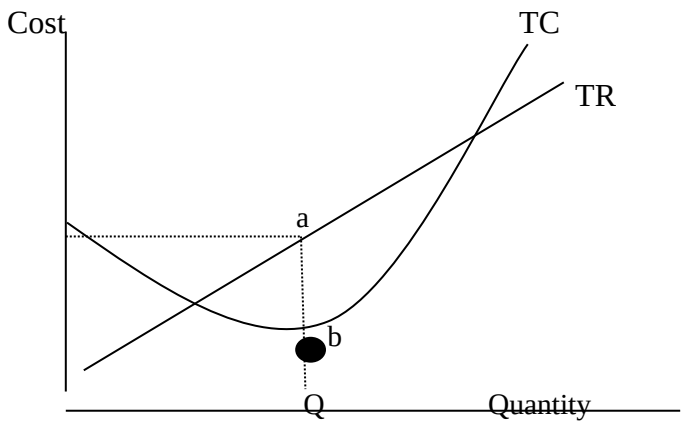


From the above illustration, a profit maximising firm in a perfectly competitive market produces output Q where MR = MC. Abnormal profits on the other hand are represented by the rectangle C^1P ab. How abnormal profits or supernormal profits are arrived at is as follows: From the above total revenue equal Opa Q or (P x Q) whilst total cost equal OC b Q or (C^1 x Q).
Thus supernormal profits equal total revenue minus total costs, in other words, (OPa Q) – (OC b Q).

The condition of maximising profits can be analysed using the total revenue – total cost method and the marginal cost – marginal revenue approach.

a) Total Revenue – total cost approach

The total revenue - total cost approach considers profit maximisation where total revenue exceeds total costs by the greater margin i.e. where TR > TC by the widest margin



As shown by the diagram above, TR > TC by the greatest margin (a –b) at quantity Q.

- Any level of output above Q or below it generates less profits as compared to Q. At Q the slope of TC is equal to the slope of TR.

Perfect competition and the long-run

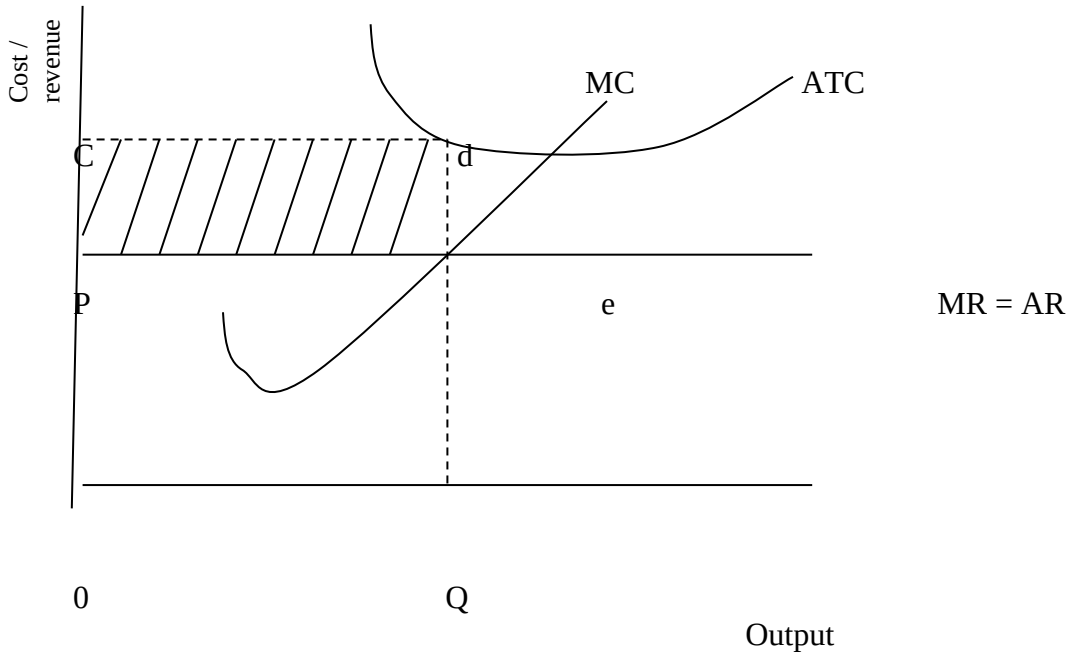
Whereas a perfectly competitive firm earns abnormal profits in the short-run, the scenario differs in the long-run. The long-run of a perfectly competitive firm is characterised by normal profit. This is due to the assumption of free entry and exit that we have made previously. Abnormal profits earned in the short-run are likely to attract new firms into the market who also want to enjoy these profits. Abnormal profits thus act as a magnet that attracts new firms into the market since there are no barriers to entry. New firms coming into the market will lead to a rise in production costs such that firms end up incurring abnormal losses initially, but since this is not an equilibrium position other firms that cannot sustain these losses will exit the market forcing costs to fall down as competition eases. This will lead to a scenario where average revenue equal average total cost (AR = ATC), normal profits and opportunity cost is zero, in other words, there are no incentives to enter or exit the market.

It would not be prudent, therefore to describe the normal profits in the perfect competition without describing the disequilibrium scenario of abnormal losses.

Abnormal losses in Perfect competition

The entrance of new firms into the market attracted by the supernormal profits in the short-run will drive factor costs upwards as firms increase factor rewards to attract scarce resources. This competition for factors of production will tend to raise the average total cost to a position where average costs are above average revenue. This can be illustrated diagrammatically as below.

Abnormal losses in perfect competition

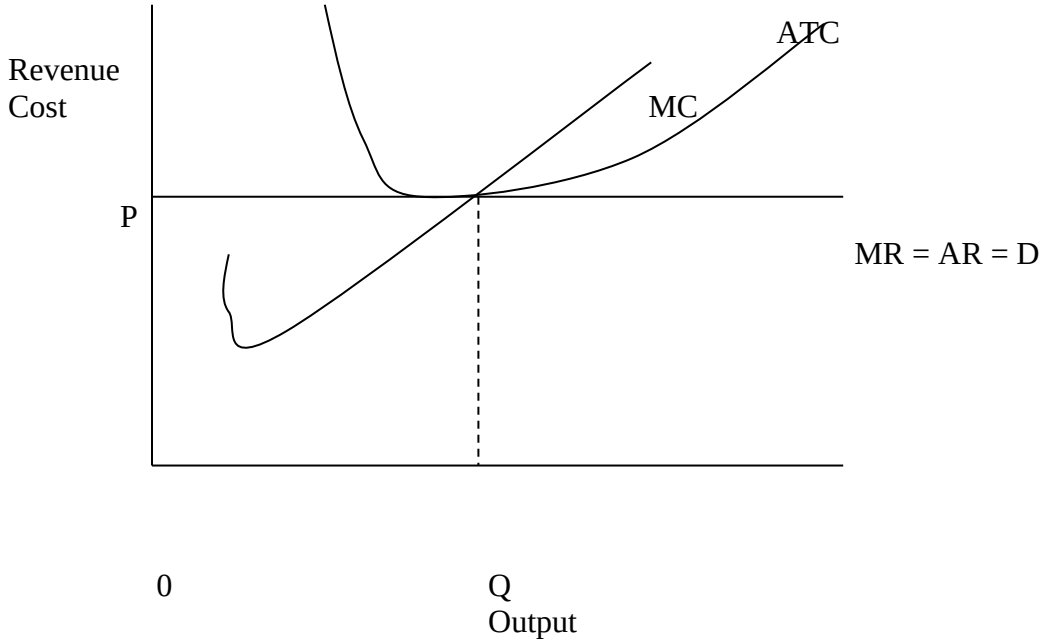


As can be deduced from the above diagram, equilibrium output produced is Q where MR = MC. However, unlike in the short- run position where supernormal profits are being earned, the above illustration depicts a position where firms are making abnormal losses as represented by the rectangle PCde (The reader can refer back to the short-run diagram on how profits or losses are determined). This is so because intense competition amongst firms for scarce factors of production has driven costs or average costs upwards. This, however, is a disequilibrium condition as losses will force some firms to exit the market as they cannot absorb them. Firms will continue to exit the industry until such time that average revenue is to equal average total costs. In other words until only normal profits are being earned.

THE LONG RUN OF FIRMS IN PERFECT COMPETITION

The long run of perfect competition is strictly associated with normal profits. As already mentioned above, abnormal losses resulting from new entrants into the market are a disequilibrium phenomenon. Hence, already we should expect firms to exit the market until the average revenue of each firm is tangential to its long- run average cost. This is the point where the marginal cost curve cuts the average total cost curve at its lowest point. The diagrammatical exposition below describes this process.

a) Long-run equilibrium in perfect competition



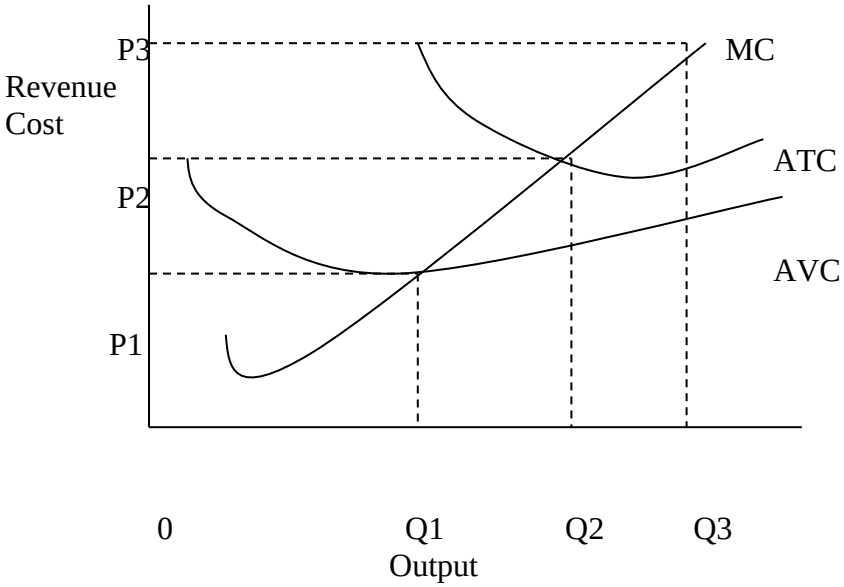
In the long- run, supernormal profits are eliminated by new entrants. Firms produce profit maximising output Q where MR= MC. However, new entrants eliminate supernormal by pushing average total costs so that they equal average revenue. Note also from the diagram that for normal profits to occur average revenue (AR) equal average total cost (ATC) and the marginal cost curve cuts the average total cost curve from below. This positions means that opportunity cost is zero or that firms are earning a return that is equivalent to any from other alternative employment of its resources. The long-run equilibrium position means there are no incentives for new entrants into the market on one hand and there are no rational reasons for disengagement or exit from the market.

N.B. In the long run all firms produce the same output at the minimum average cost and have access to the same information, including technology and factor prices remain constant.

THE FIRMS SHORT-RUN SUPPLY IN PERFECT COMPETITION

The firm's short run supply curve is the relationship between the market price and the amount the individual firm supplies at that price. The supply curve is given by that portion of the short run marginal cost curve that is above the short run average variable cost curve. This is can best be captured diagrammatically as below.

The Supply curve of perfect competition in the short-run



From the illustration above, the firm does not produce when price is below P1, where average revenue does not cover average variable costs. As long as the price is above P1, even if it is below ATC, the firm still produces in the short-run. P1 is, therefore, referred to as the shut down point and that portion of the MC curve above AVC curve is the firm's supply curve. The market's supply curve, however is obtained by adding at each price, the outputs of all the firms in the market. In other words, it is the horizontal summation of the supply curves of all the firms in the market.

ECONOMIC EVALUATION OF PERFECT COMPETITION

- Perfect competition is blamed for its external cost contribution like water and air pollution. This causes discomfort and other health problems to the nation.
- Lack of public goods provision as there may not be incentives to do so.
- It is only based on assumption and it lacks practical application

Monopoly

A monopoly refers to a market structure where there is a single producer of a product. Thus the producer is not faced with competition from any quarter and has the liberty to decide on the output or price to produce or charge respectively. However, a monopolist is faced with many buyers of its products. Given this, it means it can either decide on the output to produce and the price is determined by the market or it can decide on the price and the output is determined by the market. Thus, it cannot decide on the price and output simultaneously.

Since a monopolist is faced by many buyers for its products, it means it has the freedom to charge different prices to different consumers or buyers for its products. This freedom to charge different prices to respective buyers results in a downward sloping demand curve. This demand curve is also the average revenue for the monopolist. Unlike perfect

competition where marginal and average revenue are the same, the average revenue for a monopolist is always above its marginal revenue. This is because for a monopolist to sell an additional unit of production, it has to reduce its price to attract buyers. However, it still has to produce at a level of output where the marginal revenue equal marginal cost.

N.B. The supply curve for a monopolist is the market supply curve since it is the sole producer or seller of a product.

REASONS FOR MONOPOLY

1. Source of raw materials

Any company that controls the source of raw materials will end up being monopoly for example control of coal deposits by Hwange Colliery.

2. Licenses

The Government can create monopoly through giving issuing patents, copyrights and licenses for example parastatals like NRZ, ZBH etc.

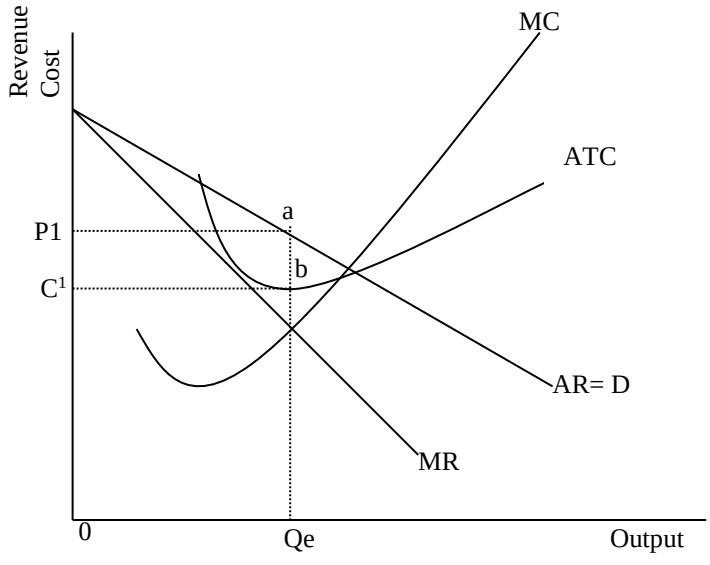
3. Economics of Scale

Some investments or projects are capital intensive and requires a lot of money to invest in machinery. These advanced technology results in economies of scale, which reduces the cost price per unit thereby locking out competitors.

MONOPOLY AND PROFIT MAXIMISATION IN THE SHORT-RUN

The short run of a monopolist is characterised by abnormal profits, as is the case with perfect competition. The monopolist has to produce at a level where marginal revenue equal marginal cost (MR = MC). Supernormal profit is on the other hand determined where average revenue is greater than average cost (AR >ATC). To illustrate this scenario we use the following diagrammatical exposition as below:

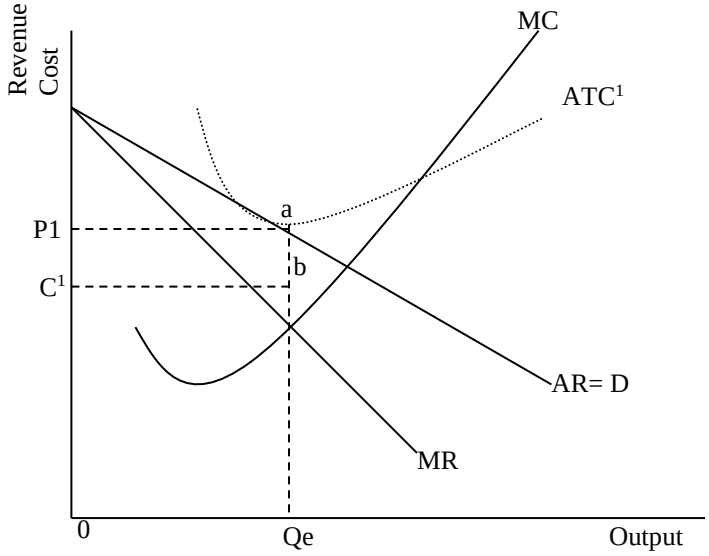
Abnormal profits in the short-run of a monopolist.



From the above diagram, in order to maximise its profits, a monopolist has to produce output Qe where MR = MC. Abnormal profits on the other hand occur because total revenue represented by OP^1 a Qe is greater than total costs represented by OC^1bQe Thus the rectangle $C^1 P^1$ ab represents abnormal profits of a monopolist.

Normal profits and monopoly

The above scenario of abnormal profits in the short- run can also prevail in the long run if there are barriers to entry and exit. However, if we relax this assumption, we can end up with a situation where supernormal profits are competed away by new entrants. This will result in normal profits being earned in the long-run. Normal profits will result when new entrants force the average total costs to rise to a new level where they are equal to average revenue. This is shown by the dotted average total cost curve (ATC^1) below



From the above diagram, profit maximizing firms produce output Qe, the output at which MR = MC. However, due to intense competition for factors of production, average costs have been pushed upwards to ATC, as represented by the dotted ATC curve since ATC is greater than AR, it follows that the firm is incurring losses of $C^1 P^1$ab

From the above illustration, a profit maximizing monopolist produces output Qe where MR = MC. Normal profit occur because ATC equal AR.

Price Discrimination by the Monopolist

Price discrimination refers to a situation where the firm charges different prices for reasons not justified by differences in cost of production, for example charging different rates to low density suburbs and high density suburbs by most municipalities.

CONDITIONS NECESSARY FOR PRICE DISCRIMINATION

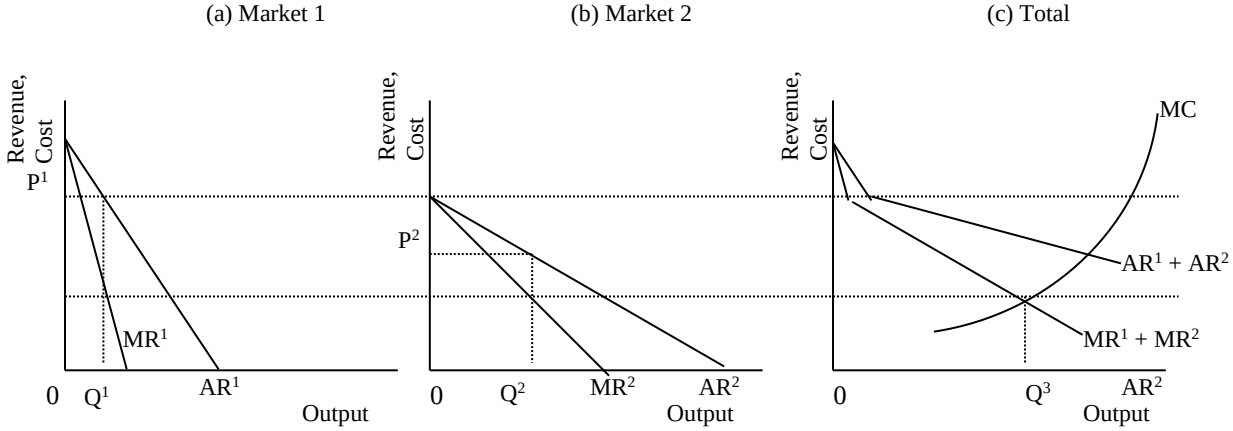
For price discrimination to be successful, certain conditions must be met.

1. It only works when it is not possible to buy a good from one market and resale it in another market. Thus there should be heterogeneous markets.

2. The markets should have different elasticities of demand. There should thus, be two markets. One whose demand for the good is elastic and the second one whose demand is inelastic.

3. Transport costs should be prohibitively high. This is meant to prevent seepage or arbitrage, a situation where one buys a product in one market at a lower price and resale it a higher price in another market.

Given the foregoing, profit maximisation requires that the monopolist equals marginal revenue in these two markets whose demand curves are shown below.



If two markets are separate and have different demand curves, AR^1 and AR^2, a monopolist maximise profits by selling at different prices in the two markets. The profit maximising output of the firm in the long run occurs where long run marginal cost (MC) equals marginal revenue (MR). MR = MR^1 + MR^2 shown in C above. Total output is divided between the two markets. In market 1, Q^1 is sold at P^1, and in market 2, Q^2 is sold at P^2. Marginal revenue in both markets is the same. The steeper the (inelastic) demand curve in a market, the higher the price.

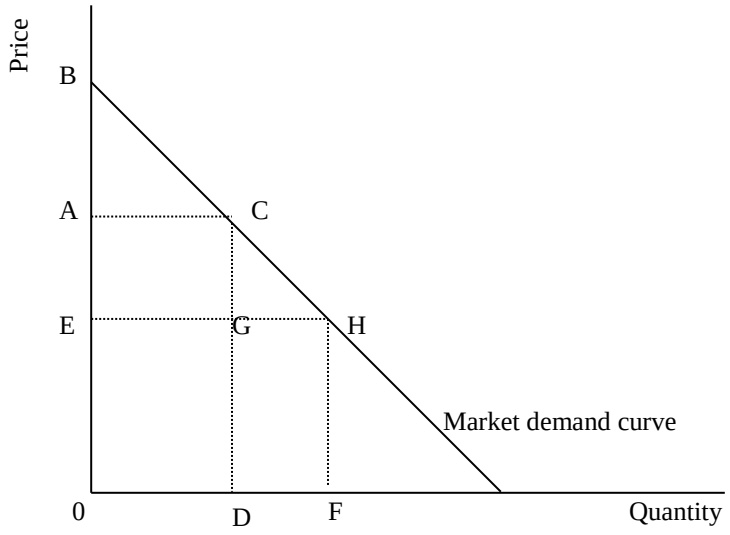
NB: If the elasticities in the two markets are the same, there is no advantage from applying price
discrimination.

CONSUMER SURPLUS

Having examined price discrimination between markets by a monopolist, it is useful to consider the case of a perfectly discriminating monopolist. A perfectly discriminating monopolist is able to charge a separate price to each consumer. This means that each consumer can be charged the maximum amount he is willing to pay for each unit of the

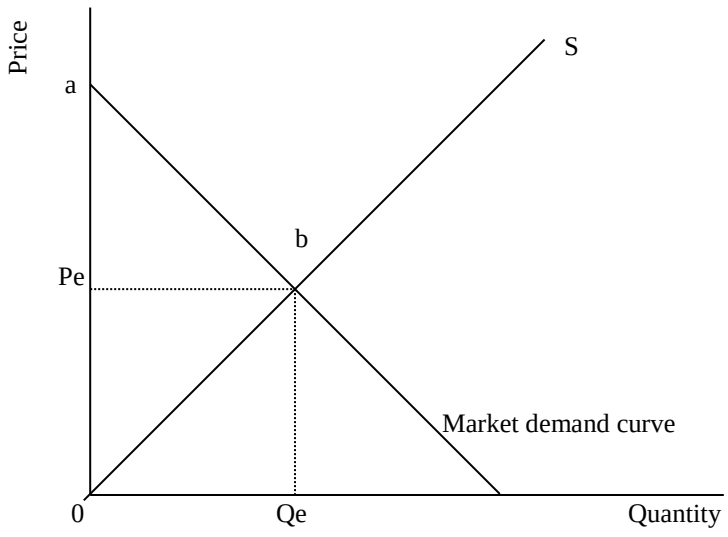
good, and it is able to sell to the highest 'bidder' first. It can in this way obtain the maximum revenue from the sale of any given quantity.

Consumer surplus under monopoly



From the above diagram, if all units are sold at the same price A, then an amount D is sold and total revenue is equal to OACD. If the same amount is sold by a perfectly discriminating monopolist, then a different price is charged for each unit, and the total revenue is OBCD. The difference ABC, measures the consumers' surplus. If the price is raised from E to A, the total loss of consumers' surplus is EACH of which EACG is transferred to producers, and GCH represents the deadweight loss of consumers' surplus.

In a perfectly competitive market consumer surplus is the difference between the market price and the highest price the consumer is prepared to pay. We can illustrate this diagrammatically
as below: -



Given market price of Pe, the consumer is prepared to pay as much as price **a**. Thus Peab represents our consumer surplus.

ECONOMIC EVALUATION OF MONOPOLY

1. Since a monopolist is a price setter and is the only supplier it can charge exorbitant prices if its operations are not monitored.
2. Monopoly offers incentive for research and development as the firm can earn super – normal profits.
3. A big monopolist can acquire advanced technology that may result in falling costs of production due to greater efficiency.
4. Monopoly results in poor distribution of income as it transfer it from the majority to owners of a monopolistic firm.

Monopolistic Competition

Monopolistic competition is an intermediary market structure which has features of perfect competition and monopoly respectively. It tries to strike a balance between the two-market structures. Monopolistic competition derives its monopoly from the fact that each firm has a monopoly on the price or output of its products.

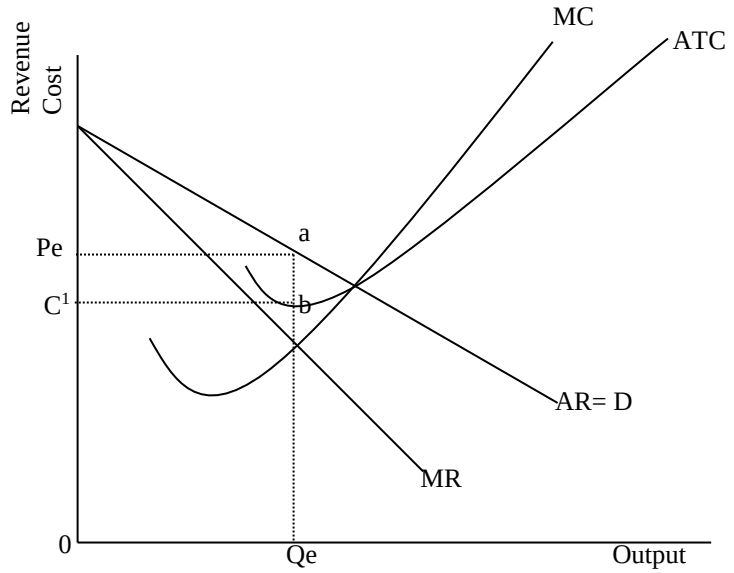
In order to appreciate monopolistic competition, the following underlying assumptions have to be made:-

(i) There are many sellers and buyers of a product
(ii) Firms are selling a differentiated or heterogeneous product
(iii) There free entry and exit by firms, that is, there are no barriers to entry and exit a firm can enter or exit the market at any time
(iv) There is imperfect information, that is a firm is not aware of the activities of other competing firms on one hand, and consumers do not have full knowledge of prices and products obtaining in other markets
(v) Firms are profit maximisers, that is, the objectives of the firms is to maximise profits and in pursuit of this objective, firms produce where marginal revenue equal marginal cost (MR = MC).

THE SHORT RUN OF MONOPOLISTIC COMPETITION

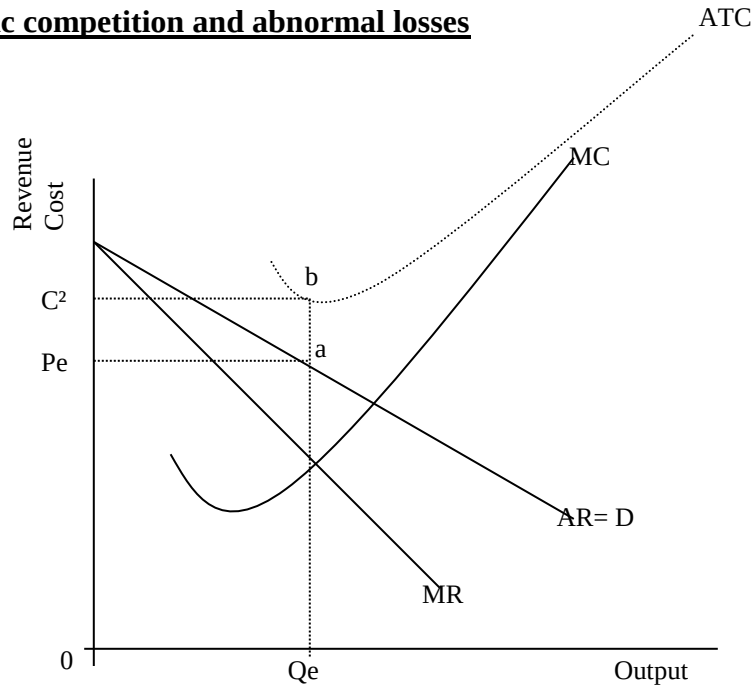
There is not much difference between the short run of a monopolist and monopolistic competition. A firm in monopolistic competition faces a downward sloping demand curve from the underlying fact that each firm though faced with competition from other differentiated products, it has a monopoly hold on the price it can charge or the output it can produce at a particular time. However, because the firm is facing competition from other firms, its demand curve is relatively elastic compared to that which faces a monopolist. In terms of output determination, each firm in pursuit of its profit maximising objective produces at a level where marginal revenue equal marginal cost (MR = MC). Abnormal profits are earned in the short run because in most cases the average costs of production are less than average revenue (AR > ATC). This can best be captured through diagrammatical expositions as below: -

Short run of monopolistic competition: Abnormal Profits



The diagram above depicts a scenario where a firm is earning abnormal profits represented by the shaded rectangle, C^1 Peab. At output Qe which is the equilibrium output because MR= MC, total costs (OC^1bQe) is less than total revenue, (OPeaQe). In other words, at output Qe, average revenue (AR) is greater than average total costs (ATC), hence the abnormal profits.

Monopolistic competition and abnormal losses



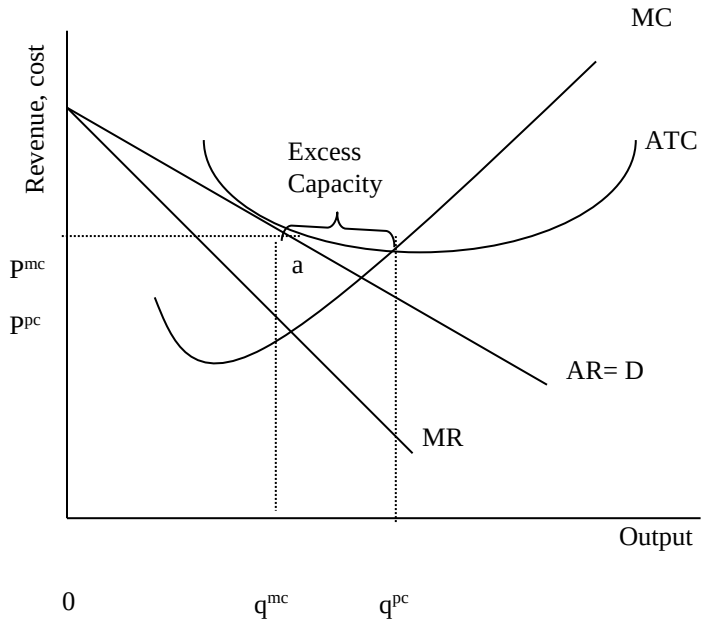
Whereas it is normal to experience abnormal or supernormal profits in the short run, abnormal losses cannot be ruled out altogether. Abnormal losses occurs when average

revenue fall below average total costs as a result of competition for factors of production. From the diagram above, this is represented by the dotted average total cost (ATC). Abnormal losses will be equal to the rectangle P^eC^2ba. Equilibrium output remains Qe , where MR = MC.

THE LONG EQUILIBRIUM OF MONOPOLISTIC COMPETITION

The long-run equilibrium of monopolistic competition is characterized by normal profits. There is also excess capacity. Normal profits are attained because new entrants producing a similar but not identical product are attracted into the market by short-run supernormal profits. The demand curve of monopolistic competition in the long run is relative elastic compared to the short-run demand curve. This is brought about by increased competition (substitutes are available more and more) which divides the demand for the industry's output among competing firms. We can use diagrammatically exposition such as below to show the equilibrium position.

Long-run equilibrium of monopolistic competition



From the above illustration a firm in monopolistic competition produces output q^{mc} and charges a price of P^{pc}. Normal profits are being earned because the long run average cost equal the average revenue – the ATC is tangential to the AR curve at **a**. However, it is argued that producing output q^{mc} is not the best given the fact that the firm is not producing at its lowest point of the average total cost curve. In perfect competition, efficient output production occurs in the long run because firms would be producing at its lowest on the ATC, in this case q^{pc} where the marginal cost curve cuts the ATC from below the excess capacity results because ideally the firm is producing at q^{mc} when it is possible to produce at q^{pc}. This results in what is called X-inefficiency. Opponents of this market structure also argue that apart from the fact that the market structure is inefficient in the utilization of scarce resources, it also results in unnecessarily high prices to consumers. Under perfect

competition, P^{pc} would be the price whereas P^{mc} is the price in monopolistic competition. The

consumer in monopolistic competition is thus being exploited, getting less, q^{mc} at a higher price P^{mc} than would be possible under perfect competition.

Though the market structure has its critics, it is without its own supporters. Arguments advanced for maintaining excess capacity are premised on two reasons: excess capacity results because of reduced demand for the individual firm's product and second, it is maintained to fend off competition. Instead of exiting the market when faced with competition the firm can increase output to q^{pc} and reduce the price to P^{pc}. This will result in lower profits to new entrants, as they are not in a position to charge this price due to diseconomies of scale. Thus instead of entering the industry, faced with this situation potential entrants are kept at bay.

Economic evaluation of Monopolistic Competition

1. Monopolistic competition is wasteful, as many firms involved are not producing up to their optimal levels.
2. Wide choice for goods and services due to many firms and various products.
3. Other countries have blamed advertising for its brain washing, that is, forcing customers to buy products that they do not want.
4. There is also relatively equal distribution of income as they are many firms producing.
5. Free entrance and exit results in firms realising normal profits thereby charging fairly low prices. Competition also improves product quality.

Oligopolies

An oligopolistic market is comprised of few giant sellers. The firms are usually selling similar products for example Organisation of Petroleum Exporting Countries (OPEC) which include BP, Shell, mobile etc or differentiated products for example cellular phone producers. If there are only two firms selling, then the term duopoly is used. The small number of firms operating under the oligopoly market forces them to strategically inter depend on each other's actions and policies.

The methods used by oligopolists in defending their market positions take various forms, such as advertising, product differentiation, and price competition. Production differentiation is often combined with a search for new goods or product improvement in specifications of the existing product.

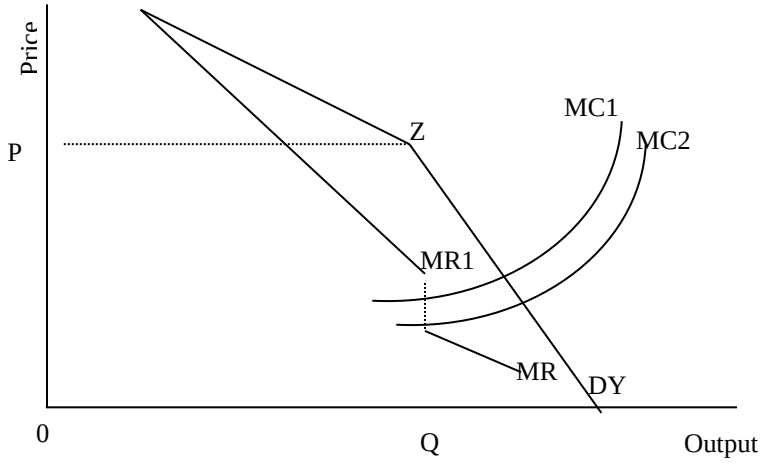
The oligopolist is comfortable in using non- price competition which may include advertising, after sales services, product differentiation than price competition. This is partly due to the fear that variations in the price may lead to 'price wars', which worsens the position of everyone in the market.

THE KINKED DEMAND CURVE OF AN OLIGOPOLIST

An oligopolist has an elastic demand curve when it is assumed that it is likely to face reaction from rival firms. The demand curve is inelastic if assumed that competing firms will not respond to price changes.

In the diagram below Z signifies the link, where the price is D and output is Q. Above this price, the firm will lose customers to competitors and below P, the firm will be operating at a loss. It will therefore be forced by the market to sell at price, P. This explains why prices in an oligopoly competition are relatively stable for a long time.

Any increase in the marginal cost at Z does not affect price as long as it falls within points ab below.



Economic evaluation of oligopoly

1. Advertising undertaken by oligopolist may result in it contributing to abnormal profits.
2. Oligopoly is not efficient
3. The possibility of abnormal profits encourage firms to engage in research and development programs.

Market structures at a glance

Criteria for identifying whether a market is competitive or not or perfect or not the following characteristics can be used.

Characteristics	**Perfect**	**Imperfect**
1. Number of firms	Many	Few
2. Product	Homogeneous	Heterogeneous
3. Prize	Takers	Setters/ Makers
4. Competition	Stiff	Less/ no
5. Barriers	No barriers	Exist

Type of monopolizes

i) Natural monopoly – owns and controls natural resources for example Hwange Colliery, ZINWA, Rio Tinto etc.
ii) Artificial monopoly – enjoys a patent exclusive rights or franchise on a specific product for example Nandos, KFC etc.
iii) Government monopoly – formed by an out of Parliament to provide essential services such as ZIMPOST, ZESA, NRZ etc.

Oligopolies

There are also other types of oligopolies besides the Kinked – Demand curve such as:

i) Oligopolies with price leadership where large firms in the market out as those in monopoly. They are leaders because of the following:
   - They are large
   - They control large market share
   - They have been in the market for a long time.

   The small firms in the market at like those in the perfect competition market.

They are followers because of the following reasons: -

- They are small
- They are new in the market or industry
- They control a small market share

(ii) **Oligopoly with cartels**

A cartel is a conglomerate, an integration or a collusion of oligopoly firms after realizing the domestics of the Kinked demand concept. Hence oligopolies collide because of the following reasons.

- To avoid stiff competition
- To avoid cut – throat techniques
- To avoid firms being worse – off etc.

Oligopolies with cartels can be explained in two groups:

(a) Explicit collusion – this is where there is a written down agreement using the firms to produce the same output and charge the same price for example OPEC.
(b) Implicit collusion

This is where there is no written down agreement among the firms but they behave the same to reduce competition among themselves.

Consumer sovereignty – the process of allowing the people vote with their dollars for the goods and services they want most. Those items that receive the most votes are produced in large quantities those that receive for votes are discontinued or produced in minimal amounts.

Oligopoly has the following characteristics:

i) A few sellers
ii) Substantial barriers to entry
iii) Standardized or differentiated product
iv) Substantial non – price competition

A few Sellers

Economists usually define oligopoly as few enough firms so that there is mutual interdependence among the firms. Thee actions of any one firm in the market will affect the other firms in the market and vice – versa. A firm-operating no a market characterized by oligopoly would not change the price of its products, the quality of its product, or its advertising without first taking into consideration the possible reaction of its competitors.

Barriers to entry – these are usually substantial. In the care of national oligopolies such as the automobile and steel industries the primary barriers may be high cost of acquiring the resources necessary to establish of new firm and the inability to begin producing on a sufficiently large scale that the established firms are experiencing. Further more, a new firm would be unlikely to experience large enough sales in its few years of existence to enable it to take advantage of the economies of scale that result from mass production. Also control of important raw materials can be strong barriers to entry.
In the case of local oligopolies, market size may be the primary barrier to entry. Also customer loyalty to establish firms may be a very difficult obstacle for new firms to overcome, in the case of both local and national oligopolies.

Standardized or differentiated products

The product produced may be either standardized or differentiated, depending on the industry. In industries such as steel, aluminum, and light bulbs, the products are almost identical. In other industries such as breakfast cereals, laundry detergents and automobiles, the products are differentiated.

Non – price competition

In differentiated products sellers engage in vigorous non prize competition. This involves efforts to persuade consumers to buy all particular products for reasons other than price. Firms operating in oligopolistic markets seldom engage in price wars. If a firm operating in an oligopolistic market powers its price, its competitors will be forced to match the price cut. As a result, all firms will suffer a reduction in profits. Prices lend to remain relatively stable in oligopolistic markets, with most of the competition being of a monopoly nature.

EXAMINATION TYPE QUESTIONS

Multiple Choice Questions

1. The main difference between oligopoly and monopolistic competition is
   - A On the nature of the product produced.
   - B On the number and size of the firms.
   - C Amount of profits enjoyed in the short-run.
   - D On the determination of equilibrium price and output.
2. The characteristic which differentiates monopolistic competition from perfect competition is that
   - A There are strong barriers to entry and exit of firms.
   - B There is production of differentiated products.
   - C There are few firms in the industry.
   - D Firms enjoy abnormal profits in the long run.

3. Monopsony can be defined as:
   - A A sole supplier
   - B A single buyer
   - C A situation where there is one trade union in the economy.
   - D A situation where the country specialises in the production of one good.

4. Monopolistically competitive firms are said to be allocatively inefficient because:
   - A Of a large number of firms in an industry.
   - B Of abnormal profits they enjoy in the short run.
   - C Of prevalence of excess capacity.
   - D Of production of differentiated products.

ESSAYS

1. Analyse the differences and similarities between the main features of a perfectly competitive firm and a monopoly firm.
   [25]
2. Discuss whether monopoly is always a disadvantage to society.
   [25]
3. All firms in business seek to maximise profit. Discuss.
   [25]
4. (a)What are the conditions necessary for price discrimination?
   [12]
   (b) Assess the benefits of price discrimination to the society.
[13]

DATA RESPONSE QUESTIONS

Kingdom eyeing Zambia market
US $1 million set aside for a new retail bank

Staff Reporter

DIVERSIFIED financial services group, Kingdom Financial Holdings Limited (KFHL), which is still itching for a return to the Zambia market, has set aside US$1 million for a new retail bank in Zambia if granted approval by the monetary authorities.

It has emerged that KFHL, which ditched Investrust of Zambia early this year following a frustrating failure to increase its shareholding from 25 percent to a controlling 51 percent, was now targeting a greenfield investment into Zambia.

Nigel Chanakira, KFHL deputy chairman said the group was waiting for regulatory approval from the Reserve Bank of Zimbabwe (RBZ) to set up a fully-fledged bank in Zambia that would operate as Kingdom Bank of Zambia. The group's forays into the region have so far resulted in KFHL establishing a wholly-owned subsidiary, Kingdom Botswana (Private) Limited, whose main activities include distribution of American Express credit cards in the region outside South Africa. KFHL has been mulling plans to apply for a commercial banking license in Botswana since 2002. Chanakira said Kingdom Zambia, if granted approval, would be offering a full product range of all banking facilities being offered in its Zimbabwean operation. The US$ 1 million was raised when the RBZ granted KFHL approval to commence offshore investment management services with a private bank domiciled in the Channel Islands, but with specific focus on the United Kingdom market.

SOURCE: The Financial Gazette September 30 October 6, 2004

(a) (i) From the extract which other countries apart from Zimbabwe does KFHL want to invest in?
[2]

(ii) With reference to question (a) (i) , what type of company KFHL is going to be? [2]

(b) (i) Suggest reasons why a firm, such as KFHL, sets up subsidiaries in various countries.
[4]

(ii) What are the main advantages of investing in different countries.
[2]

(c) (i) With reference to data given, explain what is meant by:
- Diversification
[2]
- Investment
[2]

(d) Discuss the benefits and costs of diversification in production by a firm.
[6]

‘Supply of soft drinks to improve’

Harare- Delta Corporation, the country’s biggest soft drinks manufacturer, has said supplies on the local market would improve shortly after it resumed full production following technical and logistical bottlenecks.

Supplies of soft drinks have been erratic in recent months, especially in small towns and remote areas of the country. Delta Corporation chief executive, Mr. Joe Mutizwa said this was due to reduced production as a result of refurbishment of one of the manufacturing plants, water shortages experienced in August and unusually high demand in the winter season.

He said the group had resumed full production after completing the plant refurbishment this month, which should see supplies improving on the local market.

“The overhaul has been completed and we are now back in full production. The supply is getting back to normal, however consumers should note that this is a gradual process,” he said.

Mr. Mutizwa said Delta Corporation was also unable to build up stocks in winter for the summer period, as it traditionally, does because demand for soft drinks between June and July was unusually strong this year. “ Demand for soft drinks was very high in June and July hence, depriving us time to build up stocks,” he said.

He attributed the high demand for soft drinks to the economic recovery, saying that people now had additional funds to spend on the soft drinks- **New Ziana**.

(a) Identity reasons for the erratic suppliers of soft drinks from the extract.
[3]

(b) (i) From the extract, identity two factors that influence demand for soft drinks.
[4]

(ii) Explain ways that Delta Corporation can use to meet the increasing demand for soft drinks.
[4]

(c) In which market structure does Delta Corporation belong to? Justify your answer.
[3]

(d) Discuss the benefits of a big firm to consumers.
[6]

CHAPTER 8

THEORY OF PRODUCTION

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:-

1. Describe several objectives of the firms.
2. Explain managerial economies, financial economies, marketing economies, risk bearing economies as well as the diseconomies of scale.
3. Understand the scope of the low of variable proportions and represent it on the output model and diagram.
4. Distinguish between marginal product and average product and show these concepts on diagram.
5. Illustrate the enmity/relationship between marginal costs, average costs, and average total costs.
6. State the features of the long run average costs curve and explain why it is U-shaped.
7. Explain low the average short-run cost curves and used to draw up the long-run average cost curve.

DEFINITION OF A FIRM

A firm is a unit that employs factors of production to produce commodities that it sells to other firms, to households or to the central authorities. Commodities produced can be raw materials, intermediate goods or final commodities.

Most firms have the following objectives:

(i) Seek to maximise profits;
(ii) Pre – empty competition;
(iii) Increase market share;
(iv) Maximising market share; and
(v) To be socially responsible

In economic analysis, however, the firm is assumed to be driven by the profit maximization objective.

Definition of profits

Firms regard profit as the access of total operational revenue over resources used in production as envisaged by accountants. Economists on the other hand refer to profit as the excess of revenue over all opportunity costs involved in production including those of capital.

The decision of the firm

Management ponder on the following questions

(i) Where shall production be located?
(ii) What techniques shall be adopted, and what shall be the size and scope of operation?
(iii) How shall the factors of production be combined?
(iv) What output shall be produced? and
(v) What pricing policies should be employed to maximize profits.

Comparison of the size of firm can be done by looking at the following facets

1. the equity size
2. the number of employees
3. the market share
4. technological level

ECONOMIES OF SCALE

(i) These are the advantages enjoyed by the firm in the form of lower average costs as a result of its internal growth and mass production
(ii) They exist as a result of different benefits a firm can enjoy when it grows bigger compared to smaller firms
(iii) These follow a series of some explanations, technological economies – compared to smaller firms bigger firms employ expensive but highly sophisticated and productive equipment and machinery. Such technology results in lower averages costs of production.
(iv) The reason behind this is that bigger firms normally have adequate financial resources and enough capacity to buy sophisticated, advanced and highly productive machinery.
(v) Technical economies are also a result of the ability by the firm to buy machinery and equipment in the most optimum combination

MANAGERIAL ECONOMIES

(i) They result from the employment of highly qualified and experienced managers.
(ii) Bigger firms have got the financial resources to attract such personnel with high levels of productivity, which significantly reduce average cost of production once employed.
(iii) Bigger firms also have the scope and capacity to fully utilise such workers.

Financial economies

(i) Bigger firms can easily access credit from the financial sector because they are less risky and credit worth.
(ii) This is because they usually have adequate collateral and good history, and higher returns.
(iii) Bigger firms obtain credit facilities at lower interest rates because of their lower risk level.
(iv) Bigger firms also normally have huge profit resources, which they can use to internally and cheaply finance their activities compared to borrowing externally.

Marketing economies

(i) Bigger firms can employ highly qualified and experienced marketers who can buy the right item, the right quality from the right source at minimum possible prices
(ii) Incidents of returns, breakage and rejects are minimized
(iii) Bigger firms normally enjoy big trade discounts because they buy in bulk.
(iv) The transpiration of commodities to and from the market in bulk by bigger firms enable them to minimize unit transportation costs.

Risk bearing economies

(i) Advantage accruing to bigger firms as a result of their ability to diversify their production lines and their markets.
(ii) These are the benefits of not putting all one's eggs in one basket.
(iii) If one market product performs badly the losses incurred will partially be offset by the favourable and improved conditions in the other markets

Diseconomies of Scale

These are faced due to rising costs as a result of firms growing excessively too big. Diseconomies of scale are usually caused by:

1. **Managerial problems**

   When the firm grows excessively too big, it becomes highly complex resulting in managerial inefficiencies and high average productions costs.

2. **Co – ordination problems**

   Large firms normally have many plants, divisions, departments and sections. In this case it becomes difficult to co – ordinate the operations of those so that they are consistent with each other.

3. Bureaucratic inefficiencies

- Big firms tend usually to have high incidences of bureaucratic red tapes.
- It takes time to identify problems, to find solutions for those problems and to implement them.
- The firm, which is excessively too big, therefore becomes highly unresponsive to changes in customer requirements

4. Lower worker morale

Big organisations normally have a huge workforce to the extent that individual workers end up failing to identify themselves with that company.

- This results in low labour productivity, high rate of absenteeism and unnecessary leaves.
- The effect of this is to increase the firm's average cost of production.

5. Higher price for factor inputs

Buying in large quantities by big companies may be a disadvantage because it increase factor inputs against themselves.

THEORY OF PRODUCTION

Production refers to the process of transforming factor inputs such as land, labour, and capital into goods and services

- Production function is the relationship between inputs and output.
- Inputs → Production process → Output
- The production functions of a firm only represent technically efficient methods of transforming inputs into outputs
- Technical efficiency represents the production process, which minimise the quantity of factor inputs for any given output.

Factors of production

These are:

1. Labour – the human physical and mental effort used in the process of production.
2. Capital – all man made equipment and machinery produced not for current consumption but to facilitate production.
3. Land – all the natural resources provided to man by nature that can be used in the process of production.
4. Entrepreneurship – this involves combining all the factors, coordinating them, shouldering risks in the process of production

PRODUCTION IN THE SHORT-RUN

- Short – run refers to the time period, which is short enough for the firm so that at least one of its factors of production is fixed in the period.
- Factors which cannot be varied in the short run, are normally the fixed factors such as land, capital and the state of the economy.
- To change output a firm can only vary the employment of the variable factors such as labour.
- The production function is explained by the law of variable proportions of which diminishing marginal returns are part of the function.

THE LAW OF VARIABLE PROPORTIONS

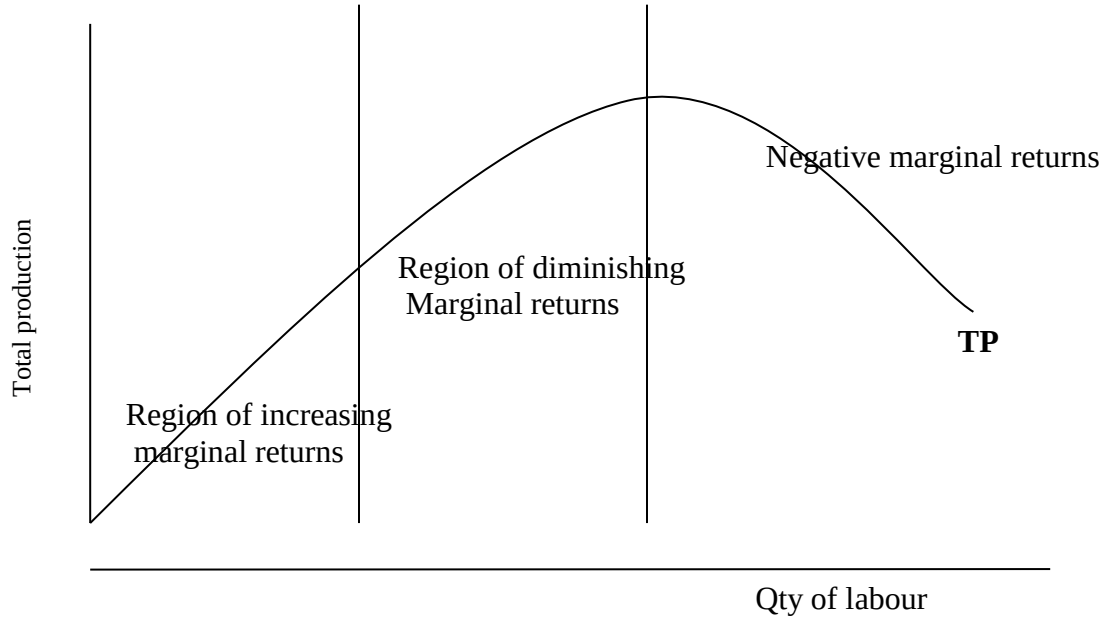
- This law observes that in the short run, as the firm continuously and successfully increases the employment of a variable factor such as labour, while keeping other factors constant, output initially increases at an increasing rate but later at a diminishing rate.
- This is because of the overuse of the fixed factors to levels that overstretch them;
- It is also due to overcrowding and congestion of the variable factor as its level of employment increases; and

The law of variable proportion can be represented by the following output model.

Law of variable proportions

Quantity	Total production	Marginal product	Average product
0	0	-	-
1	5	5	5
2	12	7	6
3	21	9	7
4	32	11	8
5	42	10	8.4
6	50	8	8.3
7	56	6	8
8	60	4	7.5
9	60	0	6.5
10	55	-5	5.5

The Production Function in the Short-Run



Marginal product

This is the extra output resulting from increasing the employment of the factor by one unit i.e. output attributable to the last unit of a factor with all other factors remaining constant. Marginal product is the change in total output resulting from the use of one more (or one less) unit of a factor

$$MP = \frac{\text{Change in total output}}{\text{Change in factor employment}}$$

The level of output where marginal product is maximum is called the point of diminishing marginal returns. From this point any increase in factor employment results in diminishing output at the margin.

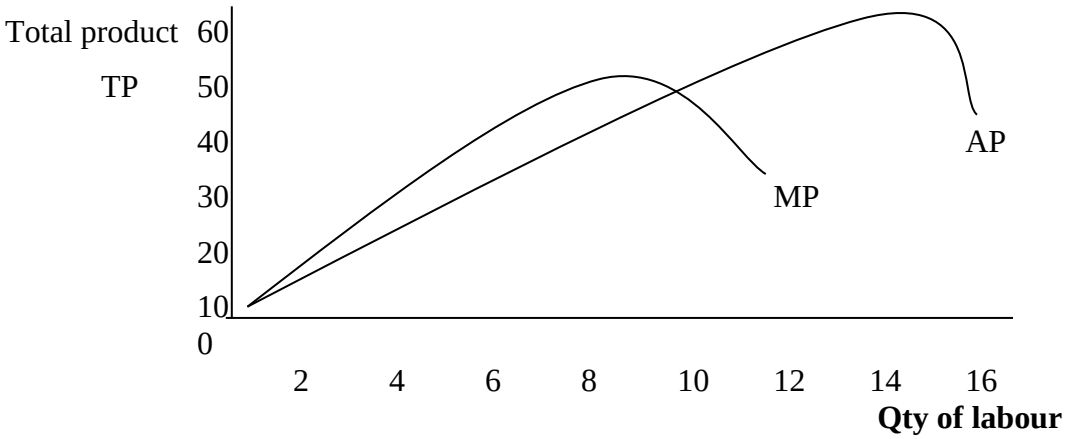
Average product

It is merely the total product per unit of a factor, labour, for example

$$AP = \frac{TP}{L}$$

- As shown in the table, as more of the variable is used, average product first rises and then falls.
- The point where average product reaches a maximum is called the point of diminishing average productivity. Beyond this average productivity falls.

The average and marginal product curves



- The law of diminishing returns states that if increasing quantities of a variable factor are applied to a **given** quantity of a fixed factor, the marginal product, and the average product, if the variable factor will eventually decrease.

The relationship between marginal and average product curves.

- The MP curve cuts the AP curve at the latter's maximum point
- The key is that the average product curve slopes upward as long as the marginal product curve is above it.

Costs of Production

Costs of production are the expenses incurred in the process of production. Economists view costs to include both explicitly paid costs as well as implicit costs in the form of opportunity cost. Costs of production are a mirror reflection of factor productivity and hence the production functions.

Total costs

- Is divided into two parts – namely fixed costs and variable costs.

Fixed costs

- Are those costs that do not vary with output.
- They are also referred to as overhead costs or unavoidable costs.

Variable costs

- Costs which change due to changes in production

- They are usually referred to as direct costs or available costs.

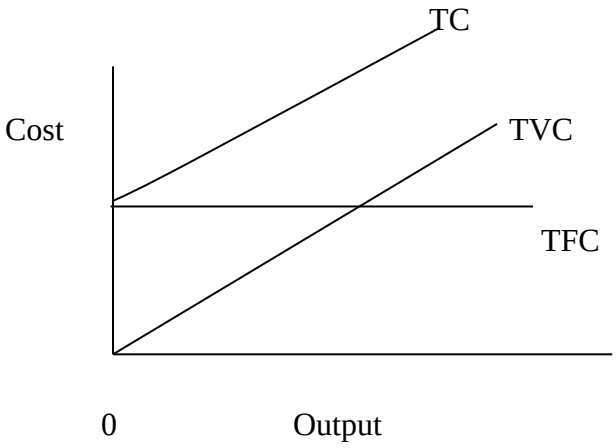
Average total costs

- Is the total cost of producing any given output divided by the number of units produced, or the cost per unit.
- The **average total cost is** divided into **Average fixed costs** and **Average variable costs** in just the same way as total costs were divided.

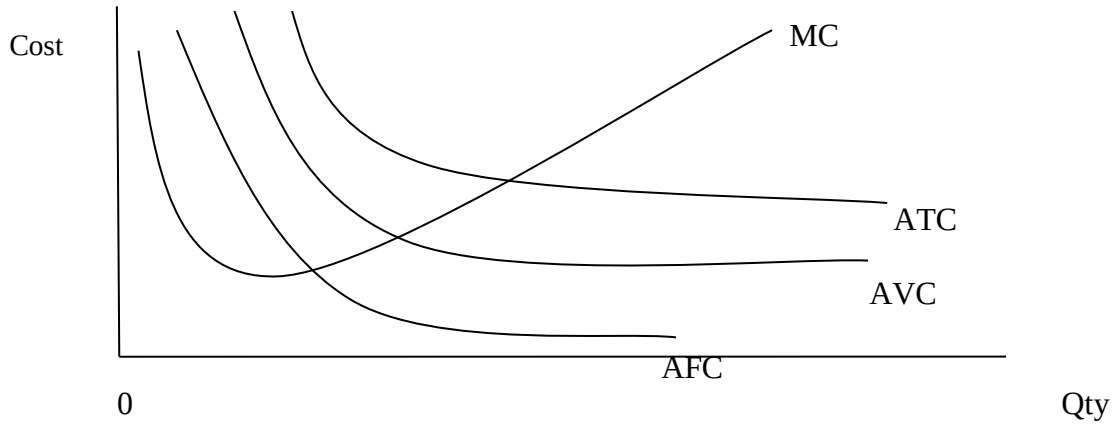
Marginal cost

Is the increase in the total cost resulting from raising production by one unit

Cost Curves



The relationship between MC, AC and ATC



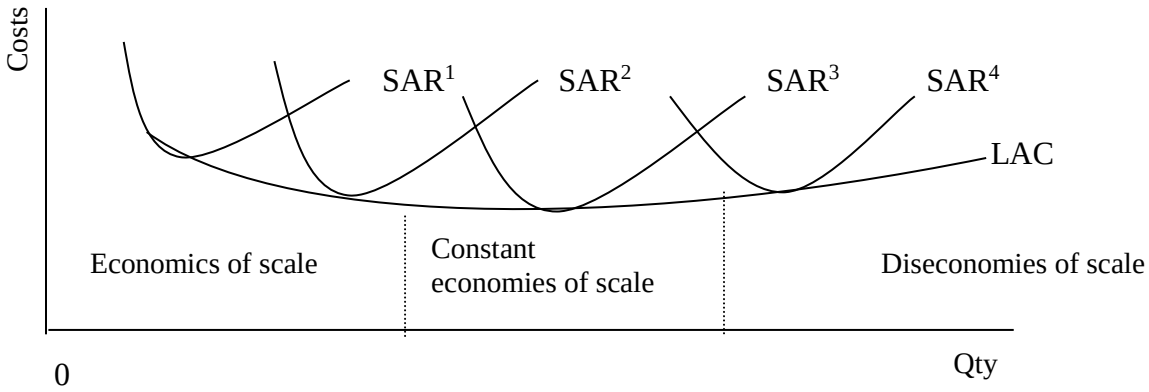
- The relationship between MC, AC and ATC

- Marginal cost curve cuts the curve ATC and AVC curves at the lowest points.
- When ATC increases, MC increases and if AC decreases MC decreases due to constant returns to scale.
- Exists when output changes by the same percentage in factor employment for example doubling factor employment leading to doubling of output.
- Further expansion can not change anything except increasing costs and leading to a company not meeting these costs.

The long run-Average cost curve

- This is the planning curve for the firm, which gives the minimum possible average cost of producing any given level of output.
- It is made up of an infinity series of a firm's short-run average cost curves associated with different plant size
- It is U – shaped but wider than the average short-run cost curves (SRAC)

Long – run average cost curve



The LRAC is tangential to a series of short – run average cost curves. In the long run, all inputs are variable and at first, economies of scale are enjoyed. Beyond the optimum point diseconomies of scale are incurred.

WIDE SHAPE

The wider shape of the Long Run Average Cost Curve reflects the following:
- More options in the long-run
- Envelopes short – run average total cost curves.
- Flexibility in the long run
- The falling part of the LAC is due to the economies of the scale enjoyed by the firm as it moves from smaller plants to bigger plants.
- In this region the firm is also experiencing increasing returns to scale.
- Eventually as the firm continues to grow for example the size of the plants average cost will start to increase

Production in the long – run

The long run is that time period which is long enough for a firm so that it can vary all its factors of production. There are, therefore, no fixed factors in the long – run. All factors are variable

- In the long – run there the law of diminishing marginal returns does not exist.
- The behaviour of production is explained by **returns to scale**

Returns to scale

- A change in the scale of production refers to a situation whereby the firm increases or reduces the employment of its factors of production by the same proportion or percentage.
- When the firm does that, its production can either change by a greater percentage, or by smaller percentage or by exactly the same percentage.

Increasing returns to scale

- This is obtained when output responses by more than proportionately to changes in the scale of factor employment for example output increasing by 40% following a 28% increase in the level of factor employment.
- This is caused by economies of scale

Decreasing returns to scale

- Refers to a situation where outputs changes by a smaller percentage compared to the percentage change in the factor employment.
- Increasing returns to scale normally results from diseconomies of scale

Constant returns to scale

- Refers to a situation where outputs changes by the same percentage as the percentage change in the factor employment.

Nationalization

The government can be involved in the provision of goods and services through various parastatals for many reasons. Some of the argument advanced in favour of state enterprise include the following: -

Strategic Reason

Some industries such as gas production, petroleum and even grain among others are so strategic that they cannot be left to the whims of private enterprise. In order to control the production and consumption of these products the state may find it prudent to produce them.

To Create Employment

Government can set shops in order to achieve one of its fundamental objectives – achieving full employment. With no doubt, the government is the major employer in most economies and will continue to hire people even when economic rational require that it lays off workers.

Economies of Scale

Some industries require huge sums of start up capital and because of their size, only one firm could exploit economies of scale in the industry. This is especially true with electricity distribution. It would not be wise to set two or more electricity distribution companies. Moreover, the costs of setting up may be beyond private investors and only the government with it strong financial muscles may be able to set up.

Non-Marketable Goods

Some goods, especially public goods may not be produced by private firms because the price mechanism fails to produce them and the government has to intervene in order to produce them.

To Avoid Duplication

Some goods may need to be produced by a monopoly in order to avoid duplication and hence wastefulness of scarce resources. Thus goods such as roads sewerage, street lighting, electricity distribution among many are best (economically) produced by a single producer than by many.

Social Welfare Maximization

To protect consumers, the government may set shop in order to counter exploitation of consumers by private firms. Consumers may be exploited by private producers by way of high prices and the government can produce and sell the product at a relatively cheaper price.

Disadvantages

Whereas the above arguments have been put forward to justify state enterprise (intervention) opponents of nationalisation argue that state enterprise is without its disadvantages. These disadvantages include among many the following: -

Inefficiency

State monopoly is not efficient in production and instead of protecting consumers from exploitation by private firms it can itself result in consumer exploitation in two respects. It produces a poor quality product and sells it at a higher price and at the same time consumers in most cases do not have any alternatives.

It is a drain on national fiscus

The grants or subsidies that the government advances to public corporation are a drain on the fiscus. This is because they form part of recurrent expenditure and as a result through the PSBR may contribute to increased national debt.

Corruption

State enterprise may lead to high levels of corruption as service providers to state companies may have to bribe officials in order to win lucrative contracts.

Privatisation

Privatisation involves the selling of state companies to the private sector. Reasons for privatising state companies are premised on the following reasons.

Increase Efficiency

Privatisation is viewed as a way that can be used to increase efficient utilisation of scarce resources. Privatisation, it is argued leads to increased competition which forces firms to conduct research and development on a sustained basis in order to remain competitive. This competition should thus lead to the best methods of production.

Empowerment

Privatisation can also be implemented in order to empower the previously marginalised citizen. It allows for marginalised groups to partake in economic activity by way of buying shares in public corporations hence the wealth of the state being enhanced.

Raising Revenue

The government can raise revenue to pay for its debt through proceeds from privatised companies. In addition, privatization releases grants or subsidies that could have been given to state companies to other alternative uses.

Economic Growth

It has been argued that private enterprise is the engine for economic growth. Thus in order to realise this growth, there should be limited government role in order to enable private players to contribute to national output. One of the major contributors of economic growth is high levels of investment which can only materialise if the private sector takes a predominate role in production.

Disadvantages or private enterprise would include the following among many

Consumer Exploitation

Consumers can be exploited by private firms through the charging of higher prices especially if they become monopolies.

Non-Marketable Goods

Some goods cannot be left to private sector production because the price mechanism is non-functional. This is especially the case with public goods.

Empowerment

Whilst the objective of privatization might be to empower citizens economically by participating in the economy as shareholders of companies, economic empowerment may fail if only the rich have access to these state enterprises. The gap between the poor and the rich may as a result widen.

Economies of Scale

The cost of running some business may be so high that companies may end up looking to the government for working capital. This will likely result in the companies coming state enterprises again.

NB: The disadvantages and advantages treated this far are not exhaustive and the reader is encouraged to add to the list. Moreover, the reader must take note of the fact that privatization and nationalisation are synonymous with free market entries and command economies respectively.

Commercialization

This involves the charging by state enterprises of market based prices.

Survival of Small Firms

Small firms may survive in an environment where there are big firms for several reasons. The reasons include the following: -

Niche Marketing

Small firms can survive if they look at a niche of the market where they can provide for the special needs of the sector without being in direct competition with big firms.

Linkages

Some big firms may find it uneconomical to produce or provide a particular service and instead allocate the production to small firms, which may have economies of scale in production.

Subcontracting

Some big firms can subcontract non-core activities to small firms enabling them to focus attention on the core business. This subcontracting will enable small firms to survive.

Scale
Some scale of production may not necessitate the presence of large firms in the sector because they may fail to realise economies of scale. This is especially true with services such as shoe repair, barber and tyre mending to mention but a few.

Location
Some location may not accommodate a big firm because the market is so small that it can be adequately serviced by a small firm. This is especially true in the case of tuckshops and supermarkets for example. It might be economical to serve a particular market by setting a tuckshop than a supermarket.

Takeovers and Mergers
Takeover involves a hostile bid by a large company to take control of a small company. There is no agreement between the two companies to incorporate their business but instead a financially strong company takes over a small weak company, though with potential for growth.

Mergers on the other hand, occur between two or more companies who agree mutually to combine their assets in order to consolidate their market position or market share. The companies are of the view that they are stronger operating as one entity than as separate entities.

VERTICAL AND HORIZONTAL INTEGRATION

Vertical Integration
This occurs when two firms at different levels of production merge their operations to become one entity. Vertical integration may involve backward or forward integration depending on the underlying motives. If a firm wants to be close to its market it may go for forward integration. On the other hand, if it wishes to control the source of its raw materials it may go for backward integration.

Backward integration may for example involve, National Foods taking over or buying a commercial farm which is the source of its raw materials in order to ensure constant supply of the crucial raw materials. Forward integration on the other hand, may involve, National Food taking over, for example, Farm and City outlets to ensure that its products are pushed through the market.

Horizontal Integration

Horizontal integration occurs when a firm takes over the operations of its rivals in order to eliminate competition. For example, OK Supermarket may find it prudent to merge its operations with TM Supermarket. This action will enable OK Supermarket to consolidate its market position or share.

EXAMINATION TYPE QUESTIONS

1. Which period is the shortest in economic theory?
   - A Short run period
   - B Momentary period
   - C Long run period
   - D Very long run period
2. What name is given to a place where production actually take place in a production unit?
   - A Firm
   - B Plant
   - C Industry
   - D Enterprise
3. The firm's cost function is given by TC = $(20+10x) where TC is the total cost and x is the level of output. Calculate the unit cost of producing the output if x =10units.
   - A $10
   - B $12
   - C $20
   - D $120
4. The firm's short-run supply curve is:
   - A The marginal cost curve below the average variable cost curve.
   - B The marginal cost curve above the average variable cost curve.
   - C The marginal cost curve below the average total cost curve.
   - D The marginal cost curve above the average total cost curve.
5. Which one is an example of an external economy of scale?
   - A Managerial economies of scale
   - B Risk-bearing economies of scale
   - C Information economies of scale
   - D Technical economies of scale.
6. Two small firms x and y, producing the same type of product, A, merged. What name is given to this type of integration?
   - A Vertical integration
   - B Horizontal integration
   - C Lateral integration
   - D Forward integration

7. The table below shows a firm's total and marginal costs.

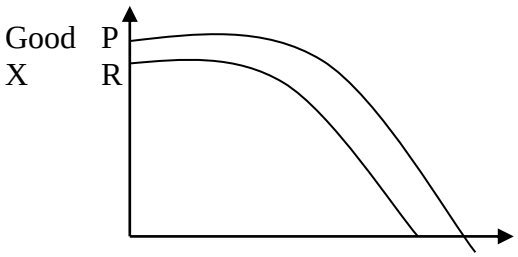
UNITS OF OUTPUT	**TOTAL($)**	**MARGINAL COST ($)**
1	60	53
2	100	40
3	120	20
4	160	40
5	213	53
6	273	60

Calculate the average fixed cost of producing 7 units of output.

The AFC is

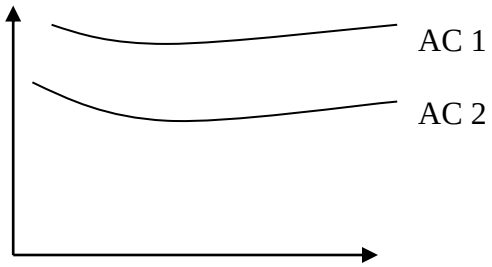
A $1
B $19
C $20
D $60

8. What may have caused movement of the production possibility curve from PQ TO RS?



A Economic decline
B Technical in efficiency
C Increased human capital in the economy
D Utilization of unemployed resources

9. **<u>The diagram below shows economic efficiency</u>**



What type of economic efficiency is shown by the movement of cost curve, AC 1 to AC 2?

A Productive efficiency
B Technical efficiency
C X-efficiency
D Allocative efficiency

8. What is marginal cost pricing?

A Setting the price of a good so that it will be equal to the marginal cost of producing hat good.
B Equating the price of a good to the average cost of producing it.

C Setting the price of a good where it is greater than the marginal cost of producing it.

D Setting the price of a good at a point where marginal cost is equal

Essays

1. (a) Explain what is meant by the short-run and long-run periods.
   [10]
   (b) Discuss why it is impossible for a firm to continuously enjoy economies of scale in the
   long-run.
   [15]
2. (a) Explain the main ways of measuring the size of a firm.
   [10]
   (b) Discuss the benefits of large supermarkets over small supermarkets.
[15]

DATA RESPONSE QUESTIONS

1. **Alarm As Dunlop Halts Operations**

FELIX NJINI
Chief Reporter

CAPACITY utilisation in industry has slumped to new lows with production processes coughing to a halt in major manufacturing companies.

Industry experts, who ruled out prospects for an economic recovery in the short to medium-term, this week said industry was now skating on thin ice with capacity utilisation having sunk to around 20 percent.

Industry's woes came to the fore last week when Dunlop Tyres stopped operations, citing the shortage of foreign currency needed to procure spares and inputs.

Dunlop requires US$50 000 to manufacture tyres on a daily basis. At least 820 workers were sent home at the country's sole tyre manufacturer and exporter, leaving the country at the mercy of imports, which might cost US$100 000 daily. Dunlop's closure could also result in more than 30 000 workers losing their jobs in down-streams industries. A number of companies have also been thrown out of business as the harsh macro-economic conditions take their toll on the vulnerable industry.

Apart from foreign currency shortages, most companies' profit margins are being squeezed by ever-rising production costs, driven by expensive foreign currency and exorbitant power tariffs.

SOURCE: THE FINANCIAL GAZETTE, OCTOBER 13-19, 2005

(a) (i) From the extract, identify the main reason for the closure of Dunlop. **[2]**

(ii) Identify the market structure, described in the extract to which Dunlop belongs. **[2]**

(b) (i) According to the extract what are the major problems faced by firms in production. **[3]**

(ii) Suggest possible solutions to problems identified in b(i) . **[6]**

(c) Suggest the likely elasticity of demand for spare-parts imports to Dunlop. Support your answer. **[2]**

(d) Examine the effects of the closure of a big firm in an economy**.** **[3]**

(e) Discuss why a firm cannot enjoy economies of scale indefinitely. **[2]**

CHAPTER 9

THEORY OF □LABOUR□

Chapter objectives

After reading and understanding the contents of this chapter, you should be able to:-

1. Define the principle of "marginal revenue product."
2. Explain the factors which determine the supply and demand for labour.
3. Describe the role of Trade Unions, its merits and demerits to both members and organizations.
4. Name the major assumptions of a perfectly competitive labour market.
5. Illustrate the Intervention of a Trade Union in a competitive labour market and monopoly labour market.
6. Distinguish between Transfer Earnings and Economic Rent and illustrate these on a diagram.
7. Describe the factors which account for the differences in wages.

The structure of labour markets

We outline the orthodox theory of wage determination. Wages are the price of labour and, like prices in other markets, they are said to be determined by the interaction of the demand for and supply of labour.

The demand for labour

Factor services are not demanded for their own sake, but because they are useful in the production of output. The demand for inputs is derived from the demand for output, and for this reason is called derived demand.

The marginal revenue product

The addition to the total product, from employment of an additional unit of labour is called the marginal product of labour. In order to arrive at the marginal revenue product, we multiply the marginal physical product (MPP) by the marginal revenue (MR), where the marginal revenue is the value of output of each successive unit of labour services.

N.B. In order to decide how much labour to employ, how much output to produce, the firm must compare the marginal revenue product (which is the firm's demand curve) with the marginal cost of employing an additional unit of labour.

Wage determination

The supply of labour

The supply of labour varies directly with the wage rate. At a higher wage rate more workers are available for employment and vice versa.

N.B. The supply of labour will be more elastic in the long run than in the short-run. In the case of unskilled labour, supply will tend to be relatively elastic in both the short and long-run, since little if any training is required.

Determination of Wages

Labour is the number of people willing and able to work

The Demand factors for labour include the following

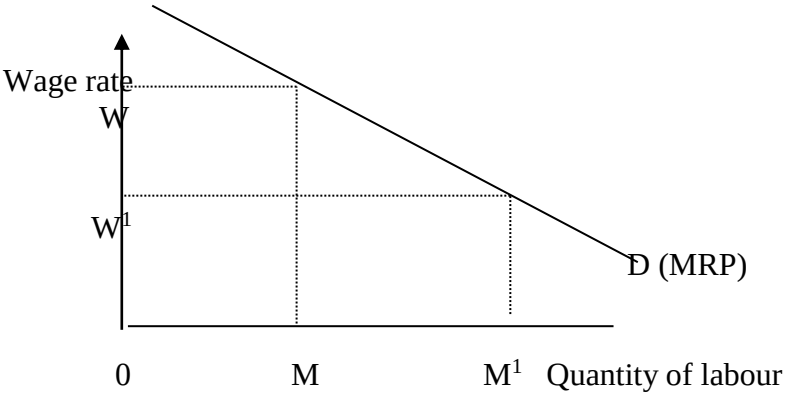
- The demand for labour is derived demand in that it depends on the demand for the commodity it produces.
- All factor inputs earn rewards that are explained in the theory of production.

Important Concepts

MARGINAL REVENUE PRODUCT

- This is revenue or amount added to the firm's revenue by an extra worker.
- It is obtained as marginal physical product multiplied by the product marginal revenue.

The demand curve for labour



Firms that seek to maximize profits hire or employ labour up to a point where the marginal revenue product of labour equals the wage rate paid.

- The demand curve is the slope of the MRP
- When the demand curve is slopping downwards MP of labour will be equal to MPP x MR

DETERMINANTS OF DEMAND FOR LABOUR

1. Elasticity of the product produced

- Elasticity has significant impact on increase or decreases in employing variable factors.
- If the product has an elastic demand more workers will be demanded and if inelastic the opposite happens.

2. The power of the Trade Unions that represent the type of labour employed.
3. The nature of government involvement this goes hand in glove with the type of market for example perfect, monopolistic and monopoly.
4. Derived demand – labour is demanded due to the type of product labour produces.

DETERMINANTS OF THE SUPPLY OF LABOUR

1. Population characteristics

The population size, age composition of the population, emigration, immigration, birth and death rates.

2. Sacrificing argument

People tend to substitute leisure for money as income increases.

3. Legislation concerning working hours

If the number of working hours is reduced then the supply of labour is reduced.

4. Government Policy

Government policy on labour force with regard to age and sex, for example.

5. The role of Trade Unions

a) **Wage bargaining**

- If labour is producing products, which have an inelastic demand, then Trade Unions have more power to negotiate for wage increases.

b) **Protect its members**

- They provide security to workers so that they cannot be dismissed by employers with no apparent reasons.

c) Raising employment levels.

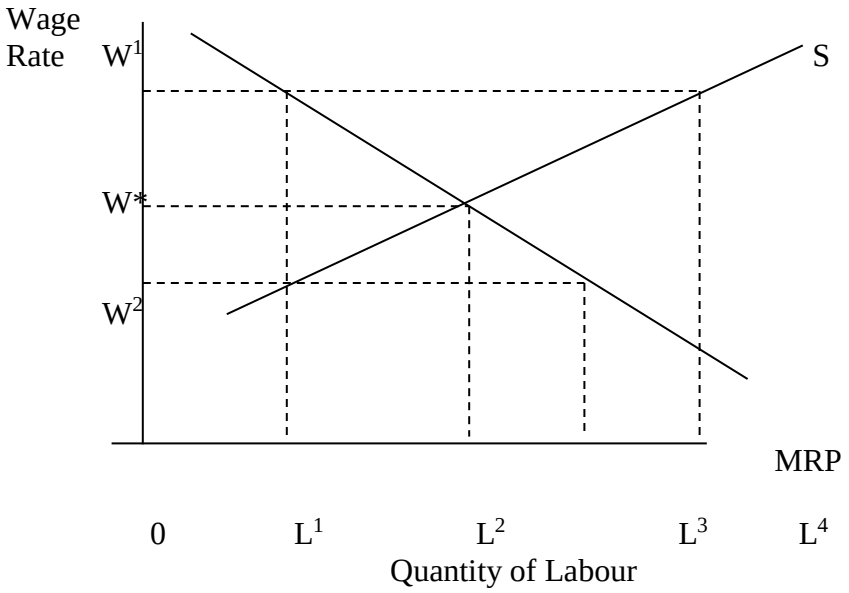
A Perfectly Competitive Labour Market

A perfectly labour market refers to a market for labour where the wage rate is determined by the market forces of demand and supply. In order to analysis a competitive labour market, we need to make the following assumptions.

(i) There are many buyers and sellers of labour.
(ii) The labour being supplied is homogenous, that is, workers are perfect substitute for each other,.
(iii) There are no barriers to entry and exit.
(iv) There is perfect information
(v) Firms are profit maximises and will employ labour up to a position where the marginal revenue product equal the marginal input cost, that is the supply (MRP = MIC).

A firm in a competitive labour market will seek to maximise its profits by employing labour until the marginal revenue equal the supply for labour. This is the market or equilibrium wage and quantity of labour both demanded and supplied. Any position which does not satisfy this condition results in a disequilibrium in the labour market can best be described diagrammatically as follows.

Wage determination in a competitive labour market.



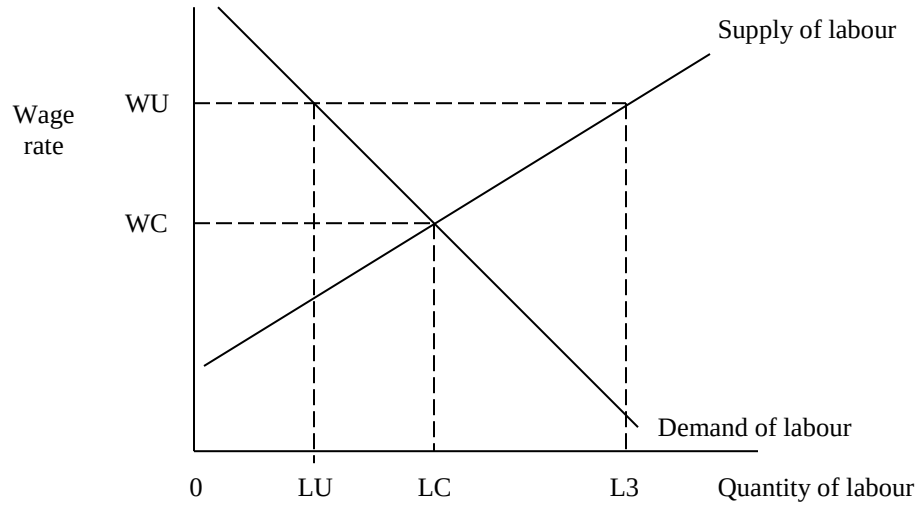
From the above illustration, the market wage ratio is WA and the number of workers employed is L*. If the wage ratio is set at W^1 more labour would be supplied L^3 but only L^1 will be demanded. At this wage rate there is a surplus labour on the market. Employees will thus compete amongst themselves by offering to work at any wage rate below W^1 until

W* is achieved. On the other hand, if the wage rate is W^2 more labour would be demanded and less will be supplied. As a result employers are forced to compete for the scarce labour by offing any wage rate above W^2 until W* is achieved. Thus only W* is the only market wage rate. At this wage rate there is no incentive to both suppliers and demanders of labour to move from this position.

Competitive labour markets with a trade Union.

Trade unions can intervene in the labour markets by setting minimum wages in order to raise the welfare of their members. This is especially true when the market wage race is viewed as unfairly reflecting labour effort. A minimum wage is any wage that a union may set which is beyond the market wage as determined by the market forces of demand and supply. The effect of a minimum wage is to raise the wage rate but this is done by sacrificing some employment. Thus minimum wage s are likely to result in opportunity cost. Some level of unemployment has to be accepted in return for a rise in the wage rate. We can depict this diagrammatically as below.

Trade Union intervention in Competitive labour market.



The wage rate as dictated by the market forces is Wc and its corresponding level of employment is Lc. However, when a union decide to raise the wage rate to Wu (minimum wage) the supply curve become Wu ES and quantity of labour employed becomes Lu where demand (D) interacts with supply (Wu ES). This imposition of a minimum wage results in reduced employment (Lc – Lu). The union in this case has managed to raise the wage rate at a cost, unemployment represented by the difference between the employment at competitive wage rate Lc and employment at the union wage rate Lu.

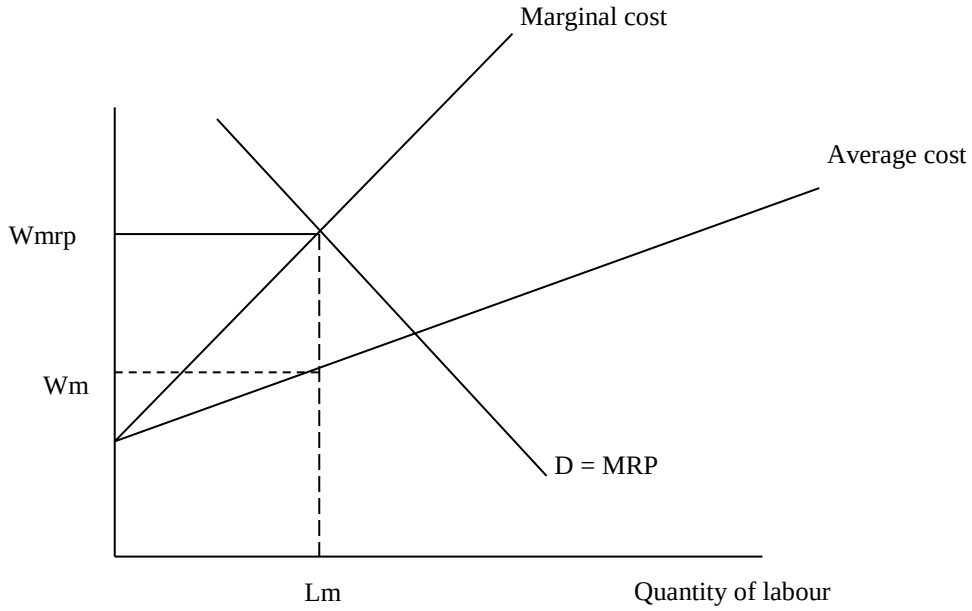
Monopsony labour market

In a Monopsony labour market there is only one demander for labour but that labour is supplied competitively. Since there is only one demander for labour, a monopsonist is able to set the wage rate at which it can hire different units of labour. This results in a downward

sloping demand curve (marginal revenue product). On the other hand since labour is being supplied competitively it follows that the supply and marginal input cost are different. The supply curve of a monopsonist is below the marginal cost curve.

A profit maximising monopsonist will hire labour such that the marginal cost and not the supply equal the marginal revenue product. We can illustrate this diagrammatically as below.

Wage determination under Monopsony

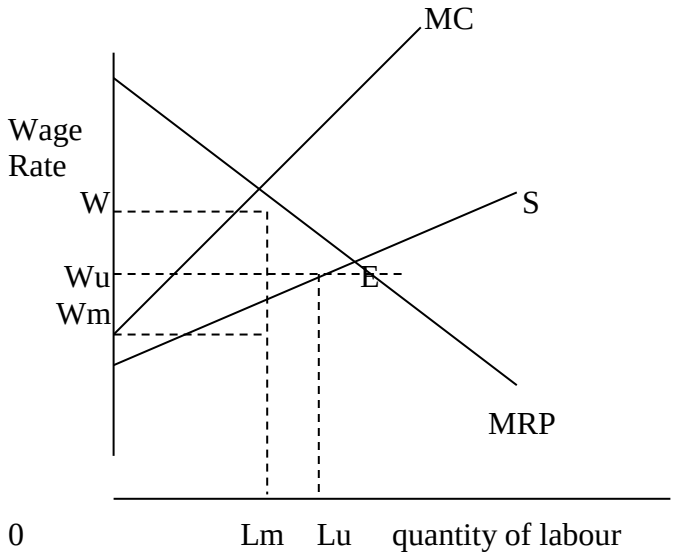


A profit maximising monopsonist will equate its marginal revenue to its marginal cost resulting in the wage W and labour employed of Lm. However, given the fact that the same labour is being supplied at a wage rate of Wm. There is no incentive or motivation for the monopsonist to hire labour at W when it can obtain the same amount at a lower wage rate (cost), Wm. By raising the way rate to W a monopsonist would be raising its cost unnecessarily. Under a competitive labour market, however equilibrium wages rate would result where demand interact supply i.e. he and we of labour would be employed. It is thus, argued that less employment is achieved in a monopsonist labour market than under competitive labour markets.

Intervention by trade unions

Trade unions may be motivated to raise the wage rate of its member's in order to raise their standard of living. If it is possible for labour to firm a union such that labour is now supplied monopolistically, it is possible to raise both the level of employment and wage rate in a Monopsony labour market simultaneously. However, this can only be achieved with a certain range as depicted in the diagram below.

Trade Union Intervention in the Monopsony labour market



The trade union intervention in the labour market can result in employment level of Lu and wage rate of Wu. In this instance trade union has managed to raise both the wage rate as well as the employment level for its members. The horizontal section WuE now represents the marginal cost of the monopsonist and hence the wage rate is determined where WuE interacts with the marginal revenue product. Trade Union intervention is only possible to yield desirable results between wages of Wm and W beyond which any action will leave members worse off. A wage below Wm reduces both labour being supplied and the purchasing power. A wage rate above W will result in unemployment of members of the union.

Factors affecting the unions ability to raise wages include:

Elasticity of demand for labour
Raising productivity
Persuading employers to cut profit margins
Controlling supply, restricting new entrants, e.t.c.
Controlling supply, refusing to supply labour below the desired wage.

THE ELASTICITY OF DEMAND FOR LABOUR.

The elasticity of demand for labour measures the sensibility of changes in the quantity of labour demanded to changes in the wage rate. It is defined as: -

$$\text{The EDL} = \frac{\%\text{ change in quantity of labour demanded}}{\%\text{ change in the wage rate}}$$

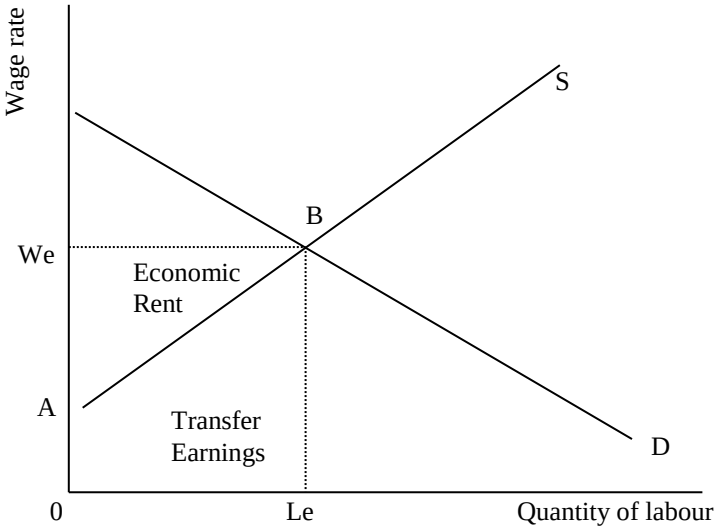
The elasticity of labour demand is greater: -

(i) The more price elastic is the demand for the good produced
(ii) The greater the elasticity of substitution between factors of production
(iii) The greater the elasticity the elasticity of the supply
(iv) The greater the share of labour in the total cost

TRANSFER EARNINGS AND ECONOMIC RENT.

Transfer earnings are the payments necessary to keep a factor of production in its present use, equal to the earnings available in the best alternative use. Any payment above the transfer earnings is called economic rent. For example, if to retain him in his present use a firm has to pay an accountant $150 per month, and instead of paying him or her $150 it opts for $175,transfer earnings would equal $150 and remainder of $25 would be classified as economic rent. We can also use a diagram to illustrate these two concepts.

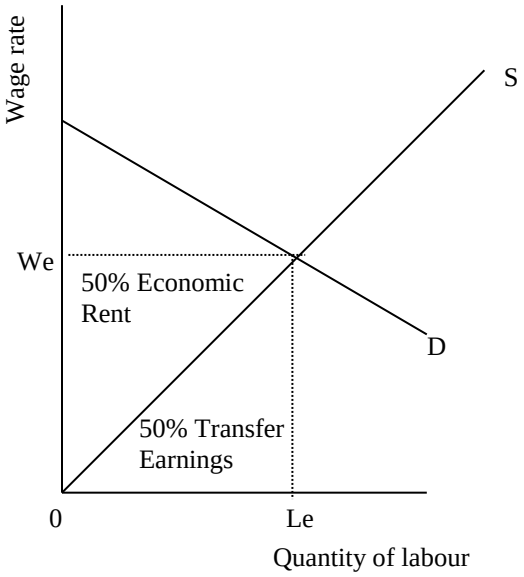
Transfer Earnings and Economic Rent



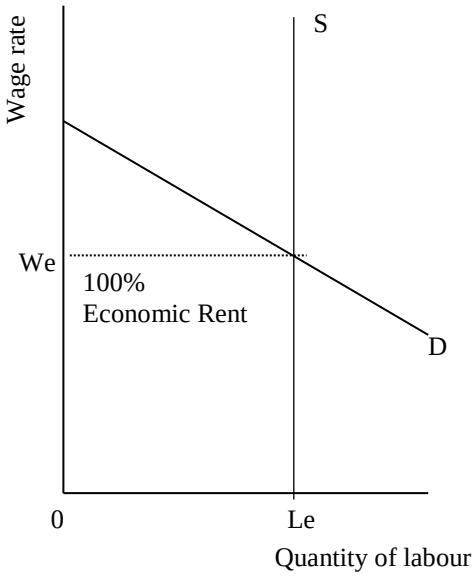
From the diagram above, the market price or wage rate is determined where the supply curve and demand curve interact WE and the corresponding quantity of labour is LE. The triangle AWED above represents economic rent whereas OABLE represents transfer earnings.

NB: The proportion of economic rent against transfer earnings is dependent on the elasticity of supply of labour. The different scenarios are presented below.

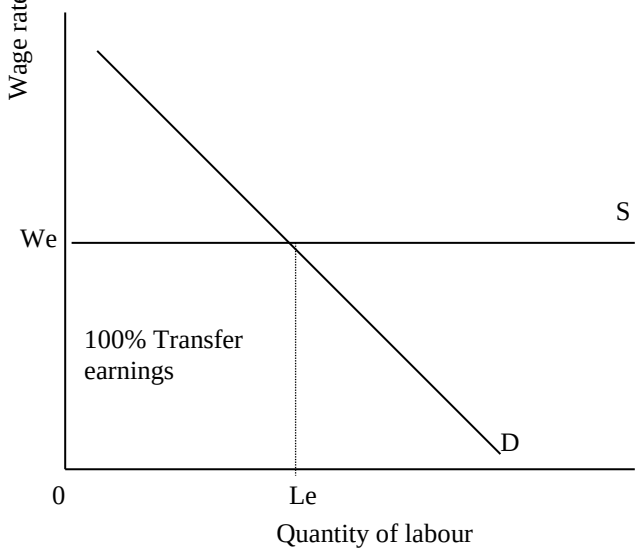
(a) Unitary elasticity of supply



(b) Perfectly inelastic supply



(c) Perfectly elastic supply



WAGE DIFFERENTIALS

Type of job

Different types of jobs command different wages. Some jobs can be done by anyone whilst others call for a special skill. The former commands less than the later in terms of wages. Thus when supply of labour of a particular job is in abundance, its accompanying wage is less than when supply for labour is scarce. Thus, from the arguments presented above, doctors are likely to earn higher wages because they are relatively scarce compared to for example, street cleaners.

Nature of the Market

Labour markets where there are strong trade unions are likely to command higher wages compared to markets where wages compared to markets where wages are determined

competitively. Barriers to entry by certain professions, accountancy, and lawyers for example can create scarcity for a particular type of labour culminating in higher wages compared to markets where there are no regulations or restrictions.

Training and Education

Different levels of training and education command different wage levels. A university graduate for example, is likely to earn more than an ordinary level certificate holder. This is because a graduated invested more in human capital than an 'O' Level Certificate holder. Thus is encouraged people to invest more in human capital there should be incentives in place. The knowledge that once one has invested more in education will be paid a higher wage than the one who has not invested more in education will spur more investments in education.

Skills and Experience

A highly skilled job is associated with higher wages compared to a lowly skilled job for example, an engineer earns more than a shop assistant because the former demands high levels of proficiency than the later. Experience and responsibilities one has can also result in wage differentials within and between jobs. For instance a Senior Accountant is likely to earn less than the director of finance by virtue of seniority or responsibilities within the department.

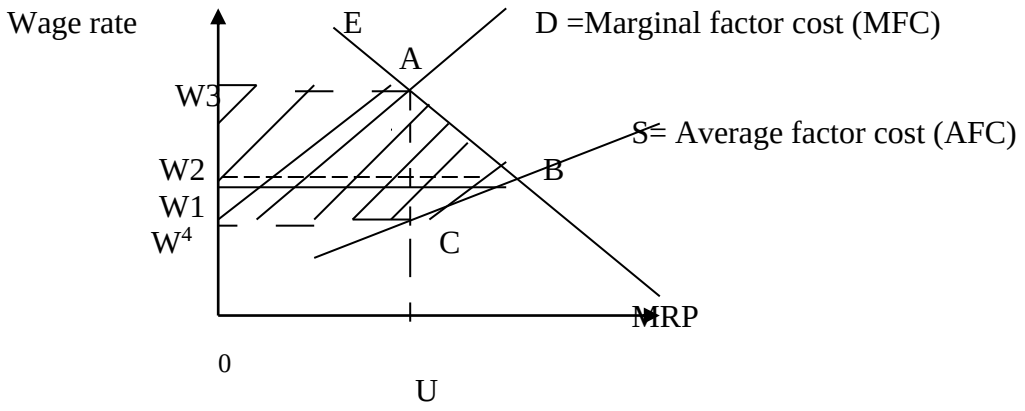
Sex and Race

Traditionally female workers were treated as inferior to their male counterparts and used to earn less than the later even when doing the same job. Moreover, the race card was also a tool that could be used to discriminate against workers resulting in higher pay for a certain group, in the majority of cases white employees compared to their black counterparts. Sex and race discrimination could be traced back to the type of education one could access and hence the job one could qualify for. However, sex and race discrimination is falling away due to government labour laws that prohibit discrimination of any native.

EXAMINATION TYPE QUESTIONS

MULTIPLE CHOICE

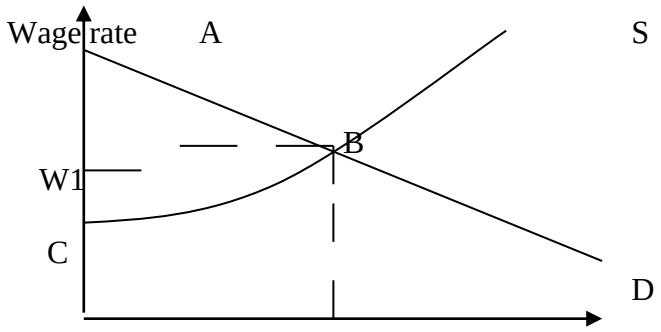
1. Human capital can be enhanced by the following except.
   - A training
   - B education
   - C higher wages
   - D experience
2. The diagram below shows the effect of a trade union in a monopoly labour market. The initial wage before the introduction of a trade union is W1. The trade union pushes the wage rate to W2.



What will be the resultant supply curve after the introduction of a trade union in this labour market?

A CBS
B W2BS
C WICBS
D W3AD

3. The diagram shows the interaction of demand and supply curves in a labour market.



Which areas represents the economic rent and transfer earnings in this labour market?

ECONOMIC RENT	**TRANSFER EARNINGS**
A W1 BC	O C B L1
B A B W 1	W 1 B C
C ABC	O C B L1
D O C B L 1	A B W 1

4. What is the magnitude of economic rent and transfer earnings in a labour market where supply is perfectly elastic?

ECONOMIC RENT	**TRANSFER EARNINGS**
A 50%	50%
B 0%	100%
C 100%	0%
D uncertain	uncertain

5. **Quasi-rent can be defined as**:
   A earnings which are necessary to retain a factor of production in its present use.
   B earnings which are over and above that which is necessary to keep a factor of production in its present use.
   C Part of the factor's earnings, which is economic rent in the short- run, but transfer earring's in the long-run.
   D The worker's supply price.
6. Net advantage of the worker is calculated as:
   A Marginal utility of the wage plus marginal utility of work.
   B Marginal private cost plus marginal external cost.
   C Job satisfaction plus job dissatisfaction.
   D Marginal private benefits plus margin external benefit.
7. The backward bending part of the supply curve of labour is caused by:
   A An income effect which exceeds the substitution effect.
   B The substitution effect which exceeds the income effect.
   C Workers responding to the rise in the wage rate by substituting more labour time in place of leisure time.
   D A rise in income tax.

ESSAYS

1. (a) Explain the factors that influence the supply of labour. [10]
   (b) Discuss the effects of a trade union in a perfectly competitive labour market and a monopsonishic labour market [15]
2. Assess the extent to which the MRP theory explains wage determination in an economy. [25]

4

DATA RESPONSE
AFRICA DELIBERATES ON IMPACT OF BRAIN DRAIN, VISA APPLICATIONS

HARARE – In Africa, many people have skipped national boundaries in attempts to find better lives elsewhere.

Others have been forced to do so by civil wars, famines, disease outbreak, natural disasters and most notably, economic hardships. This movement of people has had its toll on the continent. According to UN estimates, about 20 000 African professionals leave the

continent every year to developed nations where that are offered better salaries and improved working conditions.

Last week, a seminar jointly convened by the International Organisation for Migration (IOM) and the African Capacity Building Foundation (ACBF) and attended by 26 African states deliberated on various issues like visa applications and brain drain, which refers to a country's loss of skilled and innovative people to nations.
Migration, he said, posed great challenges in both labour markets and social arrangements, prompting the need to increase dialogue and practical co-operation among governments on migration issues. Delegates made several recommendations to improve the management of migration on the continent and outflows of people across the borders.

Participants recommended the establishment of banks that people in the Diaspora would easily use in conveying remittance back to their countries of origin. The agreed on labour exchanges between countries with surpluses and those that have little skilled human resources.

(a) (i) Identify the main reason why African professionals migrate to developed nations.
[2]

(ii) According to the extract, explain the impact of this move on developing economies.
[2]

(b) Explain various ways, which the government of developing countries can use to reduce the negative effects of migration to developed economies by their professionals [4]

(c) According to the extract, how can the developing economies turn brain drain into gain? [6]

(d) Discuss the effects of globalisation on labour markets in developing countries.
[6]

CHAPTER 10

FISCAL POLICY AND PUBLIC FINANCE

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:-

1. Give the objectives of fiscal policy and its tools.
2. Understand the difference between a discretionary fiscal policy and built in stabilizers as well as expansionary fiscal policy and contractionary fiscal policy.
3. Outline the reasons for government spending.
4. State the main sources of governance financing.
5. List the characteristics of good tax.
6. Describe the form of tax system and illustrate them on a diagram.
7. Describe the features, examples advantages and disadvantages of direct taxes and indirect taxes.
8. Set out the effect of domestic borrowing on the economy
9. Understand the incidence of taxation and illustrate it on the diagram.

FISCAL POLICY

It is a demand management policy involving manipulating levels and composition of government expenditure, taxes and subsidies.

Objectives of fiscal policy

- To increase output and economic growth;
- To reduce and stabilize prices;
- To stabilise the exchange rate;
- To improve investment; and
- To improve employment

TYPES OF FISCAL POLICY

Fiscal Policy occurs in two forms – namely:

1. Discretionary fiscal policy
2. Built – in – stabiliser

Discretionary fiscal policy

Discretionary fiscal policy or fine - turning involves:

- It is a policy which is directed at influencing the level of economic activity rather than at balancing the government budget;

- It involves the acceptance by government that it must abandon the principle of always seeking to balance its budget but to be prepared to budget for either a deficit or a surplus to influence the level of aggregate demand.

BUILT – IN – STABILISERS

This is an automatic or induced fine-tuning of the economy

- Is anything that reduces the country's cyclical fluctuations and is activated without a conscious government decision.
- Direct taxes reduce demand and reduces the multiplier and the national income
- Transfer payments and subsidies counter cyclical fluctuations.

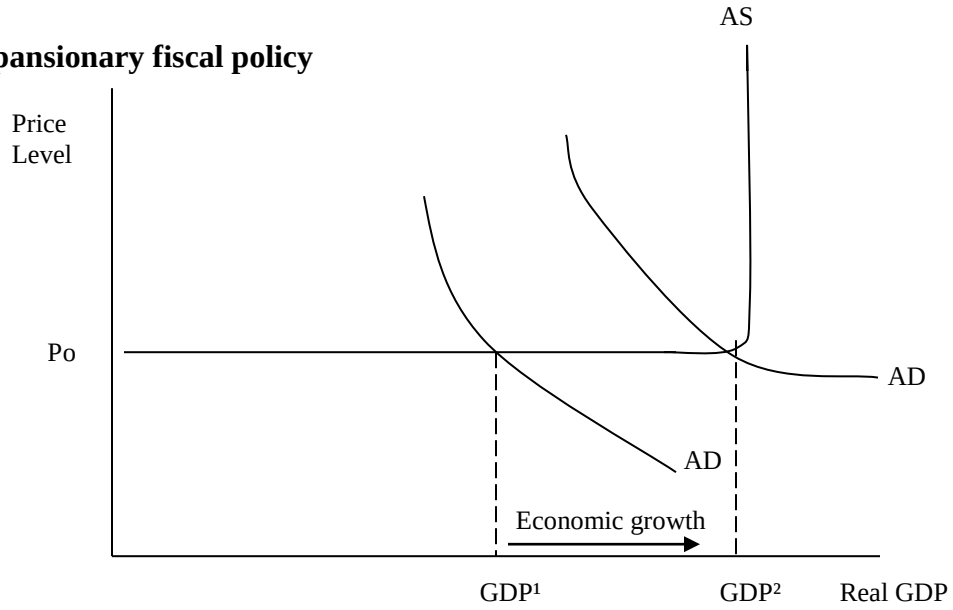
THE NATURE OF FISCIAL POLICY

Fiscal Policy can be expansionary or contractionary.

EXPANSIONARY FISCAL POLICY

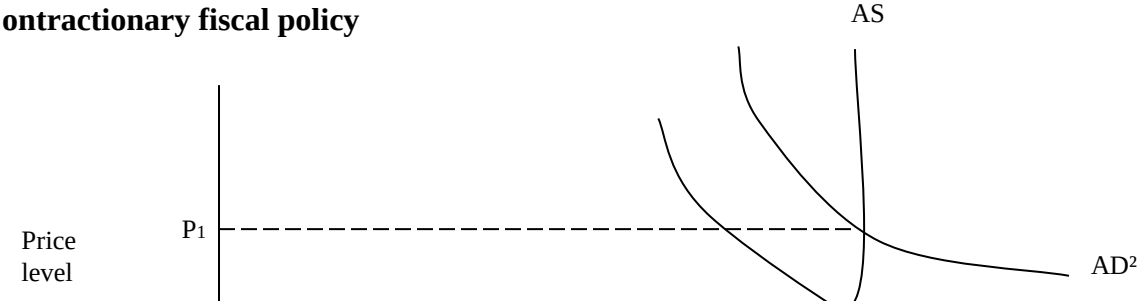
Increasing government expenditure increases aggregate demand and reducing tax also increases aggregate demand. In case of a recession an expansionary fiscal policy is employed. This rescues the demand deficiency situation and increases the level of economic activity.

Expansionary fiscal policy



An increase in aggregate demand is brought about by in increase in government spending, a decrease in taxes which raises private spending. Aggregate demand moves from AD1 to AD2. Real GDP consequently improves from GDP_1, to GDP_2

Contractionary fiscal policy



A decrease in aggregate demand is brought about by a decrease in government expenditure an increase in taxes or a combination of the two. Aggregate demand moves from AD_2 to AD_1

CONTRACTIONARY FISCAL POLICY

This involves reducing aggregate demand through increasing taxes. In case there is inflation, the correction would be to employ a contractionary fiscal policy. This lowers reduces aggregate domestic demand, output and employment.

PUBLIC FINANCE

Components of government or public sector:

1. The central government
2. Local government
3. Nationalised industries
4. Quasi Government industries

The pattern of public expenditure

Current expenditure – this refers to day to day running expenses of the government. The expenditure is on government worker's salaries benefits paid to the employed, expenditure on consumables like medicines, stationary and uniforms;

1. Capital expenditure – government investment in new roads, school building hospital, buildings weapons.

REASONS FOR GOVERNMENT PENDING

1. Public goods – these cannot be provided by private firms.
2. Merit goods – goods the government feels everybody should have whether or not they can afford.
3. Social reasons – all of the goods and services provided by government for social services.
4. Control of the economy – government uses its spending and taxation to influence the economy.

Financing the public sector

There are six main sources of government financing

1. Public sector borrowing
2. Interest payments on loans of money made by the public sector
3. Rent from public – owned land and buildings
4. Profits from public – owned industries
5. Sale of shares in public – owned industries
6. Taxes on income wealth and expenditure

FISCAL POLICY TOOLS

1. Taxation
2. Borrowing
3. Government expenditure

The need for taxation

1. Main way of raising money for government
2. Can be used to raise prices and reduce consumption of harmful goods such as alcohol and tobacco.
3. Can make foreign goods more expensive
4. Raising taxes can reduce the amount of money consumers have to spend.

Characteristics of good tax

Principles of taxation

Ability to pay
Individual should be asked to make equal sacrifice

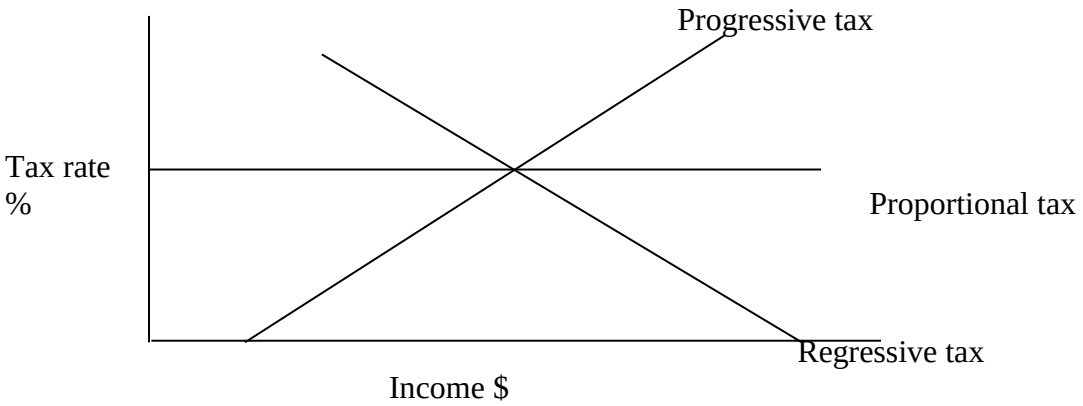
Certainty
Tax-payers should clearly and easily understand how much they will have to pay, and when.

Convenience
It should be easy to pay and collect the tax.

Economy
A tax should be cheap to collect otherwise it will to some extent be self- defeating.

How the tax system is designed

1. Progressive tax
2. Regressive tax
3. Proportional tax



Proportional tax – a fixed % is paid regardless of the level of income. It has an in built mechanisation to solve economic problems such as demand-pull – inflation

Regressive tax – The relative amount of tax paid tends to decline as income increases eg where sales tax is imposed on customer with different incomes
Programme tax – It can be defined as a tax which increases due to increases income levels

TYPES OF TAXES

There are basically two types of taxes - namely direct and indirect taxes.

a) Direct taxes

A direct tax is a tax that brings direct contact between the tax payer and the tax collector It is a tax which is imposed on incomes, wealth and probably profits. Examples are PAYE, Corporate tax and capital gains tax

Advantages of direct taxes

1. They can be used directly to solve economic problems such as inflation
2. It reduces the tendency to evade taxes.**s**
3 The government can calculate in advance the tax yield in advance.

Disadvantages

1 They may reduce the amount available to a business for its expansion programmes. This is especially true with corporate tax.

2 They normally demotivate or act as a disincentive to workers
3 They reduce consumer surplus if too high

b) Indirect taxes – This is a tax that does not bring together the tax period into direct contact. An indirect tax is usually when one is associated with some transaction e.g. sales tax, development taxes, rural electrification tax.

Advantages of indirect taxes
Indirect taxes can discourage the consumption of harmful goods such as cigarettes.
When charged on luxuries it gives the tax payer the choice to pay or not pay them.
They can also regulate consumed spending by their influence on prices.
They can be altered quickly and easily – 'overnight' changes of rate.

Disadvantages
They do not take into account personal circumstance or income.
As flat- rate taxes, they are regressive.
They influence the price level.
They can only be applied on goods with inelastic demand when used to raise revenue.
They can also lead to price fluctuation if applied to goods whose demand is elastic.

Examples of indirect taxes

VAT - Value Added Tax
This is a tax that is imposed on the value added at each and every stage of the production process for a given commodity.

Sales tax - this is tax that is imposed on sales of final products but excluding basic commodities like mealie - meal.
Customs duty - These are taxes imposed on imported goods in the form of tariffs.

Excise duty - Tax imposed on domestically produced goods which usually impinge negatively on individuals health eg spirits, alcohol, tobacco etc.

Government expenditure
The economy faced with scarce resources is not at liberty to meat unlimited wants and will have thus to allocate its resources among competing ends in a prudent manner. Thus, a government is faced with a mammoth task given the size and objectives of public sector to allocate scarce resources in order to achieve its economic objectives. These include:
To provide social and economic security
Defence and external relations
Commerce and industry
Local environment and allied services.

Provision of social and economic security. The government may have to allocate its resources to the provision of public education and health, as well as social welfare payments.

Local environment and allied services.
The government has to allocate resources to the maintenance of law and order through the police, and the courts, fire services, road maintenance just to mention but a few.

Defence and eternal relations
This categorical includes the costs of defending the country and other foreign policy commitments.

Commerce and industry
From time to time government may grant industry resources to support their operations.

Other payments
These may include interest on the National debt.

The Central government borrowing requirements.
The main component here is the overall budget deficit.

The Public Sector Borrowing Requirements (PSBR).
This refers to the total amount the public sector needs to borrow from the private sector and overseas to finance its expenditure for the forthcoming year. It involves borrowing by the central government local authorities as well as public corporations.

The PSBR and the money supply.
An increase in the PSBR may result in an increase money supply. In practice, however, the effect is uncertain. The effect on the money supply depends largely on the way the PSBR is financed.

Methods of financing PSBR
There are several methods of financing the PSBR which include among may.
Borrowing from the non-bank private sector
Borrowing from overseas or in foreign currency
Borrowing from the banking system
By printing more money.

N.B. Only the last two of these methods lead to an increase in money supply.

Effect of domestic Borrowing - financial crowding out

1. If the government has to borrow money to finance its expenditure, financial savings will not then be available for the wealth creating private sector. As a result additional demand for their funds will push up interest rates and discourage borrowing for investment expenditure.
2. Debt goes with interest. This imposes a burden on future generations which could be recouped through an increase in taxes

3. Inflation
   If the government borrows the banking sector creating more liquidity this raises money supply, which in turn will push prices up.

The National debt

The national debt refers to the total accumulated of all outstanding government spending. When the national debt is held by citizens, it is caused internal debt. When it is held by foreigners, it becomes external debt.

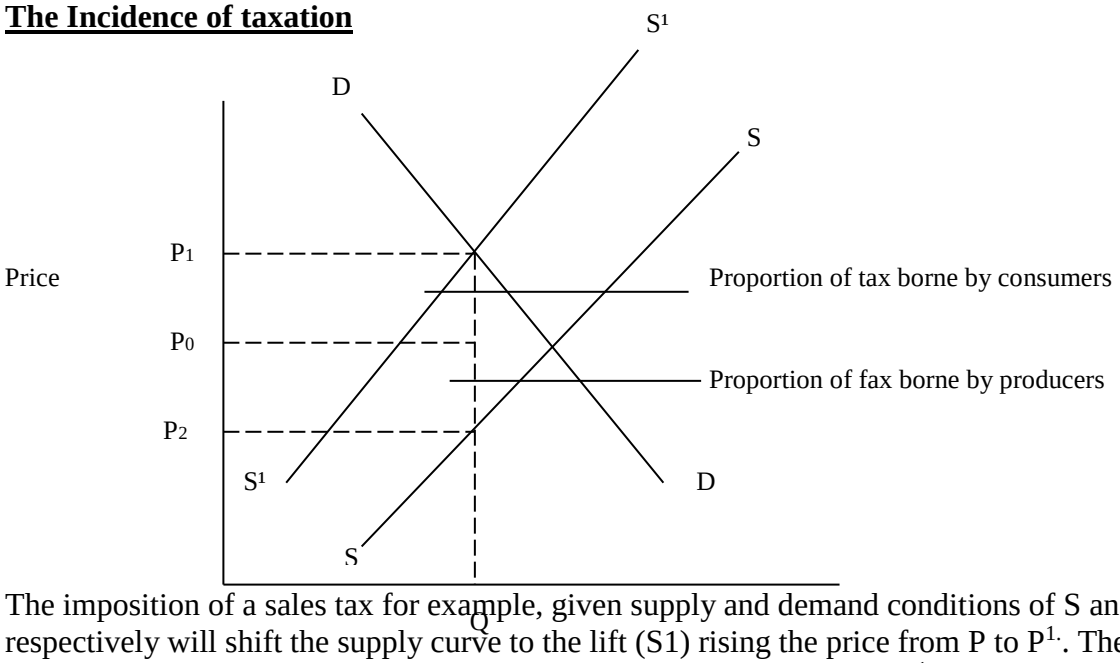
The burden of the national debt

The existence of national debt, ceteris paribus, imposes a burden on the community. This argument is derived from the fact that a burden is imposed via the community being taxed to meet interest payments on the debt. When any part of the debt is redeemed this too must be met out of current tax receipts. The implication is, therefore, that the level of taxation would be lower if the national debt did not exist.

The incidence of taxation

Economists refer to the question of who borners the tax burden as the tax incidence. It is possible for those who make tax payments (suppliers) to tax authorities to shift some of the burden onto others. This is especially true with indirect tax. We can use the diagrammatically exposition below to explain this.

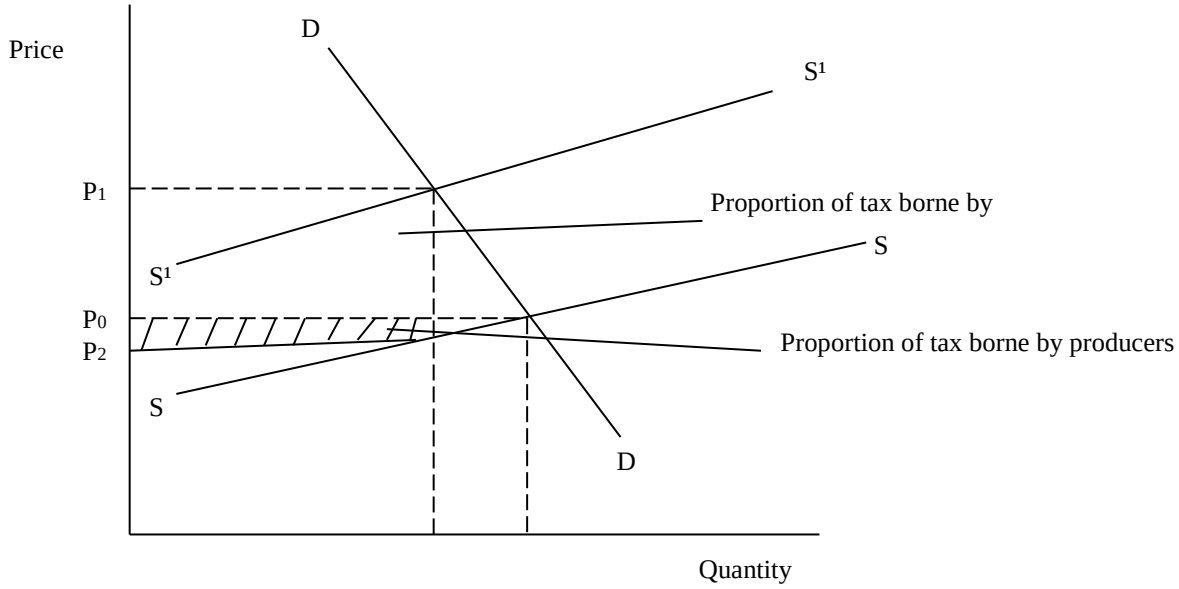
The Incidence of taxation



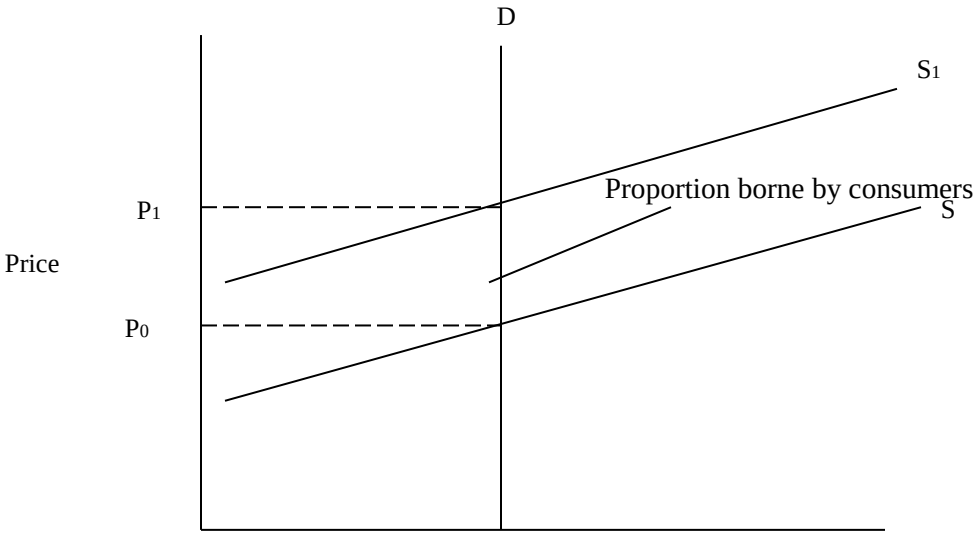
The imposition of a sales tax for example, given supply and demand conditions of S and D respectively will shift the supply curve to the lift (S1) rising the price from P to $P^{1.}$. The amount of tax is measured by the vertically difference between S and $S^{1.}$. The price increase is less than the full amount of tax, showing that producers pass only a proportion of the tax burden to consumers. In this case consumers bear bc of the tax incidence, and producers ab.

N.B. The amount of tax burden that the producers able to pass on to consumer depends on the price elasticity of demand. The more demand is elastic there of demand higher the share of tax burden that the consumer bears, vice versa.

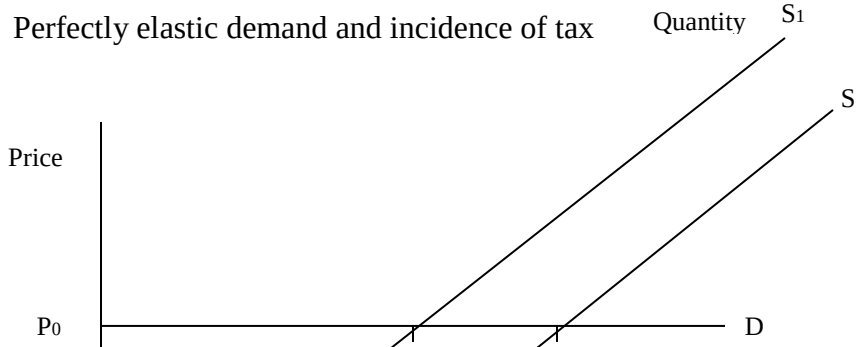
We can also consider different scenarios if the price elasticity of demand is perfectly in elastic, the whole tax burden is borne by the consumer. Moreover, if ped is perfectly elastic, the whole of the tax burden is borne by producer. We can illustrate this diagrammatically.
Inelastic demand and incidence of taxation



Perfectly inelastic demand and incidence of taxation



Perfectly elastic demand and incidence of tax



EXAMINATION TYPE QUESTIONS

MULTIPLE CHOICE

1. Crowding out of private sector is caused by:
   - A too much government borrowing locally in the economy
   - B government investment in other countries.
   - C reduction of interest rates
   - D increased aggregate demand in the economy

2. Progressive taxation occurs when:
   - A the average rate of tax is higher than the marginal rate of tax.
   - B the marginal rate of tax is higher than the average rate of tax
   - C the average rate of tax is equal to the marginal rate of tax
   - D the average rate of tax is greater than unity

ESSAYS

1. Assess the effects to an economy of ways that can be used o finance the public sector-borrowing requirement. [25]

2 (a) With illustrative examples, explain what is meant by direct taxes and indirect taxes. [10]

(b) 'All government revenue is generated from taxes.' Discuss. [15]

DATA RESPONSE QUESTIONS

1. MOZAMBIQUE'S EXTERNAL DEBT SERVICING OBLIGATIONS DECLINE.

MAPUTO.

THE HERALD, 21 OCTOBER 2005

As a result of the two instalments of the HIPC (Heavily Indebted Poor Mozambique's annual debt servicing obligations have fallen from over US$100 million in 1998 to about US$57 million now, Finance Minister Manuel Chang told the Mozambican parliament, the Assembly of the Republic on Wednesday.

Answering questions from the opposition about the country's financial state, Chang said the country's debt stock stood at US$4,4 billion, in nominal terms, on December 31 2004, compared with US$6billion before HIPC. Mozambique is also one of the 18 countries who will benefit from this year's initiative of the G8 group of most industrialised countries, involves cancellation of 100 percent of multilateral debt owed to the World Ban, the international Monetary Fund and the African Development Bank.

Chang confirmed that the cut-off date for this initiative is December 31 2004, and the implementation date is scheduled for January 1 2006. So in principle everything Mozambique owes to the three multilateral institutions except loans contracted this year has been cancelled. But Chang was careful not to put an exact figure on this. He told AIM later that the government is still waiting confirmation from the World Ban and the IMF of the sums involved. Nonetheless the amount is expected to be in excess of US$2 billion.

That would mean the largest amount of Mozambique's remaining debt is owed to those bilateral creditors who are not members of the Club of Paris- mostly oil-producing countries such as Algeria, Libya and Kuwait. Chang said Mozambique is trying to negotiate reduction of this debt, too, with the help of international organisations such as the Commonwealth HIPC Forum that Mozambique is currently chairing.

As for domestic debt, Chang said the government has resorted to long-term treasury bonds to finance the budget deficit and short-term treasury bills to fund temporary treasury deficits. The domestic debt stock stood at 2 585,5 billion meticais (about US$103 million) as of the end of 2004. Some of this debt results from the near collapse of the two privatised banks, the BCM and Austral, in 200 and 2001, which then had to be bailed out by the state.

Chang said that, with both the foreign and the domestic debt, "the government has been honouring scrupulously its debt servicing obligations".

E stressed that the government's approach towards foreign aid is always to seek grants and, where these are not available, soft loans. "We don't accept commercial loans for state investments," declared Chang. The treasury position throughout the first half of the year had been healthy, said Chang.

At the end of the first quarter the treasury balance stood at 341,5 billion meticais, rising to 444 billion at the end of the second quarter, and to 476,6 billion at the end of September.

He believed that, by the end of the year, the targets for both state revenue and public expenditure set down in this year's budget would have been achieved.

The figures for the first six months might seem to belie this optimism. State expenditure was 90 percent of what had been planned. Internal revenue (mainly taxes) was 97 percent of the expected figure, and counterpart funds from foreign aid only 91,4 percent. But Chang said there as a strong seasonal element in tax revenue, and he fully expected the shortfalls to be made up in the second half of the year.

(a) (i) According to the information given, what has reduced Mozambique's annual debt serving obligations? [2]
(ii) How does the 98 group help the most indebted poor countries? [2]
(iii) Give the three multilateral institutions named in the information given. [3]

(b) (i) Name one product, which has mainly contributed to Mozambique's national debt. [1]
(ii) Explain why the government prefers soft loans and grants as compared to commercial loans to finance government activities. [2]

(c) (i) Explain the relationship between domestic debt and national debt. [2]
(ii) Analyse how funding the national debt contract money supply in an economy. [3]

(d) Examine the effects of a national debt to an economy. [5]

CHAPTER 11

MONEY AND BANKING

Chapter objectives

After reading this chapter and working through practice questions. You should

1. Be able to identify the functions of money and the characteristics of good money.
2. Explain the features of quasi money.
3. Define the aggregates of money supply in Zimbabwe.
4. Describe the money creation process by the Commercial banks.
5. Understand the Quantity theory of Money and explain it's antique.
6. Outline the motives or reasons for holding money according to the Keynesian Theory.
7. Distinguish between the Classical Theory and the Monetarist Theory.
8. State the factors which determine the supply of funds.
9. Describe the functions of the Reserve Bank of Zimbabwe as a supreme monetary authority in the financial sector.
10. Understanding the functions of the Commercial banks, Merchant banks, discount houses, Finance houses and building societies.

Money is any generally accepted medium of exchange. Any commodity that is widely accepted as a medium of exchange in a society constitutes that society's money. The acceptability of money can be a result of its intrinsic value as is with commodity (silver and gold) money or a result of Government's legal backing as with fiat money.

THE HISTORY OF MONEY

In the early stages of the evolution of money commodities such as shells, silver and gold were used as the medium of exchange. Every time a transaction was to be made, these commodities had to be weighed to get quantities matching the value of the transaction. This was tedious and time consuming given the bulky nature of these commodities. To reduce this problem societies started to mint and use token/intrinsic coins with face values reflecting their metal content. This coinage period collapsed when rulers and Monarchs who had the sole right to mint coins started re-minting and debasing the coins of their metal contents to enrich themselves. This resulted in high inflation and loss of confidence in coins by the society.

Societies were forced to return to the usage of gold and silver as money. To ensure safe keeping, these metals were deposited with goldsmiths who had strong vaults. Promissory receipts were, in return, issued out by goldsmiths to depositors. Every time transactions were to be carried out, depositors would first withdraw their gold and silver using those receipts. The increase in the confidence of the people with the goldsmiths resulted in them accepting the issued promissory receipts for trade instead of withdrawing gold and silver first. Around the 1930s these receipts had become society's money with gold and silver only infrequently withdrawn for special occasions and transactions. This tempted goldsmiths to over print receipts for interest lending. Such activities led to goldsmiths failing to honor

most gold withdrawals from receipts holders and consequently to the collapse of the paper money period. The role of note issuing was thereafter taken over from banks and goldsmiths by Central banks which were given the sole right for note issuing by their governments.

Initially, fully backed and convertible notes were issued but as more money was required by governments during war times, for example, central banks would be forced to overprint money. This resulted in the emergence of fractionally backed notes. To avoid the collapse of the monetary system laws were passed by governments prohibiting the conversion of notes into gold and silver. Paper money was declared a legal tender and this is the fiat money currently used by all societies. Today, modern money also includes deposit money, which is created by commercial banks when they lend out money to their clients. Such created deposits are part of money because the persons for whom they are created can write and use cheques against the deposits for their transactions.

GRESHAM'S LAW

Gresham's law states that 'good money drives out good' in the sense that when bad money and good money co-exist in circulation; good money will be forced to disappear from circulation as people prefer to keep for themselves good money and use bad money for transaction purposes. This law was propounded by Gresham during the coinage period after observing that the parallel circulation of debased and non-debased coins would always result in the disappearance of the non-debased coins from circulation.

The implication of Gresham's law today is that if two different currencies with different values are allowed to co-circulate at a pegged exchange rate (eg the Zim$ and the US$; Zim$ and the EURO$), the stronger currency will be forced to disappear from circulation by the weaker currency.

FUNCTIONS OF MONEY.

Money performs four functions. These are as itemized below:

(i) A Medium of Exchange

As a medium of exchange, money facilitates trade when goods and services are exchanged for money. Without money trade would be done using the barter system of exchange which involves exchanging commodities for other commodities. Barter has many problems: it requires a double coincidence of wants; it makes it difficult to assign prices to commodities to determine their rates of exchange; it would be difficult to divide physical commodities to facilitate small value transactions. Money as a medium of exchange reduces these problems. People can sale their labour services and assets for money and use their money receipts to buy all the other commodities they may want to consume.

(ii) A store of Value/Wealth.

Money commands purchasing power in that it can be used to buy other commodities and assets. With money, people can choose to keep their wealth in the form of money as with

during war times and reconvert back to real assets in future. For money to serve this function efficiently, prices need to be stable to avoid the erosion of savers' monetary wealth over time.

(iii) A Unit of Account.

In a monetised economy, the prices of various commodities are expressed in monetary terms. Money therefore serves as a measurement rod against which the values of other commodities are reflected to facilitate trade. Without money a commodity's value would need to be measured in terms of other commodities and this would be subjective.

(iv) A Standard for deferred Payments

As a standard for deferred payments, money is used to objectively value an individual or nation's indebtedness in terms of the amount they would need to pay in future when a credit purchase is made or when money is borrowed. The availability of money makes interest calculation and accounting possible.

Characteristics of Good Money

For money to efficiently and effectively perform its functions it has to have specific attributes or characteristics. These are:

i) Acceptability

A commodity which serves as a good medium of exchange has to be widely and generally accepted by the society. The acceptability of money stems either from its intrinsic value as with commodity money or from Government's legal backing as with fiat money or legal tender.

ii) Stability in Value

A good store of value/wealth is one whose value is stable over fairly long periods of time. If the value of money is unstable as is the case during hyperinflationary periods, keeping one wealth in the form of money becomes risky as it entails obtaining less physical wealth in future. To maintain the society's confidence in their money, inflation needs to be kept at minimum levels.

i) Scarcity

For money to have economic value it should be scarce relative to its demand. Money supplied in abundance and found every where and any time by everybody can not be accepted as a medium of exchange or a store of value as its value would be unstable.

ii) Uniformity

Similar denominations of money in a country such as $10; $20; $50; $100 notes should be identical/homogeneous. This is needed to make money easily recognizable and also to minimize incidences of money counterfeiting.

iii) Divisibility

Good money should be divisible into smaller and larger denominations without loss of value. This will make it easy to price both small and big value commodities and also making it possible and easy to facilitate both small value and big value transactions.

iv) Portability

Money should be easy to carry around. Its purchasing value should be high relative to its physical quantity.

v) Durability

To facilitate many transactions before soaring out and replaced, good money should not easily and quickly deteriorate. This will minimize the replacement cost of money.

Near Money/Quasi Money

These are financial assets held as close substitutes for money and largely performing the same functions as those performed by money. Examples are demand and savings deposits. People may prefer to these assets because of their following desired attributes:

i) Profitability

Generally all the categories of quasi money earn a return in the form of interest. When inflation is generally high people may prefer to hold near money as a way of hedging against the value-eroding effect of inflation on cash.

ii) Liquidity

Some financial assets such as demand deposits are almost as liquid as cash yet safer to hold than cash. Wealth holders are not inconvenienced by holding such assets when they want to carry out their transactions. For financial assets to be highly liquid and equally acceptable as money, a stable and liquid financial sector needs to be in place.

iii) Less Risk

Money assets should be risk free for people to hold them in the sense that the holder should be certain of the return on and the liquidity of the asset without fears of loosing of value. In a highly liquid financial sector with good banking practices, the risk associated with holding financial assets is reduced and people can safely hold them.

Money Supply

Money supply refers to the total stock of money in an economy in a given time period. This is made up of hard currency and deposit accounts maintained with the financial sector.

Monetary Aggregates in Zimbabwe

The aggregates of money supply in Zimbabwe are as defined below:

M1=Notes and Coins in Circulation + Demand Deposits (with the RBZ; Discount Houses; Commercial Banks; & Merchant Banks).

M2=M1 + Savings Deposits with Commercial Banks + Under 30-Day Fixed Deposits with Commercial and Merchant Banks

M3=M2 + Over 30-Day Fixed Deposits with Commercial Banks; the RBZ; Merchant Banks + Fixed Foreign Currency Accounts.

M4=M3 + Savings and Fixed Deposits with other Banking Institutions-the POSB; Finance Houses; Building Societies + Private Sector Foreign Currency Holdings.

Of these aggregates, M1 is the narrow definition of money while M2 to M4 are broader definition. The broadly defined categories are generally more active in terms of influencing the interest rate, inflation and the level of economic activities. These are therefore commonly the targets of monetary policy in Zimbabwe(especially M3).

MONEY CREATION BY COMMERCIAL BANKS

The demand deposits created by commercial banks in the process of lending money to their clients constitute a significant proportion of Zimbabwe's total money supply.
From experience commercial banks know that at any point in time some people may not withdraw their money and that those who will, will only withdraw a proportion of their deposits. This gives banks the opportunity, to extent as loans for an interest, that percentage of their deposits which on average is not expected to be withdrawn in a particular time period. Banks do this by creating checkable deposit against which the borrower can make transactions by writing cheques.

If, for example, banks need to keep 10% of their deposits as cash to meet withdrawals (this can also be imposed on banks by the RBZ as the statutory required reserve ratio); out of $1000 of new cash deposits they will be able to create an extra $9000 of deposits in loans.

An Illustration of Deposit Creation by Banks

Assume all the banks are equal in size and in their volume of business.

	(1) Bank1's Balance Sheet		
Liabilities		Assets	
Deposit	1000	Cash	1000
Created Deposits	900	Loans	900
	(2) Bank2's Balance Sheet		
Liabilities		Assets	
Deposits	900	Cash	900
Created Deposits	810	Loans	810
	(3) Bank3's Balance Sheet		
Liabilities		Assets	
Deposits	810	Cash	810
Created Deposits	729	Loans	729
	(4) Bank4's Balance Sheet		
Liabilities		Assets	
Deposits	729	Cash	729
Created Deposits	656	Loans	656
	(5) Bank5 Balance Sheet		
Liabilities		Assets	
Deposits	656	Cash	656
Created Deposits	590	Loans	590

After the process of credit creation the total deposits will be:
D = \$1000 + \$900 + \$810 + \$729 + \$656 + \$590 + \$531 + \$478 + ..…+……=
\$1000/0.10 = \$10 000.

FORMULAE FOR MONEY SUPPLY DETERMINATION

(i) **When the Private Sector does not have any Preference for holding cash**
In situations where the non-bank private sector does not have any preference to hold cash and the banking sector is required to keep a reserve ratio equal to r, the total money supply; defined as M = D; is obtained from the following formula:

$$D = R/r$$

Where{; r=required reserve ratio}and {1/r = money multiplier}. R = Reserves of cash with the banking sector.

(ii) <u>When the Private Sector has got Preferences for Holding Money</u>

When the private sector has got some preference for holding cash the total money supply which is defined as : M = C + D becomes:

$$M = \frac{(c+1)}{r+c}(R+C)$$

Where (c+1)/(r+c) = the money multiplier; c= the desired cash ratio by the non banking private sector; R= Cash Reserves with the Banking sector; C= Cash in the hands of the non-banking private sector.

Example 2: If the cash ratio required by the non-banking private sector is 5% and the bank required reserves are 10%; with an amount of $1000 as the total hard cash; the level of money supply would be:

$$Ms = (0.05 + 1)/(0.1 + 0.05)\ \{950 + 50\}$$
$$= \$7000.$$

The reduction in total money supply in this example follows from the reduction in cash reserves available in the banking sector when the non-bank private sector has got some preference to hold cash. Any increase in c due, for example, to a reduction in the non-bank private's confidence in the banking sector would result in reduced money supply. The development of the financial sector which reduces money demand by the private sector would, on the other hand, result in an increase the level of money supply.

<u>THE QUANTITY THEORY OF MONEY</u>

The Quantity Theory of Money is a theory of money neutrality whose roots are founded in Irving Fisher's (Classical economists') equation of exchange. This theory posits that the value of the total transactions in an economy is always identical to the level of money supply multiplied by its velocity of circulation, ie:

$$\mathbf{MV = PT}$$

Where: M = the level of money supply;
V = the transactions velocity of circulation;

P = the general price level;
T = number of real transactions

This theory assumes that the velocity of money circulation is to be constant. It is also assumed that the economy is in full employment such that the volume of real transactions (T) is fixed. With these assumptions; the quantity theory of money predicts that the role of money is limited to affecting the level of prices only without any impact on real variables such as expenditure, income, employment and relative prices. Any change in the level of money supply would completely be transformed into an equal change in prices. Inflation, according the QTM, is therefore seen as a monetary phenomenon such that to cure it one would simply need to reduce the level of money supply.

A Critique of the Quantity Theory of Money

(i) The theory sees money exclusively as a medium of exchange in the sense that people do not have other uses for money other using it to facilitate their transactions. This assumption fails this theory in practice where people have got diverse uses for money eg money can be used to store one's wealth; money can be used to speculative purposes.

(ii) The assumption of a fixed velocity of circulation of money is unrealistic. The development of the financial sector and the wide use of cheques and other plastic technologies (ATMs; credit cards; debt cards) all affect money demand and the velocity of circulation of money.

(iii) The theory defines money supply in its narrow terms as the amount of currency in the economy plus the value of demand deposits. In modern economies where broad money is used for monetary policy and transactions purposes, the theory becomes inapplicable.

(iv) The postulation of money neutrality by the equation of exchange has failed in practice as it has generally been observed that whenever the level of money supply is changed its effect would fall on both real variables and the price level. This is because economies are not always at full employment as assumed by the theory. Again, the existence of market and information imperfections, unemployment, money illusion and price rigidities make money non-neutral.

MONEY DEMAND

The demand for money refers to the desire by people to hold money. Unlike other commodities which are demanded for consumption purposes; people demand money to hold it. This can be for the need finance some transactions in future; or to guard against unforeseen contingencies; or for future financial investments. There are three schools of thought which explain why people may have the desire to hold money. These are:

a) The Classical Theory;
b) The Keynesian Theory;
c) The Monetarist Theory.

The Classical Theory

This is also known as the Old Quantity Theory of Money in that it views money solely as a medium of exchange. This theory simply recasts Irving Fisher's equation of equation into a money demand relationship as follows:

$$MV = PT$$
$$M = 1/V\{PT\}$$
$$M^d = k(PT) \quad : \quad \text{where } k=1/V$$

In summary this states that money demand depends on the level of one's transactions. This conclusion logically follows from the Classical theory's view of money as a medium of exchange. People therefore demand money because of the non-synchronization of their incomes and expenditures. All the factors which affect the level and nature of one's transactions therefore affect his money demand. These are:
The Level of Income: When income is high; the level of transactions would also generally be high resulting in people demanding more money. Low levels of income are on the other hand associated with less money being demanded.
The Length of the Payment Period: With the same income level, an increase in one's payment period would result in more money balances being held as more transactions would now need to be conducted before the next pay day.
The General Price Level: When inflation is high money demand also increases as more money would now be needed to command the same number of transactions. Without money illusion, an increase in prices by 10% would result in people increasing their money balances by 10%.
The Level of the Financial Sector Development: The more sophisticated is an economy's financial sector the smaller the amount of money people would have to hold to complete a certain volume of business; e.g the use of ATMs; the use credit cards; the existence of telegraphic money transfers; the existence of hire-purchase facilities;
Applicability in Less Developed Countries : The assertion that money demand depends of one's income; inflation; the payment period is largely correct in LDCs where money is mainly used for transactions purposes. However, as people are getting more educated on possible financial investments; interests rates are increasingly becoming important in money demand.

The Keynesian Theory

Also known as the Liquidity Preference Theory; the Keynesian theory of money demand identifies three motives or reasons for holding money. These are: the Transactions Motive; the Precautionary Motive; and the Speculative Motive.

i) The Transactions Motive:

This is similar to the Classical theory of money demand. It states that part of the money held by people is for their day to day transactions. This component of money demand is completely affected by one's income in the sense that the higher one's income is the greater

the transaction balances he needs to hold. Other factors such as the level of financial development also affect transaction balances held by individuals.

ii) The Precautionary Motive

Precautionary money balances are those balances held to provide for unexpected contingencies. The Keynesian theory posits that because events such as illness; death; auctions; and bargain sales occur without prior expectations, individuals safeguard themselves against them or provide for them by holding precautionary money balances. The Keynesian precautionary balances are also affected by and are positively related to one's income.

iii) The Speculative Motive

This motive states that people may hold more or less money balances depending on their expectations about the future interest rates and prices of financial assets. On the motive money is seen as a close substitute of bonds such that the opportunity cost of holding money would be the interest on bonds foregone. When current interest rates are high less money would be demanded as the cost of holding it is high. Again the high interest rates would generally lead wealth holders to expect them to fall in future leading to higher bond prices. People would therefore use any excess balances of money held to buy financial assets in anticipation of capital gains when the interest rate falls. If the current interest rate on bonds is low; the cost of holding is also low and people would hold more money. In expectations of higher interest rates and low bond prices, more money will also be held to avoid capital losses on financial assets in future.

Applicability in Zimbabwe: The Kenesian transactions and speculative motives for money demand are generally applicable and well explain the nature of money demand in Less Developed countries with thin money and capital markets. The speculative motive tends to be more appropriate in advanced economies were people are rich and more monetised. Such people would be expected to worry more about financial investment opportunities for their monies than would the average money holder do in Less Developed Countries. Most research studies have also proved this by failing to find any systematic relationship between money demand and the interest.

The Monetarist Theory

This is also known as the Modern Quantity Theory because it derives its money demand from the Classical QTM. The monetarist theory sees money as any other assets and that its demand depends on the holder's budget constraint, on its price, the price of closely related commodities ie: $M_d = f(Y,h,P,r_b,r_e,Infl,U)$

Where Md is money demand; Y is nominal income. Any increase in Y leads to an increase in money demand; h represents the ratio of non-human wealth to human wealth acquired through education and experience. As h falls so that the proportion of human wealth in the total wealth stock rises, the demand for money increases. This increased demand for liquidity balances the movement towards greater illiquidity in the wealth stock since labour is more illiquid than other non-human forms of wealth; P represents the price level. This implies that the monetarist money demand is a demand for real balances. Any increase in P

which erodes real money balances held results in more money being held; **r_b and r_e** represent returns on bonds and equities respectively. When these increase less money will be demanded and when they fall more money is demanded as it becomes less costly to hold; Infl which stands for inflation represents the increase in value of physical assets. When the prices of those assets increase people switch over to them and reduce their money balances.

Applicability in Zimbabwe***:*** As argued in the Keynesian theory the level of income (Y); the general price level (P); and the price of physical wealth (Infl) are more applicable in less developed countries. Returns on bonds and equities are less applicable due to the thinness of the financial sectors and limited access to information about events, available assets and returns in the stock and money markets of Less Developed Countries.

The rate of interest - the price of money

There are many theories of interest. The two most important ones are:

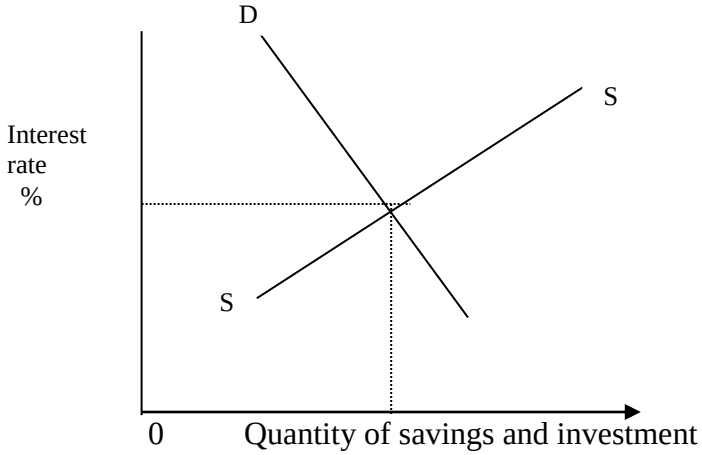
a) The classical theory
b) The liquidity preference theory

According to the classical theory of interest, it is demand and supply of loanable funds that determine the rate of interest. Interest is therefore a payment for the use of funds demanded by individuals, firms and the Government.

THE SUPPLY OF FUNDS DEPENDS ON VARIOUS FACTORS. THESE INCLUDE:

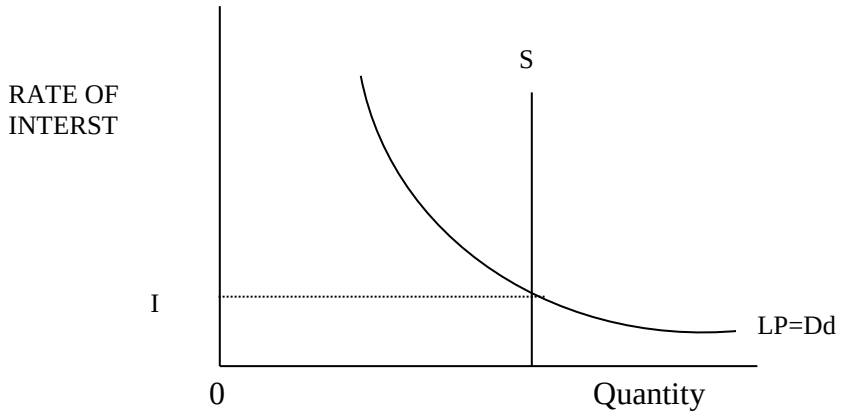
a) The level and size of the income of individuals
b) Expectations of change s in the value of money
c) Level of price
d) The wealth of a person.

Rate of interest



In classical theory, interest rate is determined by the interaction of the supply and demand for funds as shown in the diagram.

According to the liquidity preference theory interest rate is the reward for parting with liquidity for a specific period.



In Keynesian theory, interest rate is determined by the liquidity preference of the individuals through expression on the supply and demand of money.

'A'Level students would demand money for transactions motives because they only get pocket money from their parents. The students would also keep money for precautionary purposes but due to the limited amount that the students receive from the parents only an insignificant proportion may be kept for this purpose.

None will be kept for speculative purposes as students with a limited income they may not entertain any investment ideas.

A financial conservative professor with children, support will need money for transaction purposes, precautionary purposes and speculative purposes. Transactions purpose demand for money will be for purchasing day to day consumables such as groceries, bills e.t.c.
Since children are still young they may be need for money to be put aside in case children get sick. Professors are also professionals who have had many years researching and teaching experience and as such they may put aside some money as an investment.

Vending and dealings involves speculatory about likely changes in interest rates, exchange rates e.t.c. The wheeler dealer will also hold money for transactions and precautionary motives because as any other economic agent they need to make purchases as sells as keep money to guard against unknown emergencies. The amount kept for the two would constitutional proportion however, contribute a final proportion of their portfolio holding.

FINANCIAL INSTITUTIONS

Zimbabwe's financial sector is made of the Central Bank-Reserve Bank of Zimbabwe; the Zimbabwe Stock Exchange Market-the Capital Market; commercial Banks; discount Houses; finance Houses; building Societies; merchant Banks; the POSB; other(the Credit Guarantee Company-CGC; Small Enterprise Development Corporation-SEDCO; Venture

Capital Company of Zimbabwe-VCCZ; Zimbabwe Development Bank-ZDB. The traditional functions of these financial institutions are as outlined below:

The Reserve Bank of Zimbabwe/The Central Bank

This is the supreme monetary authority in the financial sector. The following functions are those performed by the Reserve bank.

a) The Government's Bank

The Reserve Bank accepts deposits from the central Government; its Ministries; Departments and Parastatals as well as offering them with their various financial services requirements. The Reserve bank also manages the National Treasury Account were all government revenues from taxation, licenses, Revolving Funds are deposited and from which payments on behalf of the Government are made.

b) Advisor to the Government

The Reserve Bank informs and advises the Government on issues relating to local and international money and capital markets. The Reserve bank also manages the sale and purchase of Government paper such as Treasury bills; bonds; Parastatal bills.

c) The Implementing Agent for Monetary Policy

The regulation of domestic money supply; credit and interest rates as monetary policy tools is done on behalf of the Government by the Reserve bank.

d) The Bankers' Bank

All the other financial institutions bank their monies with the Reserve Bank. This can be for voluntary safe keeping or out of statutory requirements by the Bank for its monetary policy or bank supervision purposes. Such deposits are also needed for inter-bank cheque clearances.

e) The Lender of Last Resort

When financial institutions run short of liquidity to meet the withdrawal requirements of their clients, the Reserve bank lends them the needed funds normally through its rediscount window. Through this, the Reserve bank ensures liquidity and the society's confidence in the domestic financial sector.

f) The issuer of Notes and Coins

The Reserve bank has the sole right to issue new notes and coins in replacement of the soared money.

g) The Financial Sector Supervisor

To ensure sound and ethical banking practices by the financial sector and to maintain public confidence in the financial sector, the RBZ has got the powers to supervise the operations of all the other financial institutions. This role is of paramount importance especially, in a financially liberalized economy like Zimbabwe to minimize incidences of bank collapses.

Commercial Banks

The major functions of a commercial bank are to accept deposits from the non-bank private sector and to arrange short-term loans mainly in the form of overdrafts to the same clients. Due to financial liberalization and de-segmentation, commercial banks like any other financial institutions have acutely diverted from their traditional spheres of business. Traditionally, commercial banks are entitled to operate and serve the following functions:

i) The Private Sector's Banks.

Commercial banks accept deposits from private individuals, firms and other private organisations. They offer a wide variety of financial assets with varying degrees of maturity, profitability and liquidity which are convenient and affordable by both small and large private sector savers.

ii) Providers of Short - Term Loans

Commercial banks are the major source of short – term loans in the form of bank overdrafts to individuals and firms. Such short – term loans are usually needed for consumption expenditure and for working capital financing.

iii) Providers of the Cheque System

Commercial banks provide and operate the cheque system of a country. This improves trade and the convenience of conducting transactions. The cheque system also reduces the risks associated with holding and transactions of large sums of cash.

iv) Providers of the Plastic Technology

Besides maintaining the country's cheque system, commercial banks also issue and maintain the usage of credit cards, debt cards, ATMs and other plastic technologies, which make banking and trade easy and safe.

v) The Provision of the Stop Order System

Commercial banks can be instructed to make periodical transfers of money from their clients' current accounts to pay the clients' periodical payments such as rent, hire purchase installments, etc.

vi) Funds Transfer Systems

Commercial banks facilitate the transfer of money from one place to another through mail transfers; electronic transfers. Mail transfers involve preparing a draft for the customer and sending it to the beneficiary. Electronic transfers occur when the bank transfers money through the telegraphic system SWIFT (Society of World Wide Interbank Financial Telecommunication) or when a customer's account is debited from a terminal at a point of sale.

vii) Acceptance of Valuables for Safekeeping

Besides accepting deposits, commercial banks also accept valuables such as certificates, deeds, wills, jewellery, etc for safe keeping for a fee.

viii) Other Functions
The provision investment advice to clients; Provision of foreign exchange services and Travellers' cheques.

MERCHANT BANKS

Merchant banks are mainly involved in trade finance; credit acceptance and wholesale banking.

i) Credit Acceptance
This is done by Merchant banks through providing guarantees for borrowing on behalf of debtors or potential borrowers to their creditors. To facilitate such borrowing and trade at an international level, Merchant banks draft letters of credit on behalf of their clients. Merchant banks also lend out money for trade purposes.

ii) Share Underwriting
Merchant banks act as share issuing houses by purchasing shares at a guaranteed price from the issuing company and later on resale them to the final investing shareholders. Reselling is normally done at a premium when market conditions for the issued shares improve. This makes funds for investment purposes readily available to the issuing firm and at the same time reducing the risks of selling the shares at a discount.

iii) Facilitate Company Listing
Merchant banks facilitate, arrange for and advise private companies for their listing in the Stock Exchange Market.

iv) Facilitate Off-shore Borrowing
Private firms can borrow money from foreign financial markets with the assistance and advice of Merchant banks. Merchant banks can even at times borrow money from off-shore markets on behalf of their clients.

vii) Portfolio Management and Advice
Merchant banks advice their clients on the best ways to raise money. They also provide advice on how their clients can best invest their excess reserves of money.

vii) Wholesale Banking Institutions
Merchant banks accept deposits from corporate bankers who bank in large sums.

viii) Facilitate Mergers and Takeovers
Merchant banks act as go-between agents to facilitate and advise on the merging of different firms or on the taking-over of one firm by another.

Discount Houses

These are an intermediary between the Reserve Bank and other financial institutions. They are the window through which the Reserve bank lends money to the other financial institutions in situations of liquidity shortages. Discount houses attract deposits from other

financial institutions on call and also re-discount or liquidate their financial assets when cash is needed.

Finance Houses

Finance Houses are mainly into financing the purchase of long term capital equipment. They do this by providing hire-purchase and lease hire facilities.

Building Societies

Accept deposits from the private sector and provide long term loans in the form of mortgages for housing and construction purposes.

EXAMINATION TYPE QUESTIONS

MULTIPLE CHOICE

1. Which of the following is an example of substitute money?
   - A building society deposits
   - B credit card
   - C notes and coins
   - D cheques
2. What will be the money multiplier if the cash ratio is 10%?
   - A 0,1
   - B 1
   - C 10
   - D 100
3. Which of the following factors does not influence transactions demand for money?
   - A real income
   - B price level
   - C growing use of credit cards
   - D interest rate increase

4. Which of the following is not a function of prize?
   - A signaling function
   - B incentive function
   - C bartening function
   - D rationing function

Essays

1. Assess the extent to which commercial banks can create credit? [25]
2. 'All the functions of the central bank revolves around issuing notes and coins in the economy.' Analyse this statement. [25]

4.

CHAPTER 12

THE MONETARY POLICY

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:

1. Define the term, "Monetary Policy" and explain the reasons for using a monetary policy.
2. Explain the tools of the Monetary Policy.
3. Distinguish between the Monetary Policy and the fiscal policy.

Monetary policy refers to action taken by the Central Bank (RBZ) on behalf of the Government to try to influence either the supply of money or the price of money, as given by the rate of interest.

Andrew Tibbitt defines monetary policy as a policy concerned with the cost and availability of credit and the rate of growth of the money supply.

REASONS FOR USING A MONETARY POLICY.

1. Change in the money supply may cause inflation or reduce it – increase in money supply causes increase in prices.
2. Change in interest rates affects aggregate demand – as interest rates fall more people will want to spend more money.
3. Changes in money supply directly affect aggregate demand, output and employment
4. Interest rates can be used to affect the value of the local currency. Interest rates can be raised to help influence the value of the local currency compared to foreign currency.

Therefore Monetary Policy involves influencing the supply of money and interest rates to try and control the level of inflation unemployment, economic growth and the value of the local currency.

HOW MONETARY POLICY WORKS

Tools of Monetary policy are:

1. Open market operations
2. Changing the reserve rates
3. Changing the discount rate
4. Persuasion

Open Market Operations (OMO)

This involves the sell or purchase on the open market by the central bank of government securities. It can be used to increase or reduce the stock of money in circulation held by the public. Suppose the central bank wishes to reduce excess liquid on the market, it offers for sale commercial papers to the general public. Purchase of the commercial papers will lock

the funds that were supposed to be used by members of the public in their various transactions. This is usually the case when the bank is motivated by the desire to bring down inflation. If on the other hand the central bank wishes to stimulate aggregate demand in order to achieve desired levels of employment and economic growth, it can increase money supply, which has the effect of reducing the rate of interest. This is done by buying back government securities. This act has the effect of releasing additional funds into the economy.

Interest Rate Policy

The central bank can also intervene to influence the interest rate, and in this way control the growth of bank lending. A rise in interest rates might be expected to dampen down the demand for bank credit, vice versa.

Special Deposits

Monetary authorities may require that financial institutions deposit a certain amount of their bank deposits with them. Although these funds earn interest, they are effectively 'frozen' since those making the deposits do not have the right to withdraw them. This limits the credit creation (lending) by financial institutions. Special deposits may however, be released when the central bank wishes to see an expansion of the money supply.

The Reserve Ratio

The monetary authorities may also play with the reserve ratio in their desire to achieve economic objectives. The reserve ratio, which is the proportion of bank deposits a bank may be required to maintain or deposit with the central bank at a particular time may be raised or lowered depending on the objectives the monetary authorities are pursuing. In order to restrict credit creation and hence money supply in the economy, the central bank may raise the reserve ratio to reduce the amount of deposits available for credit creation or on-lending. It can on the other hand reduce the reserve ratio in order to expand credit creation and hence money supply in the economy.

Actual reserve - required reserve

$50 000 - $ 2000 000 x 10 % = $ 30 000

If the legal reserve ratio is increased to say 20 %, then the excess reserve will be
$50 000 - $200 000 x 20 % = $ 100 000

$$\text{Money supply at 10 \%} = 30\,000 \times \frac{1}{0{,}1}$$

$$= \$\,30\,000$$

$$\text{Money supply at 20 \%} = \$\,10\,000 \times \frac{1}{0{,}2}$$

$$= \$\,50\,000.$$

From the calculations above it can be deduced that raising the reserve ratio increases the required reserves from $ 20 000 to $ 40 000. Conversely lowering the reserve ratio changes required reserves to excess reserves and increases the ability to banks to create new moneylenders. At 10 % money supply is $ 300 000 which at $ 50 000.

The Discount Rate

The discount rate refers to the interest rate the financial institutions are charged by the central bank for borrowing from it. In other words, they represent a cost to the financial institutions for borrowing from the central bank. It has thus, the effect of raising or reducing the costs of borrowing by banks and their ability to advance loans to their clients. If the discount rate is raised, the cost to the banks is raised and banks in response will raise the rate of interest they charge on their loans. This will have the effect of reducing the demand for advances and hence aggregate demand is dampened. This is usually the case when the reserve bank wants to bring inflation down. The central bank on the other hand, can reduce the discount rate in order to encourage increased economic activity. A reduction in the discount rate will force banks to reduce interest rates on their loans thereby encouraging both corporate and individual citizens to borrow from the banks.

Funding

This involves the selling of more long-term debt (bonds) and the issue of short-term debt (treasury bills). Since treasury bills are short-dated securities, they are highly liquid assets. The monetary authorities can wipe out excess liquidity from the market by issuing fewer treasury bills and thereby restrict the ability of banks to make loans.

- The monetary policy in conjunction with other policies seek to achieve the following objectives, full employment, price stability, economic growth and equilibrium in the balance of payment.

Other Monetary Policy Tools

Other tools of Monetary Policy are:

Moral Persuasion
Credit Ceilings.

EXAMINATION TYPE QUESTIONS

ESSAYS

1. Assess the applicability of the loanable funds theory to interest rate determination in an economy. [25]
1. Assess the extent to which the monetary policy and the fiscal policy can, complement each other in solving inflation in the economy. [25]
5. Is it more difficult to define money, than to control its supply. Discuss [25]

DATA RESPONSE QUESTIONS

1. R B Z role in liquidity provision to banks By Vimbikayi M Kusema.

AS we approach the September 30 watershed dead-line for banks to satisfy the $10 billion capitalisation requirement by the Reserve Bank of Zimbabwe (R B Z) , we want to look at the role that the R B Z played in providing liquidity to banks when the financial services sector in Zimbabwe experienced a liquidity crisis. To manage the crisis, the authorities had to implement measures that averted a complete breakdown of the financial system while attempting to limit the costs to taxpayers. It was also important for the authorities to consider whether or not these actions would contribute to future moral hazard problems.

During the crisis, there was an effective division of labour development between the Ministry of Finance and Development and the R B Z. The R B Z , with its financial supervisory authority, acted its role as ' lender of last resort.' This function implies giving assistance to a bank facing liquidity problems. A number of local banks received financial assistance from the R B Z during the liquidity crunch. Such assistance is only given after a full analysis of the problems afflicting such a bank and the reasons why they arose.

The assistance will only be given on specific conditions and the purpose is to prevent the bankruptcy of the bank receiving assistance or avoid the danger of problems spreading to other banks through a ' run on such a bank.' Some banks had to undertake forced changes that are in line with R B Z requirements so as to be assisted through the Troubled Banks Fund, which was used to provide emergency liquidity assistance (ELA). The main purpose of this special assistance was to protect depositors. However such assistance is never guaranteed or given automatically. As a result banks may accordingly go bankrupt leading to severe hardships for depositors who lose their deposits at such banks.

Emergency liquidity assistance should be implemented with speed for it to be effective in a crisis situation. Threats to the financial system can emerge suddenly and authorities must react very quickly.

The growth and increasing globalisation of financial markets, the high volatility in these markets and the increasing complexity of financial institutions increase the risk for a sudden crisis and increase the probability that such a crisis will spread from one market to another. It is because of these factors that requests for liquidity support may arise very rapidly. This is the reason why the R B Z should closely monitor general financial market developments to detect potential crisis situations that may call for emergency liquidity assistance.

However, the authorities must have a common strategy on how the crisis should be managed in order to avoid excessive support to the financial sector. Excessive support can lead to undue costs to taxpayers and to unsound incentives for the financial sector, hence the need to have a limit to the support that is provided. The pre-requisite for any support from the R B Z should be that there is considerable risk for a systematic crisis that may lead to a decline of real economic activity. A breakdown of payments systems or restrictive granting of credit, a credit crunch, affects real economic activity.

The R B Z , as a central bank, has a better capability than other authorities to provide financial support, if the need arises, very quickly. The main reason for this is that the central bank has the instruments for lending available and it has resources in its balance sheet or the credibility to get resources if they are needed (for example in foreign currency).

It also has an established capacity to judge whether a crisis may occur as a result of an institution's financial problems. The R B Z is able to make this judgement by virtue of its role as provider of the central payment system, its presence in financial markets and its general knowledge of the state of the economic and financial system.

This is why the R B Z provided liquidity support to a number of banks for normal operations and settlement requirements. However, this should not be taken as an argument for government to use the R B Z as a provider of support of support because it does not want to use budgetary resources. The central bank should be independent and control its own resources.

SOURCE: INFINITY ASSET MANAGEMENT CITED IN THE FINANCIAL GAZETTE, SEPTEMBER 23-29, 2004.

1. (a) (i) From the passage, identify the problem faced by banks. [2]
   (ii) Explain the role of R B Z in solving the problem identified in a (i) **[2]**

   (b) (i) How are depositors going to be affected by the problem in a (i) **[2]**
   (ii) Explain why the R B Z is the best institution to solve the problems faced by the banks. **[4]**

(c) (i) Identity any two factors which worsen the problem faced by banks. **[2]**
   (ii) Give any two functions of the R B Z implied in the extract. **[4]**

   (d) Examine the effects of the closure of a bank on the economy [**4]**

CHAPTER 13

UNEMPLOYMENT

Chapter objectives.

After reading and retaining comprehension of this chapter, you should be:

1. Aware of the principle of unemployment that s its scope and nature.
2. Familiar with the types of unemployment.
3. Able to explain the benefits of unemployment as well as its negative costs.
4. Able to describe the relationship between inflation and unemployment using the Philips Curve.
5. Aware of the role of government as far as unemployment is concerned.

- It is the total number of employable people who are looking for work but cannot find it.
- The constitutionally agreed employable age is from 16 up to 60 years (Zimbabwe)
- Unemployment rate is calculated as follows: $= \frac{\text{Total No. of unemployment}}{\text{Total working population}} \times 100$

The nature of unemployment

- Unemployment adversely affects any economy and is among the worst evils of any society.
- Its type can easily explain unemployment.

TYPES OF UNEMPLOYMENT

STRUCTURAL UNEMPLOYMENT.

This can be caused by changes in the structure of the economy. It is usually a result of the economy adopting structural policies and may be a sign of economic growth. The adoption of ESAP by Zimbabwe in 1991 caused structural changes in the economy's productive sectors that resulted in many people being laid off from their jobs.

FRICTIONAL UNEMPLOYMENT

Caused by labour turnover. It is made up of people who are caught between jobs in the process of changing from one to the other.

- In other words it exists when people will be moving between jobs.
- It is mostly made up of young people who often try several jobs before settling into the one that satisfies them the most.
- It can also be caused by information asymmetry regarding new prospective employers.

DEMAND DEFICIENT UNEMPLOYMENT / CYCLICAL UNEMPLOYMENT

Cyclical unemployment occurs because aggregate expenditure in the economy is not sufficient to stimulate the supply response needed for employment of all the available

labour. It is the amount of unemployment caused by a recessionary gap when national income falls short of potential income.

VOLUNTARY UNEMPLOYMENT

This comprises of people who do not want to work at the prevailing wage rates. This category of unemployment naturally exists in any economy. Voluntary unemployment is usually rampant in countries that pay unemployment/ social benefits.

SEASONAL UNEMPLOYMENT

This is caused by seasonal variations
Tourism and agro – based economies are usually affected by this type of unemployment

TECHNOLOGICAL UNEMPLOYMENT

This is caused by changes in technology which render some people redundant. Mechanization also replaces workers with machinery. The coming of computers, for example, resulted in most typists trained in the use of manual typewriters joining the unemployed. Excavators have replaced many general workers in the civil engineering and construction industries.

BENEFITS OF UNEMPLOYMENT

The benefits of unemployment include the following

1. Natural unemployment gives an economy the 'reserve army of the unemployed' that can be called to boost production and economic growth in the event of expansionary policies.
2. It gives a lot of time to employers to choose suitable staff for the job
3. It gives someone more time to persue leisure and cultural activities

Negative costs

The costs of unemployment includes the following: -

1. Represents a wastage of productive resources and potential output
2. Reduces status or affects social stigma
3. High levels of divorce
4. High levels of prostitution
5. High levels of poverty
6. High levels of inflation

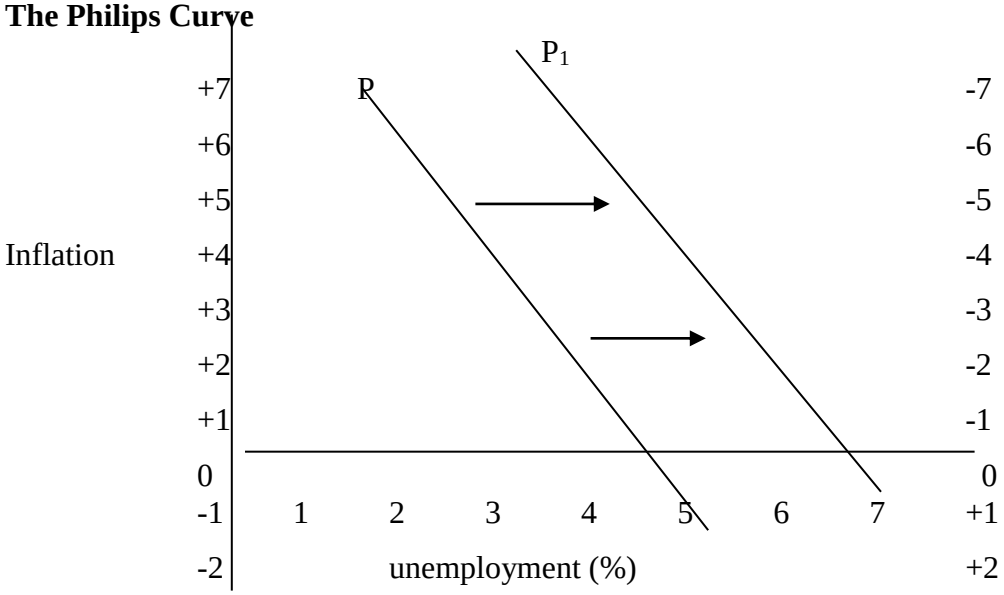
THE RELATIONSHIP BETWEEN INFLATION AND UNEMPLOYMENT

Inflation and unemployment are two enemies that usually do not co-exist. When they do, the situation is known as stagflationary.

- Reducing inflation would cause more unemployment and vice – versa

- Neoclassical and Monetarists say that the relationship is for a short period. The inverse relationship collapses as employment would returns to its previous level, but at a higher level of inflation.

The Philips Curve



The inverse relationship between unemployment and inflation was propounded by Professor AWA Philips 1914 – 1975.

Other views on the relationship

Other economists have noted the following with regard to the Philips relationship

1. No convincing relationship exists between prices and unemployment.
2. A relationship exists but events have caused it to shift rightwards
3. M. Sherman, a radical American economist suggested that the relationship is the other way round i.e increasing inflation is associated with increasing unemployment.

The Role of Government

There is no cure all solution to unemployment. Instead it is important to cook at each type of unemployment and the solutions that might be doctored to cure it.

Structural Unemployment

This type of unemployment is caused by changes in the structure of the economy. Intense competition may also reduce demand for products of an industry. In addition, demand for a particular type of product may fall as a result of substitutes emerging on the market, like was the case with tin and copper. Falling demand for tin and copper, for example, lead to

the closure of Kamativi and Mhangura mines in Zimbabwe respectively. It is crucial, therefore, in prescribing solutions in structural unemployment that we look at its underlying causes. With respective to competition, the government can impose tariffs in order to reduce the cost advantage of the competitors and hence committing their room to lead to company closures. It can also look at alternative uses of the produce in question, just to mention but a few.

Frictional Unemployment

This type of unemployment can be solved by making information available about the existence of vacancies in the market at a cheaper price. The government may also tax unemployment benefit funds in order to reduce unemployment benefit funds in order to reduce the disposable income available to job seekers. This should motivate them to search for employment as a matter of urgency.

Technological Unemployment

The government can put in place legislation that compels companies to give training to their employees which is compatible with the new technology. Companies and government alike may need to help victims of technological advancement to set their own business by way of training and grants.

Seasonal Unemployment

This type of unemployment is the most difficult to address. However, the government may encourage employees to train in other disciplines which are not affected by seasonal variations by setting up vocational training centres.

Demand Deficient Unemployment

The government can address demand deficient unemployment by expansionary fiscal and monetary policy. These policies are aimed at stimulating aggregate demand. An expansionary fiscal policy could for instance, involve reducing corporate and income tax. This has the effect of increasing demand for goods and services of both producers and consumers respectively. This is because a reduction in taxes increases disposable income available to producers and consumers. This increase in demand for goods and services can only be matched, ceteris paribus, by employing additional labour.

The government can also influence aggregate demand and hence employment through its direct public spending. Welfare benefits to poor citizens, for example, may lead to increased demand for goods and services which lead to an increase in economic activity and hence employment as additional labour is required to meet the demand. Through its public works programme the government can also influence employment levels in the economy. Employed labour through the public works programmes create new demand for goods and services which can only be met by employing additional labour ceteris paribus.

On the other hand, the government can influence aggregate demand and hence employment through the use of expansionary monetary policy and enables banks to create more credit (discount rate, reserve ratio and OMOs). A reduction in interest rate, ceteris paribus, increases demand for loans by both consumers and producers. This increases demand for goods and services which can only be matched by employing additional labour. The discount rate has a direct bearing on the rate of interest and hence its effect is the same as a reduction in interest rate. OMOs on the other hand, have the effect of increasing liquidity in the market which leads to increase in demand for goods and services. More labour may be required to produce the additional output to match demand.

EXAMINATIONS TYPED QUESTIONS
ESSAYS

1. (i) Identify the different types of unemployment prevailing in your economy. [12]
   (ii) Discuss how these types of unemployment can be solved in your economy. [13]
2. With all the costs at unemployment to society, should the government give first priority to solving this problem in the economy. [25]

DATA RESPONSE QUESTIONS

2. UNEMPLOYMENT: ONE OF SADC'S BIGGEST CHALLENGES

By Sifelani Tsiko

RISING unemployment among young people is one of the biggest challenges facing countries in the Southern Africa Development Community (Sadc) region.

Labour analysts estimate that youth make up more than half of the unemployed in the Sadc region of more than 106 million people. Youth unemployment rates in this region range from 60 and 40 percent for the youth under 20 years of age as well as those between 20 and 30 years.

Swaziland had a youth unemployment rate of between 20 and 30 percent in 2002; Lesotho 34 percent in 1999 while young people in the age group 15- 25 accounted for 61 percent of Zimbabwe's unemployed population according to 1998 figures.

Overall unemployment rates indicate that the region's joblessness rates range between 25 percent for better performing economies to highs of 80 percent in countries facing economic hardships.

Youths in the region often face many disadvantages that include lack of skills, experience and dim prospects for employment owing to the economic difficulties facing many countries in the region.

The International Labour Organisation (ILO) senior labour market policy specialist, Mr. Rajendra Paratian told participants to a three-day regional conference on youth employment that despite the differing levels of economic prosperity in the region, youth unemployment is reaching worrying levels for all the countries in the Sadc region.

‘ The countries in the sub- region are diverse in size, level of development, economic structures and labour markets, but have in common these pressing and deep-seated socio-economic problems,’ he said.
‘There is very little or no job creation, high and persistent unemployment, underemployment, poverty and decent work deficits.’ The three-day youth conference drew participants from nine countries that included Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe.
The meeting sought to create a forum for exchange of views on the scope, characteristics and causes of unemployment and challenges in these countries.

Labour experts, workers representatives, youth organisation, employers representatives, government officials, donors and international labour agency specialists all acknowledged that youth unemployment is a powder keg that will explode any time unless practical steps are taken to address it. ‘Youth unemployment is one of the biggest challenges of our times, not only in Africa but the World over,’ says Public Service, Labour and Social Welfare Minister Cde Nicholas Goche. Labour analysts project that there will be 1,2 billion unemployed youths worldwide if nothing is done to strengthen job and income generating capacity of small and micro enterprises.
The world youth unemployment rate has risen marginally from 11,7 percent in 1994 to 13,8 percent in 2004. In 2004, sub-Saharan Africa had a youth unemployment rate of 19,7 percent, which is high when compared with East Asia’s rate of 7,5 percent
‘What we need is a comprehensive, multi-sectoral and multidimensional approach that addresses youth employment within broader policy interventions,’ says Mrs. Regina Amadi-Njoku, ILO regional director for Africa.
‘We need employment policies that are embedded in broader pro-growth and poverty alleviation policies and that are also linked to both youth specific and anti-discrimination policies.’
Labour analysts say job market trends in the Sadc region include early entry into the labour market (children between 10-14 constitute 30 percent of labour force), cyclical problems of employment, rising unemployment rates, falling levels of decent work opportunities, long-term unemployment, declining social security mechanisms and the HIV/Aids menace that is threatening the labour market. Signs of distress among the youth in the region are evident.
‘More and more young people do not see their future in the formal economy, but in the informal sector as evidenced in Zambia,’ says Mr. Paratian.
Juvenile delinquency, drug abuse and violence are rising largely due to hunger, poverty and unemployment that emanate from economic and social exclusion.
Labour experts warned that long periods on unemployment in early life could have serious implications on employability, earnings and access to quality jobs.
They also say that some southern Africa countries will lose between one third and one quarter of their skilled and educated population by 2015 due to the ravaging HIV/Aids pandemic.
Some of the challenges facing the youth in the region include constraints to policy-making and implementation, mismatch between education and training and labour market needs and poor support for institutional mechanisms to monitor and implement policies. Participants say youth employment initiatives are often affected by inadequate resources, poor monitoring and implementation of action plans, uncoordinated responses, poor economic

growth, limited investment and the failure to articulate and recognise youth development among national priorities.
Solutions to youth unemployment, they say, include a solid formal education, effective and relevant vocational training, equal opportunities, entrepreneurship development, investment growth, employment intensive growth and the development of labour market information systems within an integrated approach. But the general picture of youth unemployment in the region is much more complex and bleak than what experts may think.
Economies in southern Africa remain weak and fragile due to distortions and fluctuations in community prices on the international markets.
The economies are agro- based and are prone to the ravages of nature such as droughts and floods that may impact negatively on economic performance and ultimately job creation.
Economic liberalisation policies have since the 1990s added to the woes facing the job-hungry youths. Companies are closing down, some are retrenching, downsizing while some are becoming more mechanised leading to reduced job opportunities for millions of school leavers in the region.
In the end, it is not conferences or summits that will create jobs but practical investments in entrepreneurial skills, developing education and training and the expansion of productive employment opportunities that will bring smiles to the growing armies of unemployed youth in the region.

(a) (i) According to the information given, which country is suffering most from youth unemployment in the SADC region.? **[1]**
(ii) Name some types of unemployment that are explained in the information given. **[3]**

(b) (i) Describe the social effects of unemployment as explained in the information given. **[4]**

(c) (i) According to information given, what are the main cause of unemployment among
the youth in the SADC region?
[3]
(ii) Explain the possible solutions to this youth unemployment problem. **[3]**

(d) Discuss the consequences of unemployment in an economy. [4]

3. DROP IN UNEMPLOYMENT RATE FORECAST

Business Reporter
ZIMBABWE' S unemployment rate is poised to drop from a peak of 70 percent to 30 percent in the next two years if the nation consolidates economic gains, a research by the Employers Confederation of Zimbabwe has revealed.
It shows that the stable macro-economic climate has created favourable conditions to increase local and foreign investments.

"The anticipated increase in investment will positively create jobs for those who are entering the labour market and the unemployed," it says. The unemployment rate has been hovering around 70 percent during the past four years owing to the harsh and unstable economic climate. Company closures and shrinking investment inflows were the major factors behind the soaring unemployment rate. " But there is still hope that the restoration of macro-economic fundamentals such as the decline in interest rates, inflation and budget deficit will harmonise employment opportunities," said EMCOZ.

Statistics show that the country's labour market is facing an excess demand for jobs with more than 600 000 people seeking employment annually. However only a quarter of the job seekers are being absorbed into the mainstream labour markets.

The situation is posing a threat to the skilled workforce as some of them are leaving the country in search of jobs in the Southern Africa Development Community, Europe and Asia.

EMCOZ said the stimulation of employment would depend on the sustainability of economic gains.

"Gains attained during the past 15 months will have a major bearing in as far as the increase in employment is concerned," said the organisation. But economic analysts said the country would face challenges in stimulating employment. " It is an uphill task that will require commitment from key players in the economy, the Government and employers," said Mr. Albert Mutyiri, a labour economist. Mr. Mutyiri said the country's unemployment rate was the highest in the SADC region as neighboring nations enjoyed an average unemployment rate of 10 percent.

(a) Explain why the ECZ has forecasted a drop in the level of unemployment. [2]

(b) (i) Identify the causes of unemployment from the information given. [4]
(ii) What is the main type of unemployment explained in the passage? [2]

(c) Analyse the relationship between investment and unemployment. [6]

(d) Examine the effects of unemployment in an economy. [6]

CHAPTER 14

INFLATION

Chapter objectives

After reading and retaining comprehension of this chapter you should be able to:

1. Define the term "Inflation."
2. Explain the different types of inflation and illustrate them on the diagrams.
3. State the causes of Cost Push Inflation and structural Inflation.
4. Describe the effects of inflation and the ways of reducing the rate of inflation.

Inflation refers to persistent increase in the general price level in a country. Inflation has the effect of eroding the purchasing power of money. There are four major types of inflation with each being defined by its causes. These are:

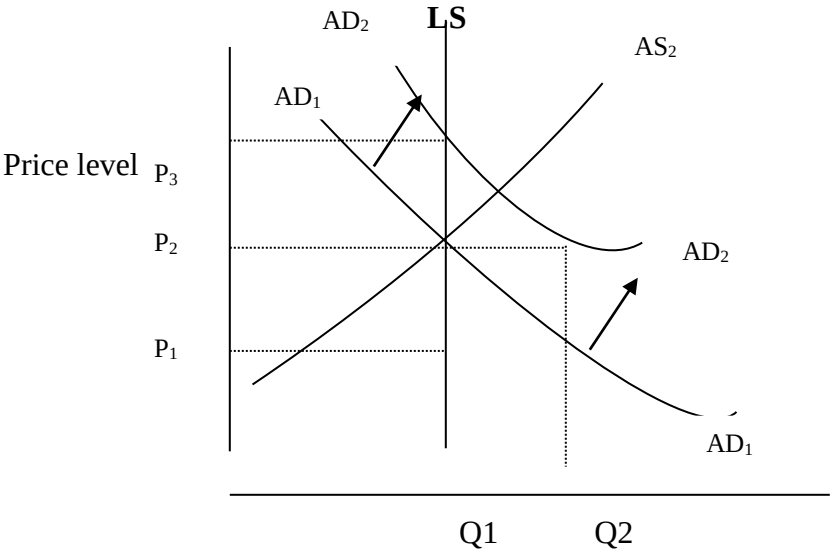
- Demand Pull Inflation
- Cost Push Inflation
- Imported Inflation
- Structural Inflation.

DEMAND PULL INFLATION

Demand pull inflation emerges due to the existence of excess demand over supply. When supply is too little to satisfy existing demand prices are pulled up by the prevailing shortages in the markets of the various commodities. This is illustrated below:

An Increase in Demand:

Demand – pull inflation



A shift in aggregate demand from AD_1, to AD_2 drives the price level up. Conversely a temporary increase in real out put results from Q_1 to Q_2 at a price of P_2. Predominantly

nominal ways will rise the contraction of aggregate supply. This has the effect of returning output to its previous level of Q_1 at an even higher price P3.

Demand pull inflation as represented by an outward shift of the aggregate demand from AD1 to AD2 are normally caused by demand shocks some of which are listed below:

(i) An Increase in the Level of Money Supply

An increase in the level of money supply creates a situation where people find themselves holding more money balances than before. As a result expenditure will be increased as people try to get rid of the extra money balances. This situation of too much money chasing too few goods, through increased demand pressures, will result in prices being pulled up.

(ii) An Increase in Government Expenditure

In most countries the Government constitute a significantly large proportion of total expenditure. To this extend, large increases in government will significantly raise total domestic expenditure leading to an increase in the general level. Higher government expenditures also result in higher inflation by raising interest rates.

(iii) An Increase in Disposable Incomes

When disposable incomes increase either as a result of an increase in money wages or a reduction in income taxes people will find themselves with more purchasing power. This will result in them increasing their consumption expenditure thus exerting more pressures on aggregate demand. If such an increase in aggregate demand results in shortages, prices will be forced upwardly.

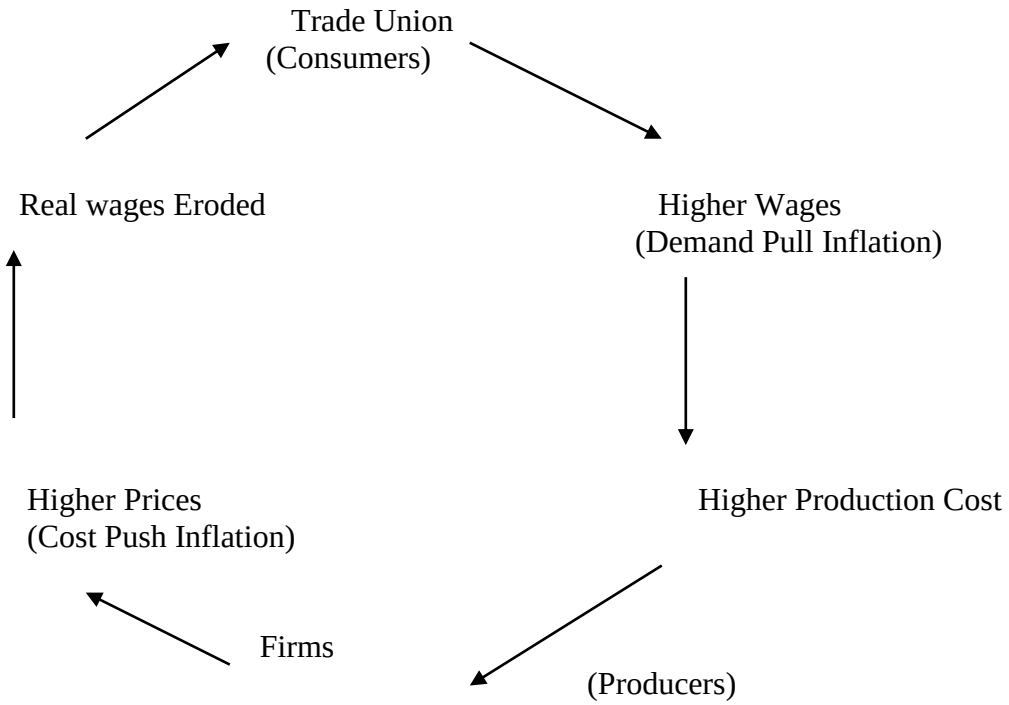
(iv) Hire Purchase and Credit Availability

The availability of consumer loans or credit and hire purchase facilities or the easing of terms on such facilities also increases aggregate expenditure and inflation. This is because these facilities make it possible and easier for low income individuals who could not have afford to buy some commodities to participate in the markets of those commodities.

COST PUSH INFLATION

This is inflation caused by an increase in the prices of factor inputs such as wages, interest rates, exchange rate devaluation and the price of fuel and raw materials. When these prices increase firms pass them on to final consumers by increasing their prices to avoid an erosion of their profits. It should be noted that in practice demand pull and cost push inflation are not always completely independent. An increase in wages, example, causes both demand pull and cost push inflation. This practical inseparability between these two forms of inflation is also clearly shown by the following Wage-Price spiral, which is typical of the Zimbabwean economy in the 1990s.

The Wage-Price Spiral



Causes of Cost Push Inflation

(**i) Increase in wages** ; eg as trade unions bargain for higher wages and salaries.
(ii) Increase in interest rates; eg due to tight monetary policy or too much government borrowing and expenditure.
(**iii) Exchange rate devaluation**- mainly when firms rely heavily on imported inputs.
(iv) Increase in the price of fuel

STRUCTURAL INFLATION

Structural inflation is the general increase in prices, which is initiated by the existence of structural bottlenecks and constraints that exist in the economy. These can be natural or a result of domestic macroeconomic and political policies. When they exist they result in general shortages, which in turn push up prices.

Causes of Structural Inflation
(i) Natural disasters such as droughts; floods; earthquakes.
(ii) Adverse macroeconomic policies such as investment controls; price controls; interest rate controls; foreign exchange controls.

(iii) Institutional restrictions eg adverse legislation on investment and bureaucracy in investment approval.
(iv) Political factors such as political instability and wars; bad political policies and ideologies.

IMPORTED INFLATION

This type of inflation mainly affects an economy if it heavily depends on imports for domestic consumption and production. A foreign price shock in the trading partners of the economy would result in imports landing in the domestic markets at higher prices. Imported inflation does not occur only if the exchange rate is completely market determined and is able to neutralize such foreign price shocks.

The Rate of Inflation

The following descriptions can be used to indicate the rate of inflation:

(i) Creeping Inflation: exists when the increase in prices is still very low such as in the case of a single digit inflation.
(ii) Runaway/Galloping Inflation: When prices increase and an accelerated rate. Inflation starts to be a noticed problem and controlling it will be difficult. Money starts failing to perform effectively its four functions, ie as a medium of exchange; store of value; unit of account; and as a standard for deferred payments. People
(iii) Hyperinflation: Highest levels of inflation. At this stage money ceases to be a generally acceptable medium of exchange. The use of other inflation hedges and 'dollarization' will be rampant eg commodities; assets; and foreign currencies will be preferred as opposed to the domestic currency.

EFFECTS OF INFLATION

Inflation is one of the worse macroeconomic evils of any society. Its effects are as summarized below:

(i) Inflation erodes the purchasing power of money

With inflation; the real value of money and consequently nominal incomes such as wages, interest, profit, and rent is eroded. Money is made to buy less quantities of goods and services over time.

(ii) Inflation benefits debtors and the expense of creditors

Because inflation erodes the real value of money; money lent out today and repaid after a period will have lost its purchasing power. Unless interest rates are more than the rate of

inflation; wealth will be redistributed from creditors to debtors whenever a credit transaction is undertaken.

(iii) Inflation increases the cost of living/reduces the standards of living

With inflation people will need to spend more to buy the same goods and services for their day to day living. Alternatively stated, if nominal incomes fail to adjust adequately for inflation, as is normally the case in many countries, people will be forced to leave on smaller quantities of goods and services over time.

(iv) Inflation negatively affects the balance of payments

Inflation reduces the price competitiveness of domestic goods and services in the world market and increases that of foreign goods and services in the domestic market. Domestic inflation therefore encourages imports and discourages exports and leads to a balance of payments deficit. Overtime inflation also leads to the domestic exchange rate depreciation.

(v) **Inflation negatively affects investment**

With high and unstable inflation it becomes difficult for investors to formulate profit expectations and to project future business cash flows. Inflation therefore increases investment risks and discourages investment.

(vi) Inflation causes political and social unrest

When inflation is low government are credited and when it's high they are discredited. Political and social upheavals in the form of strikes, demonstrations, wars and destruction of property are a recurrent feature in countries with high inflation levels.

DEFLATIONARY POLICIES

To reduce inflation, the following policies can be implemented:

(i) Tight fiscal policy

This involves reducing government expenditure and or increasing taxes. This would reduce demand pressures in the economy and reduce demand pull inflation. A reduction in government expenditure would also reduce domestic interest rates and consequently cost push inflation.

(ii) Tight monetary policy

Tight monetary policy in the form of reducing money supply and credit availability solves the problem of too much money chasing too few goods. It should however be noted that

the same tight monetary policy may fuel up cost push inflation through increasing interest rates especially in a country like Zimbabwe in the 1990s where many firms rely on borrowed funds.

(iii) Tight incomes policy

This involves indexing wages and salaries to labour productivity. To avoid unsustainable demand pressures, wages and salaries should be increased only up to rates that match the increase in labour productivity.

(iv) Price controls

The placement of price controls and ceilings by the government is a short run measure which suppresses inflation. In the long run when inflation pressures can no longer be contained, the increase in prices will be acute and worse. This is what happened in the case of Zimbabwe when it moved from a controlled economy to a more liberalized economy in the 1990s.

(v) Supply sided policies

These are policies that are meant mainly to reduce structural inflation through the removal of structural bottlenecks that exist in the economy. Generally, structural policies are implemented through the World Bank-International Monetary Fund Structural Adjustment Programmes. These policies include trade liberalization; domestic markets deregulation and decontrolling; the capital account (foreign investment) liberalization; institutional reforms. It should be noted, however, that structural policies such as the deregulation and decontrolling of the domestic markets might cause high inflation in the short run due to the removal of the price suppressions, which normally exist before liberalization. In the long run through improved investment and supply prices would be expected to fall.

EXAMINATIONS TYPED QUESTIONS

MULTIPLE CHOICE

1. A deflationary gap occurs when:
   - A there is deficient demand in the economy.
   - B there is too much demand in the economy
   - C excess demand pulls up prices
   - D the equilibrium national income

2. The disadvantage of using the tight monetary policy to reduce inflation is that:
   - A it reduces the interest rate
   - B It worsens the balance of payments deficit
   - C it leads to unemployment
   - D it increases output.

ESSAYS

1. How effective is the fiscal policy in controlling inflation in a country?
2. (a)Explain what is meant by deflationary and inflationary gaps. [10]
   (b) Discuss how the inflationary and deflationary gaps can be corrected. [15]
3. Is inflation always bad to an economy? [25]

DATA RESPONSE QUESTIONS

KENYA INFLATION FALLS TO 4.3%

NAIROBI-Kenya's year-on-year inflation rate dropped to 4.3 percent in September from 6.9 percent in August as falling food prices offset higher fuel costs, the Central Bureau of Statistics (CBS) said on Monday. Underlying annual inflation, which excludes food, dipped to 6.6 percent in September in east Africa's biggest economy from 6.7 percent in August. The food and non-alcoholic beverages index decreased by 1.4 percent in September compared with August because of falling sugar, tomato, maize grain and flour prices, the CBS said.
But the fuel and power index rose by 2.1 percent in September compared with August because of a jump in kerosene and electricity prices. The cost of 200 kilowatt-hours of electricity was 1 684 shillings in September, compared with 1 534 shilling in August, a 7.4 percent rise.
The average retail price of a litre of kerosene was 52.31 shillings, compared with 42.99 shillings a litre in September 2004, a 21.7 percent jump.

(a) (i) Which product led to significant decrease in inflation in Kenya? [1]
    (ii) Name two products whose index rose significant. [2]
(b) (i) Name the type of inflation caused by higher fuel costs. [2]
    (ii) Explain why an increase in fuel costs is said to have a 'ripple effect' on the prices of other products in an economy. [4]
(c) (i) Account for a fall in food prices. [4]
    (ii) Give two factors considered when looking at the problem of inflation. [2]
(d) Discuss whether the government should be worried by the problem of inflation in an economy. [5]s

Millers lament shortage of inputs

Business Reporter

The country's milling industry is facing a shortage of raw materials leading to limited suppliers of basic food in the wholesale and retail markets.
A survey done by *Business Chronicle* yesterday showed that most milling companies were scaling down operations due to the shortages of essential raw materials and inadequate foreign currency to import machinery.
National Foods Holdings limited, company secretary, Mr. Andrew Lorimer, said the raw materials would be the greatest challenge. "Raw materials will be our greatest challenge,

however the Government has stated its commitment to ensuring food security for the nation, and the group looks forward to playing its part in achieving this goal," said Mr. Lorimer.
He said the company is facing dramatic inflationary pressures on raw materials costs and overhead.
"Management has worked hard to co-operate with and support the Government in their initiative to deliver food at affordable prices. Through negotiations, the group hopes it will realise, in turn, timeous fair price increase for its products," he said. A manager for a local bakery, R&K Bakery, said inadequate fuel supplies had led to the shortage of bread in the retail markets within the city.
"For us to produce bread we need diesel because our ovens operate on diesel. And for us to deliver bread, we need diesel for the delivery vans," said the manager.
He said the company was failing to import fuel due to inadequate foreign currency.
"As we speak, ten delivery cars are parked, they do not have fuel. We do not have foreign currency to import fuel and that has caused these shortages. We do have the flour, yeast and everything that is needed to produce bread but we do not have fuel to process and deliver our products," he said.
But an official of a Bulawayo-based milling company, said food shortages have been experienced due to the drought.
" The food shortages have been severe in the drought-prone areas in Matebeleland South which has been experiencing perennial droughts in the past years," said the official.
He said the region as a whole has been affected by a long dry spell.
" The grain situation in the province has been made more critical because most farmers planted maize, which does not do well in the region," said the official.

(a) (i) What is meant by 'scaling down of operations?' [2]
(ii) From the extract, explain reasons why most milling companies scaled down their operations. [2]

(b) How can timeous fair price increases for the products enable companies to deliver food at affordable prices? [2]

(c) (i) Explain two measurers which companies can undertake to reduce inflation. [4]
(ii) Explain two measurers the government can undertake to reduce inflation. [4]

(d) Discuss the effects of inflation. [6]

CHAPTER 15

ECONOMIC GROWTH

Chapter objectives

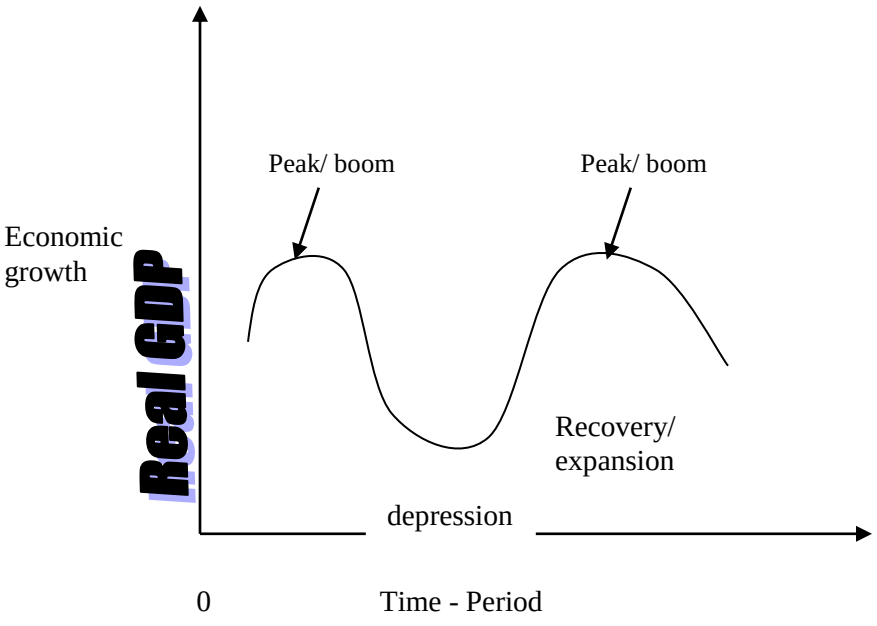
After reading and retaining comprehension of this chapter you should be able to:

1. Define the term, "Economic Growth."
2. Explain the relationship between Economic growth and Production possibilities curve
3. Describe the major methods of measuring Economic Growth.
4. Understand the Indication of Economic growth and the factors which determine Economic growth.
5. Discuss the ways in which the government can use the Monetary policy and fiscal policy instruments to stimulate economic growth.

Economic growth is the increase in the amount of goods and services the whole economy produces in the current year over and above what it produced the previous year.

It is an outward shift of the production possibilities curve mainly attributed to technological and investment increases in an economy. It is an increase in output or GBP. Economic growth can be measured using three major methods.

(i) Real per capital income i.e. income per head.
(ii) Oscillatory movements
These are wave like movements in the economy, the ups and downs or upswings and downswings in the economy shown as follows.



Business cycles are simply recurrent but irregular fluctuations in economic activity.
The angle will begin anywhere and then will continue through the four phases.

Peak – the highest point

Recession – GDP begins to decline, factories start laying off workers, people have less money to spend.

- It is a period of at least six months of continued decline in real GNP.
- It ends when GNP stops failing and levels off into the phase known as the length.

Recovery – there is economic expansion, laid off workers are called such to their jobs and overall unemployment declines.

(iii) Physical indicators
These are tangible and can be felt in the economy such as

- Inflation
- Unemployment
- Depressed investment
- Distressed demand
- Shortages of products
- Closure of companies or trimming down of operations.

MEASURING ECONOMIC GROWTH

The rate of economic growth is measured by real national income or GDP on a yearly basis or any other period. When prices rise there may be no real growth in output or incomes. This only represents a rise in nominal GDP. As a result, to find out how much real output has changed, the effect of inflation must be taken into consideration.

For the economists, people are only better off if real GDP per capital increase.

$$\text{Real per Capita Income} = \frac{\text{Real GDP}}{\text{Size of population}}$$

If there is real output growth, then there has been economic growth. The nature of the goods being produced will determine the living standards. The better gauge of economic growth is by observing if real GDP has increased over the time period per head of the population.

If the value of real output GDP for country A in 1990 was \$ 500 000 and the population being 50 000, then real GDP per capital $= \frac{\$\ 500\ 000}{50\ 000}$

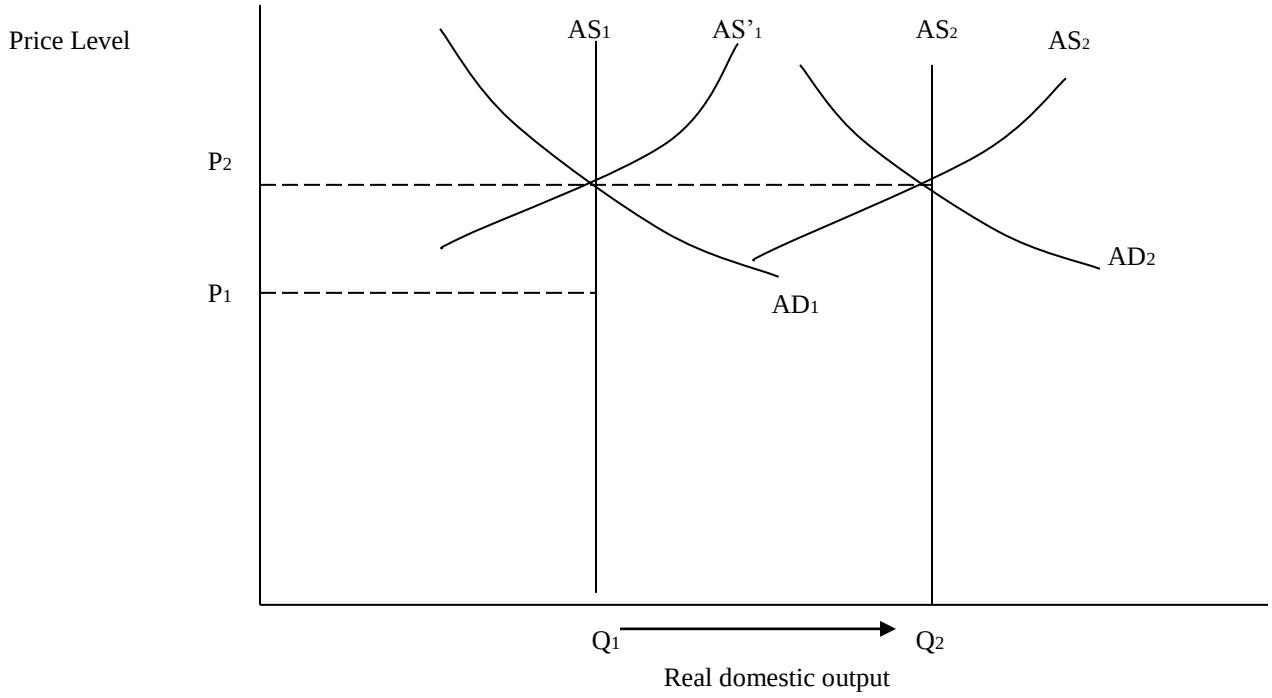
$= \$\ 10$ per capita per year

If in the other year 1991 real output GDP for country was $ 600 000 then:

real GDP per capita = $\frac{\$\ 600\ 000}{50\ 000}$

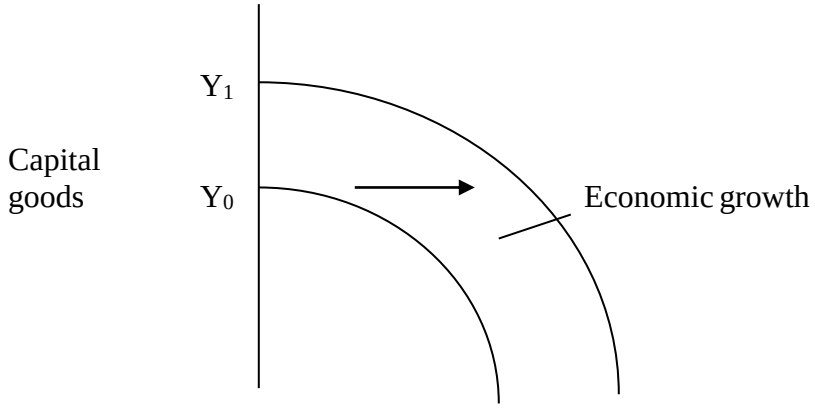
= $ 12 per capita

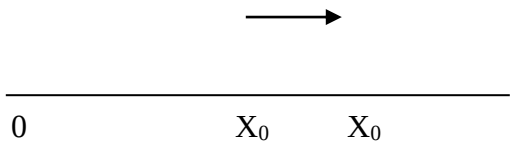
Long run aggregate supply curves shifting rightward over time indicating economic growth.



In the long run, a nation must expand its production capacity in order to grow on the supply side. But aggregate demand must also expand or else the extra capacity will stand idle. Economic growth depends on an enhanced ability to produce. The supply side of economic growth is illustrated by the outward expansion of the production possibilities curve as from Y_0 X_0 to Y_1 X_1. The demand side of economic growth is shown by the movement from a point on Y_0 X_0 to an optimal point on Y_1 X_1

The Production Possibilities Curve





Economic growth is shown by the shift of the production possibilities curve outward as shown above.

Economic growth is shown by the shift from Y_0 X_0 to Y_1 X_1. The shift is due to many factors including the following: -

- Increase in the quantity and quality of resource
- Technological advance
- Population
- Investment
- Political stability

Other factors which determine economic growth

1. Fertile land, minerals, forest, scenic locations, strategic waterways can facilitate rapid economic growth.
2. Size and productivity of labour force logically the larger the skilled workers, the much greater the opportunity to produce more goods.
3. Capital accumulation
4. This refers to infrastructure, buildings, machinery and the amount of tools available in the manufacturing industries. If an economy posses a sizeable number of these more goods can be produced in the absence of these then more skilled labour will lie idle.
5. Political stability
6. A politically stable economy will motivate investors both locally and externally to increase production. Wars, demonstrations strikes and civil strife will disrupts production and dampen investor's spirit to the production sector.

Government Role

The government can stimulate economic growth through expansionary fiscal and monetary policy respectively.

Expansionary Fiscal Policy

The government can prescribe any or all of the following in order to influence a positive growth in national output.

Taxes

The government can manipulate taxation in order to influence economic growth. Firstly, it can reduce corporate and income tax respectively. A reduction in corporate tax leaves firms

with more funds to use for their expansion activities. If firm find a reduction in a corporate tax as an incentive to expand given that ploughed back profits are cheaper source of finance, output resulting from this increased capacity will contribute to economic growth, ceteris paribus. The government may also stimulate consumption by consumers through a reduction in income tax increases consumers' disposable income and as a result consumers are expected to demand more goods and services. Firms are, ceteris paribus, supposed to respond to this surge in demand by increasing output in order to take advantage of this increase in demand brought about by a reduction in corporate tax.

Secondly, the government can give tax incentives to firms producing output for the export markets. This is usually in form of tax breaks and tax holidays. Any exemption from paying tax provides firms with a cheap source of finance enabling them to expand their production, hence contributing to increased out put – economic growth.

Subsidies

Subsidies can also be given to firms in order to enable them to produce their output at a lesser cost. Once the cost of production has been reduced by subsidies there is incentive for terms to produce more output contributing to economic growth.

Government Expenditure

The government can itself be involved instate enterprise. This is a form of production where parastatals or public corporations are encouraged to produce output by the government by setting shop. The government can also influence aggregate demand through the public works programme which have potential increase output through the multiplier process. The government can in addition, assist especially small-to-medium enterprises to set up shop by building factory sheds for them. SMEs would be set up in the process given the fact that part of their start up capital would have been contributed by the government through the factory sheds provided.

Expansionary Monetary Policy

The government can also influence aggregate demand and hence economic growth through an expansionary monetary policy. An expansionary monetary policy would consist of the following, rediscount rate, reserve ratio, interest rate and open market operations among many.

Discount Rate

This refers to the interest rate that the central bank charges on borrowings by financial institutions. If the discount rate is reduced, it means the cost by financial institution from the central bank is also reduced. This will give cue to the financial institutions to reduce their interest rate on loans to members of the public. A reduction in interest rate should influence both corporate and individual citizens to borrow more from the banks. Output, ceteris paribus, is expected to increase in response to expand borrowings.

Reserve Ratio

The central bank can also stimulate economic activity by reducing the reserve ratio. A reserve ratio dictate how much of the bank deposits should be banked with the central bank.

A reduction in the reserve ratio leaves banks with more funds for credit creation (loans). An expansion of credit available to consumers and producers should also influence positively aggregation demand, ceteris paribus.

Interest Rate

The reserve bank can also reduce the rate of interest to stimulate aggregate demand and hence economic growth. The rate of interest is the cost of capital and plays a crucial role in determining the ability of both consumers and producers to borrow from financial institutions to meet their respective goals. If the rate of interest is reduced, ceteris paribus, we anticipate demand for loans to increase since the cost of borrowing will have been reduced. This increase in demand should be followed by increases in output, that is, economic growth.

Open Market Operations (OMOS)

The monetary authorities can also influence aggregate demand positively through OMOS. This they do by buying back commercial papers such as treasury bills from the banking sector and members of the public. This has the effect of increasing money supply in the economy. Demand for goods and services is expected as a result to increase leading to economic growth.

EXAMINATION TYPE QUESTIONS

ESSAYS

1. (a) Using the production possibility curve, explain the economic problem of scarcity. [10]
   (b) Economic growth solves the basic economic problem of scarcity. Discuss. [15]
2. How useful are the GDP statistics in comparing living standards between countries. [25]
   [15]
3. Discuss the benefits of economic growth in the economy such as Zimbabwe. [2]

CHAPTER 16

NATIONAL INCOME ACCOUNTING

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:

1. Appreciate the scope of National Income Accounting.
2. Be aware of the principles of National Income Accounting.
3. Understand Gross Domestic Product, Gross National Product, Net National Product, Personal income and Disposable Income as measures of National Income.
4. Explain the methods of National Income Accounting, that is, Expenditure Approach, Income Approach and Output Approach.
5. Illustrate the output approach and Income Approach.
6. Respect the pitfalls of National Income Accounting
7. Apply the concept of National Income multiplier to National Income Accounting.
8. Describe the Aggregate Supply- Aggregate Demand Approach using illustrations.

National Income accounting involves the recording and analysis of the value of total production in a country for a particular time period. Such data is normally recorded on a yearly; half yearly; or quarterly basis. National income accounting data is important for the following reasons:

- The data allows policy makers to measure the level of economic performance for the country. Economic growth which involves the expansion of the value of real production, for example, would mean an improvement in the economy's activities such as investment, consumption and employment. This accounts therefore makes it easier to compare performance and welfare over time within the same country and across different countries in a given time period.
- The accounts give policy makers an insight into the nature and composition of production and income. This is because national income accounts aggregate similar expenditures such as business investment and similar incomes such as employee compensations together in a way that is useful for economic analysis. This helps to explain why one country, for example could be growing faster or slower than the other.
- The information provided by the accounts makes it easier for a country to formulate and implement appropriate macroeconomic policies to improve the performance of the economy.
- Finally, national income accounts are used by international organisations such as the IMF, the World Bank, foreign governments and donors to assess the performances of their loans, grants and donations to other countries. Such data is also used by the same organizations to assess the level of poverty or development of a country to determine whether assistance is worth extending to such a country.

PRINCIPLES OF NATIONAL INCOME ACCOUNTING

National Income accounting involves the compilation of the monetary value of current production. The following features are worth noting when compiling the accounts:

- The aggregation of total production is done at market prices or in monetary terms. This homogenizes the physically different commodities such as automobiles; grain; furniture; etc into a common denominator so that they can be added together.
- The accounts measure the expenditure and income stream that comes from current production of goods and services. Transactions in second hand commodities; financial assets and stocks; and transfer payments are not reflected in the accounts because they do not involve current production. Only charges and costs on the facilitation of such transactions such as brokerage fees and commissions are included because they constitute current production.
- The value of a commodity is recorded once. This is the principle of avoiding double or multiple counting of the same commodities which would overstate the value of total production. The problem of double counting can be illustrated by the following example in the production of a shirt: Suppose the production of the shirt starts in the cotton field by a farmer who produces and sells cotton to a Milling and Weaving company for $200 which in turn sells cloth to a Clothing manufacturer for $300 who in turn sells the completed shirt to a Wholesaler for $400 who in turn sells the shirt to the Retailer for $550 who finally sells the shirt to the consumer at $700. From this chain of production, adding the values of production at intermediate stages would overstate the value to $1150 yet the actual value of production is only $700. To avoid the problem of double counting one can either take the value of the final product which is $700 in this case; or adding value added at each stage of production which is $200 + $100 + $100 + $150 + $150 = $700.

MEASURES OF NATIONAL INCOME

GROSS DOMESTIC PRODUCT:

GDP measures the amount of income earned or produced in a country. This is production done within a country regardless of whether the means of production are owned by the nationals of a country or by foreigners.

GROSS NATIONAL PRODUCT

This is the value of output produced by the nationals or citizens of a country. This includes production undertaken and income earned by Zimbabweans both within and outside the boundaries of the country. The difference between GDP and GNP is therefore the value of net factor income to or from abroad ie:

GNP = GDP + Foreign Income (Inflow less Outflow)

Net foreign income is the difference between property income received by foreigners owning factors of production in Zimbabwe and property income earned by Zimbabweans on their investments and ownership of factors of production in other countries.

NET NATIONAL PRODUCT

NNP defines Gross National Product net of capital consumption allowance. This is the value of production after subtracting the estimated cost of depreciation on fixed capital goods. NNP therefore represents the value of production a country can consume without eating into fixed investments. A country whose gross capital formation is greater than its capital consumption allowance will be building up on its productive capacity and has got the capacity to grow in future.

Personal Income

This is income which is actually received by the factors of production after adding any transfer receipts from the government; or from the foreign sector. Personal income is also net of corporate income taxes and retained profits.

DISPOSABLE INCOME

This defines income which is at the disposal of people after subtracting personal income taxes. Such income can be used for consumption or investment expenditure.

METHODS OF NATIONAL INCOME ACCOUNTING

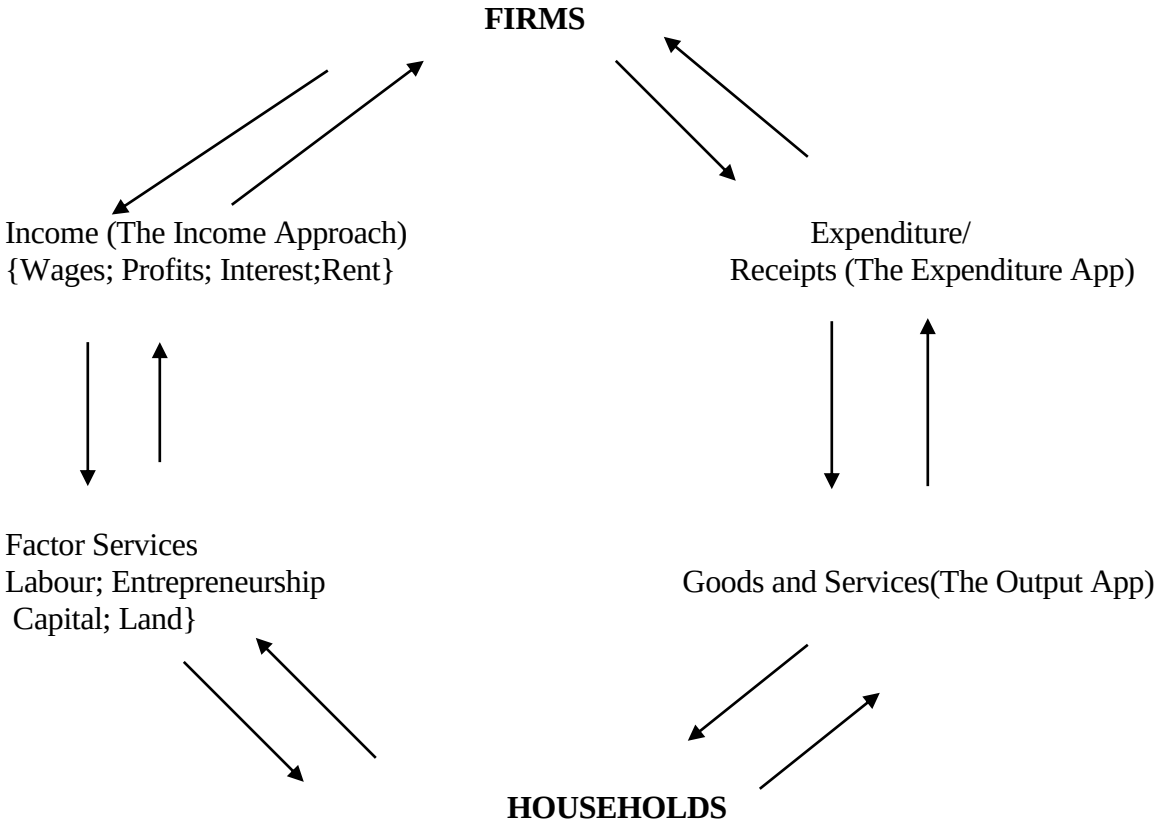
These are the approaches used to measure the value of production. They identically yield the same results. They are:

The Expenditure Approach;

The Income Approach;
The Output Approach;

The fact that these three approaches are identical can be illustrated by the following circular flow diagram of production and income which assumes an economy made up of households and firms only.

The Circular Flow Diagram of Income



THE EXPENDITURE APPROACH

This measures income by adding up all final expenditures on currently produced commodities. Broadly aggregated, such expenditures are: consumption expenditure; investment expenditure; government expenditure; and net foreign expenditure. In summary, a country's Gross Domestic Product using the expenditure approach is defined as:

$$GDP = C + I + G + X - M$$

Consumption (C): This is expenditure by households on currently produced durable; semi-durable; and non-durable commodities for final consumption. Such commodities include: furniture; cars; radios; clothes; and food.

Investment (I): This is investment expenditure by the business sector and government in real physical capital goods and inventories to be used to facilitate future production. It is made up of: i) the purchase of equipment and machinery by firms and the government. ii) Expenditure on construction and infrastructural development by the government and the private sector. iii) Physical changes in the business sector inventories. When investment is gross; the measure obtained is Gross Domestic Product. After allowing for or deducting capital consumption allowance or depreciation GDP is converted to Net Domestic Product. A country whose gross capital formation is greater than its capital consumption will be adding to its productive

capacity while a country whose capital consumption exceeds its capital formation will be eating into its productive capacity.

Government Expenditure (G): This sums up all government re-current expenditure on purchasing finished goods and services and on wages and salaries. Government transfer payments such as war veterans gratuities and pensions; student payouts; and social welfare grants are excluded. All public sector investment expenditures are included under investment and faces the risk of experiencing reduced growth in future.

Exports (X): Exports constitute domestically produced commodities sold to foreign countries. These are added to get the value of production because they constitute incomes earned by factors in the exporting country. The effect of such exports is to enhance domestic employment, production and incomes.

Imports (M): Imports are part of domestic expenditure which falls on foreign produced commodities. They constitute domestic incomes earned in foreign countries and as such contract the economy. This is why expenditure on imports is subtracted to get the value of domestic production.

THE OUTPUT APPROACH

The Output approach is similar to the expenditure approach except that the value of output will be classified by the sectors or industries from which they are produced eg Mining; Manufacturing; Tourism; Education; Health; Agriculture; Banking; etc.

The Income Approach

The Income approach records the value of current production by summing up all incomes earned by the factors of production engaged in current production processes. This is necessarily identical to the expenditure approach in the sense that whenever one spends to buy a commodity somebody will be receiving the same money. In other words the value of a commodity as measured from the expenditure incurred to acquire it is the same as getting its value by taking the total income earned from it. When the final consumer buys a shirt at $700; this amount of money will be distributed among wages as remuneration for labor; interest as remuneration for capital; rent for land; and profits for entrepreneurship. Gross Domestic Product from the income approach is therefore obtained as:

GDP = Profit before tax + Wages + Interest + Rent

GDP as measured in this way is recorded at factor cost because it excludes indirect taxes and subsidies. Indirect taxes represent expenditure paid but which is not received by any of the factors of production while subsidies represent earned income for which no expenditure in any of the expenditure aggregates is made.

Profit: This is the net income before tax and depreciation for all corporate business entities. An adjustment for non-produced profit resulting from the monetary appreciation or depreciation of inventories should be made. To get GDP at market prices all unearned income such as indirect taxes net of subsidies are supposed to be added back.

Wages: These constitute all the income earned as wages and salaries in the formal sector; and the proprietors' incomes in unincorporated business entities and farms. They also include the imputed or estimated value of production by subsistence farmers.

Interest: This is all income earned on financial investments.

Rent: This constitute all the payments made for the services of land. Rent includes the imputed rentals on owner occupied houses and land.

An Illustration: The Expenditure and Incomes Approaches

The Output/Expenditure Approach		**The Income Approach**		
Consumption		**Wages**		**XX**
Durables	XXX	Formal Sector		XXX
Semi-durables	XX	Informal Sector		XXX
Non-Durables	XXXX	Proprietor's Income		XXX
Investment		Net farm Income		XXX
Private Sector	XXX	**Rent**		**XX**
Government	XXX	Imputed	XXX	
Construction	XXX	Paid	XXX	
Phy change in inventories	XXX	**Profits**		**XX**
Government		Formal sector	XXX	
Finished Goods	XX	Less monetary appreciation in stocks	X	
Exports	XXX	**Interest on Financial Investments**		**XX**
Less Imports	(XXX)	**Net Domestic Product (factor Cost)**		**XXX**
		Add Depreciation		XX
		GDP (Factor Cost)		**XXX**
		Add net income frome abroad		(XX)
		GNP (Factor Cost)		**XXX**
		Add Indirect Taxes		XXX
		Less Subsidies		(XX)
GDP at Market Prices	**XXXX**	**GDP at market Prices**		**XXXX**

Relationships between Various National Income Measures

GDP at market prices	XXXXX
Net Income from Abroad	(XXX)
GNP at market prices	XXXX
Less Capital Consumption Allowance	(XX)

NNP	**at**	**market**	**prices**
XXXX			
Less Indirect Taxes			(XX)
Add Subsidies			XXX
Net National Product at factor cost			XXXX
Add Government Transfer Payments			XXX
Less Corporate Income Taxes			(XX)
Less Retained Earnings			(XX)
Add Transfer Payments from abroad			XXX
Personal Income			XXXX
Less Personal Taxes			(XX)
Disposable Income			XXXX

Nominal Income and Real Income

Nominal Income refers to the value of current production as measured at current market prices. Any changes in nominal income are a result of both the effects of inflation and real output changes. This implies that nominal income is a mis-representation of the actual performance of a country.

Real income on the other hand measures the value of production at constant prices. Changes in real income are therefore a result of physical changes in output and measure an economy's economic growth.

After national income accounts have been recorded at current market prices, they are deflated into their real income equivalents using the following conversion formula:

$$\textbf{Real Income} = \frac{\textbf{Nominal Income}}{\textbf{General Price Index}} \times 100$$

Example: Converting nominal Income to Real Income

Year	**1990**	**1995**	**1998**
Nominal Income $b	5000	10800	20400
Price Index(90=100)	100	245	460
Real Income	$\frac{5000}{100} \times 100$	$\frac{10800}{245} \times 100$	$\frac{20400}{460} \times 100$

Pitfalls in Using National Income Accounts

When using national income accounts to measure and compare the levels of economic performance over time in the same country or across different countries, the following problems are encountered:

(i) **The role of the informal sector**

In most Developing Countries a significant proportion of total production takes place in the informal sector. Such informal sector activities include production by housewives, and other fix-it-yourself activities. To the extent that the role played by the informal sector changes from time to time, estimating the value of production in this sector may result in the underestimation or overestimation of the value of total production in a country. The levels of such activities may also be different across countries making cross-country comparisons of economic performances difficult by housewives, although significantly large in Less Developed Countries, is completely excluded from the compilation of national income accounts. This leads to the underestimation of the value of production in these countries compared to the more monetized developed countries.

(ii) **The problem of income distribution**

National income accounts only show aggregate incomes and expenditures. They do not show how the earned income is distributed across the various sectors and individuals of a country. Because welfare heavily depends on the distribution rather than total income; the are possibilities that one country can show very high rates of economic growth than other countries yet still the majority of its population could be starving because of the existence of high degrees of income disparities.

(iii) **The nature of production**

The welfare of a country's population depends of the nature of the goods produced. A country can show significantly high levels of economic growth while at the same devoting much of its resources to the production of military equipment or capital goods. The material wellbeing in such a country could lower than in another country with lower rates of economic growth but producing more consumer goods to feed its population.

(iv) **Welfare is dependent on many other things**

Measuring and comparing welfare by simply looking at national income accounts is misleading. This is because the welfare of a country also depends on many other variables like peace, freedom, democracy and love which are not included in any of the measures of national income accounts. A country can therefore show a good performance on its national income accounts when at the same time due to political instability its people could be suffering.

(v) **The conversion of nominal income to real income**

The usage of the general price index to convert nominal measures to real measures is subjective. This is because the price index used depends on economic and political conditions in its base year. Changing the base year, for example, from one year to another would result in the same index giving completely different real measures. Again weights of different commodities included in the base year basket could be completely different from the current and future consumption patterns resulting in the index number misrepresenting inflation in a particular year of interest.

(vi**) The conversion of national income to common currencies**

The conversion of the national income accounts of different countries to a similar currency to enable cross country comparisons is difficult and subjective. This is because using the exchange rate as is commonly done is misleading as the exchange rate itself is exposed to the effects of political stability, speculation, and other foreign exchange market conditions which change from time to time. Such factors may also not have a significant bearing on the level of economic performance of a country. Using the purchasing power parities of the different currencies for such conversion is also misleading due to differences in the nature of production and consumption across countries.

(vii) **National income and the environment**

Economic growth as indicated by the growth of national income accounts may be unsustainable if such growth leads to the depletion of natural resources and the destruction of the environmental. Such growth, which undermines future growth and development, does not lead to improved welfare.

NATIONAL INCOME DETERMINATION

This topic is on how changes in Government expenditure, consumption expenditure, investment expenditure, imports and exports affect income and employment.

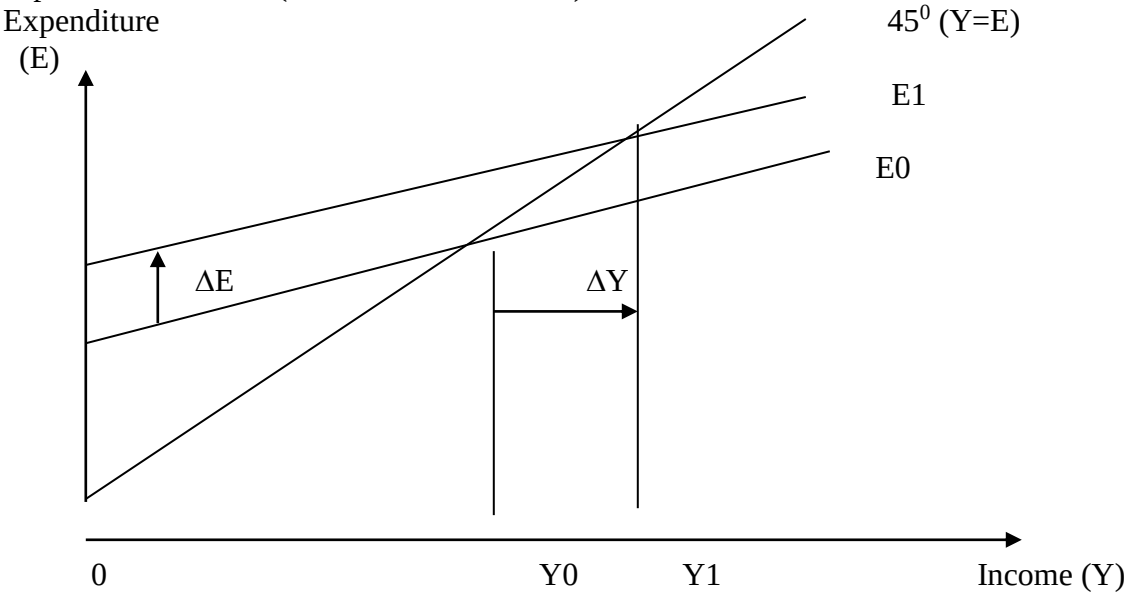
The Income-Expenditure Approach

According to this approach:
The equilibrium levels of employment, production and income are determined where an economy's aggregate expenditure is equal to its income ie:

Equilibrium Income: $Y = E = C + I + G + X – M$

Where Y = income
C = Consumption defined as $C= C0 + C'Yd$; with Co as autonomous consumption; C' as the marginal propensity to consume; and Yd as disposable income.
I = Investment
G = Government expenditure
X = Exports
M = Imports

Diagrammatically presented, equilibrium income is where the Y=E (45^0 line) intersects the expenditure function (E= C + G + I + X – M).



The income = expenditure diagram can be used to analyse and explain the impact of changes in any one of the expenditure components (C, I, G, X, M). With an expenditure level of E0, for example, equilibrium income is Y0. An increase in G, I, C, or X which increases total domestic expenditure to E1 would increase income to Y1. A decrease in these or an increase in imports does the opposite by reducing income from Y1 to Y0.

The Leakages-Injections Approach

In this approach equilibrium income is established where leakages out of the economy's income are equal to injections into the economy ie:

Equilibrium Income: Leakages = Injections

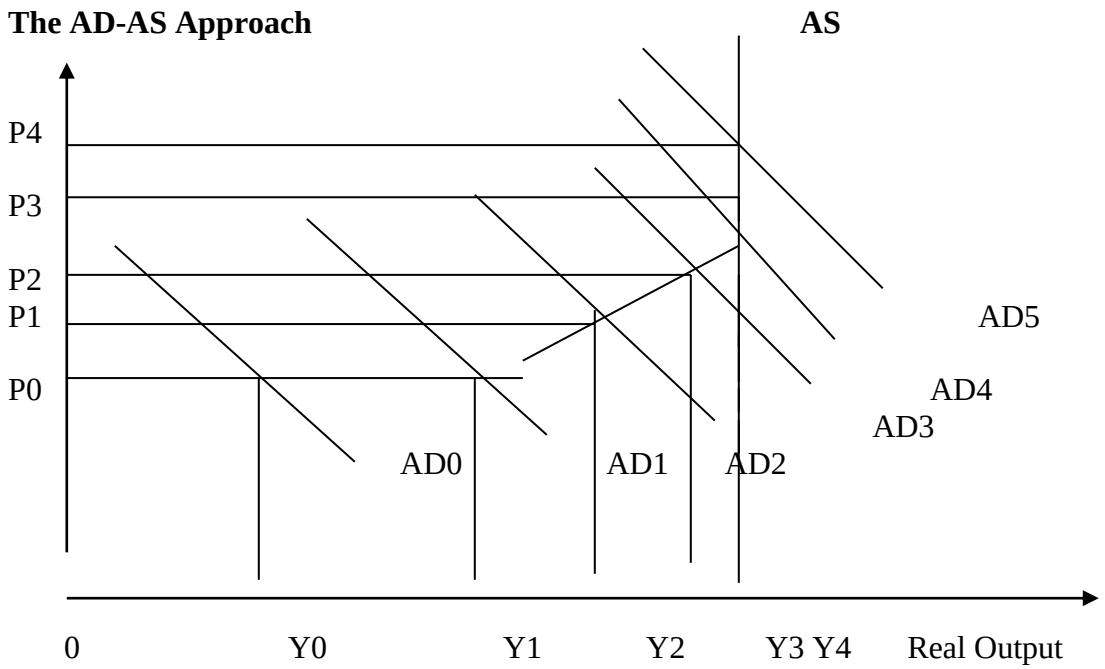
S + M + T = I + X + G

An increase in any one of the injections would increase income and employment while an increase in any one of the leakages would reduce employment and income.

The Aggregate Supply-Aggregate Demand Approach

Using this approach, equilibrium income is exists when aggregate demand is equal to aggregate supply. Boosting the level of economic activities (increasing economic growth and reducing unemployment) would require increasing the level of aggregate demand. This can be done by reducing the level of taxation; increasing the level of government expenditure; increasing the level of exports; or reducing the level of imports. When there is excessive unemployment, as assumed by Keynesians the general price level will remain unchanged after increasing aggregate demand. When the economy is already in full employment as assumed by Classical economists; the increase in demand will result in inflation. Under normal circumstances, the increase in aggregate demand will result both in inflation and an increase in output.

The AD-AS Approach



* To influence the level of economic activities; the Keynesian model puts more emphasis on aggregate demand management. The model is more biased towards the usage of fiscal policy tools.

* The model also observes that any change in any of the components of aggregate expenditure will result in a more than proportionate change in the level of output and income through the multiplier process.

THE NATIONAL INCOME MULTIPLIER

This concept observes that an increase in expenditure always results in a bigger increase in income. This is shown by the Y=E diagram above where a smaller change in expenditure from E0 to E1, for example, leads to a bigger increase in income from Y0 to Y1. This is because the initial increase in expenditure is received as income by some people in the economy. These in turn spend part of it (C'E) which is also received by other people as income. The recipients of (C'E) will also spend part of it (C'C'E) which will be received as income by other people. The process goes on until the last dollar is received and spent.

In a closed economy with no Government, the national income multiplier is calculated as:

$$M = \frac{\Delta Y}{\Delta E} = \frac{1}{1\text{-mpc}} = \frac{1}{\text{mps}}$$

In an open economy with government taxation the national income multiplier is calculated as:

$$M = \frac{\Delta Y}{\Delta E} = \frac{1}{1-(1-tax)mpc + mpm}.$$

Where mpc = marginal propensity to consume, and mps = marginal propensity to save and mpm = marginal propensity to import.

EXAMINATION TYPE QUESTIONS
MULTIPLE CHOICE

1. In order to convert national income at market prices to factor cost,
   - A subtract subsidies and add taxes
   - B add subsidies and subtract taxes
   - C add net property income from abroad
   - D subtract net property income from abroad
2. Given that the government spends $100m on the construction of a bridge and the marginal propensity to consume in the economy is 0,6, what will be the change in national income in the economy?
   - A $100m
   - B $125m
   - C $333,3m
   - D $600m

ESSAYS

[15]

1. (a) Using illustrate examples, distinguish GNP at market prices from GDP at factor cost. [10]

   (b) A country, which experiences a higher GDP, enjoys higher standards of living. Discuss. [15]

2. (a)What is the difference between 'equilibrium level of national income' and 'full employment level of national income.'?

[12]

   (b) Analyse the effects of
   - (i) A decrease in direct taxation
   - (ii) An increase in consumption of consumer goods and
   - (iii) An increase in savings on equilibrium national income.

[13]

CHAPTER 17

ECONOMICS FOR DEVELOPING COUNTRIES

Chapter objectives

After reading and retaining comprehension of this chapter, you should be able to:

1. Understand the important aspects of development.
2. Recognise the characteristics of developing countries.
3. Differentiate between short -run development and long- run developments
4. Know and provide guidance to management on how to measure an underdeveloped country.
5. Explain the policies which can be adopted by governments to promote economic development.

Introduction

Michael P. Tadaro defines development as the process of improving the quality of all human lives. Three equally important aspects of development are:

1. Raising people's living levels, i.e. their incomes and consumption levels of food, medical services, and education e.t.c, through relevant economic growth process.
2. Creating conditions conducive to the growth of people self – esteem through the establishment of services, political and economic systems and institutions, which promote human definite and respect.
3. Increasing people's freedom to choose by enlarging the range of their choice variables, of increasing variables of consumer goods and
4. Services (Economic for a developing world, 487)

CHARACTERISTICS OF DEVELOPING COUNTRIES

1. **High population growth** in developing countries each family has as many children as possible.
2. **High motality rate** - this is due to lack of medical facilities and the high costs of medication.
3. Medical facilities – these facilities are very poor as a result diseases are common such as cholera and malaria.
4. **Agricultural area** – under development countries produce primary products such as tealeaves, coffee seeds and rice for local consumption. Very little is exported.
5. **Low education level** – it is taken to be the government's duty to provide this merit good. Private schools are very expensive as a result very few people will have access to quality education.
6. **Underdevelopment** – due to the high growth rate, underdevelopment countries are densely populated.
7. **Poor sanitation facilities** – the poor facilities lead to hygienic environment. The standard of living is so poor that the people's' health is affected detrimentally
8. Poor housing- families are poor sheltered and this lowers the standard of living.

Development in under - developed countries

Short – run development

The Government should build up departments to provide basic necessities for the people. This includes the development of distribution channels for:

a) Goods
b) Food
c) Medical supplies.

Educational institutions need to be developed together with health institutions. Housing is also a cause of concern. Once there have been developed they will help raise the standards of living of the majority of the people.

Long – run developments

This calls for the development of infrastructure in the position of:
1. Basic power stations
2. Water works
3. Road and bridge networks
4. Railways
5. Airports
6. Sea ports
7. Telecommunications services
8. Educational institutions - (i) Primary schools
   (ii) Secondary schools
   (iii) Technical
   (iv) Polytechnic colleges.

The development of infrastructure create employment and reduce the burden on Government in respect to social welfare cases. Development of the education sector improves the pool of skilled labour. The development of the services improve commerce

It is apparent that the move into secondary industries will create jobs for the young people. With developing countries this has been possible through multinationals that create more employment for the locals. This brings about increased production which in-turn brings about choices of products and prices within the market set –up. Such development lead into high value manufacturing and into tertiary industries like:

1. Tourism
2. Technological advancement in industries.

Tourism brings in currency, which will in turn offset balance of Payment deficits. Tourism is a foreign income earner for most under developed countries.

HOW TO MEASURE AN UNDER DEVELOPED COUNTRY

1. The standard of living is measured by the Gross Domestic Product, (GDP) per head. For the under developed countries the GDP per capital is very low as the population is Ballooning i.e. a low GDP being spread over vast sums of people.
2. Size and composition is much smaller relative to the population as the economics of these countries tend to be foreign dominated.
3. Specialize in agriculture – these countries have a dependence on agriculture with ill equipment and also affected by the drought. These countries are mainly producers and have extremely small tertiary sectors.
4. Technology and capital accumulation – most capital equipment is imported from developed countries and theirs is quite backward. Added to this there is a lower capital labour rate where one worker has very few or no machines to work with.

Policies to promote economic development:

1. Family planning programme

This is a population control measure. The government encourages families to adopt family planning programmes to control the population. Injectibles, family planning tablets and sheaths can be used.

2. Medical facilities

These could be improved and they lengthen each individuals' life span and reduce infant mortality rate. More clinics and hospitals could be built to alleviate this problem.

3. Literacy Rate

More schools should be constructed and quality education offered as the high percentage of the population will have formal education and improve the literacy rate. In turn an educated elite will increase worker's productivity leading to a more efficient production of goods and services.

4. Housing and Sanitation Facilities

There is need to be improved through construction of more houses and maintain the premises clean through imposing laws about cleanliness. This would improve the standards of living.

5. Industrial Peace and Harmony

The Government, employees and employers representatives need to come to a consensus pertaining wages, working conditions of services. Once this is done there may be higher productivity and create efficiency as this leads to faster economic growth.

6. Government provide merit and public goods

The Government should act as a provider of merit and public goods. This in turn will control citizens as the Government subsidies theses commodities. The private sector may provide these services at exorbitant rates.

7. Entrepot Trade

This involves the economy bearing its industrialisation policy on import substitution.

EXAMINATION TYPE QUESTIONS
MULTIPLE CHOICE

1. The main advantage of privalisation is:
   - A Creation of private monopolies.
   - B An increase in government spending.
   - C Promotion of competition and efficiency.
   - D Sale of government assets.

ESSAYS

1. Discuss the relationship and conflicts between economic growth and other macro economic objectives. [25]

4. In what ways may businesses integrate? Give reasons why they may wish to do so. [25]

CHAPTER 18

MARKET FAILURE AND EXTERNALITIES

Chapter Objectives

After reading and retaining comprehension of this chapter, you should be able to:

1. Define the term "market failure"
2. Explain the causes of market failure.
3. Appreciate the divergence between private costs ad social costs (externalities)

MARKET FAILURE

Market failure occurs when the price mechanism or the free market system fails to allocate resources in the best way a society would want.

As a result of market failure, many people believe it is desirable to restructure and supplement the unrestricted workings of the market.

- Allocation of resources is the duty of the government to ensure that all sectors get access to the resources.
- Misallocation of resources will occur if market prices and profit do not accurately reflect the benefit to the society, for example allocation of credit to farmers.
- The government can use the cost benefit analysis concept as a way of evaluating social and environmental impact of a project so as to charge or pay subsidies to manufacturing and operating companies.
- Market failure is in two parts, that is failure of the market system to achieve efficiency in the allocation of societal resources and the other is the failure to serve social goals other than efficiency.

Causes of Market Failure

i. Market Imperfections

The existence of monopolies and oligopolies may result in suppliers pursuing their self interests at the expense of external benefits and costs to the society.

Information asymmetry may result in rigidities with regard to factor mobility. This results in factor under or unemployment.

ii. Collective consumption of public goods

PUBLIC GOODS

These are goods whose consumption by one party does not reduce the amount available to others. Public goods are also referred to as collective consumption goods. These goods have

two main characteristics, that is, they are non- rivalry in consumption and secondly are non-excludable in consumption.
Non- rivalry. Non – rivalry in consumptions means that consumption by one part does not reduce the amount available to others.

Non - exclusive. Non- exclusive implies that one cannot be excluded from consuming the good by any other party. Even if one pays for them, once they are produced it would be very difficulty to prevent non-payers from enjoying the good. This is often referred to as the free rider problem.

Largely because of the feature of non- exclusivity, it means the price mechanism fails to play its signalling and rationing role. Since the price mechanism is non- functional, there is no incentive to produce public goods. Thus, if left to the price mechanism to decide on the amount to produce there will be under or none production of public good. The marginal cost of producing public goods is zero and thus, they cannot be priced. In order to correct the market failure to produce public goods, the government in the majority of cases intervenes and produce them on behalf of the general public because they are desirable for their social benefits. Consumers pay indirectly for the production of public goods through taxations, which is the major source of finance of public goods. Example of public goods include defence, police, roads, street-lighting, public parks just to mention but a few.

iii. Divergence between Private costs and social costs (externalities)
This can lead to misallocation of resources in free market systems.

Too little goods may be produced by firms in which external benefits prevail while there may be more than an optimum output of commodities whose production involves detrimental externalities **(W.J Banmol "Economic Theory and Operations")**

Externalities may be harmful or beneficial for example construction of a road passing through a growth point may be beneficial, while production of cement dust is bad for the communities closer to the cement producing factory.
Bad externalities affect social costs due to too much production for example pollution and congestion.

iv. Common property resources/Lack of private property rights

This is about natural resources e.g. communal lands, communal boreholes and oceans. In a free market with free forces of demand and supply, there is high tendency to over exploit and abuse such common properties.

EXAMINATIONS TYPE QUESTIONS

MULTIPLE CHOICE

1. Which one of these is not a source of market failure?

A Positive externalities
B Public goods
C Merit goods
D Equitable distribution of income and wealth.

2. Using the cost benefit analysis, a project is appraised when:
A Its social costs exceed its social benefits.
B Its social benefits exceed its social costs.
C Its external costs exceed its external benefits.
D Its external benefits exceed its external costs.

ESSAYS

1.(a) What do you understand by the terms 'Commercialisation' and 'Privatisation'. [10]
(b) Assess the benefits of Privatisation.
[15]

2.(a) What do you understand by the term negative production externality?
[10]
(b) Assess the effectiveness of government policies in correcting this type of externality.
[15]

CHAPTER 19

ECONOMIC POLICIES

Chapter objectives

After studying this chapter and working through the questions and examples, you should be able to:

1. Define what is meant by economic policy.
2. Outline the examples of government economic objectives.
3. Explain how the policy instruments can be used to promote full employment, price stability, economic growth, interdependence of aims and equilibrium in the balance of payment.
4. Identify the macro-economic problems and policies which can be adopted to address them.
5. Be familiar with the key issues relating to supply side policies.
6. Understand the key concepts and principles in exchange rate regimes.
7. Describe how the exchange rate is determined in Zimbabwe.
8. Recognise the benefits and pitfalls of floating exchange rates.
9. Give reasons why the value of a currency fluctuates.

Introduction

Michael Todaro defines an economic policy as a statement of objectives and the methods of achieving those objectives (policy instruments) by Government, a business concern, and etc. Some examples of Government economic objectives are maintaining full employment, achieving higher rate of economic growth, reducing income and regional development inequalities, maintaining price stability, policy instruments include fiscal policy, monetary and financial policy and legislative controls (e.g. price and wage control, rent control).

Full Employment

Governments all over the world are concerned with the associated costs of unemployment and work around the clock to address the problem of unemployment. The concept of full employment however is difficult to define since some degree of unemployment will have to occur at any point in time. However, the government's aim is to achieve some level of employment, which it considers acceptable. This acceptable level is dictated somewhat by the priority given to other economic aims.

Price Stability

Price stability does not imply a commitment to zero inflation. Changes in supply and demand conditions can lead to price fluctuations in various product markets. This is an inevitable feature of the price mechanism. Again, we can only say the role the government is to decide an acceptable rate of inflation given the constraints imposed by its other aims.

Equilibrium in the Balance of Payment (BOP)

This is not a concept that can easily be defined. However, since all imports must be paid for by exports one definition is that the flow of autonomous debits be equaled by the flow of autonomous credits. At any moment in time, it is possible for a country to experience either a surplus or deficit in its BOP so that there is disequilibrium. The concept of equilibrium should thus be related to some period of time over which equilibrium should be achieved. Balance of payment equilibrium would be achieved when over a given period of time autonomous transactions cancel each other in such a way that does not impede the government's efforts to achieve its other policy objectives.

Economic Growth

The government should aim to foster economic growth because of its accompanying benefits. Economic growth has been given high priority as a policy objectives by most governments because of its contribution to improved standard of living. Standard of living will rise if the growth of output exceeds the growth of population. If per capital income grows (rises) this will translate into a rise in standard of living.

Interdependence of Aims

There is conflict of interest in achieving the above policy objectives simultaneously. The government is thus faced with a conflict of policy objectives. The policy objective of full employment for instance is conflicted with price stability. It is also additionally conflicted with equilibrium in BOP. As demand in the economy is increased to achieve full employment rises in income will lead to increased demand for imports. Additionally, the achievement of economic growth is often in conflict with the achievement of price stability and equilibrium in the BOP. Failure to maintain a high level of demand in the economy because of the desire to achieve these other objectives hinder investment and growth.

INSTRUMENTS OF POLICY

Fiscal Policy

These consists of variations in government income and expenditure. The main fiscal stance is outlined in the national budget annually where the government outlines its income and expenditure plans for the forthcoming year. The government sets its expenditure and taxation levels to achieve a particular level of the GDP consistent with its considered various policy objectives.

Monetary Policy

This consists of policies designed to influence the supply of money and / or its 'price' that is, the rate of interest.

Exchange Rate Policy

The government can manipulate the exchange rate to achieve its policy objectives. It can for instance, devalue its currency to promote exports, increase economic growth and employment levels. This is particularly possible if the economy has the capacity to supply the outside markets.

Income Policy

This is synonymous with controls on wages than anything else. It is mainly used as an anti-inflationary measure even though it can also be used as an income redistribution tool. In its anti-inflationary drive, the government can direct that organisations both private and public should freeze wage increments to dampen demand for goods and services.

Todaro has produced the inter – relationship between problems and policies:

Problem	**Policy**
Poverty and inequality	asset redistribution (mainly from growth) land Reform. Provision of rural social services poverty - focused investments (target groups) tax and subsidy policies Job creation urban and rural improved education Access.
Excessive population growth	eradicate poverty. Provide family planning services. Monetary incentives and education and job opportunities for women. Improved materialised nutrition and health.
Urban unemployment	reducing inflation by eliminating artificial urban – Rural incentive and economic opportunity imbalance. Getting faster prices right choosing and / or developing appropriate labour – intensive technologies. Poverty focused rural incentives modifying urban incentive effects of inappropriate educational facilities showing population growth.
Agricultural slagnation and Rural underdevelopment	Rural institutional reforms (land tenure, small – farmer areas to credit, informal biological and Chemical inputs, crop insurance, new seeds) improved rural education, health, sanitation, water supplies and other social services. Specialized rural training programmes. Rural public works export promotion.
Inappropriate and unequal Education.	modification of education demands by reorientation Of economic signals and incentives towards rural Sector. Improved access through system of loans, subsidies and tuition according to ability to pay. Minimisation of excessive credentialisation. Property

non- – formal, out of school education. Re- orientary curricular.

(Economics for a developing world, 371)

SUPPLY SIDE POLICIES

These are policies, which are specifically concerned with the performance of producers in the economy, e.g. legislation about restrictions on trade practices by trade unions, control over the development of monopoly power and anti- competitive practices. Supply side policies also include most economic reform policies.

EXCHANGE RATE REGIMES

Exchange rates are the rate at which one country's currency can be exchanged for other currencies in the foreign exchange market. There are various exchange rate regimes, but we shall limit our analysis to only two broad: categories floating exchange rates and fixed exchange rates.

We need to highlight here before we go into detail on the determination of exchange rates under various regimes that appreciation and depreciation of the exchange rate shall only be confined to the floating exchange rate regime. Devaluation and revaluation of the exchange rate should only be used when dealing with fixed exchange rate.

Floating Exchange Rates

The exchange rate under this system is determined by the interaction of demand and supply of the currency.

Demand

Demand for foreign currency arises out of the desire to purchase another country's exports or to invest abroad. For example, the demand for the Zimbabwe dollar in the foreign exchange market arises partly from the desire of foreigners to purchase Zimbabwean products (our exports), or to invest in Zimbabwe. The demand for Zimbabwean dollars varies inversely with its price and as a result the demand curve is downward sloping.

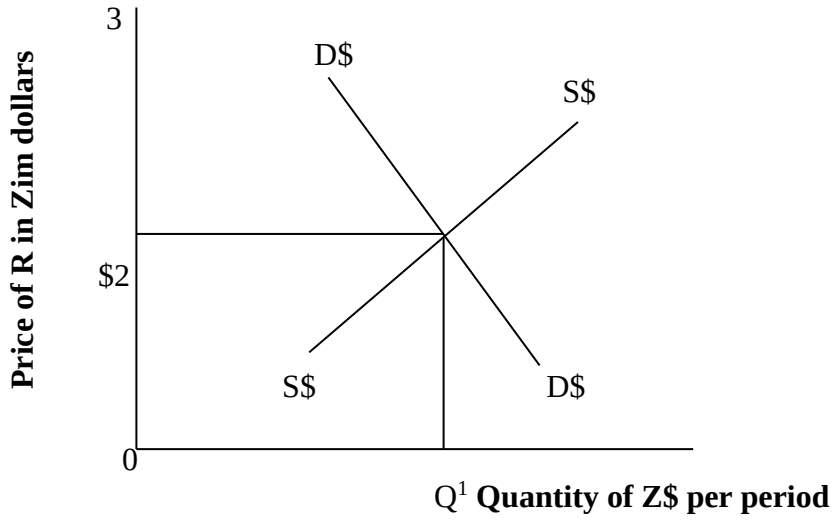
Supply

The supply for Zimbabwe dollar similarly in the foreign exchange markets arises from the demand of Zimbabwean importers for goods and services produced abroad or from the desire to invest in foreign countries. For example, in order to buy South African exports Zimbabwean importers require South African rands. These can be obtained when the importer sells his or her Zimbabwean dollar in foreign exchange market. The supply curve for the Zimbabwe dollar is also normal- upward sloping reflecting that that more Zimbabwe dollars are supplied at higher exchange rate.

EXCHANGE RATE DETERMINATION

The equilibrium exchange rate is determined by the interaction of the market forces of demand and supply of the currency. The rate determined will be the equilibrium rate and there can be no variation from this unless conditions of demand and supply change. The diagram below illustrates how the exchange for Zimbabwean dollars against the rand is determined.

The Demand and Supply for the Zimbabwean Dollar



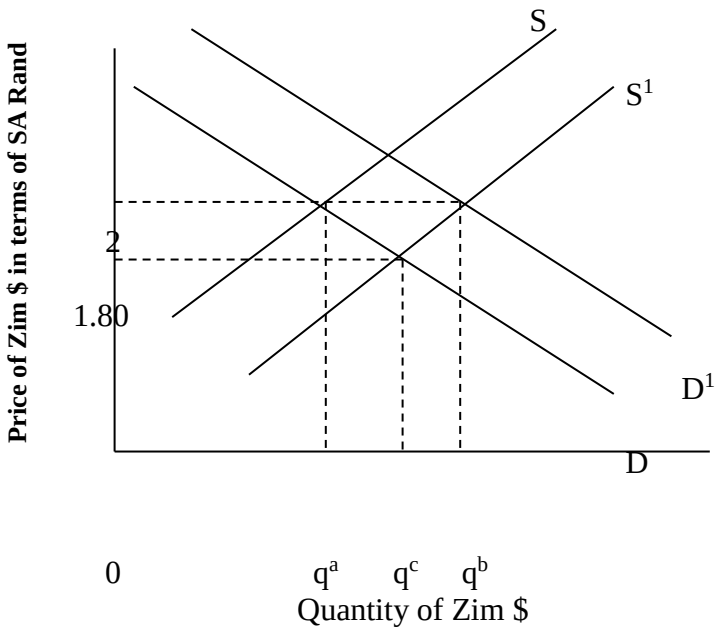
The figure above shows that with demand and supply conditions given by D$ D$ and S$ S$, the equilibrium exchange rate is $1 = R2. At any given rate below this rate there will be a shortage of Zimbabwe dollars and its exchange value will rise. At any rate above this, there will be a surplus of Zimbabwe dollars and its value will fall.

The factors which cause changes in floating rates are numerous. Changes in a country's current balance are clearly important since sales for exports and purchases of imports are major factors affecting demand for, and supply of different currencies on the foreign exchange markets. Changes in interest rates also contribute significantly to changes in the equilibrium exchange rate because of their impact on short-term capital flows (hot money) and therefore in the demand and supply schedule. Rumours of expected changes in exchange rates are also likely to influence short-term capital flows. Investors can move their money into a country before its exchange rate appreciate in order to earn windfall profits and withdraw when it depreciates. Capital losses on the other hand can be avoided by moving funds out of the country before the exchange rate depreciates, and then back when it appreciates.

Fixed Exchange Rates

It is possible for the government to fix the rate at which its currency can be exchanged for other trading partners' currencies. This results in a system called fixed exchange rate regime. The government through its Central Bank can intervene in the foreign exchange market to maintain a particular exchange rate. Such intervention is motivated by the desire to offset changes in demand and supply conditions, which would result in fluctuations in the exchange rate. The way in which exchange rate stability is achieved by intervention is explain through the illustration below.

Maintaining a Fixed Exchange Rates



Assume that our exchange rate is fixed at \$1 = R2, between the dollar and the rand and that supply and demand conditions for the dollar are initially represented respectively by S and D. If the demand for imports from South Africa increases, there will be an increase in the supply of dollars to the market (importers selling the dollar in exchange for the rand) represented by S^1. This will cause a down ward pressure on the exchange rate and in a free floating exchange regime, the price would fall to \$1 = R1.80. However, because the authorities are committed to maintaining the exchange rate at \$1 = R2, they will be forced to buy the excess supply of Zimbabwe dollars (q^a q^b) that exists at this exchange rate, using the rands in the foreign exchange reserves. The increased demand for dollars is shown by D^1, which offsets the increase in supply (S^1) and prevents any movements in the exchange rates.

Whatever the cause of pressure on fixed exchange rates, the authorities must take action which exactly offsets changes in the conditions of supply and demand in the foreign exchange market if fixed parity values between different currencies are to be maintained.

Your homework as the reader is to consider the action the authorities should take if there are changes in demand conditions.

Fixed and Floating Exchange Rates Compared

Advantages of Floating Exchange Rates

Automatic adjustments to BOP disequilibrium. The main advantage of floating exchange rates is that it provides an automatic mechanism for the maintenance of BOP equilibrium. The exchange will depreciate if there is a BOP deficit leading to increases in exports and reduced expenditure on imports. The exchange rate will appreciate if there is BOP surplus. This appreciation in the exchange rate should promote increased demand for imports and reduce demand for exports thus resulting in an equilibrium BOP position.

GREATER FREEDOM TO PURSUE DOMESTIC GOALS

Government can concentrate on objectives such as attaining full employment and increasing economic growth without having to worry on the implications of these objectives on the BOP.

Economies in the use of foreign exchange reserves

There is no need to maintain foreign exchange reserves, as is the case with a fixed exchange rate regime.

Less Speculative Activity

Speculation occurs due to uncertainty on the likely movement of the exchange rate. Under a fixed exchange rate system, authorities are supposed to disclose the amount of import cover available to thwart any speculative behaviour. In the absence of such information speculators may with draw their funds in order to cushion themselves from changes in the exchange rate. With a floating exchange rate, the direction of the exchange rate is either way and thus there is no room to speculate on whether the exchange rate will appreciate or depreciate against or in favour of you.

DISADVANTAGES OF FREE FLOATING EXCHANGE RATES

Increased Uncertainty

The possibility of changes in the external value of different currencies might deter long-term investments or make firms reluctant to negotiate long-term trade contracts with different countries. There is much greater certainty when exchange rates are fixed.

Increased Speculative Activity

There are greater opportunities for gains, which may encourage speculators to take positions in the market in anticipation to changes taking place in exchange rates.

Increased Volatility

The exchange rate is subject to short-term changes, which occur in response to changes in supply and demand conditions. Under a fixed exchange rate system these short-term fluctuations in the exchange rate are smoothed by timely government intervention.

Reasons Why the Value of a Currency Fluctuates

1. Changes in the BOP account.
2. Inflation
3. Changes in interest rates
4. Speculation

EXAMINATION TYPE QUESTIONS

ESSAYS

1. Discuss the effectiveness of the policies of trade, borrowing and industrialisation for development. [25]
2. Assess the effectiveness of policies meant to achieve equitable distribution of income and wealth in an economy. [25]

Gono announces new export incentives

The Governor of the Reserve Bank of Zimbabwe, Dr Gideon Gono, yesterday unveiled a fresh basket of export incentives as monetary authorities intensify efforts to augment the country's foreign currency reserves.

Dr Gono said the incentives were focused on augmenting the country's foreign currency reserves with exporters expected to spearhead the drive. In line with this, the Governor announced a new exchange rate of Z$17 500, a rate which he said was more than the purchasing power parity of between $14 000 and $15 000. He said because of the adjustment, the central bank was scrapping the five percent export facility availed to exporters in the previous monetary policy statement.

The import tracking control system has also been suspended allowing holders of free funds to import capital products to increase productivity with no questions being asked as to the source of funds. Dr Gono also said the auction system would be reviewed in time to allow pricing mechanisms to assume a greater role in foreign currency allocation.

A total of 51 auctions have been conducted to date while the amount allotted was increased to US $12,5 million since 1 June this year.

The carrot and stick retention scheme has also been enhanced with immediate effect allowing exporters who remit their funds within 30 days to retain 50 percent of their foreign currency. Exporters who remit their foreign currency within 31-60 days have been allowed to retain 25 percent of their earnings while the horticulture sector has been given a 10 percent retention scheme.

Individuals and exporting companies holding hard currency in their Foreign Currency Accounts have also been allowed to liquidate their money at the enhanced support price of $17 500.

Dr Gono said the moves would allow for an increase in export proceeds, with CDI acquittals amounting to US $569 million by 15 July up from US $490,8 million in the corresponding period last year.
Dr Gono said mining accounted for the increased export proceeds with the sector contributing 42 percent of the commodity.
"The mining sector has contributed about 42 percent. Sustained growth in the mining sector has been driven by the availability of the concessional productive and export sector funding facilities that are available to mining houses," he said.
Earnings from mineral exports increased by 14,1 percent in the first half of 2005 driven by platinum, which contributed 16,2 percent to the total earnings. Receipts from the manufacturing sector however declined to US $630,3 million in the first half of 2005 from US $771,5 million in the corresponding period last year.

(a) From the extract, identify any two-export incentives.
[2]

(b) (i) According to the extract, identify the exchange rate regime to be used in the economy.
[2]

(ii) Suggest reasons for adopting the exchange rate regime in b(i).
[4]

(c) (i) Explain what is meant by the purchasing power parity.
[2]

(ii) With the new exchange rate of US $1 to Z $17 500 higher than the purchasing power parity, is the Zimbabwean exchange rate overvalued or undervalued? Support your answer.
[4]

(d) Discuss the advantages of export oriented growth in an economy.
[6]

Government to cut tariffs on finished goods

Zimbabwe will reduce tariffs on finished goods from the Southern Africa Development Community by up to 20 percent next year to comply with SADC free – trade protocol requirements. The new tariff regime, which will come into effect from 01 January next year, seeks to reinforce regional trade, improving the quality of locally produced commodities and increased domestic competition. Officials in the Ministry of Finance yesterday confirmed that tariff reduction for products such as furniture, footwear, clothing, electrical gadgets and many finished items would be introduced early next year. "A tariff phase down for finished products will be implemented in January but it is imperative to note that the reduction is done in phases and it is being formulated in a method that guarantees survival of local firms from influx of imported goods," said an official. The official said captains of industry agreed to the lowering of the tariffs but declined to give figures. However, industry sources said that tariffs would be reduced by between 10 and 20 percent. Zimbabwe has almost phased out tariffs on raw materials to increase industrial productivity. The tariff phase down is being done under two systems, category A and category B. "Category A is for raw materials and working capital while Category B includes all the finished items or commodities," said the Ministry of Finance official. Last month the SADC secretary –

general, Dr Tomaz Salomao, held a meeting with the Government and the private sector on the need to reduce tariffs.

Dr Salomao noted that Zimbabwe was lagging behind other member nations in complying with the protocol requirements and recommended that the country accelerate its tariff reforms. South Africa has already removed all duties on imports from the region, with the exception of sugar and clothing. SADC has targeted to achieve a zero tariff regime by 2008. Dr Salomao said that the country's unstable economic climate would adversely affect the SADC trade protocol objectives.

Business Chronicle understands that some key members of industry were resisting proposed tariff structures under the protocol citing the need to protect local goods and companies. There are fears that a free trade zone could result in dumping of cheap and substandard goods by some countries. Trade expert and Confederation of Zimbabwe Industries chief economist, Mr Farai Zizhou, said that SADC member nations would convene in February next year to review the progress on phasing out tariffs.

"Zimbabwe is implementing policies to comply with the protocol and next year there will be a meeting to review success of the protocol," he said. Mr. Zizhou said that the meeting would focus on the removal of trade barriers, compliance with the protocol, multiple membership of trade bodies and many trade issues.

(a) (i) What is meant by the term 'tariff' and 'dumping'?
[2]

(ii) What does SADC aim to achieve by adopting the new tariff regime.
[1]

(iii) From the text, what will be the main problems in a country of adopting the new tariff regime.
[2]

(b) (i) Apart from a tariff, give other methods of protecting trade.
[2]

(ii) Give two advantages of using a tariff in protecting trade as compared to other methods.
[2]

(c) Discuss the benefits of free trade to a country such as Zimbabwe.
[6]

CHAPTER 20

INTERNATIONAL TRADE

Chapter Objectives

After working through this chapter, you should be able to:

1. Explain what is meant by international trade.
2. Differentiate between the absolute advantage and comparative advantage.
3. Review the critique of the absolute and comparative advantage analysis.
4. Understand the gains derived from international trade.
5. Understand the reasons why countries restrict trade.
6. Appreciate the various types of restrictions which may be imposed to restrict international trade.
7. Outline and analyse the different elements of the balance of payments.
8. Explain the difference between short-term capitals flows and long- term capital flows
9. Describe the ways of connecting balance of payment deficit.

Introduction

International trade involves the movement of goods and services across international boundaries in exchange for foreign currency. Exports constitute domestic commodities sold to foreign countries in exchange for foreign currency. Imports on the other hand constitute foreign commodities bought in our domestic markets. Imports entail an outflow of foreign currency in payment of such commodities. Countries trade at an international level in order to exploit possible gains from specialisation in the form of increased world production; consumption and material wellbeing such trade is associated with.

MUTUAL GAINS FROM SPECIALIZATION AND TRADE

a) The Absolute Advantage Case

A country is said to have an absolute advantage in the production of a commodity if it can produce more units of that commodity than the other country using the same amount of resources. If countries have different absolute advantages in production; their specialization in the production of those commodities for which they have an absolute advantage would lead to increased production of at least each of the commodities.

An Illustration:

Assume with 100 man hours of labour Japan and Zimbabwe can produce the following quantities of maize and cars:

Before Specialisation

	Maize (tonnes)	Cars
Japan	6	100
Zimbabwe	200	2
Total	206	102

This implies that Japan has an absolute advantage in producing cars while Zimbabwe's absolute advantage lies in the production of maize. Assuming that before specialisation each of the countries was devoting 50% of its resources to each of the two commodities; complete specialisation would increase the production of maize and cars to 400 tonnes and 200 cars respectively as shown below:

After Specialisation

	Maize (tonnes)	Cars
Japan	-	200
Zimbabwe	400	-
Total	400	200

This implies that after trade each country would be able to consume more of everything.

b) <u>Comparative Advantage</u>

A country has a comparative advantage in the production of a commodity if the opportunity or relative cost of producing that commodity is lower than in the other country. Even if one country has got an absolute advantage in the production of the commodities; as long as there are differences in relative costs of production, there would still be exploitable gains from specialization. This is shown below:
Assume after 10 years Zimbabwe and Japan can now produce the following quantities when using 50 man hours on Maize and 50 man hours on cars:

Before Specialisation:

	Maize (tonnes)	Cars
Japan	50	150
Zimbabwe	50	10
Total	130	160

Opportunity cost of Production:

	Maize (cars)	Cars (Maize t)
Japan	3 cars	1/3 t of Maize
Zimbabwe	0.2 cars	5 t of Maize

The opportunity cost of maize production is lower in Zimbabwe than in Japan while that of car production is lower in Japan despite the fact that Japan is more efficient in absolute terms than Zimbabwe in at least both commodities. If Zimbabwe completely specialize in maize production while Japan uses 75% of its resources in car production total production could still be increased as illustrated below:

After Trade and Specialization:

	Maize (tonnes)	**Cars**
Japan	25	225
Zimbabwe	100	-
Total	125	225

Sources of Differences in Absolute and Comparative Advantages

As illustrated above the reasons for specialization and trade are enshrined in differences in absolute and comparative advantages in production across countries. The reasons why absolute and comparative advantages can be different across countries are:

i) Differences in factor endowments

The abundance of different factors in different countries in most cases is different. One country can have abundant labour supply for example Zimbabwe while another could have abundant capital for example USA. In such cases countries would have an absolute advantage in producing and exporting those commodities produced by their abundant factors. This is reason why Zimbabwe produces more of and export labour intensive commodities such as tobacco while the USA would export capital intensive commodities such as computers.

ii) Climatic and Soil Fertility Differences

Countries with good climatic conditions and fertile soils suitable for agricultural production enjoy absolute and comparative advantages in the production of agricultural commodities than other countries.

iii) The Existence of Competitive/ Acquired Advantage.

Where a country can quickly acquire and adopt advanced foreign technologies or when a country is more aggressive on research for new techniques of producing a given commodity it can build for itself an advantage in the production of that commodity over other countries. This is the case where with the Green Revolution some Asian countries ended up being net exporters of wheat from being net importers before the Revolution.

A Critique of the Absolute and Comparative Advantage Analysis

The two-country-two-commodity framework in which the comparative and Absolute advantage is analysed, is too simple and unrealistic. In reality hundreds of countries trade and thousands of commodities are traded in. It is difficult if not impossible to recommend on the direction of specialization and trade in such situations.

Conclusions and recommendations from the absolute and comparative advantage analysis are based on physical units. This ignores and undermines the importance of variety and differences in the quality of the commodities produced in different countries.

The analysis assumes that there are no transport and other trade expenses such as insurance and tariffs. When these are incorporated there are possibilities that what is regarded as an absolute and or comparative advantage may end up being outweighed by such costs thus forcing countries to continue producing commodities they may have an absolute or a comparative disadvantage in.

Some countries may have absolute or comparative advantages in the production of some commodities but at the same time having inadequate resources to supply the whole world. In such cases specialisation would lead to world shortages. The analysis also erroneously assume that all countries are in good books. Where there are no good relationships (for example political) among or between countries some countries would still have to produce everything.

Other Gains from International Trade

As has been illustrated above the first gain from trade is increased production through international specialization. The other possible gains from trade which explain why countries would need to trade are as itemized below:

(a) **Increased Variety**-following the increase in the number of producers when there is trade than without trade.
(b) **Increased Market Opportunities**- The world market is bigger than the domestic markets. This gives domestic firms an opportunity for expanding production and enjoy economies of scale than when they were restricted to the domestic market.
(c) **Increased Efficiency and Quality**: The opening up of the economy to international trade increases the level of competition faced by firms. This forces firms to be more efficient in production and also to produce high quality commodities.
(d) **Possibilities for Technology Transfers and Diffusion**: International trade leads to possibilities of the interaction of firms and governments in different countries. This makes it possible and easier to cross pollinate advanced technologies especially from developed to less developed countries.
(e) **Promotes Other Relationships**: With trade other relationships such as political and cultural relationships can be initiated and strengthened across countries bilaterally and multilaterally for example: SADC; OAU; WTO; COMESA etc

Reasons Why Countries Restrict Trade (Disadvantages of Free Trade)

The reasons why countries may put restrictions on international trade despite the possible gains from such trade are many and varied. These include the need to:

(a) **Protect the Balance of Payments and the Exchange Rate*:*** to avoid or reduce a balance of payments deficit and the subsequent exchange depreciation it is associated with a country can restrict its imports of foreign commodities.

(b) **Protect Infant Industries*:*** Emerging industries are in most cases less efficient and competitive to withstand foreign competition. Exposing such firms to foreign competition by the already existing firms would lead to them collapsing before maturity.
(c) **Avoid Dumping by Foreign Producers*:*** Dumping involves the selling of foreign commodities in local markets by foreign firms at prices below costs of production as a way of getting rid of such commodities. Some of such commodities could be reject or of hazard for consumption. Governments intervene in trade to guard against such undesirable trade.
(d) **Raise Revenue*:*** Governments may place excise taxes and import duties on internationally traded commodities to supplement its tax revenue.
(e) **Avoid Overdependence*:*** The Government may need to ensure the production of some strategic commodities such as ammunition; guns; food etc to avoid the country's over dependence on other countries for such important commodities. This may be done through restricting the importation of such commodities even if the domestic cost of producing them is high.

INTERNATIONAL TRADE

BARRIERS TO INTERNATIONAL TRADE

Despite the perceived gains from trade, countries some times adopt measures to restrict international trade. There are various types of restrictions, which may be imposed including the following.

Tariffs

These are taxes that are placed on imported products. Imposition of tariff on a product has the effect of rising the price of this product in the domestic market. Ceteris paribus, this will lead to reduced consumption of imported goods or services. Tariffs will not, however, be effective if the demand for the good is inelastic. Consumers can only respond by reducing the quantity demanded for the good or service if its demand is elastic, that is, the good has substitutes in the domestic market. The problem of imposing tariffs, however, is that other countries whose goods a tariff is imposed on are likely to retaliate since our imports represent their exports.

Quotas

These are volume restrictions on imports. Specific limits are placed on the quantity of a particular product that can be imported. Quotas have the effect of creating shortages of the good in question in the domestic market thereby increasing its price. Consumers will thus be forced to switch to locally produced goods. The problem with quotas as with tariffs is that other countries can retaliate by imposing quotas on the country's exports.

SUBSIDIES

A country's export basket can become competitive on foreign markets when the government absorbs part of the production costs in form of subsidies granted to exporting firms. Given that part of the production costs have been covered through the subsidies, firms are able to charge a lower price in the domestic market than would be possible and hence consumers are encouraged to switch expenditure from imported products to locally produced goods.

Exchange rate control

The government can manipulate the exchange rate in order to protect its firms from foreign competition. A devaluation of the exchange rate has the effect of rising the price of imports, ceteris paribus. This should be followed by a reduction in imports. The government may also exercise control on which product foreign exchange should be released for, and in what quantities. Failure to access foreign exchange by importers may also limit the amount of imports. As highlighted before these restrictions may also result in retaliations by other trading partners.

Technical barriers

Governments can put in place regulations on product specifications. These product specifications may entail improving on the product or producing a completely new product, which may result in unnecessary costs.

EMBARGOES

These constitute a complete ban on the importation or exportation of specific commodities. Imports put on embargo are in most cases those of moral or health hazard such as some drugs, tapes, books, etc.

TERMS OF TRADE

A country's terms of trade refers to the rate at which that country's exports trade against its imports i.e. the volume of exports a country needs to finance the purchase of one unit of its imports. This is defined as:

$$\text{TOT} = \frac{\text{Index of Export Prices}}{\text{Index of Import Prices}} \times 100$$

Changes in the terms of trade are measured by changes in the value of this index. Terms of trade are said to be favourable when the index is greater than 100 ceteris paribus and unfavourable when it is less than 100. Great care should be taken on the interpretation of unfavourable or movements in the terms of trade. It is the price changes which are favourable or unfavourable. An unfavourable movement in a country's terms of trade (a decrease) can be a result of lower export prices or higher import prices. Such a movement has got the effect of increasing the country's balance of payments deficit. A decrease in

terms of trade also results in the depreciation of the exchange rate. Terms of trade can, on the other hand, improve due to either an increase in the prices of the country's exports or a reduction in the prices of its imports. The effect of such a movement is to improve the country's balance of payments position and also to appreciate the exchange rate.

CAUSES OF CHANGES IN THE TERMS OF TRADE

Inflation

Excess aggregate demand over aggregate supply or costs rising faster than productivity will raise the value of the terms of trade index because it causes a rise in domestic (export) prices for example. Thus, a relatively high or low inflation rate compared to trading partners can cause changes in the TOT.

Exchange rate

Where for example a country's currency depreciates, the domestic price for its exports will be unchanged but the domestic price of its imports will increase. Depreciation therefore, reduces the value of the TOT index, appreciation reduces the domestic price of imports, and therefore raise the TOT.

Changes in Commodity Prices

Where the price of their products is bid upon world markets, the TOT of the exporting countries will rise, for importing countries the TOT index will fall. A slump in the commodity prices will however have an opposite effect.

NB. The reader is encouraged to add to the list some causes that lead to changes in the TOT.

THE BALANCE OF PAYMENT (BOP)

The Balance of Payments (BOP) account is a record of all the international transactions of a country. It records exports, imports, transfers, foreign loans and grants etc. All transactions which bring in foreign currency are recorded as positive e.g. exports. All transactions which result in foreign currency outflow, such as imports are recorded as negative. The BOP is subdivided into three sections – namely the Current Account, The Capital Account and the Financing section.

Current account

A current account is an account of the dealings in imports of goods and services. **It is divided into three:**

(i) Transaction of goods

Is an account of dealings in the visible or tangible goods like computers, mineral e.t.c.

(ii) Transactions of invisibles

Mainly concern services e.g. teaching, banking, insurance etc. Intangibles can also come in form of direct investment earnings e.g. interest, profits and dividends from Zimbabwe or other countries.

(iii) **Transfers**

It comes into being when the government and private sector give some grants, paying subscriptions and contributions to international organisations. It usually comes in form of gifts to Zimbabwe from other countries and vice versa.

Capital Account

Capital accounts record dealings in assets and liabilities. It only records new transactions of assets and liabilities and is divided into:

1. Short term capital flows

Represents records of foreign deposits in Zimbabwean banks and loans from abroad to Zimbabwe (Inflow of money). Deposits by Zimbabweans abroad are treated as outflows of money.

2. Long term capital flows / accounts

Records capital investments for example opening up factories or manufacturing firms in Zimbabwe.

OFFICIAL FINANCING/ CHANGES IN RESERVES

This account records a country's holding of foreign reserves and gold. It also serves as the means of correcting imbalances between inflows and out flows of foreign currencies.

Definition of Terms

Visible trade refers to the purchase of physical goods export and import.
Invisible trade refers to the purchase or sale of services. Current account shows at the end of the accounting period the sum of the invisible balance and visible balance. This gives us the current balance referred to as the balance of trade, because it shows the net deficit or surplus on goods and services traded.

Short- Term Capital Flows

These are speculative in nature referred to sometimes as ' hot money'. They can be moved from one country to another very rapidly in search of quick capital gains.

Long Term Capital Flows
It involves the purchase of long-term commercial papers such as government bonds or shares in publicly listed companies. They might involve in addition, the creation of real physical assets such as the setting up of factories or offices.

The Balancing Item
This accommodates the errors that might have been encountered in the calculation of export and import transactions. A positive value indicates that there have been unrecorded exports and a negative figure that there has been unrecorded net imports.

The Balance of Official Financing
This is the net value of the current balance, plus the capital balance, plus the balancing item. Its value gives the overall balance of payment surplus or deficit. A positive figure implies a balance of payment surplus and a negative figure, a BOP deficit. It is a good indicator of the country's competitiveness with the rest of the world.

Official Financing
This section shows how BOP deficit or surplus is financed.

NB. The current balance indicates the country's comparative advantage in exports of invisible and visible trade. A positive value indicates comparative advantage whereas a negative reflects a comparative disadvantage. We can also break current balance into visible and invisible trade in our guest to examine the source of comparative advantage. The analysis can also be extended to the capital account.

(Economics, Principles and Practice, Philip Black)
BOP must be always at Zero, however, in practice there may be a BOP deficit where exports exceeds imports or BOP surplus which imports exceed exports.

Correction of BOP deficit
A BOP deficit is a cause of concern amongst policy makers. Policy prescriptions have to be administered to correct it. They include among many the following.

Exchange Rate Manipulation
The country can devalue its exchange rate to encourage exports and discourage imports. This only works, however, when demand for exports and imports is price sensitive, that is, elastic. A devaluation of the exchange rate would reduce the price of exports on foreign markets stimulating demand for our exports, ceteris paribus. On the other hand, it will work to discourage imports by raising their prices relative to obtaining domestic prices.

Official Borrowing
The government may borrow from multilateral financial institutions such the IMF, the World Bank or even the African Development Bank to finance its deficit. It may also appeal to some donor countries that will offer the foreign exchange at friendly conditions than the former institutions.

Trade Restrictions

The government may impose trade restrictions to limit the amount of imports. However, as highlighted previously this can only work if it is not followed by retaliation by trading partners.

Disinvestment

The government may close foreign offices (embassies) which consume foreign exchange. It may also direct its nationals to disengage from investments that use foreign exchange.

Deflation

The government may also be forced to implement deflationary measures that may result in reduced appetite for foreign goods – i.e., reduce the marginal propensity to import. This may be done by increasing both corporate and income tax to reduce disposable income available to corporate and individual citizens. A wage freeze may also be necessary to dampen aggregate demand and hence the sucking in of imports.

NB. The policy prescriptions above are not exhaustive and you are as a reader encouraged to look for more. A balance of payment surplus is not also desirable because of its attendant costs. It is corrected through policy reversals of the above. However, in an examination, students are encouraged to discuss each point on how a BOP surplus may be addressed.

EXAMINATION TYPE QUESTIONS

MULTIPLE CHOICE

1. Which factor is most likely going to reduce the external value of a country's currency if a country pursues a flexible exchange rate?
   - A An increase in interest rate
   - B An increase in exports
   - C Political instability in the economy
   - D Lower inflation rate in the economy.
2. Which of the following is a disadvantage of floating exchange rate?
   - A Overvalued or undervalued currency
   - B Balance of payments disequilibrium takes time to correct.
   - C Instability in exchange rates
   - D Reduces speculation in the economy.
3. In an open economy with government intervention, which element is not a leakage?
   - A Government expenditure on house construction
   - B Value added tax.
   - C Importation of good and services
   - D Savings by households in the economy

ESSAYS

1. (a) Explain what is meant, by the terms 'deficit financing' and 'budget deficit'. [10]

(b) Discuss the effectiveness of ways of reducing the budget deficit. [15]

2.

3. Discuss when and why a government should be concerned with a deficit a balance of payments. [25]

4. Discuss the applicability of the comparative advantage theory to world trade. [25]

5. (a) Explain the accelerator theory. [10]

(b) Discuss the limitations of the accelerator theory. [15]

DATA RESPONSE QUESTIONS

1. Global firm Harris forges link with local it company

Staff Reporter

GLOBAL technology powerhouse. Harris Corporation has forged a commercial link with a local information technology (IT) firm, Afrotronics (Private) Limited, to market communications equipment in the public and private sector.

Harris Corporation is a United States based international communications equipment company whose main focus is providing product, systems and service solutions for commercial and government customers.

The company's four operating divisions serve markets for microwave, broadcast and government communications systems. The commercial partnership deal with Afrotronics, a small IT company still on the fringes of the fledgling IT sector, was likely to culminate into a partnership agreement in the coming years. Apart from Zimbabwe, Harris Corporation is also trying to penetrate the Malawian, Zambian and Mozambique markets.

Gino Mils, Harris Corporation regional sales manager for Southern Africa told **The Financial Gazette** that the firm had sealed a deal with Afrotronics to market broadband wireless technology products in Zimbabwe's telecommunications industry. Mils said Harris, which has over 50 years' presence in Africa, enjoys a 37 percent market share in microwave telecommunications products. 'We are trying to penetrate the Zimbabwean market by forging commercial links with the existing players in the sector.

'But it takes a lot of time to build up a strong base which might culminate in technical partnership,' Mils said. He said their major target was Zimbabwe's fast expanding telecommunications industry as government moves to bridge the information technology

gap. The government has said it would be rolling out massive infrastructural projects in the telecommunications industry. Apart from parastatals, Harris is also eyeing contracts with communications firms in the private sector.

Harris also markets military equipment such as tactical radio communications, tactical networking data, integrated communications systems, antenna and accessories.

SOURCE: THE FINANCIAL GAZETTE, SEPTEMBER 23-29, 2004

(a) (i) With reference to the extract, what is the main objective pursued by Harris corporation?
[2]

(ii) How does Harris Corporation penetrate markets in different countries. [2]

(b) (i) Identify how Harris Corporation is able to cover risks in business. [4]

(ii) Explain how Harris Corporation is going to benefit from a partnership with Afrotronics.
[4]

(d) (i) Identify the main reason why Harris corporation preferred to forge links
a firm in Zimbabwe.
[2]

(ii) If Harris Corporation and Afrotronics were going to merge, what type of
merging will it be?
[2]

(e) Examine the effects of a foreign firm merging with a local firm.
[4]

CHAPTER 21

DEVELOPMENT PROGRAMMES IN ZIMBABWE

ECONOMIC STRUCTURAL ADJUSTMENT PROGRAMME

Chapter objectives

After reading this chapter and working through the practice questions, you should be able to:

1. Understand the scope of Economic Structural Adjustment Programme and its main goals.
2. Appreciate the Structural Adjustment Programme Policy reforms.
3. Describe the Trade liberalisation policies.
4. Outline the ways of reducing government expenditure.
5. Describe the objectives of ESAP in Zimbabwe, its reforms and evaluation.

Structural adjustment programmes (SAPs) are meant to introduce market reforms, so that competition can help improve the allocation of resources, by getting the signals right and creating a climate that allows businesses to respond to those signals, in ways that enhance economic growth.

Structural adjustment is a process of undertaking sustained policy reforms aimed at redirecting an economy in decline towards sustainable and poverty reducing growth. Structural adjustment programmes are usually undertaken in conjunction with stabilisation programmes. Stabilisation aims at restoring macro economic balance so that reforms can be implemented in a conducive economic environment. Macro economic imbalances are manifested in high inflation, unemployment, chronic national budget deficits and external sector imbalances. Economic instability is caused by too much aggregate expenditure relative to a country's production capacity.

MAIN GOALS OF SAPS

- SAPs are there to reduce state intervention in the economy and increase production of goods for export.
- To even out the balance of payments deficits and improve market competitiveness.
- Encourage efficient resource allocation so as to increase economic growth.

Zimbabwe adopted ESAP in 1991 due to unstable fiscal and external imbalance. The government of Zimbabwe was faced with deteriorating investment levels and serious shortage of foreign exchange from 1980 – 1990s (the government of Zimbabwe in 1991, Kadenge 1992).

THE SAP POLICY PACKAGE

These are the reforms, which were drawn by the International Monetary Fund and the World Bank.

The reforms include:

- decontrol of prices
- de – regulation of trade
- devaluation of currency
- removal of subsidies
- reduction in public expenditure
- wage restrictions
- removal of tariffs and other import controls
- privatization and commercialization
- good governance and human rights
- removal of administrative controls

Chakaodza 1993 divided the reforms into three categories, namely those that deal with trade liberalization policies, fiscal and monitory policies and governance and human rights.

Trade liberalisation policies

This involves the gradual removal of controls in a country's trading system with the rest of the world. It includes:

(i) Price decontrol on commodities to increase the amount of goods produced. More employment is thus provided for the people and more foreign currency is earned from imports arising from increased productivity

(ii) Removal of wage controls allows workers in each industry to negotiate with the employers and agree on the rate of pay. This is often called collective bargaining

(iii) Removal of import controls such as tariffs and quotas removes the Balance of Payment constraint. This was done to allow market forces to determine the exchange rates and all economic activities.

(iv) Removal of subsidies to allow firms to be more competitive and produce more for exportation

REDUCING GOVERNMENT EXPENDITURE

Third world governments must reduce their expenditures so as to reduce high inflation levels. Less developed economies usually spend a lot of money on politics to please their followers rather than developing the economy.

DEVALUATION

Devaluation makes exports cheaper and buyers abroad are likely to purchase more quantities thereby stabilising the Balance Of Payments. Devaluation of a country is a net exporter than a net importer.

INTEREST RATE POLICY

Low levels of interest rates result in capital outflows, as the incentive to invest or save domestically will be low. High interest rates act as a incentive for saving and investment in the domestic economy.

PRIVATISATION

This involves the sale of government owned equity in nationalised industries, parastatals or other commercial enterprises to private investors. Privatisation improves economic efficiency and productive efficiency, as companies will be competing to gain market share and improve product adoption. High quality product can be produced due to competition and privatisation enables an economy and government to get a lot of revenue through taxes.

GOOD GOVERNANCE AND HUMAN RIGHTS

The World Bank instituted issue of good governance and human rights and improves political and economic stability. Corruption was regarded as a thing of the past and evil. Governments use these to respect the presence of a human being and child labour was considered immoral.

Evaluation of reform programmes

1. SAPs were anti – human (UNICEF 1991). They launched a human face as it was about de – regulating the government in all economic activities. The government was no longer given the mandate to provide subsidies to companies, no free education and health. This affected the lives of the less privileged residents or locals. These effects were shown when Zimbabwe adopted ESAP in 1991 where there was an inclusion of a social dimension adjustment.

2. SAPs were drawn to suit the needs of the Americans as they had limited aid to recipients. Less developed economies have chronic deficits so they needed a lot of money to finance their activities and their deficits led to countries failing to pay their debts. The World Bank was the one to approve donor funds after seeing that the economy has services its debts and there is good governance and human rights.

3. SAPs imposed too much austerity – countries have reduced output unnecessarily during adjustments due to cuts in investment, reductions in profitability of investments, as well as reductions in incentives for government workers to work productively (Kadenge et all, 2000)

4. Stewart (1991) noted that adjustment policies did not succeed, except in monopoly of cases in restoring economic growth. Many less developed countries have less declining investment and per capita income and high population numbers which consume more of

an economy's produce resulting in a country importing more, thereby worsening the Balance Of Payment position

Zimbabwe's Economic Structural Adjustment Programme (ESAP 1991 – 95)

ESAP was officially launched in February 1991 to help the economy from direct controls to more indirect ones. Zimbabwe had a declining economy and was put to even out the problems.

OBJECTIVES OF ESAP

1. Reduce Government deficit from 10 % of GDP to %5 by the fiscal year 1994 / 5.
2. Reform of public enterprises to eliminate the large budgetary burden covered by subsidies through making enterprises operationally efficient and more commercially orientated.
3. Civil service reform – to reduce the number of civil servants in non- – critical areas, so as to cut the size of the wage bill while increasing wages for civil servants remaining in key positions.
4. Monetary and fiscal policy reform - to strengthen monetary management, show credit creations to reduce inflationary pressures and to liberalize operations of the financial sector to encourage savings and improve efficiency of intermediation activities.
5. Trade and exchange market liberalisation to create a market based foreign exchange system and shift to a tariff based system of protection.
6. Domestic deregulation and investment promotion, to liberalize investment and de – regulate prices and agricultural marketing and equally important to abolish or modify bye – laws and regulations that humper investment.
7. Implementation of a social dimension, of adjustment programme to protect poor and vulnerable groups from the negative transitional effects of economic reforms.

(Adopted from ZIMPREST document Box 1 page 3)

REFORMS UNDER ESAP

- Deregulation of the economy
- Trade liberalisation
- Privatisation of parastatals
- Fiscal and monetary policy reform
- Civil service reforms

Evaluation of ESAP (ZIMPREST DOCUMENT)

1. Budget deficits exceeded targets throughout the ESAP period. The deficits were largely financed thorough domestic borrowing, thus crowding out the private sector. Inflation increased and interests rates soared up.
2. The overall performance of the public enterprises worsened significantly during the reform period. Huge losses were incurred by many public enterprises thus worsening the position of the fiscus. Agricultural marketing boards made significant problems with

respect to commercialisation. The Government in an effort to facilitate the process took over debts of the public enterprises including the GMB amounting to $ 423 billion thus contributing to the unusually high budget in 1994 / 5.

3. Significant progress was made on civil service reform as 94 % of the target posts were abolished and the wage bill was reduced from 16 – 5 % of GDP in 1990 / 91 to 10,4 % in 1994 / 5.
4. Administrative allocation of foreign currency was stopped in 1993, and individual foreign currency accounts were introduced in June 1991. The financial sector reform – foreign exchange and bureaux was introduced in January 1994. They were allowed to buy and sell foreign currency and travelers cheques for holiday and business travels within certain limits imposed by exchange control.
5. The amendment of the Labour Relations' Act of 1985 – employers were given the powers to retrench labour when they were making losses. The failure of ESAP led to the adoption of ZIMPREST (1996 – 2000).
6. Recurring brought also affected the pace of reform with the budget deficit still not reduced to the largest levels.
7. The tight monetary policy brought down inflation to around 20 % which was still above 10 % target by 1995. Unfortunately basic food prices were the main contributor to the high inflation rates under ESAP.
8. High normal interest rates created liquidity problems, which affected business and hindered domestic investors in the short – run, particularly small to medium enterprises but also some large ones in the textile industry.
9. The quality of education and health services for the poor majority generally declined under cost recovery, insufficient S.D.F and the fast spreading AIDS epidemic. No doubt it was the short term negative impact of ESAP which became most apparent as compared to the long term benefits.

EXAMINATION TYPE QUESTIONS

DATA RESPONSE QUESTIONS

Question 1

Rising world oil prices spell tougher times for ZIM

SOARING international oil prices, on the back of the weakening local unit point to a bleak future for motorists who continue to bear the brunt of a protracted fuel shortage spanning six years and steep price increases on the parallel market.

International oil prices have risen sharply over the past few months, reaching a record high US$66 per barrel this week amid indications that the price could break the US$70 mark soon owing to growing demand, mainly in Asia.

Players in the petroleum industry are already pushing for yet another price hike to remain viable and to catch up with the 62 percent plunge suffered by the Zimbabwe dollar against major currencies last month.

The government approved a 178 percent increase in the pump price of fuel recently, having kept the prices at uneconomic levels for several months.
This has, in turn, triggered an inflation spiral, with annualized, inflation jumping a massive 90.5 percentage points to 264.8 percent in July. Suppliers have not improved, despite the massive price hike, with industry players pointing to a volatile economic environment, which has already rendered the revised prices unviable. As a result a vibrant informal fuel market is charging rates between $45 000 and $60 000 per litre of petrol and diesel, a figure way ahead of the stipulated $10 000 on the same commodity.
Analysis also points to the recent introduction of fuel sales in foreign currency, where a litre costs US$1 ($18500 at the auction rate), as another contributing factor in the recent increase in fuel prices on the informal market. The development has created arbitrage opportunities from those with access to free funds who can purchase the fuel from designated filling stations, while intrepid arbitrageurs plunder the parallel foreign currency market, where US$1 is trading at $40 000, to buy the fuel for on selling at a profit.
The government has not committed itself to regular reviews of the price to take into consideration inflation and exchange rate movements, a situation which has resulted in massive price shocks when the authorities finally move to correct the situation.

(a) (i) According to the article, what has led to an increase in the price of oil in Zimbabwe? [2]
(ii) What has caused international oil prices to rise sharply over the past few months? [1]
(b) (i) Outline the evidence from the article, that oil is under priced in Zimbabwe. [2]
(ii) Explain the major effects of an increase in the price of oil. [2]
(c) (i) Describe the trend of annualised inflation in Zimbabwe. [2]
(ii) Name three types of inflation implied in the passage. [3]
(iii) What is the main advantage to Zimbabwe of selling fuel in foreign currency? [2]
(d) Discuss the benefits, to the economy, of using price controls to reduce inflation. [6]

REFERENCES

1. **FOR PREFACE**

1. Jack Jenkins), A textbook of Questions and Answers in 'A' Level Economics, Unwin Hyman, USA. (1980.
2. 'A' Level Economics Syllabus 9158/1/2/3. (Zimsec)

FOR CHAPTER 1

1. G.L Thirkettle, Basic Economics 2nd Edition, M & E Handbooks, London (1974).
2. Royer D Blair et al, Microeconomics with Business Applications, John Wiley & Sons New York (1987).
3. Jack Jenkins. A Textbook of Questions and Answers in 'A' Level Economics Unwin Hyman USA (1980).
4. Kutsoyannis A Modern Microeconomics, 2nd Edition, London UK. (1979)

FOR CHAPTER 2

1. Rowell R, Economics for Professional Studies 2nd Edition, DP Publications Ltd UK. (1993).
2. J. Harvey, Intermediate Economics, 3rd Edition, Macmillan Education Limited London (1980)
3. Lipsey R An introduction to Positive Economics, 5th Edition, Butter and Tanner Ltd, Frome and London (1980).
4. Hansan J, Economics for Students, 4th Edition, Macdonald & Evans Ltd (1958).
5. Geoff Riley, A Revision Guide to 'A' Level Economics. The Design & Print Corporation Ltd, Newcastle (1994).

FOR CHAPTER 3

1. Fitzpatrich D. Microeconomics, Oxford, New York (1990).
2. Kotler H. Macroeconomics, Amherst College, Toronto (1992).
3. Geof Riley, A Revision Guide to 'A' Level Economics. The Design & Print Corporation Ltd, New Castle. (1994).
4. Royer LeRoy Miller Economics explained, Butler and Tanner Frone and London UK. (1988).
5. Varian Hal Intermediate Microeconomics, A Modern Approach 4th Edition, W.W, Norton & Company, New York. (1996).
6. Caincross Introduction to Economics, Butterworth & Company Publications Ltd. London. (1960).

CHAPTER 4

1. Thirkettle G. Basic Economics 2nd Edition, M & E Handbooks London. (1974).
2. Powell R, Economics for Professional Studies 2nd Edition DP Publications Ltd U.K. (1993).
3. Kutsoyanis A Modern Microeconomics, 2nd Edition, Macmillan, London U.K. (1979).
4. Roger LeRoy Miller Economics explained, Butter and Tanner Frome and London UK. (1988).
5. Roger D Blair et al Microeconomics with Business Applications John Wiley & Sons. New York. (1987).

CHAPTER 5
1. J. Harsey Intermediate Economics, 3rd Edition, Macmillan Education Ltd, London. (1980)
2. Varian H. Intermediate Economics, W.W Norton & Company New York. (1993)
3. Hanson J Economics for Students, Macdonald & Evans Ltd. (1958)
4. Dornbusch R) Microeconomics, 2nd Edition, McGraw- Hill USA. (1981).
5. Powell R Economics for Professional Studies 2nd Edition DP Publications Ltd UK. (1993).

CHAPTER 6
1. Powell R. Economics for Professional Studies 2nd Edition DP Publications Ltd UK. (1993).
2. Caincoss, Introduction to Economics, 3rd Edition, Butterworth & Company Publishers Ltd London. (1960).
3. Thirkettle, Basic Economics 2nd Edition, M& E Handbooks, London. (1974).
4. J. Harvey, Intermediate Economics, 3rd Edition, Macmillan Education Ltd, London. (1980).
5. Hanson J. Economics for Students, 4th Edition, Macdonald & Evans Ltd. (1958).

CHAPTER 7
1. Lipsey R. An introduction to Positive Economics 5th Edition Butler and Tanner Ltd Frome and London. (1980).
2. Powell R Economics for Professional Studies 2nd Edition DP Publications Ltd UK. (1993).
3. Kutsoyannis A, Modern Microeconomics 2nd Edition, London UK. (1994).
4. Nancy W & Roger L.M, Economics explained. Butler and Tanner Frome and London UK. (1988).
5. Geoff R. A revision Guide to 'A' Level Economics. The Design & Print Corporation Ltd Newcastle. (1994).

CHAPTER 8
1. The Financial Gazette, September 30- October 6, 2004.
2. Fitzpatrich, Microeconomics, Amherst College, Toronto (1990).
3. Varian H, Intermediate Economics, W.W Norton & Company New York (1993).
4. McConnell B, Economics 8th Edition McGraw-Hill (2005).
5. Geoff R. A revision Guide to 'A' Level Economics The Design & Print Corporation Ltd. Newcastle (1994).

CHAPTER 9
1. Thirkettle G. Basic Economics 2nd Edition, M & E Handbooks, London. (1974)
2. Varian H, Intermediate Economics, A modern Approach 4th Edition W.W Norton & Co, New York. (1996).
3. J. Harvey, Intermediate Economics 3rd Edition Macmillan Education Ltd London. (1980)
4. McConnel B, Economics, McGraw-Hill. (2005)
5. Vane H Economics Dalgrave, foundations Great Britain. (1999)
6. Poole H, Principles of Macroeconomics DC Health Co USA. (1991)

CHAPTER 10

1. J. Harvey, Intermediate Economics, Macmillan Education Ltd London. (1980)
2. Lipsey R, An introduction to Positive Economics 5th Edition Batler and Tanner Ltd Fonme (1980) and London
3. Hanson J. Economics for students Macdonald & Evans Ltd. (1958)
4. Caincross, Introduction to Economics 3rd Edition Butterworth & Co Publishers Ltd London. (1960).

CHAPTER 11

1. Kenkins J A Textbook of Questions and Answers in 'A' Level Economics. Unwin Hyman USA. (1980).
2. Samuelson A & Nordhaus W, Economics 14th Edition McGraw-Hill Inc Singapore. (1992).
3. J. Harvey, Intermediate Economics Macmillan Education Ltd London. (1981)
4. Lipsey R. An introduction to Positive Economics 5th Edition Butler and Tanner. Ltd Frome and London. (1980).
5. Hanson, Economics for students MacDonald & Evans Ltd (1958).

CHAPTER 12

1. McConnel, Economics MacGraw-Hill Inc. (2005).
2. Chris M & Vane H, Economics, Palgrave Foundations, Great Britain. (1999).
3. Samuelson A & Nordhaus W, Economics, McGraw-Hill In. Singapore. (1992).
4. Donbusch R. Macro-Economics, 2nd Edition, Lexion Publishers Johannesburg. (1993).
5.Poole H, Principles of Macroeconomics, DC Health & Co. USA. (1991).
6. Donbusch R, Macroeconomics 2nd Edition McGraw-Hill USA. (1981).

CHAPTER 13

1. Kearh J Principles of Macroeconomics DC Health & Co USA (1993).
2. McConnel B Economics McGraw-Hill Inc. (2005).
3. Vane H Economics Palgrave Foundations Great Britain. (1999).
4. Samuelson A & Modhaus N, Economics McGraw-Hill Inc Singapore. (1992).

CHAPTER 14

1. Samuelson A & Nordhaus W, Economics McGraw-Hill Inc. Singapore. (1992).
2. McConnel B, Economics McGraw-Hill. (2005).
3. Vane H, Economics Palgrave Foundations Great Britain. (1999).
4. Kearh J, Principles of Macroeconomics DC Health and Co. USA. (1993).
5. Pooke H, Principles of Macroeconomics DC Health Co USA. (1991).
6. Geoff R, A Revision Guide to 'A' Level Economics. The Design & Print Corporation Ltd. (1994).

CHAPTER 15

1. Samuelson A & Nordhaus W, Economics 14th Edition McGraw-Hill Inc. Singapore. (1992).
2. Vane H Economics Palgrave Foundations Great Britain. (1999).
3. Poole H Principles of Macroeconomics DC Health & Co USA. (1991).

4. Varian H Intermediate Economics WW Norton & Co New York. (1993).

CHAPTER 16

1. Miller R & Nancy W Economics explained Butler and Tanner Frome and London UK. (1998).
2. J. Harvey Intermediate Economics 3rd Edition MacMillan Education Ltd London. (1980).
3. Manchester Economics Project: Understanding Economics 9th Impression Ginn & Co. Ltd, Edinburgh. (1976).
4. McConnell B Economics McGraw-Hill Inc. Singapore. (2005)

CHAPTER 17

1. McConnell B Economics McGraw-Hill Inc. Singapore. (2005)
2. Vanne H Economics Palgrave foundations Great Britain. (1999)
3. Samuelson A & Nordhaus W Economics McGraw-Hill Singapore. (1992)
4. Thirkettle G Economics 2nd Edition M & E Handbooks London. (1974)

CHAPTER 18

1. Thikettle G Basic Economics 2nd Edition M & E Handbooks, London. (1974).
2. Dorn bush R. Macroeconomics 2nd Edition McGraw-Hill Inc. USA. (1981).
3. Carncross Introduction to Economics Butler worth & Co. Publishers Ltd London. (1960).

CHAPTER 19

1. McConnell B Economics McGraw-Hill Inc. Singapore. (2005).
2. Poole H Principles of Macroeconomics DC Health & Co USA. (1991) .
3. J Harvey Intermediate Economics McMillan Education Ltd London. (1980).
4. Manchester Economics Project 9th impression Understanding Economics Ginn & Co Ltd Edinburgh. (1976)

CHAPTER 20

1. Samuel A & Nordhaus W Economics McGraw-Hill Inc. Singapore. (1992).
2. McConnel B Economics, McGraw-Hill Inc. Singapore. (2005).
3. Vane H Economics, Palgrave Foundations Great Britain. (1999).

CHAPTER 21

1. Todaro M Economics for a developing world Longman London & New York. (1998).
2. McConnel B Economics McGraw-Hill Inc. (2005).