Macroeconomics

for Advanced Secondary Schools

Student's Book

Form Five and Six



Tanzania Institute of Education

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Macroeconomics

for Advanced Secondary Schools

Student's Book
Form Five and Six

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Table of Contents

List of figures vi

List of tables viii

Acknowledgements ix

Preface x

Chapter One: National income 1

The concept of national income 1

Measuring the national income 4

National income determination 17

Investment theory 29

Income inequality 32

Chapter Two: Employment and unemployment 47

Unemployment 47

Employment 57

Chapter Three: Trade cycle 61

The concept of trade cycle 61

Causes of trade cycle 65

Theories of trade cycle 70

Chapter Four: Theory of money 74

Nature, evolution and functions of money 74

Concept of price index 91

Inflation 104

Deflation 114

Chapter Five: Financial institutions 119

The concept of financial institutions 119

Types of financial institutions 121

Credit creation in banking system 135

Chapter Six: Public finance 140

The concept of public finance 140

Government revenues 143

Taxation 145

Government expenditures 163

National budget 167

A public debt 169

Chapter Seven: International trade 177

The concept of international trade 177

Terms of trade 187

Trade protectionism 195

Free trade 199

Exchange rate 201

Chapter Eight: Economic integration and cooperation 213

The concept of economic integration 213

Economic integration blocks 226

Concept of economic cooperation 235

Chapter Nine: Economic growth and development 243

Economic growth..... 243

Economic development 256

Sustainable development..... 264

Chapter Ten: Structure of Tanzanian economy 272

The economy of Tanzania..... 272

Agricultural sector in Tanzania..... 274

Mining and quarrying sector..... 281

Industrial sector 281

Transportation sector 291

Tourism sector 292

Pattern of ownership of Tanzania economy..... 294

Glossary 305

Bibliography 309

Index..... 312

List of Figures

1.1: The circular flow model 4

1.2: Equilibrium level of income 18

1.3: National income determination by consumption and investment 18

1.4: Income determination by saving and investment 19

1.5: Multiplier in savings-investment 24

1.6: Multiplier in aggregate demand-aggregate supply 24

1.7: A Lorenz curve of hypothetical economy 39

3.1: Phases of trade cycle 63

3.2: Category of factors causing economic fluctuations 66

3.3: Theories of trade cycle 70

4.1: Fiat money (bank notes and coins) 76

4.2: A credit card 77

4.3: Liquidity preference curve 82

4.4: Money supply 83

4.5: Equilibrium in the money market 84

4.6: Demand pull inflation 107

4.7: Cost push inflation 107

4.8: Structural inflation 108

4.9: Monetary inflation 108

4.10: Deflation 114

5.1: A sample of a bill of exchange 126

6.1: Progressive tax system curve 148

6.2: Proportional tax system curve 149

6.3: Regressive tax system curve 151

6.4: Tax systems curve (hypothetical) 151

6.5: Tax burden for elastic supply good curve 157

6.6: Tax burden for inelastic supply good curve 157
6.7: Tax burden for perfectly elastic supply good curve 158
6.8: Tax burden for perfectly inelastic supply curve 158
6.9: Tax burden for unitary supply or demand good curve 158
6.10: Tax burden for elastic demand good curve 159
6.11: Tax burden for inelastic demand good curve 159
6.12: Tax burden for perfectly elastic demand good curve 160
6.13: Tax burden for perfectly inelastic demand good curve 160
7.1: The production possibility curve for Tanzania 185
7.2: The production possibility curve for Uganda 185
7.3: Tariff effects 196
7.4: Factors affecting exchange rate 205
10.1: The growth rate of various sectors in the Tanzanian economy for the year 2019 and 2020 293
10.2: The contribution of various sectors in the Tanzanian economy for the year 2020 293

MACROECONOMICS FORM 5&6 (2022).indd 7 07/03/2022 16:19

List of Tables

1.1: The output method of measuring GDP (in Tshs.) 5

1.2: National income computation using the output method 6

1.3: National income computation using income method 7

1.4: National income computation using expenditure method 8

1.5: Nominal GDP versus real GDP 10

1.6: Quantity and prices of goods in a hypothetical economy 10

1.7: Income, consumption, saving and their propensities 22

1.8: Distribution of personal income in a hypothetical country 37

4.1: Summary of definitions of money supply 83

4.2: Quantities and prices of the goods in 2018, 2019 and 2020 93

4.3: Consumer's spending on goods and services 95

4.4: Simple and weighted price indices computation process 96

4.5: Consumer's spending on goods and services 97

4.6: Laspeyre's and Paasche's price indices computations process 98

5.1: Differences between demand deposits account and fixed deposits 125

5.2: Credit creation process 135

6.1: Income tax rates in Tanzania for 2021 148

7.1: Illustration of absolute advantage 182

7.2: Illustration of absolute advantage 183

7.3: Gain from specialisation 183

7.4: Illustration of opportunity cost 184

7.5: Distinction between depreciation, appreciation and devaluation of currency 208

MACROECONOMICS FORM 5&6 (2022).indd 8 07/03/2022 16:19

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MACROECONOMICS FORM 5&6 (2022).indd 9 07/03/2022 16:19

Preface

This textbook, *Macroeconomics for Advanced Secondary Schools*, is written specifically for Form Five and Six students in the United Republic of Tanzania. It is written in accordance with the 2010 Economics Syllabus for Advanced Secondary Education, Form V-VI, issued by the then, Ministry of Education and Vocational Training.

The book consists of ten chapters, namely National income, Employment and unemployment, Trade cycle, Theory of money, Financial institutions, Public finance, International trade, Economic integration and cooperation, Economic growth and development, and Structure of Tanzanian Economy. Each chapter contains text, illustrations, activities, and exercises. You are encouraged to do all the activities, exercises as well as other assignments provided by your teacher. Doing so will enable you to develop the intended competencies.

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Chapter One

National income

Introduction

At the micro level, income is one of the determinants of welfare of individuals, that is the higher the income of a person the higher the purchasing power and vice versa. However, at the macro level national income statistics are used to determine the economic perfomance of a nation. In this chapter, you will learn about the concept of national income, national income computation, investment theory, and income inequality. The competencies developed will enable you to identify components of national income, investment and income inequality.

The concept of national income

National income is the total monetary value of all final goods and services produced by factors of production in a certain country over a period of time, usually one year. It aggregates factor incomes which arise from current production of goods and services in the economy. National income considers all economic activities in the economy, and it is measured in monetary terms. National expenditure refers to total expenditure on domestically produced final goods and services. National output refers to total value of output (goods and services) produced in the country during a particular year. In the modern economy, there are various concepts used to measure the market values of goods and services produced in the economy.

Concepts related to national income

Various terms are used to describe the concept of national income. These terms differ in items that are included or excluded in the calculation of national income. The terms are described as follows:

Gross Domestic Product (GDP): Refers to the market value of all final goods and services produced within a country in a certain period, usually one year. GDP measures two things at a time. On one hand, GDP measures the total income earned by factors of production, and on the other hand it measures total

MACROECONOMICS FORM 5&6 (2022).indd 1 07/03/2022 16:19

expenditure on goods and services in an economy. One thing to note is that, GDP should be measured using the market value of the final goods and services produced by citizens and non-citizen within a particular country. The GDP identity can be written as the sum of consumption expenditure on final goods (C), investment expenditure on intermediate goods (I), government expenditure on goods and services (G), and net export of goods and services ($X - M$). Where X represents exports of goods and services and M represents imports of goods and services.

$$GDP = C + I + G + (X - M) \quad \text{.....(1.1)}$$

Economists often use GDP to measure economic prosperity of the country. A higher GDP level signifies a higher level of well-being of the people.

Gross National Product (GNP): This is the market value of all final goods and services produced in a given period (usually one year) by the citizens of a particular country regardless of their location. It includes income of all factors of production of the citizens living within and outside the country.

Gross National Product = Gross Domestic Product + Net receipts of factor income from abroad (NX)

$$GNP = C + I + G + (X–M) + NX \quad \text{.....(1.2)}$$

Net factor income from abroad: This is the difference between the country's earnings from abroad and its payments to the rest of the world.

Net Domestic Product (NDP): Refers to the market value of all final goods and services produced within the country by both citizens and non-citizens minus losses from depreciation during a given period, usually one year.

Net Domestic Product = Gross Domestic Product – Depreciation .....(1.3)

Net National Product (NNP): Refers to the market value of all final goods and services produced by the citizens regardless of their location in a given period minus losses from depreciation. The national income is identical to net national product but sometimes the difference occurs because of statistical discrepancy.

Net National Product (NNP) = Gross National Product – Depreciation .....(1.4)

Depreciation: Refers to loss of value of the economy's capital assets such as stock of equipment and structures due to wear and tear. In national income accounting, the depreciation of capital assets is known as consumption of fixed capital.

Personal Income (PI): Refers to the income received by the individuals or households from all sources before the deduction of all direct taxes. Personal income is not

MACROECONOMICS FORM 5&6 (2022).indd 2 07/03/2022 16:19

equal to national income because personal income includes the transfer payments, while national income does not. Personal income is derived from national income by deducting undistributed corporate profits and taxes, and employee's contributions to social security schemes such as pension funds.

Personal Income = National Income – Social Security Contributions – Corporate Taxes – Undistributed Corporate Profits + Transfer Payments .....(1.5)

Disposable Income (DI): Refers to the income of the individuals after deduction of all direct taxes. It is the income ready for consumption and saving.

Disposable Income = Personal Income – Personal Income Taxes .....(1.6)

Disposable income can be used either for consumption or saving. The amount that is not consumed is saved. If we denote the disposable income by *DI*, consumption by *C* and saving by *S*, then disposable income can be expressed as:

$DI = C + S$ .....(1.7)

The amount saved is normally used to generate some capital which is used to earn more income. This is known as investment (*I*). It is the amount saved which is turned into investment. Therefore, from this logic, the disposable income can also be expressed as:

$DI = C + I$ .....(1.8)

From equations 1.7 and 1.8, it is logical to say that saving is equal to investment if the economy is in equilibrium. This means that all saved amounts are converted to investment, as expressed in equation 1.9.

$C + S = C + I$

$C - C + S = I$

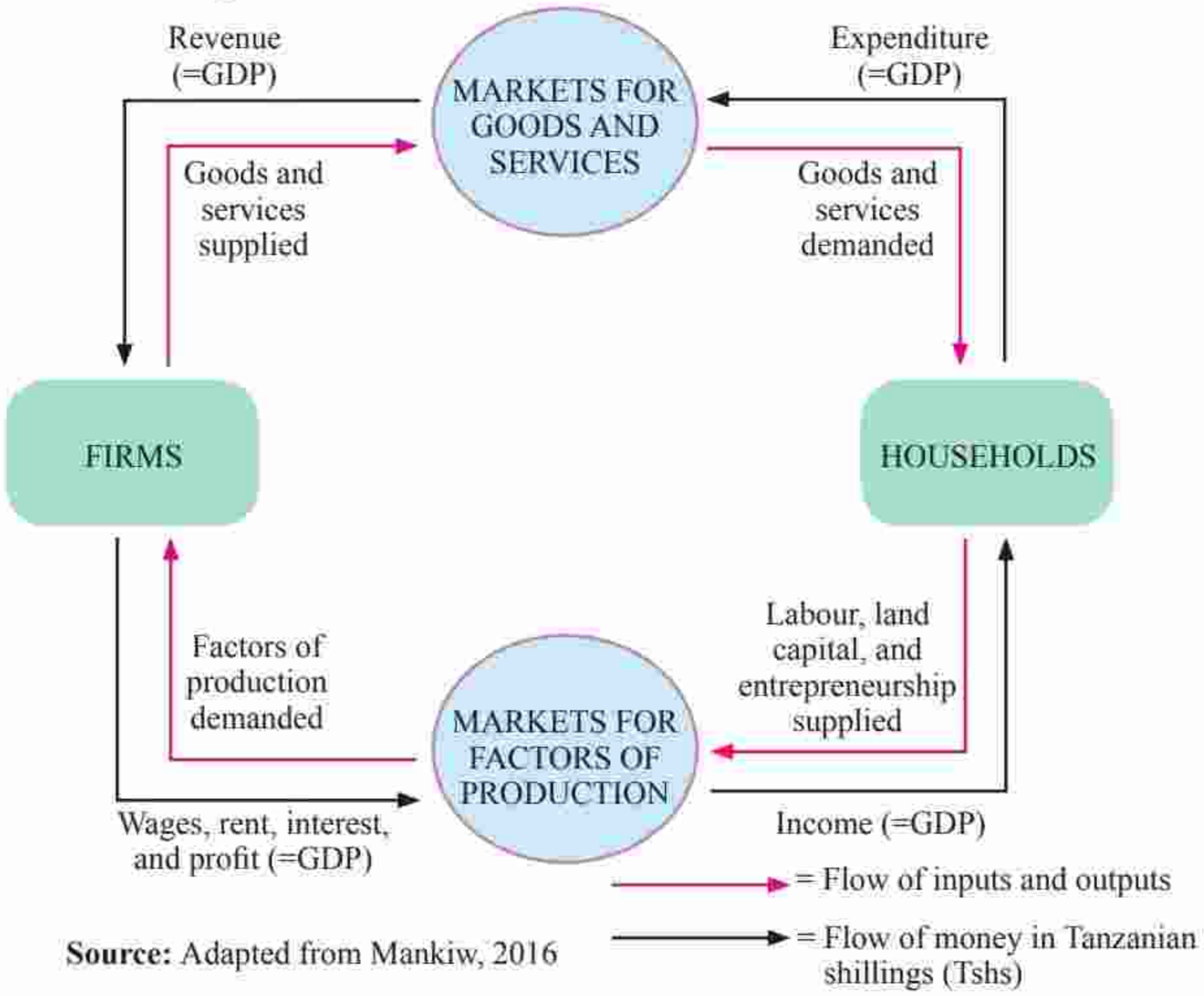
$S = I$ .....(1.9)

Per capita income: Refers to the average income of the people in the country in a particular year. It is sometimes known as income per person. It is computed by dividing the GDP by the total population of a particular country. Per capita income is used to determine average income per person in a given country. Per capita income is an important variable for the evaluation of the standard of living of a population.

$$\text{Per capita income} = \frac{\text{Gross Domestic Product}}{\text{Population}} \quad \text{.....(1.10)}$$

Measuring the national income

To understand how national income is measured, we start with a simple circular flow model of income in the economy. The circular flow model of income is a hypothetical concept in which we assume that there are only two sectors: businesses and households. It is a diagramatic representation of the flow of goods and services as well as expenditures across firms and households via product and factor markets without government interventions and trade with other countries. This model is presented in Figure 1.1.



Source: Adapted from Mankiw, 2016

Figure 1.1: *The circular flow model of income*

In Figure 1.1, firms hire factors of production: labour, land, capital and entrepreneurship from the households. Households in return receive income in the form of rent, wages, interest and profits. The firms use these factors of production to produce goods and services; and households buy the goods and services produced by firms. Firms earn revenue from the households. Thus, the total income received by households must be equal to the revenue earned by firms from expenditure of households. The inner circle in the diagram shows the flow of factor inputs and goods and services between businesses and households, while the outer circle shows the flow of money payments made

MACROECONOMICS FORM 5&6 (2022).indd 4 07/03/2022 16:19

by business to buy factor inputs and households to buy goods and services produced by business. Without loss of generality, we should note that, the outer circle can be expressed in terms of income received by selling factor inputs; wage for labour, interest for capital, rent for land and profit for entrepreneurship.

Figure 1.1 suggests three ways of measuring national income. Final outputs at market price, total expenditure on goods and services at market price, and income received by households for selling factor inputs. Therefore, derived from these facts, there are three methods of measuring national income: output, income and expenditure methods.

Output method or product method: In this method, the GDP is obtained by adding up the value of output produced at each stage of production. The output method of computing GDP is sometimes known as the value added method because it includes only the values of intermediate goods (net value of all output) produced in a given year. The method does not include the values of all output produced at each stage of production to avoid double counting. Value added is the difference between the market value of the output of the business and the cost of inputs purchased from other businesses.

For example, a farmer sold a kilogram of rice to a miller for Tshs 2,000. The miller turns the rice into flour and then, sells the flour to the food restaurant for Tshs 6,000. The food restaurant uses the flour to make *vitumbua* and sells them to students for Tshs 12,000. Assuming that only one kg of rice is produced in this economy the computation of GDP by using output method is illustrated in Table 1.1.

Table 1.1: *The output method for measuring GDP (in Tshs.)*

Sector	The value of output	The value added	Cumulative sum of value added
Farmer	2,000	2,000	2,000
Miller	6,000	4,000	6,000
Food restaurant	12,000	6,000	12,000
GDP			**12,000**

Table 1.1 illustrates that, the value added of each sector is computed and then, these values are aggregated to attain the GDP. Another example of computing GDP using NBS data of the year 2019 is illustrated in Table 1.2 by the output method. It is important to note that, GDP measured this way value the goods and services before the enter the market. Hence, it excludes taxes on the products. To obtain GDP at market prices, taxes on product has to be added.

MACROECONOMICS FORM 5&6 (2022).indd 5 07/03/2022 16:19

Table 1.2: *National income computation using the output method*

Economic activity	Value added (million in Tshs)
Agriculture, forestry and fishing	
Crops	20,632,396
Livestock	10,344,727
Fishing	2,379,172
Forestry	3,738,360
Agriculture support services	42,136
	37,136,791
Industry and construction	
Mining and quarrying	7,219,118
Manufacturing	11,872,086
Electricity supply	374,002
Water supply: sewerage, waste management	628,187
Construction	19,944,486
	40,037,879
Services	
Wholesale and retail trade; repairs	12,264,410
Transport and storage	9,621,651
Accommodation and food services	1,770,670
Information and communication	2,052,242
Financial and insurance activities	4,927,613
Real estate	3,831,113
Professional, scientific and technical activities	903,234
Administrative and support service activities	3,640,720
Public administration and defence	5,357,235
Education	3,322,488
Human health and social work activities	1,932,659
Arts, entertainment, and recreation	427,887
Other service activities	1,140,424
Activities of households as employers	241,246
	51,433,592
All economic activities at basic prices	**128,608,262**
Add: Taxes on products	11,285,542
GDP at market prices	**139,893,804**

Source: National Bureau of Statistics (NBS), 2022

MACROECONOMICS FORM 5&6 (2022).indd 6 07/03/2022 16:19

Income method: In this method, the GDP is computed by adding up the distribution side of income. The GDP is computed by adding up all income earned by factors of production during a period of one year. Therefore, the national income is computed by summing up rents from land, interests from capital, profits from entrepreneurs, and wages and salaries from employees. It is further presented mathematically as,

Income (Y) = Interest (I) + Rent (R) + Wage (W) + Profit (P) .....(1.11)

Although the National Bureau of Statistics (NBS) does not publish data on national income computation using income method, the same can be computed from data obtained in the computation of national disposable income and its appropriation. NBS uses compensation of employees, which is total remuneration payable by enterprises to employees, and operating surplus, which is surplus accruing from production (profit, rent and interest) before deduction of tax. The sum of these provides net domestic income at factor cost (or basic prices). By adding consumption of fixed capital and taxes of products, we obtain GDP at market prices using the income method. This is shown in Table 1.3 for 2019.

Table 1.3: *National income computation using income method*

Types of income	Income (million in Tshs)
Compensation of employees	44,056,615
Operating surplus	61,334,955
Net domestic income at factor cost (basic prices)	**105,391,570**
Add: Taxes on products	11,285,542
Net Domestic at market prices	**116,677,112**
Add Consumption of capital	23,216,692
GDP at market prices	**139,893,804**

Source: National Bureau of Statistics (NBS), 2022

Expenditure method: In this method, the GDP is computed by summing up all the final expenditures on goods and services produced in one year. The GDP is obtained by adding up consumption expenditure made by households, investment expenditure by firms, government spending and net exports. The expenditure method of measuring GDP can be expressed using the GDP identity, as the sum of personal consumption expenditure on the final goods (C), gross domestic

MACROECONOMICS FORM 5&6 (2022).indd 7 07/03/2022 16:19

investment expenditure on intermediate goods (I), government expenditure on goods and services (G), and the net export of goods and services (X–M). Where X denotes export of goods and services and M represents import of goods and services. Recall equation 1.1 which is, $GDP = C + I + G + (X - M)$

The example of GDP computation using NBS data of the year 2019 is illustrated in Table 1.4 by the expenditure method.

Table 1.4: *National income computation using expenditure method*

Type of expenditure	Value (million in Tshs)
Final consumption	
Government final consumption	10,867,505
Household final consumption	81,601,115
Non-profit institutions serving households	311,653
	92,780,273
Gross capital formation	
Gross fixed capital formation	59,529,980
Changes in valuables	1,273,337
Changes in inventories	-5,328,628
	55,474,689
Exports of goods and services (X)	
Export of goods	12,597,462
Export of services	9,796,547
	22,394,009
Imports of goods and services (M)	
Import of goods	19,681,869
Import of services	4,031,891
	23,713,760
Exports – imports (X – M)	**-1,319,751**
Errors and omissions	-7,041,408
GDP at current market prices	**139,893,803**

Source: NBS, 2022

MACROECONOMICS FORM 5&6 (2022).indd 8 07/03/2022 16:19

It is important to note that in theory, all the three methods of computing national income give the same figure of national income. Referring to Tables 1.2, 1.3 and 1.4 respectively, the national income computed from output equals the income and expenditure methods. This can simply be expressed as,

Value of National Output = Value of National Income = Value of National Expenditure

But practically, data are not perfect; therefore, the national income figures computed using different approaches may slightly differ. The slight difference in figures is known as statistical discrepancy.

Furthermore, GDP can be expressed either using current (prevailing) market price of goods and services or the costs used to produce goods and services. Therefore, there is GDP at factor costs and GDP at market price. The GDP at market price is obtained by taking GDP at factor cost plus the indirect taxes minus subsidies.

GDP at market price = GDP at factor cost + indirect taxes – subsidies .....(1.12)

GDP at factor cost is obtained by taking GDP at market price plus subsidies minus indirect taxes.

GDP at factor cost = GDP at market price + subsidies – indirect taxes .....(1.13)

Nominal GDP versus Real GDP

Nominal GDP: This is the term used to measure the GDP for a particular period using the actual market prices in that period. This gives us the nominal GDP or GDP at current market prices. However, the interest is to determine what happens to the real GDP.

Real GDP: Real GDP is the market value of all final goods and services produced in a certain period of time, usually one year, and is measured at constant prices of a chosen year (base year price). Real GDP is calculated by taking the volume or quantity of production after removing the influence of changing prices or inflation.

When information on the nominal GDP are provided, we can find the real GDP. Likewise, if we are provided with information on the real GDP, we can convert it into the nominal GDP. Economists use an index known as GDP deflator to convert the nominal GDP into the real GDP. The GDP deflator is calculated using the following formula:

$$\text{GDP deflactor} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 \quad \text{.....(1.14)}$$

This means that nominal GDP is calculated using market prices, while real GDP represents the change in the volume of total output after annual price changes are removed. Table 1.5 shows the comparison between nominal and real GDP.

Table 1.5: *Nominal GDP versus real GDP*

Year	Nominal GDP (trillion in Tshs)	Index number of prices (GDP deflator 2005)	Real GDP (trillion in Tshs) 2005 prices
2017	120	1.00	$\frac{120}{1.00} = 120$
2020	76	0.65	$\frac{76}{0.65} = 116.9$

To compute real GDP, first we have to select the base year. The base year is the benchmark to which the national account figures are computed. The National Bureau of Statistics (NBS) may change the base year from time to time due to the change in socio-economic environment of the country. The prices of final goods and services in the selected base year will be used to compute the real GDP. For example, consider Table 1.6 which shows the production of goods and services, and their respective prices in three years in a row, assume that 2018 is the base year:

Table 1.6: *Quantities and prices of goods and services in a hypothetical economy*

Year	Price in million Tshs per ton	Quantity in tons
2018	100	100
2019	200	150
2020	250	100

To compute real GDP we simply take the base year price multiplying by the quantity of goods and services of a particular year. But nominal GDP is computed by multiplying price and quantity of goods and services of the respective year. For example, the real GDP and nominal GDP of 2018, 2019 and 2020 are computed as follows:

The real GDP:

$$\text{Real GDP}_{2018} = 100 \times 100 = 10{,}000 \text{ millions}$$

$$\text{Real GDP}_{2019} = 100 \times 150 = 15{,}000 \text{ millions}$$

$$\text{Real GDP}_{2020} = 100 \times 100 = 10{,}000 \text{ millions}$$

The nominal GDP:

$$\text{Nominal GDP}_{2018} = 100 \times 100 = 10{,}000 \text{ millions}$$

$$\text{Nominal GDP}_{2019} = 200 \times 150 = 30{,}000 \text{ millions}$$

$$\text{Nominal GDP}_{2020} = 250 \times 100 = 25{,}000 \text{ millions}$$

MACROECONOMICS FORM 5&6 (2022).indd 10 07/03/2022 16:19

Comparing real GDP and nominal GDP, the nominal GDP of 2019 is twice as much as the real GDP because the price rose twice between 2018 and 2019. In 2020 nominal GDP is higher than 2018, but real GDP remains the same, this is because the quantity produced are the same, but what makes the difference is only the changes in price between these years.

Note that, the real GDP is equal to the nominal GDP for the year 2018. This is because the prices and quantity in this year are of the base year.

GDP deflator versus consumer price index

The GDP deflator measures the current level of prices relative to the level of prices in the base year. The consumer price index (CPI) measures inflation rate using consumer prices and has an implication on the cost of living. The two concepts differ in the following ways:

First, the CPI is based on a representative basket of goods and services that consumers buy; while the GDP deflator is comprehensive and covers all the goods and services included in national accounts.

Second, the CPI tends to change over time because prices for goods and services included in the basket of consumer goods and services have normal variation. The GDP deflator, by contrast, is built on the base year prices and, therefore, changes over time because the current prices also change relative to the base year prices. In other words, the GDP deflator is used to "deflate" the value of current year output to what value it would be in the next year prices, while the CPI measures the increase in the cost of the "basket" of consumer goods and services.

Determinants of the size of national income

There are number of factors that determine the level of national income of a given country, some of these factors are explained below:

The stock of natural resources: Natural resources such as minerals, fertile land, water resources, and forest resources are relevant raw materials for the production of goods and services. The country that is rich in natural resources can achieve some level of production from the use of her natural resources. Consequently, the high level of production will increase aggregate output which further translates to the country's national income. On the other hand, a country which is poor in natural resources will fail to increase production and, therefore, the size of national income will be low.

The size of skilled labour force: Labour force is an input used in the production process. A large stock of skilled labour force will be more efficient/productive in the course of producing goods and services. The raised productivity may lead to high national income. On the

MACROECONOMICS FORM 5&6 (2022).indd 11 07/03/2022 16:19

other hand, a small stock of unskilled labour is associated with small size of national income.

Size of capital stock: Capital goods help to increase productivity of other factors of production. A country with a large stock of capital is able to raise its production levels leading to high size of national income. On the other hand, the presence of insufficient stock of capital leads to a small size of national income.

Entrepreneurial skills: An entrepreneur is a person who organises other factors of production to produce goods and services in the most efficient way. Experienced and skilled entrepreneurs lead to efficient organisation of other factors of production leading to greater productivity and, hence, raise the size of national income. On the other hand, a country with unexperienced and unskilled entrepreneurs will experience a small size of national income.

The level of technological advancement: High technological progress leads to high output from the use of fixed resources. The same output can be obtained by the use of a small quantity of resources due to technological advancement. Low level of technology leads to small national income levels.

Uses of national income statistics

The uses of national income statistics are crucial in the economy. The following are some of the important uses of national income statistics:

It helps to determine the distribution of income among the factors of production: The statistics show how national income is distributed among different actors in the economy. For example; wage earners, rent earners, interest earners and profits earners.

It helps to compare the level of the standard of living across countries: The figures of real national income and per capita income are used to compare the standard of living in different countries. Therefore, the higher the per capita income, the higher the standard of living in a country and vice versa.

It is used to formulate national economic plans and policies: By using the national income statistics, it is possible to know the contribution of each sector to the national economy. The statistics are relevant for the government to decide on the regulation and stimulation of its sectors. Firms and the government can plan to use the available resources to stimulate or regulate agriculture, industry, infrastructure and social services for economic development.

It helps to show the overall economic performance: The national income seeks to measure the value of production in a year. The statistics will show whether the economy is growing overtime or not. Therefore, the statistics helps to compare the level of economic performance over time.

MACROECONOMICS FORM 5&6 (2022).indd 12 07/03/2022 16:19

It helps to show the contribution of each sector in the economy: The national income statistics help to know the sectoral contribution to the overall economy. For example, in Tanzania agriculture sector is the most contributing sector to the economy's GDP and employment. The United Republic of Tanzania country's survey report of 2020 reveals that the agricultural sector contributed about 26.9 percent of the economy's GDP.

It helps to determine the growth rate of an economy: The data on consumption, saving and investment are important in determining the economic growth of the country. However, consumption and investment are the components of aggregate demand which depend on the level of income and employment in a country. Therefore, an increase in these components will indicate whether the economy is growing or not.

Problems in measuring national income

The process of measuring national income is not straight forward, since there are various challenges that arise in the process of computation. The following are the problems experienced in measuring the national income:

Problem of double counting: The value of intermediated goods such as raw materials or inputs should not be part of GDP because their cost is already included in the price of final goods and services. Therefore, including it will lead to double counting. Thus, all goods and services produced by one firm for another should not be included in the national income computations. This is because the value of the mentioned goods and services have already been included in the price of final product. For instance, services like banking, transportation, and insurance should be excluded because they are included else where.

Non-inclusion of non-marketed goods and services: Gross Domestic Product (GDP) measures the market value of all final goods and services but not goods and services with no market value. Examples of goods with no market values are vegetables and fruits that are consumed from gardens at homes. These goods are not included in the GDP calculations. Similarly, traditionally housewives do most of house works for the family. These are not included in the GDP because there is no established market price for them. Housewives offer the same services like those offered by maid servants employed in the hotels; but only the activities of maid servants are included in the GDP. A balanced approach would include services of the housewives in calculating GDP because they are economic activities performed in the economy.

Inadequate statistical data: Most of economic activities conducted in the economy are not recorded properly. One of the reasons is that most individuals, firms, and government institutions do

MACROECONOMICS FORM 5&6 (2022).indd 13 07/03/2022 16:19

not keep records properly. The other reason owes to economic informality. Thus, most of the national income figures are computed based on estimates from samples which may result into either underestimation or overestimation of GDP figures.

Estimation of depreciation allowance: In order to come up with the Net National Product (NNP), depreciation is deducted from GNP. But the problem arises in estimating the current depreciation value of capital goods that has lasted for a long period of time such as thirty years or more. Firms calculate the depreciation value on the original cost of the capital goods to determine their expected life. However, this does not solve the problem because the prices of capital goods change almost every year.

Price changes: National income is computed by using the market value of goods and services at current market prices. But prices are not stable, they fluctuate from time to time. When the price level rises, the national income also rises, though the national production might have fallen. On the other hand, when price level falls, national income also falls, though the national production might have increased. As a result, price changes do not adequately measure national income. That is the reason economists prefer to compute real national income at constant prices by using the price index known as GDP deflator.

Income from illegal activities: Income earned from illegal activities like corruption, prostitution and smuggling are not included in the national income. Such activities have undesirable effects and are not considered productive from the point of view of the society. This, however, may not be the case for the other countries where such activities are legal.

Treatment of government services: Most of the government services that are provided for free to the population must be included in the computation of GDP. However, it is difficult to find the true value of these services since they are not sold via market channels.

Externalities: Effect of the action of one agent that affect another economic agent who is not part of that action is not captured when measuring national income. For example, the effect of a mining company polluting water that is used by villagers living adjacent to the mine is not captured.

Weaknesses of using income per capita to compare standard of living

High per capita income implies high standard of living because per capita income is usually used to compare living standard across countries overtime. A country with a high per capita income enjoys high living standard, while a country with a low per capita income does not. However, per capita income is not a perfect measure of standard of living and, therefore, provides a challenge

MACROECONOMICS FORM 5&6 (2022).indd 14 07/03/2022 16:19

of using it to compare the standard of living across countries. There are several weaknesses of using per capita income to compare living standards among the nations. These weaknesses include:

Differences in taste and preference: People from different countries have different tastes and preferences. For example, due to geographical differences a person living in Europe has to spend more on in-house heating during winter than does a Tanzanian due to the variations in climatic conditions. Obviously, neither the European nor the Tanzanian is better off in this aspect. However, when using the per capita income figures to compare their welfare, the figures may indicate that a European is better off than a Tanzanian.

Currency variations: The per capita income figures are expressed in different currencies.They have to be converted into a common currency in order to make proper comparison. Using the exchange rate for this purpose, however, is not conclusive. This is because the rate may not accurately reflect the internal purchasing power of a currency.

Countries differ in spending: The proportion of income spent by different countries on defence and non-welfare improving activities vary. Countries which spend less on non-welfare improving activities can enjoy consumer goods and improve standard of living, but per capita income does not indicate these differences.

Variations in the length of the working hours: Countries vary with regard to the length of the average working hours and the proportion of women who work. It may happen that, the high per capita income in one country is a result of working for long hours while sacrificing leisure. However, per capita income measure does not show this fact.

Per capita income does not show income distribution: There is another possibility of the per capita income not being able to increase economic welfare when real per capita income increases. A small percentage of the population may be controlling a large share of GDP. For example, if the increased income goes only to the few rich people, the per capita income will not increase economic welfare of the majority of the population.

Per capita income fails to measure adequately changes in the value of output due to changes in the price level: Price index used to measure price changes are simply approximations. Thus, they cannot adequately measure economic performance.

The increase in per capita income may not raise the real standard of living of all people: It is possible that while per capita real income is increasing, per capita consumption might be falling. People might be using the increased income to increase their saving.

MACROECONOMICS FORM 5&6 (2022).indd 15 07/03/2022 16:19

It fails to take into account the increase in standard of living associated with social factors: The improvement in living standards comes from education, nutrition, health and housing, cannot be measured by the increase in per capita income.

It does not consider issues of externality: The outcome of per capital income is calculated without considering the issue of externality.



Activity 1.1

1. Visit a school library, websites and read economic survey reports of Tanzania. Collect data on the GDP of Tanzania for the past five years, then:
   (a) Write a story on the trend of GDP of Tanzania;
   (b) Share your observations with your fellow students; and
   (c) From part (b) above, is there any difference between your findings and your fellow students' findings? If the answer is yes, explain.
2. Collect previous year economic data from Tanzania and record all expenditure items, output of all sectors and income received by all factors of production, then:
   (a) Compute the GDP and Net National Income (NNI) using the three approaches;
   (b) Are the GDP figures computed in (a) the same or different?
   (c) If the figures in part (b) are similar, explain the reasons for their similarities; and
   (d) If the figures in part (b) are different, explain what makes the difference?

Exercise 1.1

1. Is it true that GDP measures two things at once? Explain.
2. What is the difference between the real GDP and nominal GDP?
3. Why do economists prefer to use the real GDP rather than nominal GDP to measure the standard of living?
4. Using a two-sector circular flow model of income, explain how economic agents interact in the factor markets and product markets.
5. The production of goods and services inside or outside the domestic economy, by citizens and non-citizens makes the concepts of national income and GDP to be defined differently. Justify this statement.
6. What is the difference between GDP and the national income?

MACROECONOMICS FORM 5&6 (2022).indd 16 07/03/2022 16:19

7. Explain how the three approaches of national income computations differ.

8. Is it true that all three approaches of computing national income result to the same figure? If it is true; why one keep using three approaches, if one approach can serve the purpose?

National income determination

In the short run, the level of national income is determined by the aggregate demand and aggregate supply. The supply of goods and services in a country depends on the productive capacity of the economy. The aggregate supply corresponds to aggregate demand. As aggregate demand increases, output also increases and the level of national income rises. On the other hand, if the aggregate demand decreases, the national output or national income also decreases. It follows that the equilibrium level of national income is determined by the aggregate demand, since aggregate supply remains more or less constant during the short run. It is assumed that the national output will be as much as the effective demand.

There are two components of effective demand under a closed economy with no government: demand for consumption goods and demand for investment goods. Hence, effective demand, entails how much total expenditure the firms and the people are willing to incur on consumption goods (C) and on investment goods (I). Therefore, aggregate demand (AD) can be expressed as:

$AD = C + I$ .....(1.15)

According to Keynes, the national income: $Y = C + I$ = Aggregate Demand. But income has another side, which is a spending side. From this point of view, income is spent on consumption and saving. Therefore, income is expressed as:

$AS = C + S$ .....(1.16)

According to Keynes, the national income: $Y = C + S$ = Aggregate Supply.

The equilibrium level of national income is determined by bringing together equations 1.15 and 1.16. Thus, the equilibrium level of national income is attained when total injections equal to leakages. In a closed economy and the absence of government sector, the autonomous investment is the only injection and saving is the only leakage. Thus; Y = Aggregate Demand = $C + I$

Y = Aggregate Supply = $C + S$

Given that, Aggregate demand = Aggregate supply, then,

$C + I = C + S$

$C - C + I = S$

$I = S$ = equilibrium level of income .....(1.17)

Saving = Investment

Therefore, the equilibrium national income determination of leakages-injections approach can be termed as saving-investment approach. At equilibrium, the savings (leakages) must be equal to investment (injections).

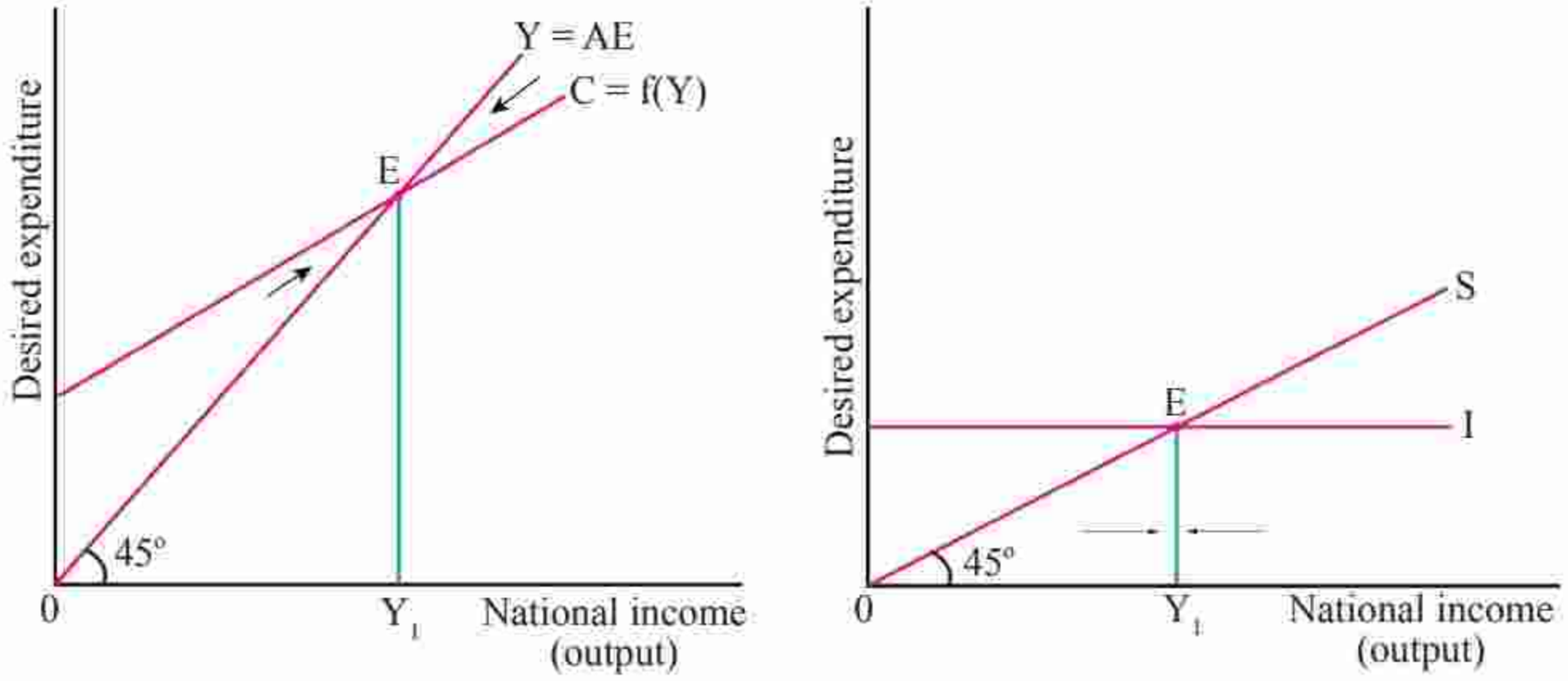


Figure 1.2: *Equilibrium level of income*

In Figure 1.2, the national income is at equilibrium when saving (leakages) is equal to investment (injections) at point E. If savings (leakages) exceed investments (injections), then total expenditure will decline, and the result is to decrease output. On the other hand, if investments exceed savings, then total expenditure will increase, and the result is an increase in output. Only when investments and savings are equal at point E, output will remain the same at Y_1. However, the shift in aggregate expenditure curve (AE) leads to changes in equilibrium national income. For example, suppose aggregate demand increases from AE_1 to AE_2 as a result of increase in investment expenditure, equilibrium level of national income will increase from Y_{E1} to Y_{E2}. As depicted in Figure 1.3

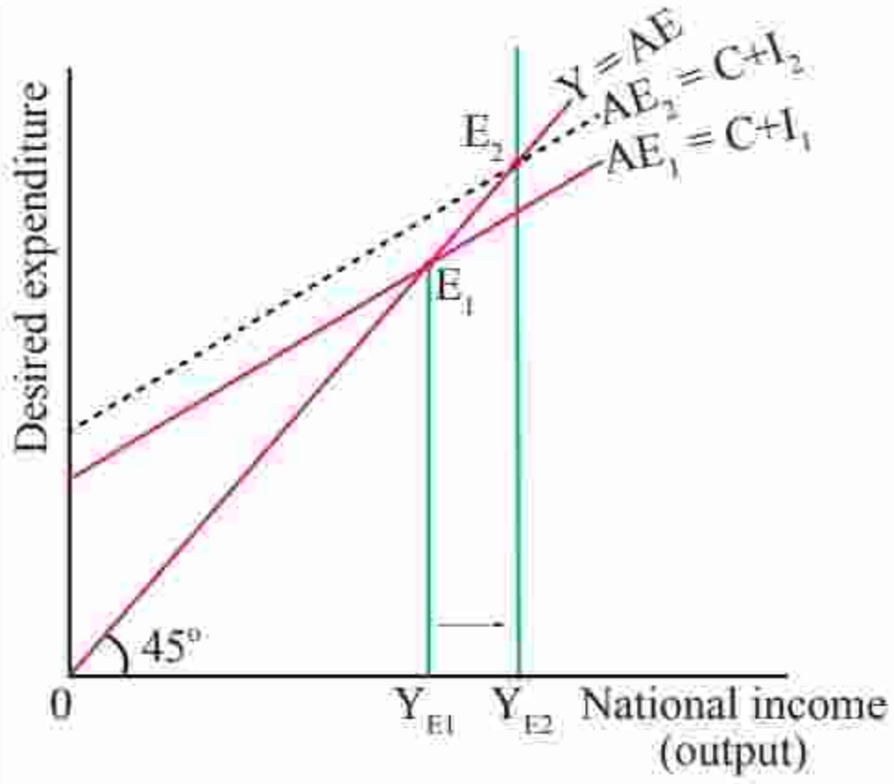


Figure 1.3: *National income determination by consumption and investment*

The changes in equilibrium national income can either be a result of an increase or shift in savings or investment curves. For example, a rise in investment expenditure will shift the investment demand curve upward

from I_1 to I_2, the result is an increase in equilibrium level of national income from Y_1 to Y_2 as depicted in Figure 1.4.

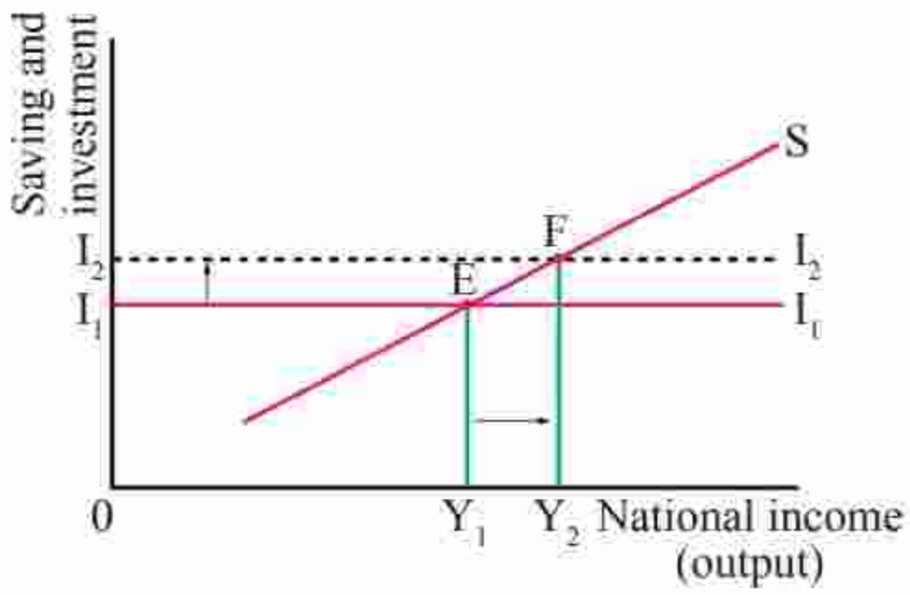


Figure 1.4: *Income determination by saving and investment*

Consumption function

A consumption function is the expression of relationship between consumption and disposable income. Consumption spending of the people is influenced by the following factors among others: the real income of the individual, past saving of the individual, and the rate of interest. The real income seems to be the strongest factor among all. Thus, the level of consumption depends on the level of income.

$C = f(Y)$, function of income

However, there is a certain level of consumption known as autonomous consumption that does not depend on the level of income. It represents part of consumption spending from other sources than disposable income including past savings. It is also the vertical intercept of the consumption function. As a result of this, the general consumption function in a linear form is usually expressed as:

$$C = a + bY \quad \text{.....(1.18)}$$

Where; C represents the consumption level, "a" represents autonomous consumption, "b" represents marginal propensity to consume (MPC) and "Y" is the disposable income.

Marginal propensity to consume (MPC)

Marginal propensity to consume is a parameter which shows the effect of an additional shilling of disposable income on consumption. Marginal propensity to consume is the proportion by which consumption spending changes resulting from a unit change in income. In other words, marginal propensity to consume is the ratio of change in consumption to change in income. For example, if your income increases by say Tshs 40,000, how much of this amount will be devoted for consumption and how much will be saved? This fraction of change in consumption over the change in income is what is referred to as the marginal propensity to consume. The MPC is computed using the formula in equation 1.19.

$$\text{Marginal propensity to consume} = \frac{\text{Change in consumption}}{\text{Change in income}}$$

$$MPC = \frac{\Delta C}{\Delta Y} \quad \text{.....(1.19)}$$

MACROECONOMICS FORM 5&6 (2022).indd 19 07/03/2022 16:19

Where ΔC = change in consumption

ΔY = change in income

From the equation 1.18 of consumption function, $C = a + bY$

$$\frac{\Delta C}{\Delta Y} = \frac{\Delta a}{\Delta Y} + b\frac{\Delta Y}{\Delta Y}$$

$$\frac{\Delta C}{\Delta Y} = 0 + b$$

Therefore, $MPC = \frac{\Delta C}{\Delta Y} = b$ .....(1.20)

Where $0 \leq b \leq 1$

Average propensity to consume (APC)

Average propensity to consume refers to consumption per income. It shows the percentage of income that is spent on consumption. In other words, average propensity to consume is the ratio of consumption to income. The *APC* is computed using the formula in equation 1.21.

$$\text{Average propensity to consume} = \frac{\text{Consumption}}{\text{Income}}$$

$$APC = \frac{C}{Y} \quad \text{.....(1.21)}$$

Determinants of the propensity to consume

Marginal propensity to consume is influenced by the following factors:

Income redistribution: Redistribution of income in favour of the poor tends to increase the propensity to consume. This is because the marginal propensity to consume of the low-income groups is high in comparison to that of the rich.

Increased wages: Increase in wage may affect *MPC* positively. If wages are increased, it will have a direct effect in shifting the consumption function upward.

Social security measures: Social security measures tend to increase the consumption function in the long run. The provision of unemployment relief, medical facilities, and old age pension, remove future uncertainty and the tendency to save is reduced, therefore, leading to an increase in consumption.

Credit facilities: Cheap and easy credit facilities help in shifting the consumption function upward. When loans are easily and cheaply available to the people, more durable consumer goods are purchased resulting to a rise in the propensity to consume.

MACROECONOMICS FORM 5&6 (2022).indd 20 07/03/2022 16:19

Development of the means of transport and communication: Well-developed means of transport and communication tend to shift the consumption function upward. The movement of goods become easy, the size of the market expands and prices may fall due to the reduction of transport costs.

Saving function

Saving function expresses a relationship between the level of saving and disposable income. The level of saving depends on the level of disposable income. The saving function can be derived from aggregate supply as follows;

Recall equation 1.16 which is,

$AS = Y = C + S$

Where; Y is income level, C is consumption level and S is saving level. However, equation 1.18 represents the consumption function which is expressed as; $C = a + bY$

Then, substitute equation 1.18 into equation 1.16 to have,

$Y = a + bY + S$

$S = Y - a - bY$

$S = -a + (1 - b)Y$ .....(1.22)

Therefore, equation 1.22 represents saving as a function of income.

Marginal propensity to save (MPS)

Marginal propensity to save is a fraction that shows an effect of additional shilling of disposable income on saving. In other words, marginal propensity to save is the ratio of a change in saving and a change in income.

$$\text{Marginal propensity to save} = \frac{\text{Change in saving}}{\text{Change in income}}$$

$$MPS = \frac{\Delta S}{\Delta Y} \quad \text{.....(1.23)}$$

From the saving function: $S = -a + (1 - b)\ Y$

Then, a change of S with respect to change of Y can be expressed as;

$$\frac{\Delta S}{\Delta Y} = \frac{\Delta(-a)}{\Delta Y} + (1-b)\frac{\Delta Y}{\Delta Y}$$

$MPS = \frac{\Delta S}{\Delta Y} = 1 - b$, where 'b' is a marginal propensity to consume.

Where $0 < (1 - b) < 1$.

The important point to note here is that, MPC and MPS sum up to one. This can be expressed as: $MPC + MPS = 1$

This fact is derived from the following:

$Y = C + S$, since the change in income is associated with the change in consumption plus the change in saving, the following expression is valid;

$\Delta Y = \Delta C + \Delta S$

Divide by the change in income throughout the equation to obtain:

$$\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

$$1 = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

But, $\frac{\Delta C}{\Delta Y} = \text{MPC}$ and $\frac{\Delta S}{\Delta Y} = MPS$

$b = 0$, if the entire additional income is saved

$b = 1$, if the entire additional income is consumed, indicating that income has no effects on saving.

Therefore, $MPC + MPS = 1$.....(1.24)

Table 1.7 further elaborates on the computations of income, consumption, saving, average propensity to consume, average propensity to save, marginal propensity to consume, and marginal propensity to save.

Table 1.7: *Income, consumption, saving and their propensities*

Income (Y)	Consumption (C)	Saving (S)	APC	APS	MPC	MPS
1,000	950	50	0.950	0.050	-	-
1,100	1,040	60	0.945	0.054	0.9	0.1
1,200	1,125	75	0.938	0.062	0.85	0.15
1,300	1,205	95	0.927	0.073	0.80	0.20
1,400	1,280	120	0.914	0.086	0.75	0.25

Average propensity to save (APS)

Average propensity to save is a saving per income. It is the percentage of income that is saved. In other words, average propensity to save is the ratio of saving to a disposable income.

$$\text{Average propensity to save} = \frac{\text{Saving}}{\text{Income}}$$

$$APS = \frac{S}{Y} \quad \text{.....(1.25)}$$

The important point to note here is that, APC and APS sum up to one, expressed as: $APC + APS = 1$

This fact is derived from the following; $Y = C + S$

MACROECONOMICS FORM 5&6 (2022).indd 22 07/03/2022 16:19

Divide by income (Y) throughout the equation to obtain:

$$\frac{Y}{Y} = \frac{C}{Y} + \frac{S}{Y}$$

$$1 = \frac{C}{Y} + \frac{S}{Y}$$

But, $\frac{C}{Y} = APC$ and $\frac{S}{Y} = APC$

Therefore, $APC + APS = 1$.....(1.26)

Determinants of saving

Saving is determined by three major factors. These factors include the following:

Willingness to save: A portion of income can be saved only if a person has a desire to save. Willingness to save depends on the family affection, precaution, standard of living and social status. Thus, the higher the willingness to save the higher the savings.

Ability to save: Ability to save means the capacity to save. One cannot save without having the ability to save. The ability to save depends on factors like size of national income, natural resources, trade, industrial development, agricultural development, efficiency of labour, distribution of wealth and income.

Facilities and conducive saving environment: Saving depends also on the facilities and conducive saving environment such as peace and security, taxation policy, value of money, banking facilities, investment opportunities, and economic policy of the government.

Investment multiplier

Investment multiplier is a measure of the relationship between change in the equilibrium level of national income and the change in investment. Investment multiplier is the number of times by which change in autonomous investment has to be multiplied to get the resulting change in equilibrium national income. Investment multiplier is given by the following formula:

$$\text{Investment multiplier } (K) = \frac{\text{Change in national income}}{\text{Change in investment}}$$

$$K = \frac{\Delta Y}{\Delta I} \quad \text{.....(1.27)}$$

Where, K is investment multiplier, Y is income, and I is investment. The multiplier effect is the situation where initial change in the level of investment spending brings about more than a proportionate change in equilibrium national income. Figure 1.5 shows the investment multiplier in a saving and investment framework. The original equilibrium was at point E in which Y_0 is an equilibrium national income. The increase in investment spending from I_0 to I_1, has the multiplier effect, since it increases the equilibrium national income from Y_0 to Y_1.

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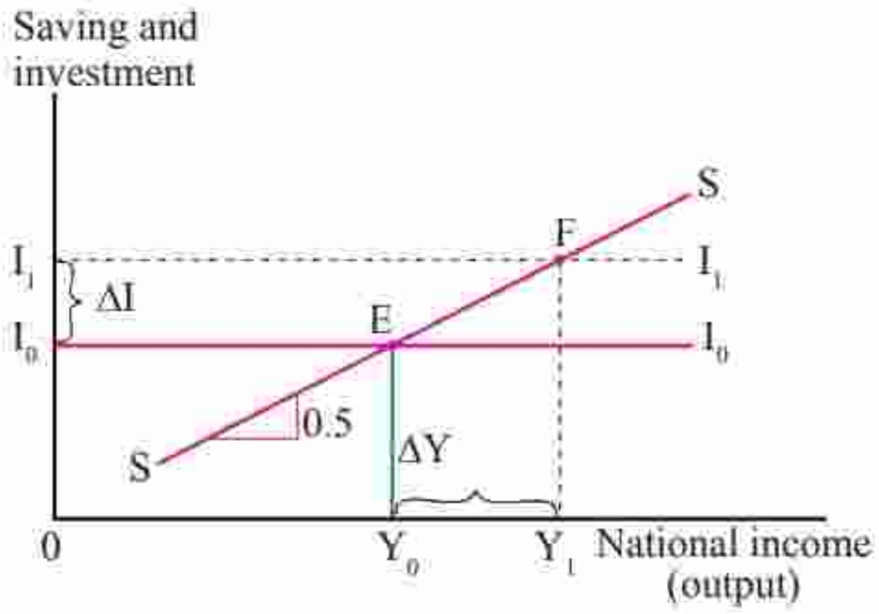


Figure 1.5: *Multiplier in savings-investment*

Figure 1.6 shows the multiplier effect using aggregate demand and aggregate supply framework. The initial equilibrium was at point E_1 with equilibrium national income being at Y_1, the increase in investment spending by ΔI has the multiplier effect because it increases the aggregate demand (AD) from $AD = C + I$ to $AD = C + I + \Delta I$. The effect is the increase in equilibrium national income from Y_1 to Y_2.

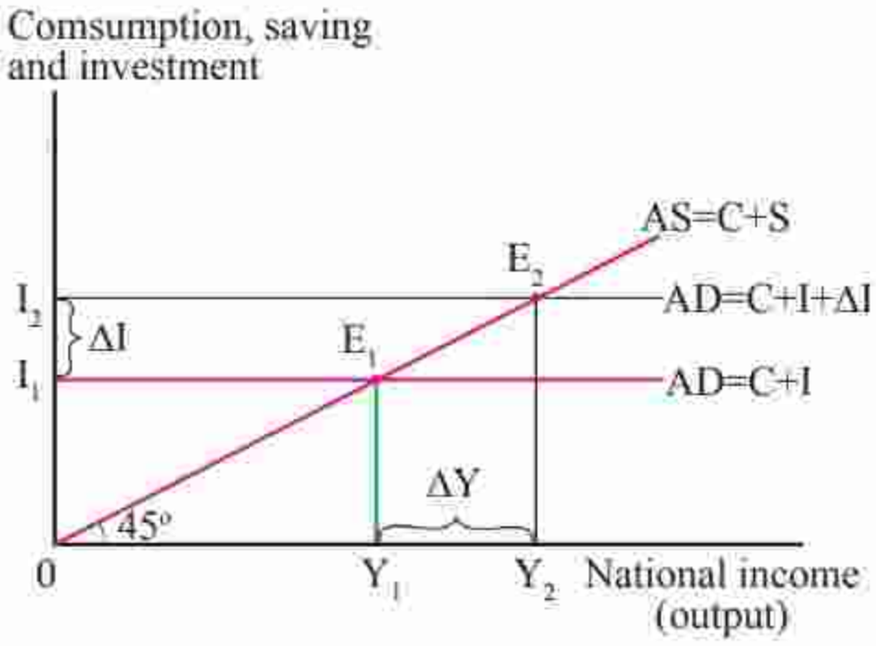


Figure 1.6: *Multiplier in aggregate demand-aggregate supply*

Derivation of investment multiplier

In a closed economy and where there is no government sector, the aggregate demand is equal to consumption (C) plus investment (I); that is, $AD = Y = C + I$, and the consumption function is given as $C = a + bY$. From these equations, the investment multiplier can be derived as follows:

Given that,

Equation 1.15 is $Y = C + I$ and equation 1.18 is $C = a + bY$

Substituting equation 1.18 into 1.15 to obtain equation 1.28:

$$Y = a + bY + I \quad \text{..... (1.28)}$$

Then, find the first derivative or change of Y with respect to change of I of equation 1.28

$$\frac{\Delta Y}{\Delta I} = \frac{\Delta a}{\Delta I} + b\frac{\Delta Y}{\Delta I} + \frac{\Delta I}{\Delta I} \quad \text{.....(1.29)}$$

Since $\frac{\Delta a}{\Delta I} = 0$ and $\frac{\Delta I}{\Delta I} = 1$,

then $\frac{\Delta Y}{\Delta I} = b\frac{\Delta Y}{\Delta I} + 1$

The derivative of any constant number equals to zero, plugging this expression in equation 1.29 and collecting the like terms we obtain the following:

$$\frac{\Delta Y}{\Delta I} - b\frac{\Delta Y}{\Delta I} = 1 \rightarrow \frac{\Delta Y}{\Delta I}(1 - b) =$$

$$1 \rightarrow \frac{\Delta Y}{\Delta I} = \frac{1}{1 - b} \quad \text{..... (1.30)}$$

Since "b" is marginal propensity to consume (MPC), we can write

$$\frac{\Delta Y}{\Delta I} = \frac{1}{1 - b} = \frac{1}{1 - MPC}.$$

MACROECONOMICS FORM 5&6 (2022).indd 24 07/03/2022 16:19

But, $1 - MPC = MPS$

$$\frac{\Delta Y}{\Delta I} = \frac{1}{1-b} = \frac{1}{1-MPC} = \frac{1}{MPS}$$

Therefore, the investment multiplier (K) is $\frac{\Delta Y}{\Delta I} = \frac{1}{1-b} = \frac{1}{1-MPC} = \frac{1}{MPS}$

Alternatively,

Given that;

$C = a + bY_0$ .....(1.31)

$Y_0 = C + I_0$ .....(1.32)

Substitute equation 1.31 into 1.32

$Y_0 = a + bY_0 + I_0$

Collect like terms,

$Y_0 - bY_0 = a + I_0$

$Y_0 (1-b) = a + I_0$

$\frac{Y_0 (1-b)}{1-b} = \frac{a + I_0}{1-b}$

$Y_0 = \frac{a + I_0}{1-b}$ .....(1.33)

Where;

Y_0 = original income and

I_0 = original investment

Suppose income increases to Y_1 as a new national income level, then we write $Y_1 = a + bY_1 + I_1$

Collect like terms,

$Y_1 - bY_1 = a + I_1$

$Y_1 (1-b) = a + I_1$

$\frac{Y_1 (1-b)}{1-b} = \frac{a + I_1}{1-b}$

$Y_1 = \frac{a + I_1}{1-b}$ .....(1.34)

The change in income is obtained by taking the equation 1.34 (Y_1) minus equation 1.33 (Y_0). That is,

$$Y_1 - Y_0 = \left(\frac{a + I_1}{1-b}\right) - \left(\frac{a + I_0}{1-b}\right)$$

$$Y_1 - Y_0 = \frac{a - a + I_1 - I_0}{1-b}$$

$$Y_1 - Y_0 = \frac{I_1 + I_0}{1-b}$$

Assumes no change in autonomous consumption.

But, $Y_1 - Y_0 = \Delta Y$

$I_1 - I_0 = \Delta I$

Therefore,

$\Delta Y = \frac{\Delta I}{1-b}$

Divide by ΔI both sides

$\frac{\Delta Y}{\Delta I} = \frac{\Delta I}{(1 - b)\Delta I}$

$\frac{\Delta Y}{\Delta I} = \frac{1}{1-b}$

Investment multiplier (K) = $\frac{\Delta Y}{\Delta I}$

Therefore,

Investment multiplier (K) = $\frac{1}{1-b}$ .....(1.35)

Since $b = MPC$, then; $K = \frac{1}{1 - MPC}$

But also, $1 - MPC = MPS$, therefore;

$K = \frac{1}{MPS}$.

Example 1.1

The marginal propensity to consume (MPC) of a certain economy is 0.75. The following procedures are followed to compute the investment multiplier:

Given the marginal propensity to consume is 0.75, we know that $MPS = 1 - MPC$. Therefore, the marginal propensity to save, $MPS = 1 - 0.75 = 0.25$.

Investment Multiplier (K) =

$\frac{1}{MPS} = \frac{1}{0.25} = 4$ times

The multiplier of 4 means that the initial change in investment will be multiplied 4 times to obtain the final change in equilibrium national income.

Example 1.2

You are given the following consumption function and investment function; $C = 200 + 0.80Y$ and $I = 50$, respectively; where, C is consumption, I is investment and Y is disposable income. You are required to compute:

(a) The equilibrium level of income;

(b) The level of consumption at equilibrium; and

(c) The final change in national income given that change in investment is Tshs 500.

Solution:

(a) The equilibrium level of income

Given that, $Y = C + 1$, where $C = 200 + 0.80Y$ and $I = 50$.

Since $Y = C + I$, insert the consumption and investment equations into the income equation as follows:

$Y = 200 + 0.80Y + 50$

Collect the like terms on one side and solve for Y.

$Y = 250 + 0.80Y$ solving for Y

therefore, $Y - 0.80Y = 250$

$0.2Y = 250$, divide both sides by 0.2

$\frac{0.2Y}{0.2} = \frac{250}{0.2}$

therefore, $Y = 1{,}250$

∴ The equilibrium income is 1,250.

(b) The level of consumption

Given that, $C = 200 + 0.80Y$ and $Y = 1{,}250$, substitute Y into consumption function.

$C = 200 + 0.80 \times 1{,}250 =$

$200 + 1{,}000 = 1{,}200$

Consumption is 1,200.

MACROECONOMICS FORM 5&6 (2022).indd 26 07/03/2022 16:19

(c) Final change in national income

Given that, ΔI = Tshs 500 and $C = 200 + 0.80Y$, then $b = MPC = 0.80$
Investment Multiplier (K) =

$$\frac{\Delta Y}{\Delta I} = \frac{\Delta I}{1-b} = \frac{1}{1-MPC} = \frac{1}{MPS}$$

$$\frac{\Delta Y}{\Delta I} = \frac{\Delta I}{1-b} \text{ where, } b = 0.80$$

$$\frac{\Delta Y}{\Delta I} = \frac{1}{1-0.8} = \frac{1}{0.2} = 5$$

$$\Delta Y = 5\Delta I \rightarrow \Delta Y = 5 \times 500 = 2{,}500$$

The change of investment by Tshs 500 brings Tshs 2,500 change in income.

Assumptions of the investment multiplier

The following are assumptions of simple investment multiplier:

First, the simple investment multiplier assumes that the marginal propensity to consume is constant; and it is less than the full employment level in the economy.

Second, the simple investment multiplier assumes that the change in autonomous investment leads to multiplier effect.

Lastly, the simple investment multiplier assumes that consumption is affected by current income; and the new level of investment is maintained steadily for the completion of the multiplier process.

Relationship between investment multiplier and marginal propensity to consume

The marginal propensity to consume (*MPC*) and the investment multiplier are directly related. That is, the larger the value of *MPC*, the larger the value of investment multiplier; and the lower the *MPC*, the smaller the investment multiplier. The value of *MPC* vary from 0 to 1 inclusive. Suppose the *MPC* is given by 0.99, which is very large, the investment multiplier will be $\frac{\Delta Y}{\Delta I} = \frac{1}{1-0.99} = \frac{1}{0.01} = 100$ times. On the other hand, if the *MPC* is 0.10, which is small, the investment multiplier will be small $\frac{\Delta Y}{\Delta I} = \frac{1}{1-0.10} = \frac{1}{0.9} = 1.1$ times.

Relationship between investment multiplier and marginal propensity to save

The marginal propensity to save (*MPS*) and the investment multiplier are inversely related. That is, the larger the *MPS* the smaller the investment multiplier; and the smaller the *MPS* the larger the investment multiplier. Similar to *MPC*, the value of *MPS* vary from 0 to 1 inclusive. Suppose the *MPS* is given by 0.99, which is very large, the investment multiplier will be small $\frac{\Delta Y}{\Delta I} = \frac{1}{MPS} = \frac{1}{0.99} = 1.01$. On the other hand, if the *MPS* is given by 0.01 which is small, the size of investment multiplier will be $\frac{\Delta Y}{\Delta I} = \frac{1}{MPS} = \frac{1}{0.01} = 100$ times.

MACROECONOMICS FORM 5&6 (2022).indd 27 07/03/2022 16:19

Leakages or withdrawals of multiplier

Leakages are the potential diversions of the income stream that tend to weaken the multiplier effect of new investment. Saving is a major leakage of the multiplier process. The disposable income of the individual can be saved or consumed. The higher the marginal propensity to save, the smaller the size of the multiplier; hence, the greater the amount of leakage.

Importance of multiplier

The concept of the multiplier is of great importance in modern economics. Its importance lies in the following:

Multiplier highlights the importance of change in planned savings and autonous consumption on income and employment: Fluctuations in income and employment are due to fluctuations in the rate of investment. A change in investment leads to a cumulative change in income and employment by the multiplier process.

Multiplier is an important tool in the formulation of economic policies geared to investment: If investment is small, the government can design policies to promote investment because a rise in investment has a large multiplier effects on income.

Multiplier helps the government to decide upon the amount of investment to be injected into the economy: This will eventually reduce unemployment and achieve full employment level.

Multiplier helps in bringing equality between saving and investment: When there is a disequilibrium between saving and investment, an increase in investment will lead to the increase in income more than the increase in initial investment. As a result of the increase in income, saving also increases and equals investment.

Multiplier highlights the importance of deficit financing: During depression the government will adopt an expansionary fiscal policy by increasing government expenditure or by creating deficit budget. The creation of a deficit budget is financed through deficit financing which helps to increase income and employment by multiplier times the increased investment.

Exercise 1.2

1. If the marginal propensity to consume is 0.6, what is the value of *MPS*?
2. Show why the sum of *MPC* and *MPS* is equal to one.
3. Suppose a consumption function is given by $C = 100 + 0.4Y$ and investment function by $I = 50$, where C is consumption expenditure, I is investment expenditure and Y is the disposable income. Compute:
   (a) The equilibrium level of income;

MACROECONOMICS FORM 5&6 (2022).indd 28 07/03/2022 16:19

(b) The consumption level at equilibrium;

(c) Final change in equilibrium income if change in investment is Tshs 10,000.

Investment theory

Investment refers to purchase of new real capital assets such as machines, construction of roads and railways, buildings and factories that adds to the nation's physical stocks. It involves the transactions that increase the size of real total wealth in the economy. According to Keynes, investment refers to real investment which adds to capital equipment. The term investment may also be defined as the actual production of capital goods such as building of railway, road, bridge, building up stocks of raw materials and the manufacture of machinery. Investment is thus, the amount of real capital produced during a certain period of time.

Types of investment

There are various types of investment. These are:

Induced investment: Induced investment is the type of investment which is influenced by profit or income. This implies that when the firms' income or profit increases, someone might be induced to invest. Induced investment is also affected by factors like prices, wages, interest changes and demand for goods and services.

Autonomous investment: Autonomous investment is the investment which is influenced by exogenous factors like innovations, populations growth and labour force, researches, social and legal institutions, change in weather, and political conditions.

Private investment: Private investment refers to investment made by private investors, like IPP group of companies, Mohammed Enterprises Tanzania Limited (MeTL), MMI Steel and Salim Said (S.S) Bakhresa group of companies. Private investment is influenced by profit expectations. Private investment depends on two major factors; that is, the rate of interest and the marginal efficiency of capital.

Public investment: Public investment is the investment made by the government. Investments in building state owned factories, laying railway lines, construction of roads, power projects, and the means of communication made by the government. The typical examples of public investment in Tanzania are the construction of the Standard Gauge Railways (SGR) and Julius Nyerere Hydropower Station.

Intended and unintended investment: Intended investment is investment which is made in a planned manner with specific objectives. This is a deliberate policy of increasing the existing inventory of capital and is what is referred to as planned or intended investment. On the other hand, unintended or unplanned

investment is one that occurs due to an unexpected event. For instance, when stocks accumulate due to an unexpected fall in demand is unintended or unplanned investment.

Forms of investment

There are three forms of investment that are considered by economists. These are:

Fixed investment: Refers to the purchase of firm's plant such as factories and machines by firms for production purposes.

Inventory investment: This is the increase in stocks of unsold goods or unused inputs or resources. This form of investment differs from fixed investment because the inventory investment has a very short life span.

Residential investment: This involves the purchases of new real estates by firms or households. The purchase of new houses by households is regarded as investment, and the payments of rents on monthly basis is regarded as income to the households.

Other investment concepts

Gross and net investment: Gross investment refers to all real investments made in a country. It equals the increase in total capital assets in a year. Net investment is what remains after deducting depreciation and obsolescence charges from gross investment. Therefore, net investment is the net addition to the existing capital stock of a country.

Net investment = Gross investment – Depreciation .....(1.36)

Factors affecting investment

Investment in a country is affected by the following factors:

Technological development: The advancement of technology promotes investment in the country. Technological innovations is associated with high outputs using low costs.

Political conditions: Peace and security promotes investment since investors are usually attracted to invest more in a country with peace and security. Political instability discourages investment.

Market size: When the size of the market is large enough, it attracts investments in the country because investors get assurance that the produced goods can be sold. On the other hand, a small market size discourages investment.

Supply of factors of production: Availability of production factors like capital, labour, and natural resources (minerals, fertile soils, and good climate) tend to promote investments. Availability of bank credits for investors and adequate supply of efficient (skilled) labour force also promote investment. On the other hand, shortage of factors of production hinder investment.

Government policies regarding investments: Conducive investment, institutional infrastructure, and regulatory policies are key factors for promoting investment in a country. For instance, tax relief, tax exemptions, provision of subsidies, and low bureaucratic procedures to acquire investment permits favour investment growth. On the other hand, heavy taxes and excessive bureaucratic procedures to investors tend to discourage investment.

The rate of interest on loans: High interest rates charged on bank loans hinder investment in the country because they are costful to the investors. On the other hand, low interest rates on loans promote more borrowing and hence, investments.

The rate of return: The rate of return from new capital assets affects investment. When the returns in investment are high, investments will be high and when the rates of return is low, investments will be low.

Inflation: Persistent rise in the general prices of goods and services in the economy affects investment. High inflation rates reduce purchasing power of the consumers. This trend, in turn, affects production and investment.

Acceleration principle

The acceleration principle is the ratio of change in investment to the change in national income. In the study of the multiplier, it was observed that a small change in investment has multiplier effect on consumption; and hence, on income and employment. In other words, the multiplier describes the relationship between investment and income. The acceleration principle on the other hand, is concerned with the effect of income on investment.

$$\text{Acceleration principle} = \frac{\Delta I}{\Delta Y} \quad \text{.....(1.37)}$$

Where; I is investment spending and Y is income. The accelerator principle traces the effect of added income upon the demand for investment. In the case of a derived demand, that is, demand for investment goods is derived from increase in consumption or income. When the income increases, people's spending increases, their consumption increases and consequently demand for consumer goods increases. In order to meet the increased demand, investment must be increased so as to increase the productive capacity in the economy. Initially, the increased demand will be met by over working the existing plant and machinery. All these leads to

MACROECONOMICS FORM 5&6 (2022).indd 31 07/03/2022 16:19

increase in profits which will induce entrepreneurs to expand their plants by increasing their investments. Thus, a rise in income leads further to an induced investment.

Multiplier and acceleration

The multiplier and acceleration are economic concepts which try to explain the interactions between investment and income or consumption. Multiplier shows the effects of investment spending on equilibrium income and employment, whereas acceleration shows the effects of the change in consumption and equilibrium income on investment. For acceleration, the investment depends on consumption and income while multiplier reveals that consumption and income depend on investment.



Activity 1.2

Visit any source of learning materials, collect information on private and public investment expenditure in Tanzania for the past ten years. Then, comment on the following:

(a) The trend of private investment expenditure;

(b) The trend of public investment expenditure;

(c) Compare the private and public investment expenditure by explaining which one is increasing or decreasing more than the other; and

(d) Suggest the measures to correct the differences observed in part (c).

Exercise 1.3

1. Describe the forms and types of investment as used by economists.
2. The acceleration principle is nothing but a reciprocal of investment multiplier. Explain.
3. Investment is an engine of growth, but developing countries like Tanzania are struggling to attract investors in their countries. Explain what factors determine the level of investment?

Income inequality

Income inequality is disproportionate distribution of total national income among population in the country. In other words, income inequality means the variations of the income of individuals within the country. Income inequality leads to the emergence of different groups in a country. These groups are classified based on the size of their incomes, namely; the high-income group, middle-income group and the low-income group. The income inequality has adverse effects on the national economy because it affects the standards of living of the majority and retards economic development of the entire economy.

MACROECONOMICS FORM 5&6 (2022).indd 32 07/03/2022 16:19

Causes of income inequality

Income inequality in the society is caused by the following factors:

Differences in ownership of wealth: Perhaps one of the major causes of income inequality is unequal distribution of wealth. Unequal private ownerships of buildings, land, and financial assets may lead to high income inequality.

Differences in natural abilities: The differences in natural abilities contribute to inequalities in earnings and wealth. Individuals with some special skills are able to earn higher incomes compared to those with no such skills. For example, world class footballers have very high annual earnings compared to small-scale farmers in Tanzania.

Illegal activities: Some people have become high-income earners as a result of engaging in high paying illegal activities like poaching, illegal fishing, smuggling, illegal gambling, robbery, corruption and drug trafficking. However, with strict government monitoring, these people are normally convicted and their properties impounded.

Differences in levels of education and training: The people who have attained high levels of education and training have higher chances of getting highly paying jobs than those with low levels of education and training.

Tax structures: When the government imposes a regressive tax, it tends to affect more the low-income earners than the high-income earners. A regressive tax system takes a large proportion of the income of the low-income people than it is for the high-income people.

Inheritance of wealth assets: Some people in the society come from well-off families; and therefore, they may be inclined to have high income as a result of inherited wealth from their families.

Differences in opportunities: There are some people who enjoy special opportunities which are not accessible to others. Such opportunities include the likelihood of getting a better paying job, coming from a region with abundant natural resources and good climatic conditions. Income inequality arises when one person is able to harness the available opportunities unlike somebody else.

Types of income inequalities

There are several forms of income inequality. These forms include the following:

Rural – urban inequality: This is the form of income inequality which exists between rural and urban areas. Usually, residents in urban areas have higher incomes compared to those in rural areas. This is inconsistency because there are more economic opportunities in urban areas than in rural areas. This fact leads to rural-urban income inequality.

MACROECONOMICS FORM 5&6 (2022).indd 33 07/03/2022 16:19

Regional inequalities: Regional inequalities occur among different regions within a country. It may be established that there are some regions with higher incomes than others. For example, regions with many commercial centres have higher incomes than those with few commercial centres.

Sectoral inequality: Sectoral inequality is a form of income inequality which happens among different sectors of the economy within a country. For example, people in the mining sector enjoy higher income levels than those in the agriculture sector because minerals have higher value than agricultural products.

Individual inequalities: Individual inequality is another form of income inequality which exists among different individuals. This may occur as a result of the variations of wages and salaries earned by different individuals. For example, some professionals are paid higher wages (salaries) than others which lead to individual income inequalities.

Advantages of income inequality

The following are the advantages of income inequality:

Encourages hardworking: Income inequalities increase the motivation to work hard. That is, inequalities encourage people with low-income (low-income earners) to put more effort in working to earn as more income as higher income earners.

Encourages innovations and creativity among the low-income earners: Income inequalities encourage people with low-income to become more creative and innovative in an attempt to earn more income.

Increases tax revenue: Government revenues increase through imposing high-income tax to white collar-jobs employees; for example, Pay As You Earn (PAYE).

Decreases cost of production: Cheap labour is tapped as low-income earners strive to increase their income take up some occupations. This scenario leads to the decrease in cost of production and leading to increased production.

Increased investments: Regressive taxes allow the high-income earners to retain high levels of disposable income to invest, among others, in research and innovation. Ultimately, more employment opportunities are created.

Disadvantages of income inequality

The following are the disadvantages of income inequality:

Reduces the size of the market: Income inequality reduces the purchasing power of the low-income earners. Hence, leading to low aggregate demand; and consequently, it reduces the size of the domestic market.

MACROECONOMICS FORM 5&6 (2022).indd 34 07/03/2022 16:19

Promotes social evils: Income inequality promotes social crimes both petty and grand crimes. Income inequality promotes crimes such as pick-pockets, shop lifting, robbery, theft, and other forms of hooliganism.

Political instability: Income inequality brings economic discontent leading to political instability in the country.

Increases dependency burden: Due to low income of the majority, dependency ratio may increase and affect the standard of living.

Creates balance of payments problem: This problem may happen due to excess importation of luxurious products demanded by high-income earners.

Misallocation of resources: Resources may be misallocated on production of luxurious goods demanded by high-income earners. Hence, leaving low-income earners with less basic needs.

Ways of reducing income inequality

There are several ways of reducing income inequality in the economy. Some of these methods are:

Introducing a progressive tax system: The government can adopt a progressive tax system as a way of reducing income inequality. A progressive tax system is a tax system whereby the high-income earners are taxed higher than the low-income earners.

Increasing wages of the low wage earners: The government can raise the minimum wage legislation to enable the low wage earners to have higher income, hence, reduce the income gap with the high wage earners.

Price stabilisation: The government can adopt measures to stabilise the prices of goods and services that are highly needed by the low-income people.

Improve the rural infrastructure: The government can reduce the income gap between rural and urban populations by improving the infrastructure such as roads, electricity, and communication network in areas where they are inadequate. Such improvements will help both traders and farmers to sell and buy various goods and services easily; consequently, it will reduce the income gap.

Provision of free basic social services to the low-income groups: The government can improve the income of the low-income populations through the provision of free basic social services like health and education. Such services will ultimately have a spill-over effect to the entire economy.

Provision of credits to people with low-incomes: The governmental and non-governmental organisations may opt to provide credits to the most disadvantaged groups to establish development projects that will help them to raise incomes.

MACROECONOMICS FORM 5&6 (2022).indd 35 07/03/2022 16:19

Provision of transfer payments and subsidies: The government can improve social security schemes, unemployment benefits, relief funds and old age pensions through various programmes such as Tanzania Social Action Fund (TASAF) and provide subsidies to peasants to reduce cost of farm inputs. When the costs of inputs are reduced the farmers' productivity will raise and hence, enhance the income of the peasants.

Establishing special economic zones in poor regions: The government can review its policies on the allocation of industries to enable investment in various parts of the country rather than concentrating the industries in certain regions only.

Promoting good governance: The government can develop and strengthen some existing policies, strategies and institutions including: the Prevention and Combating of Corruption Bureau (PCCB) that can help in discouraging people to engage in corruption activities. Further, it can provide awareness to the society on the negative effects of illegal activities.



Activity 1.3

Visit the National Bureu of Statistics (NBS) website and study the regional GDP statistics of the previous year.

Answer the following questions:

(a) Which region has the highest GDP and which one has the lowest GDP?

(b) What do you think are the reasons for such differences in part (a)?

Measurement of income inequality

Income distribution is measured using different methods such as income shares, Lorenz curve and Gini coefficient. In this section, two methods of measuring income inequality namely income shares and Lorenz curve are explained.

Income shares

Income shares method measures income inequality by dealing with individual persons and the income received. The total population is divided into either five groups (quintiles) or ten groups (deciles). The following are the steps of measuring income inequality using income shares. First, arrange all individuals in ascending order of personal incomes and then divide the total population into distinct groups or sizes. Second, divide the total population into successive tenth according to the ascending income levels. Third, determine what proportion of the total national income is received by each group. For example, consider Table 1.8.

MACROECONOMICS FORM 5&6 (2022).indd 36 07/03/2022 16:19

Table 1.8: *Distribution of personal income in a hypothetical country*

Individual	Personal income (money units)	Share of total income in percentage	
		Quintiles	Deciles
1	0.8		
2	1.0		1.8
3	1.4		
4	1.8	5	3.2
5	1.9		
6	2.0		3.9
7	2.4		
8	2.7	9	5.1
9	2.8		
10	3.0		5.8
11	3.4		
12	3.8	13	7.2
13	4.2		
14	4.8		9
15	5.9		
16	7.1	22	13
17	10.5		
18	12		22.5
19	13.5		
20	15	51	28.5
Total (national income)	**100.0**	**100**	**100.0**

Table 1.8 shows the hypothetical distribution of income for a country. The table shows that 20 individuals are representing the entire population of the country. The individuals are arranged in ascending order according to their personal incomes, starting with the individual with the lowest income (0.8) to the one with the highest income (15). The total of the national income of all individual amounts to 100 units; and it is the sum of all entries in column 2.

Income share using quintiles: The population is equally divided into five groups of 4 individuals in ascending order; according to the share of income received in each group. The bottom 20 percent of the population is represented in the first quintile income share. This group receives only 5 percent of the total national income. The second quintile (individuals 5 through 8) receives 9 percent of the total income. In other words, the bottom 40 percent of

MACROECONOMICS FORM 5&6 (2022).indd 37 07/03/2022 16:19

the population (the sum of two quintiles; the first and second) receives only 14 percent of the income. On the other hand, the top 20 percent (the fifth quintile) of the population receives 51 percent of the total national income. From this analysis it is easy to see how inequality is explained. One just compares what percent of the total income is earned by the bottom 20 or 40 percent and what percent of the income is spent by top 20 percent of the population.

The other common measure of inequality that can be derived from column 3 in Table 1.8 is the ratio of incomes received by top 20 percent and the bottom 20 or 40 percent of the population. The ratio is also called a Kuznets ratio. It is often used as a measure of the degree of inequality between the high and low-income groups in the country. Using information from column 3 of Table 1.8, this inequality ratio is equal to 51 divided by 14, or approximately 3.64. The result implies that, the income received by the top 20 percent is 3.64 times the income received by the bottom 40 percent of the population.

Income share using deciles: The population is equally divided into 10 groups in ascending order according to the share of income received in each group. The deciles (10 percent) provide more details of the distribution of income as shown in Table 1.8 in column 4. The table shows that the bottom 10 percent of the population receives only 1.8 percent of the total national income; on the other hand, the top 10 percent of the population receives 28.5 percent.

However, if interested with the income share of top 5 percent of population, the population is divided into 20 equal groups of population to compute the percentage of the total income received by each group. Table 1.8 shows that the top 5 percent of the population (the twentieth individual) receives 15 percent of the total national income, a higher share than combined shares of the lowest 40 percent.

Lorenz curve

The Lorenz curve is a graph which shows the actual quantitative relationship between the percentage of recipients and the percentage of the total income received during; say, a given year. It shows the relationship between cumulative percentage of wealth and cumulative percentage of population.

The important steps to consider when plotting the Lorenz curve

The following are necessary steps to be followed when plotting the Lorenz curve:

The number of income receivers are plotted on the horizontal axis, in cumulative percentage: For example, on the horizontal axis; the lowest (poorest) 20 percent of the population is represented at 20; the bottom 60 percent is represented at 60; and the

MACROECONOMICS FORM 5&6 (2022).indd 38 07/03/2022 16:19

entire 100 percent of the population is represented at the end of the horizontal axis.

The share of total income received by each percentage of population is shown on the vertical axis: On the vertical axis the share of total income received by each percentage of population is shown as a cumulative of 100 percent.

The Lorenz curve is enclosed in a square: The vertical axis and horizontal axis have the same length, since both axes are shown as cumulative percentages of 100 percent. These axes have to be plotted on two sides to form a squared box.

The diagonal line is plotted from the origin to the top right corner of the curve: The diagonal line of Lorenz curve shows the perfect equality in income distribution. Each group of population is receiving the same percentage of the total income. For example, the bottom 60 percent of the population receives 60 percent of the total income and the top 10 percent of the population receives 10 percent of the total income. In other words, the percentage of income received is equal to the percentage of income received by the population if the point appears in the diagonal line of the Lorenz curve. Figure 1.7 shows the Lorenz curve plotted using information in Table 1.8.

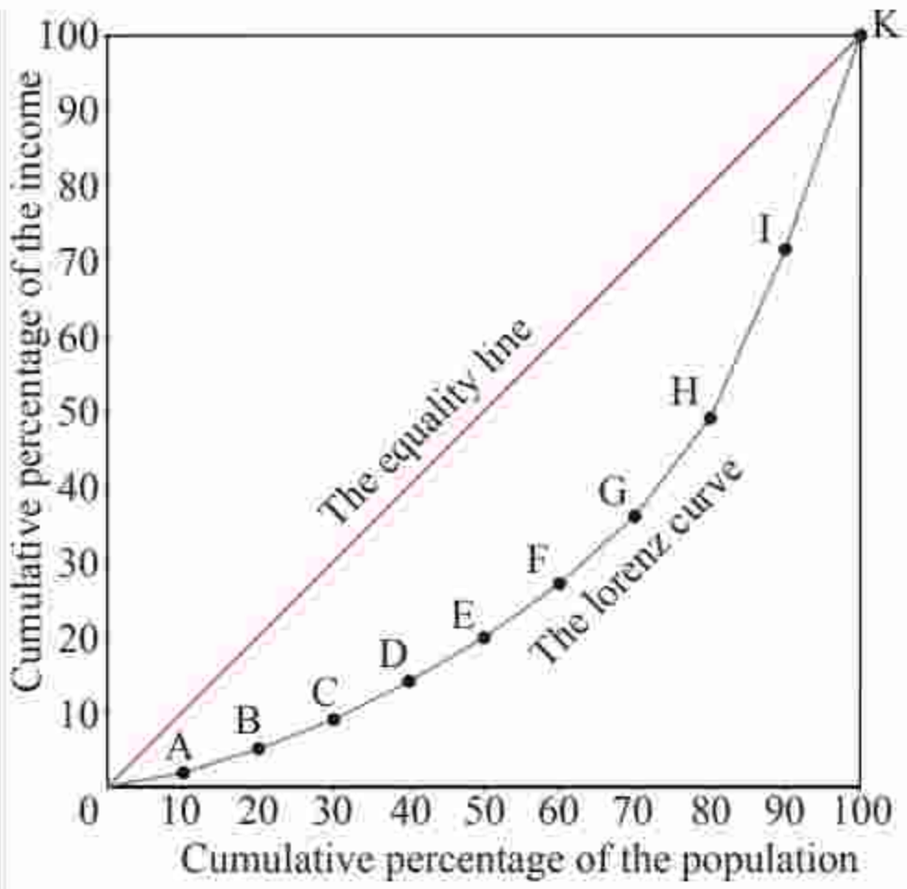


Figure 1.7: *A Lorenz curve of hypothetical economy*

The Lorenz curve in Figure 1.7 is plotted using the deciles data obtained from Table 1.8. The horizontal and vertical axes are divided into ten equal segments corresponding to each of the ten equal decile groups. Point A on the Lorenz curve in Figure 1.7 shows that the bottom 10 percent of the population receives only 1.8 percent of the total national income. Point B shows that the bottom 20 percent of the population receives 5 percent of the total national income, and so forth. Point E shows that, at 50 percent, the half-way point, the population is, in fact, receiving only 19.8 percent of the total income.

Interpretations of Lorenz curve

The more the Lorenz curve is away from the line of perfect equality (diagonal), the greater the degree of inequality. The extreme case of perfect inequality (a situation in which one

MACROECONOMICS FORM 5&6 (2022).indd 39 07/03/2022 16:19

person receives all of the national income while everybody else receives nothing) would be represented by the resemblance of the Lorenz curve with the bottom horizontal and right-hand vertical axes.

The point to note here is that, since there is no country that exhibits either perfect equality or perfect inequality in its distribution of income, the Lorenz curves for different countries will lie somewhere to the right of the diagonal as shown in Figure 1.7. The greater the degree of income inequality, the greater the bend and the closer to the bottom horizontal axis the Lorenz curve will be.

Activity 1.4

Visit any source of learning materials and study trends of income distributions of Tanzania over the past ten years. Then, answer the following questions:

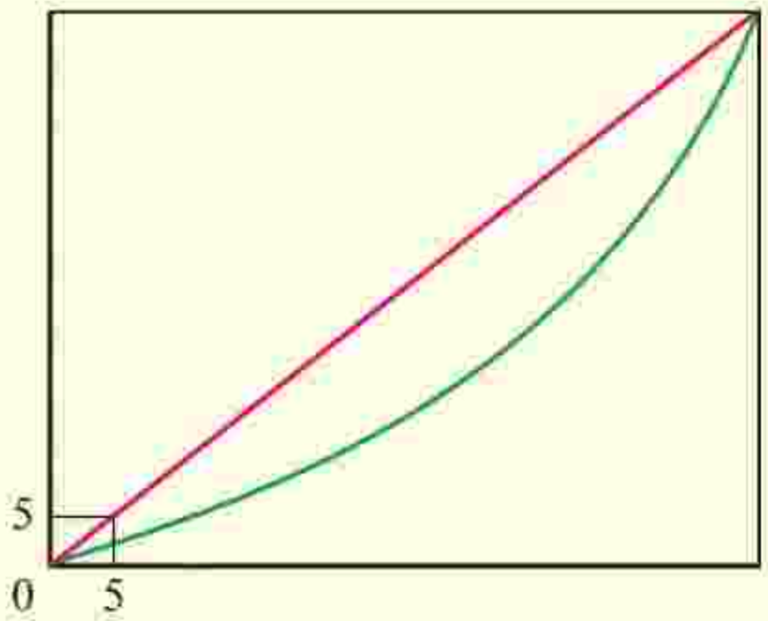
(a) In your observations, is the income gap increasing or decreasing?

(b) What are the possible reasons for the trend observed in part (a)?

(c) In your opinion, do you think the income gap in Tanzania will decline in the near future if the trend goes the way you observed?

Exercise 1.4

1. The distribution of national income in most developing countries like Tanzania is said to favour the small group of population leaving the majority with small share of national income. Suggest the measures that should be taken by Tanzania to close the income gap.
2. Why would the Lorenz curve not lay above or to the left of the diagonal at any point?
3. The figure below shows the Lorenz curve for income distribution in a hypothetical country.

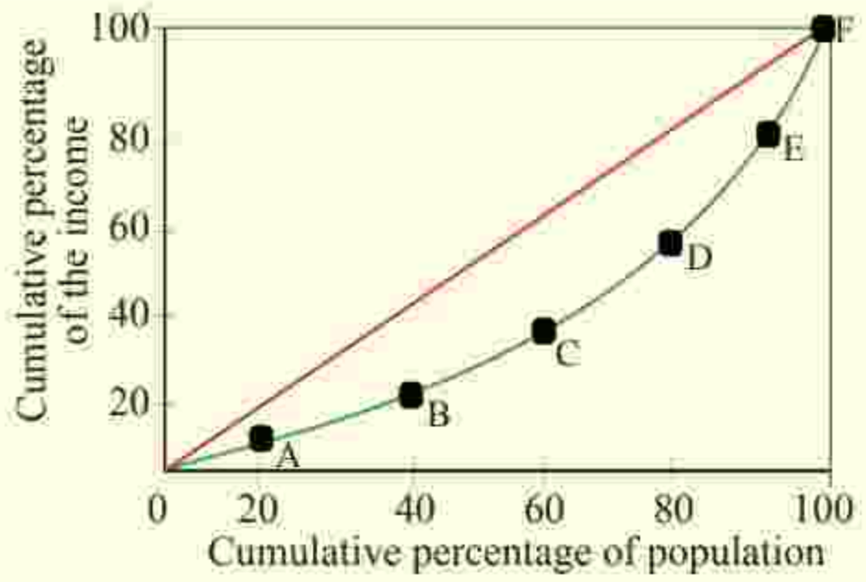


(a) Label the horizontal and vertical axes on this graph.

(b) Explain what information is communicated by the numbers shown in this graph.

4. The figure below represents the percentage of households in equally divided 5 groups (quintiles) and the share of income received by each group of the household:

MACROECONOMICS FORM 5&6 (2022).indd 40 07/03/2022 16:19



(a) Interpret the Lorenz curve by comparing the bottom 40 percent of the households and the top 20 percent of the households; and

(b) Explain the level of income inequality of this economy.

Chapter summary

1. National income is the monetary value of all final goods and services produced in the economy by factors of production in a certain period of time, usually one year.
2. The total income in the economy must be equal to the total expenditure because in every transaction the firm receives revenue that is the same amount as spent by the households.
3. The Gross Domestic Product (GDP) measures the total expenditure on all final goods and services produced in a given period and total income earned by all factors of production participated in producing these goods and services. In simple terms, GDP is the market value of all final goods and services produced within a country in a year.
4. The GDP identity comprises of four components namely: consumption spending, investment spending, government spending, and net exports. Consumption spending includes goods and services consumed by the households. Investment spending is the purchase of intermediate goods used in the production of goods and services, and inventories by the firms. Government spending is the spending on purchasing of goods and services by government ministries, departments and agencies. Net exports include the values of goods and services produced in the domestic economy and sold outside the country (exports), minus the value of goods and services produced outside the nation's borders and sold within the economy (imports).
5. The Gross National Product (GNP) is the market value of all final goods and services produced by the citizens of a particular country in a given period of

MACROECONOMICS FORM 5&6 (2022).indd 41 07/03/2022 16:19

time regardless of their location. It is a GDP plus the net factor income from abroad.

6. Real GDP measures the value of goods and services in an economy at constant prices. On the other hand, the nominal GDP measures the value of goods and services using the current prices.

7. Economists prefer to use real GDP to measure economic prosperity of a nation since the higher the real GDP, the better the well-being of the people. The nation can afford to provide good education system, affordable health services, and good transportation and communication system. But GDP does not include leisure which adds to the standard of living, government spending on non-welfare improving activities, and does not show how income is distributed. Therefore, GDP is an imperfect measure of the economic welfare of a country.

8. In the national income computations, economists usually use three methods namely; the output method, the income method and the expenditure method. In the output method, the value added at each stage of production is aggregated for all goods and services produced in an economy to arrive to GDP. In the income method, the incomes earned by all factors of production are aggregated to come up with one figure. In the expenditure method, the GDP is computed by aggregating the expenditure of households on final goods and services, the expenditure of firms on intermediate goods, government purchases of goods and services and net exports. In theory, all the three methods result to the same figure of GDP. But practically, because the data are not perfect, sometimes the figures may be different.

9. The process of computing national income is not straight forward. There are some challenges which are worthwhile to mention. Some of these problems are double counting, inadequate statistical data, and non-marketable goods and services.

10. The level of national income is determined by the Aggregate Demand (AD) and the Aggregate Supply (AS). The equilibrium level of national income is determined by AD, since AS remains more or less constant in the short run. Therefore, the national output is assumed to be as much as the effective demand.

11. The effective demand is divided into two components: The demand for consumption goods by people and government in the economy and demand for intermediate goods by firms.

12. The equilibrium level of national income is determined by leakages-injections approach, whereby in the closed economy with no government sector saving

MACROECONOMICS FORM 5&6 (2022).indd 42 07/03/2022 16:19

is the only leakage and investment is the only injection. Thus, at equilibrium leakages must be equal to injections. That is, savings must be equal to investment. That is why the leakages-injections approach is sometimes known as the savings-investment approach.

13. The shift in aggregate expenditure leads to the changes in the equilibrium national income. For instance, if the aggregate expenditure increases (shifting upward), the equilibrium national income also increases and the vice versa is true in case of decrease in aggregate expenditure. Therefore, in the leakages-injections approach a shift in savings or investment curves leads to the changes in the equilibrium national income.

14. The relationship between change in the equilibrium national income and investment is expressed by the investment multiplier. The investment multiplier is an average number of times in which initial change in the investment multiplies several times to give the final change in the equilibrium national income.

15. The purchase or production of new real capital assets that adds to a nation's physical stocks is referred to as investment. In other words, investment is the transactions that increase the size of real total wealth in the economy. There are different types of investment such as induced investment, autonomous investment, private and public investment, intended and unintended investment. The level of investment in an economy is determined by several factors such as technological progress, political conditions, market size, supply of factors of production, government policies, rate of interest, rate of return and inflation.

16. The effect of change in the equilibrium income on investment is expressed by the accelerator principle. In other words, the accelerator is a reciprocal of multiplier, since the multiplier expresses the effect of the change in investment on the equilibrium income.

17. The disproportionate distribution of total national income among the population in the country is referred to as income inequality. Income inequality is caused by differences in the ownership of wealth, natural abilities, levels of education and opportunities. In addition, tax structure and engaging in illegal activities can be a source of income inequality.

18. There are several ways to reduce the income gap in a country. These include using progressive tax rather than regressive tax, increasing wages to low wage earners, price stability and provision of free basic social services to low-income earners.

19. Income inequality is measured using different methods. The most common methods are; income shares, Lorenz curve, and Gini coefficient.

MACROECONOMICS FORM 5&6 (2022).indd 43 07/03/2022 16:19

Revision exercise

1. What is the importance of national income estimates?

2. In a speech that Mwalimu Julius Kambarage Nyerere gave as the first president of the United Republic of Tanzania in 1964, he said the following about GDP per capita: *"It does not talk about good health care of our society and better education system. It does not talk about the patriotism and trustfulness of our public officials. It does not measure our courage, our wisdom, our dedication or commitments to our country. It measures everything, except that which makes life valuable, and it can tell us everything about Tanzania except why we are proud that we are Tanzanians"*. Do you think that Mwl. J. K Nyerere was right? If so, why do we care about GDP per capita?

3. According to the World Bank report, the value of GNP and GDP of Tanzania were Tshs 17.35 and Tshs 23.87 trillion respectively in the year 2015. Give the possible reasons why the value of GDP in Tanzania is larger than the value of GNP

4. Assess the strengths of using national income statistics as an indicator of standards of living and for comparing economic development between different countries.

5. Consider an economy that produces and consumes bread and mobile phones. The table below provides information of that economy for two different years.

Prices/quantities	Year 2005	Year 2015
Price of mobile phone (Tshs)	500,000	600,000
Price of bread (Tshs)	1,000	1,500
Number of mobile phones produced	100	120
Number of breads produced	500,000	400,000

Using 2005 as the base year, compute the following for each year:

(a) Nominal GDP; and

(b) Real GDP.

MACROECONOMICS FORM 5&6 (2022).indd 44 07/03/2022 16:19

6. Consider the expenditure and income items of an economy, then answer the following questions (Figures are in billions Tanzanian shillings):

Personal taxes	40
Social security contributions	15
Indirect business taxes	20
Corporate income taxes	40
Transfer payments	22
Tanzania exports	24
Tanzania imports	22
Subsidies	10
Personal consumption expenditures	255
Gross private domestic investment	75
Undistributed corporate profits	35
Government purchases	95
Depreciation (capital consumption allowances	25
Dividends	2
Net foreign factor income earned in Tanzania	10

Calculate:

(a) GDP factor cost using expenditure methods;
(b) Net domestic product;
(c) National income;
(d) Personal income; and
(e) Disposable income.

7. The following table shows items of the income statement of an economy for the year 2019/2020 in billions of shillings:

Rent	24
Personal consumption expenditure	1,080
Corporate income taxes	65
Undistributed corporate profits	180
Net exports	7
Dividends	35
Net income from abroad	100
Capital consumption allowance/depreciation	80
Interest	82
Indirect business taxes	101
Gross private domestic investment	240

MACROECONOMICS FORM 5&6 (2022).indd 45 07/03/2022 16:19

Compensation of employees	1,028
Government purchases of goods and services	365
Proprietors' income	97

(a) Determine the Gross Domestic Product at market price using expenditure and income approaches;
(b) Compute the Net Domestic Product (NDP); and
(c) Compute Gross National Product (GNP).

8. In 1970, the government of Tanzania increased investment spending by Tshs 8 billion. Given that the Marginal Propensity to Consume (MPC) is 0.75, and assuming further that the economy was initially in the equilibrium income at Tshs 500 billion:
   (a) Determine its effects on the national income equilibrium;
   (b) Assuming that instead of an increase by Tshs 8 billion, there was a drop in investment by Tshs 8 billion, what will happen to the national income equilibrium? and
   (c) Why is it important for a government to consider the concept of investment multiplier when making policy decisions?

9. The table below shows the income distribution of ten groups of income receivers in tenth percentage corresponding to income shares received by each group. Using the information from the table answer questions (a) and (b) below:

Household	Value of household assets in percent
1st 10 percent	0.0
2nd 10 percent	0.3
3rd10 percent	0.9
4th 10 percent	1.9
5th 10 percent	4.0
6th 10 percent	6.7
7th 10 percent	9.6
8th 10 percent	13.0
9th 10 percent	20.4
Top 10 percent	43.2

(a) Construct a Lorenz curve; and
(b) Interpret the Lorenz curve.

MACROECONOMICS FORM 5&6 (2022).indd 46 07/03/2022 16:19

Chapter Two

Employment and unemployment

Introduction

The major problem that most countries across the world face is unemployment. Such a problem is experienced by both developed and developing countries. In this chapter, you will learn the meaning of employment and unemployment, types of unemployment and employment, causes and effects of unemployment, and ways to achieve full employment in an economy. The competencies developed will enable you to identify different types of unemployment and employment, and suggest measures to minimise unemployment.

Unemployment

Unemployment is a situation whereby some of the resources such as land, labour and capital are not utilised in the economy for the production of goods and services. For instance, when individuals have no job, we say they are unemployed.

Unemployment of labour is the situation whereby a person who is able, available and willing to work at an on-going wage rate has no job. It is a macroeconomic problem that affects people's standards of living.

The following concepts are commonly used in unemployment studies:

Unemployed people are individuals who are not employed but available for work; *Job losers* are individuals waiting to be recalled to a job from which they had been laid off previously; *Job leavers* are individuals who voluntarily left their jobs; *Entrants* are individuals who just completed school or university and entered the labour market. Finally, *re-entrants* are people who previously had jobs but quitted and now have decided to search for jobs.

Unemployment rate

Unemployment rate is a statistic used to measure the percentage of the labour force that are willing, available and

MACROECONOMICS FORM 5&6 (2022).indd 47 07/03/2022 16:19

able to work but unable to secure jobs. To calculate unemployment rate, it is important to understand the concept of labour force.

Labour force is the total number of people of the working age from 15 years to 65 years in Tanzania who are available for employment. The total labour force is equal to the number of unemployed people plus the number of employed people. The labour force is also known as the workforce. It is the total number of people who are presently employed plus the number of people who are unemployed and are looking for employment. However, the number does not include the people who are unemployed and are not available for employment. A good example of these people are full time students. Also, those who would like to enter the labour market but are not searching for a job; are not considered as part of the labour force.

Therefore, labour force is simply the sum of employed workers and unemployed workers.

Labour force = Employed workers + Unemployed workers .....(2.1)

Consequently, unemployment rate is measured by dividing unemployed workers by all individuals in the labour force. It can be written as;

$$\text{Unemployment rate} = \frac{\text{Number of people who are unemployed}}{\text{Total labour force}} \times 100 \quad \text{.....(2.2)}$$

Example 2.1

Assume that, in 2014 the total number of labour force in Tanga region was 1,020,000 in which only 910,000 were employed in the formal and informal sectors. Calculate the unemployment rate.

Solution

Given:

Total labour force = 1,020,000; employed workers = 910,000

Total labour force = Employed workers + Unemployed workers

Unemployed workers = 1,020,000 – 910,000 = 110,000

$$\text{Unemployment rate} = \frac{\text{Number of people who are unemployed}}{\text{Total labour force}} \times 100$$

$$\text{Unemployment rate} = \frac{110{,}000}{1{,}020{,}000} \times 100 = 10.8 \text{ percent}$$

MACROECONOMICS FORM 5&6 (2022).indd 48 07/03/2022 16:19

The unemployment rate of 10.8 percent indicates that some of the labour force are not employed. Having a certain number of people willing to work but not employed is a real burden to the economy. This situation becomes more pronounced because of the mismatch of present academic qualifications with available jobs, end of contract of their previous jobs, or few job opportunities in the economy.

NOTE: According to the Intergrated Labour Force Survey 2020/2021 unemployment rate in Tanzania has declined from 10.5 percent in 2014 to 9.3 percent in 2020/2021. It further revealed that for both periods unemployment rate is high for persons aged 15 - 35.

Types of unemployment

The following are the types of unemployment:

Cyclical unemployment

Cyclical unemployment also known as demand-deficient, mass or keynesian unemployment results from the business cycle and it often occurs during the periods of recession and depression. National output tends to fall during recession and depression periods reducing the demand for labour. Cyclical unemployment occurs due to the disequilibrium in the labour market.

Structural unemployment

Structural unemployment arises from the changes taking place in the economy. This type of unemployment occurs due to the mismatch between workers' qualities and/or qualifications and what is demanded by employers. Job seekers might be lacking required education and skills needed in today's complex economy. Because of changes in technology, some jobs are eliminated while new jobs are created. For example, the introduction of electronic payment system has reduced the number of workers who were responsible for collecting money, writing receipts, and depositing money at the bank in the economy. Technological advancement drives the structural change in the economy by making some of the skills obsolete. That is when the unemployed person has some job skills that do not match the job requirements.

Seasonal unemployment

Seasonal unemployment is the type of unemployment which occurs within a certain time when the demand for workers falls due to a certain condition. This type may occur due to seasonal factors such as changes in weather condition that may affect farming activities. Industries that are highly affected by seasonal unemployment include: hotel and catering; tourism; and agriculture. For example, the outbreak of COVID-19 in 2019 led to lockdown in some countries. People were not able to travel outside their countries causing a fall in the demand for workers in the tourism sector.

MACROECONOMICS FORM 5&6 (2022).indd 49 07/03/2022 16:19

Frictional unemployment

Frictional unemployment also known as search unemployment is the type of unemployment that exists because of frictions in the labour market. It is related to the time it takes for workers to search for a new job. Frictional unemployment occurs because of people's imperfect knowledge of job opportunities, the inability of the economy to match people with jobs smoothly, and imperfect labour mobility. Frictional unemployment is characterised by people who are temporarily out of work because they are in the process of changing jobs or are in between jobs. This type of unemployment can be reduced through creating awareness among people, about labour mobility and knowledge on job opportunities. Frictional unemployment is considered healthy to the economy because it occurs when people are looking for new jobs or switching between jobs. The overall impact is the increase in work discipline and hardworking behaviour among the employed workers.

Erratic unemployment

Erratic unemployment also known as casual unemployment happens when the job for which one was employed has been completed. For example, the mason who becomes fully employed when a house is being constructed but becomes erratically unemployed as soon as the house construction has been completed. When a full-time basis employer has to leave the job because the contract has just ended, that person becomes casually unemployed.

Residual unemployment

Residual unemployment is the type of unemployment which occurs to the people with special needs. People with special needs may fail to get jobs because of some handicap. For example, one can be unemployed because of being visually impaired. Their disabilities limit the number of job opportunities available to them.

Urban unemployment

Urban unemployment is the type of unemployment which is caused by rural-urban migration. This type happens when unemployed people tend to move from rural areas to urban areas hoping to secure employment. Contrary to their expectations, they end up failing to secure any job in cities.

Disguised unemployment

Disguised unemployment also known as hidden unemployment occurs when the work available to a given number of workers (workforce) is insufficient to keep them fully employed. Some workers are not fully utilised in the production of goods and services such that some of the members of the workforce could be removed without loss of output. A good example is when five employees are assigned a certain task; but in the actual sense it could be done by three employees. Disguised unemployment is common in the developing countries

MACROECONOMICS FORM 5&6 (2022).indd 50 07/03/2022 16:19

where each unit of labour lacks sufficient land to keep the unit fully occupied.

Natural rate of unemployment

Natural rate of unemployment also known as equilibrium rate of unemployment is the lowest rate of unemployment that a stable economy can expect to achieve. It occurs when inflation is stable. This is the summation of frictional and structural unemployment. Economists do not agree on the natural rate, but generally most economists agree that natural rate of unemployment ranges from 1 to 5 percent. At the natural rate of unemployment, the total demand for labour is equal to the supply of labour at the prevailing level of real wage rates. At that point, unemployment must be only voluntary. In this situation, people may be unemployed because:

(a) They are in between jobs and are taking time to search for the most appropriate job with the highest wage (search or frictional unemployment);

(b) The industry in which they have traditionally worked has experienced structural decline or has been influenced by technological advances (structural unemployment);

(c) There has been a seasonal decline in the demand for their labour services (seasonal unemployment); and

(d) They are regarded as being unemployable as a result of the body disabilities (residual unemployment).

Causes of unemployment

Several factors contribute to unemployment in an economy. The following are some of the causes of unemployment:

Inappropriate education and training: The education and training provided in the country should equip learners with relevant skills and knowledge needed in the economy. On the contrary, education and training may cause unemployment among school leavers and graduates when they fail to find jobs in formal sectors.

Rapid population growth: Unemployment may occur when the population of the country grows faster than the growth rate of the economy. This scenario is due to the fact that, rapid population growth leads to higher labour supply than the number of job vacancies created in the economy.

Rural-urban migration: People tend to move from rural to urban with different intentions. One of those intentions is to secure employment opportunities. However, when they fail to secure any job opportunity, they end up being unemployed. The rural-urban migration is one of today's major cause of unemployment in urban areas.

Discrimination: Some people are unemployed because of the discrimination behaviour of some employers on age, gender, and people with special needs.

Slow growth of the economy: The fall of aggregate demand for final goods and services causes unemployment because the demand for labour is a derived demand. Low demand for goods and services produced by labour discourages production. Firms may lay off workers in industries when production falls. Unemployment will rise as the producers or firms are forced to reduce production; and consequently, they reduce the number of workers.

Seasonal factors: The seasonal changes in the economy affects production activities in some sectors like agriculture, construction, and tourism. For instance, unfavourable weather conditions, affects agricultural production of which some workers are laid off from some production activities. For example, the emergency of global health crisis like corona virus (COVID-19) caused massive unemployment in tourism sector.

Changes or improvement in technology: The introduction of a new technology such as computers or robotic machines cause unemployment as most jobs that needed human labour are replaced. In addition, the use of advanced technology tends to be labour saving; hence, it reduces labour requirements.

Effects of unemployment to the economy

There are positive and negative effects of unemployment in the economy. The following are the positive effects of unemployment to the economy:

Supply of cheap labour: Due to the existence of a large number of unemployed people, firms tend to pick the best employees at low cost.

Increases work discipline: The employees work with discipline as they fear losing their jobs due to shortage of employment opportunities.

Reduces demand pull inflation: This effect is due to the fact that unemployed people do not have sufficient income to purchase commodities that lead to the fall in general price level.

On the other hand, unemployment has the following negative effects to the economy:

Unemployment increases burden to the government: This situation occurs when the government has a policy of paying the unemployment allowances (benefits). The benefits include housing benefits, supplementary benefits, government contributions to redundancy payments, free education and medical care benefits. Therefore, the greater the number of the unemployed; or the longer they stay unemployed, the more the resources the government spends on them.

MACROECONOMICS FORM 5&6 (2022).indd 52 07/03/2022 16:19

Therefore, the nation, not only has to deal with the lost income and decreased production, but also the additional costs of compensating the unemployed people.

Unemployment leads to the fall of overall spending (decrease of demand in the market): When a large number of people is unemployed, the entire economy suffers because unemployment creates a cyclical problem. When people have less money to spend because of unemployment, other companies suffer from less consumer demand. These companies might in turn be forced to reduce the number of workers; consequently, an increase in the unemployment rate and reduction in overall spending. The cyclical effect of unemployment is the reason for the government-issued economic stimulus packages. Logic suggests that when people have more money, they increase their scope of spending, and thereby stimulating the economy and job growth.

Unemployment can lead to increased protectionism, xenophobia, political instability and severe restrictions to immigration: This effect happens because unemployment is associated with immigration. The indigenous citizens tend to blame the foreigners for occupying the job vacancies which otherwise would have been occupied by the native themselves.

Insecurity amongst employees: The prevailing unemployment and the life hardships that the unemployed people and their families face, may create fear and insecurity even among the currently employed people.

Increase in social evils, crimes and violence: Unemployment may lead to increase in the rate of crimes like terrorism, drug trafficking and social evils like prostitution. The unemployed people are more likely to engage in these actions in order to meet their economic needs or simply to alleviate boredom.

Loss of tax revenue: Since unemployed people are not earning income, they do not pay direct taxes to the government. Additionally, they spend less and thus, the government gets less tax revenue from them.

Increase in dependency ratio: Unemployment leads to high dependency ratio in the economy because the unemployed people become dependents to the working citizens. In other words, the employed worker will bear the burden of supporting the unemployed friends, relatives and family members.

Psychological problems: Unemployment causes mental health problems like; low self-confidence, feeling unworthy (low self-esteem), depression and hopelessness. With the lost income and the frustration involved in it, unemployed individuals may develop negative attitudes toward common things in life and may feel that all sense of purpose is lost.

MACROECONOMICS FORM 5&6 (2022).indd 53 07/03/2022 16:19

Erosion of skills: When a worker stays unemployed for a long period of time, the possessed skills and knowledge tend to erode because they have not been used for a long time. This affects the ability of unemployed person to find a job in the future. That is to say chronic unemployment can be self-perpetuating because the longer you are unemployed, the lesser attractive you might be to potential employers.

Tensions at home: A person who is unemployed might be spending a lot of time at home. Being at home without generating any income can increase chances of quarrels and arguments that may lead to tension and chaos in the family.

Fall in standard of living: The state of well-being for the unemployed person is more likely to fall as one is forced to reduce consumption of goods. Moreover, there is a possibility of the failure to afford purchasing some basic necessities of life such as health care services.

Scepticism and pessimism about education and training: It is believed that education and training create many opportunities to learners before and after graduating. However, when graduates fail to secure employment opportunities they become discouraged. As a result, people may invest less in years of education and trainings which some jobs require. Families can deny education opportunities for their children and thereby deprive the economy of these future skills and talents.

Stigma (shame or humiliation): Unemployment comes with more than just 'no work'. It also brings the disgrace that the person has to bear. In fact, nobody likes to be termed as the unemployed. The bottom line is, unemployment brings despair, unhappiness, and anguish to the unemployed. It forces people to live their lives in a way they do not wish. Even the employed persons are affected by unemployment because unemployment affect the overall economy and the communities where they live. Nobody, whether they are unemployed or not, is immune to the far-reaching effects and lasting consequences of unemployment.

Underemployment: The combination of unemployment, lack of financial resources, and social responsibilities may push unemployed individuals to take jobs that do not fit their skills or allow them to use their talents.

Psychological anxiety: Due to the shortage of employment opportunities and a high number of qualified job seekers, employed workers tend to work with fear of loosing their jobs.

Solutions to unemployment problem

The following are the solutions of the unemployment to the economy:

Adopt expansionary monetary policy: The government through the central bank can adopt expansionary monetary policy because it is a powerful, quick, and effective solution to unemployment problem. To increase money supply,

MACROECONOMICS FORM 5&6 (2022).indd 54 07/03/2022 16:19

the central bank can reduce the bank rate. Through lowering the bank rates, it allows the public to borrow more cheaply from commercial banks to buy whatever they need, in terms of cars, homes, furniture, and consumer electronics. This stimulates demand which put the economy back on track. Likewise, low interest rates also allow businesses to borrow for less interest obligation, giving them the capital to hire new workers to meet rising demand.

Adopt expansionary fiscal policy: This means the government can either reduce taxes or increase spending to stimulate the economy and create more jobs. *Expansionary fiscal policy* is usually slow and bureaucratic, since the parliament and the president may need to agree on what should be done. However, it can be more effective once executed. Indeed, it provides much-needed confidence to the public that the government will stimulate the economy and conditions will be improved. Confidence is a crucial ingredient in convincing people to spend now for a better future. *Cutting taxes* has a similar, but even a more direct effect than low interest rates. It gives consumers more money to spend, increasing demand. It also cuts costs for businesses, which can use the cash to invest in their business and hire more workers. *Government spending* usually takes the form of jobs programmes, where the government hires workers and businesses directly to build projects or provide services. This acts like a tax cut, by providing consumers the cash they need to buy more products.

Adopt appropriate education system and training: The education system also needs to be restructured to ensure that, it produces graduates who are capable of creating self-employment. That is to say, education and training should equip people with skills relevant for both self-employment and the public or private sector employment in order to enable those who fail to find jobs to create self-employment.

Intensively develop rural areas: Huge emphasis should be placed on promoting rural development through developing infrastructure like roads and electricity as well as by providing support to cottage industries and agriculture. This will help to promote rural employment and thereby reduce rural-urban migration which is one of the causes of unemployment in towns.

Adopt labour intensive technique of production: Labour intensive technique of production may be inefficient compared to the use of capital intensive technique of production. However, if labour intensive technique is promoted and efficiently used it may help to solve the problem of unemployment.

Ensure efficient information flow about jobs: An efficient flow of information through media and websites on job opportunities can help to reduce frictional unemployment as it increases awareness

MACROECONOMICS FORM 5&6 (2022).indd 55 07/03/2022 16:19

to people about the availability of job vacancies.

Promote private investment: Efforts to enhance income and productivity in informal sector should be intensified. Governments and other development stakeholders should also facilitate access to essentials of production such as capital, land, and enhanced training and technology to facilitate effective marketing of products.

Initiation of voluntary work: Voluntary work can be offered to keep unemployed citizens occupied. Furthermore, governments and other development stakeholders can step in to help people find other methods of catering for the needs fulfilled by employment.

Promotion of irrigation scheme: The government can promote irrigation scheme in order to overcome seasonal unemployment caused by seasonal variation due to bad weather condition.



Activity 2.1

With your fellow students visit a library, use different learning sources such as magazines, newspapers and websites to study about unemployment in Tanzania:

(a) Identify and explain with examples the type (s) of unemployment experienced in Tanzania;

(b) Describe the causes of each type of unemployment identified in (a);

(c) Explain the consequences of each type of unemployment identified in (a) to the economic development in Tanzania; and

(d) Describe measures undertaken by the Tanzanian government to overcome the problem of unemployment.

Exercise 2.1

1. Is there any difference between being unemployed and being out of the labour force? Explain.
2. Assume you are out of school but working as a part time worker, are you considered employed or unemployed in Tanzanian labour statistics? On the other hand, if you are a full-time student and working 12 hours a week at the school cafeteria are you considered employed or not in the labour force? If you are simply citizen who is collecting social security and a pension and working as a greeter at Shopping Mall are you considered employed or not in the labour force?
3. Define structural unemployment. Give examples of structural unemployment in Tanzania.

MACROECONOMICS FORM 5&6 (2022).indd 56 07/03/2022 16:19

Employment

In economics employment is a wider term which refers to the situation whereby resources such as land, labour, and capital are engaged in the production of goods and services in the economy. In actual sense, employment is the situation whereby a person who is able and willing to work has got a suitable job at the on-going wage rate.

Employment types are categorised differently by various literature. In this book, types of employment are categorised as follows:

Formal employment: This is the kind of employment which is found in formal sectors of the economy where people are paid wages as the return for their services in production.

Informal employment: This is the kind of employment which is found in informal sectors where people are self-employed; and therefore, they sell what they produce in order to earn income. Sometimes the owner of the business may employ others.

Full time employment: This is the type of employment whereby an individual is permanently employed in a particular job. For example, most of the public servants (employees) are employed on full-time or permanent basis.

Part time employment: This is the type of employment whereby a person works at a particular work for some hours in a day or week. Such a person is not obliged to stay the whole day at that work station. For example, Muhimbili Medical Doctor may have a part time job in any other hospital. The doctor comes at the hospital on specific days and specific hours in a week.

Full employment

Ideally the economy should maintain a high level of employment. The condition of full employment prevails in the economy under two scenarios:

(a) Individuals who are willing and able to work have jobs, except for those who are unemployed due to structural and frictional factors; and

(b) In the economy the average level of price should be stable, that is, it neither decreases nor increases.

The word full employment does not mean that there is work for everybody at all time. The principal aim of full employment policy is to eradicate mass unemployment due to a general tendency of demand. However, when the economy is operating under full employment there is no cyclical unemployment but frictional and structural unemployment exist. Full employment may not actually be attained.

Conditions for achieving full employment

There are four conditions for achieving full employment:

MACROECONOMICS FORM 5&6 (2022).indd 57 07/03/2022 16:19

(a) There should be adequate public and private expenditure in order to create sufficient total income to prevent some deficiency in demand. For instance, during a slump (depression) the government may opt to adopt a deficit budget in order to stimulate demand;

(b) The location of industry may be controlled. Where industries are highly localised, changes in demand may cause structural unemployment of severe character and produce pockets of mass unemployment. This challenge can be reduced to a great extent by delocalising the industries in the country;

(c) There should be organised mobility of labour in order to maintain full employment. It is important to organise mobility of labour between the declining industries and expanding industries in a progressive economy; and

(d) Inflation should be controlled in order to achieve full employment level. It is important to ensure that trade unions do not force wages up and lead to real wage unemployment.

Problems of full employment

Maintaining full employment may lead to the following problems:

The danger of inflation is increased: Full employment may lead to the danger of increasing inflation because at that level any increase demand leads to increase in price as there in no room for increasing supply. Another factor for inflation at full employment level is the wage policy of the trade unions. When the trade unions succeed to bargain a wage above the equilibrium wage rate, they are likely to cause inflation in the economy.

A misallocation of resources may occur: This problem is likely to occur when the market forces, that is, the demand and supply, are not allowed to determine the distribution or allocation of the factors of production among different occupations. The type of goods produced will not be the one preferred by the whole community. Normally, when economic conditions change, may reduce the demand for factors in one employment and increase demand for factors in another employment. Instead of factors being transferred freely by market forces, with full employment condition, the declining industries may demand to be subsidised especially if they happen to be nationalised industries.

The quality of labour may fall: During full employment level, the quality of labour may fall due to high demand for labour that may make even the less efficient ones to get jobs. Also, labour turnover tends to increase as many workers find it easy to change jobs.

Underemployment

Underemployment is the situation whereby there is employment of workers

MACROECONOMICS FORM 5&6 (2022).indd 58 07/03/2022 16:19

with high level of education, skills and experience in the job which do not require such abilities (not in line to their professions). For example, when a qualified medical doctor is employed as a taxi driver, the person is considered as under-employed. Moreover, underemployment is employment of workers who could (and would like to) be working for a full work-week but can only find part time work. It means workers become involuntarily part timers. Underemployment may also mean over staffing, hidden unemployment, or labour hoarding. Underemployment is defined as the practice in which firms employ workers who are not fully occupied. For example, employment of workers who are currently not being used to produce goods or services due to legal or social restrictions or because the work is highly seasonal.

Activity 2.2

1. With the help of different learning sources such as magazines, website and library, identify the strategies that the government of Tanzania is putting forward to influence the employment in the following groups:
   (a) Youth;
   (b) Women; and
   (c) People with special needs.
2. Discuss your results above with your fellow students.

Chapter summary

1. Unemployment of labour is a situation whereby a person who is able and willing to work at a going wage rate has no job. This includes job losers, job leavers, entrants and re-entrants.
2. Unemployment rate is a statistic used to measure the percentage of the labour force that are willing and able to work but unable to secure jobs.
3. Types of unemployment include cyclical unemployment (demand-deficient or Keynesian unemployment), structural unemployment, seasonal, frictional, erratic, residual, urban and disguised unemployment.
4. Natural unemployment is the level of unemployment equilibrium that exists when the economy is operating at full potential. That is, when the total demand for labour is equal to the supply of labour at the prevailing level of real wage rates.
5. Unemployment affects the market, standard of living of the people and leads to loss of government revenue since it reduces tax payers.

MACROECONOMICS FORM 5&6 (2022).indd 59 07/03/2022 16:19

6. The problem of unemployment can be solved through adaptation of appropriate education system and training, intensively develop rural areas, adaptation of labour intensive technique of production, ensuring efficient information flow about jobs and promote private investment.
7. Employment is the situation whereby a person that is able, available and willing to work has got a suitable job at on-going wage rate.
8. Underemployment is the situation whereby there is employment of workers with high level of education, skills and experience in job which do not require such abilities.

Revision exercise

1. Briefly explain the following concepts:
   (a) Labour force;
   (b) Unemployment rate;
   (c) Full employment; and
   (d) Natural rate of unemployment.
2. Briefly explain the four types of employment.
3. The total number of people living in Kitowo village is 10,920. Out of them, 4,200 are in labour force, 3,200 are unemployed and 6,720 are dependants. Calculate the unemployment rate and comment on your answer.
4. Briefly explain the types, causes and problems of unemployment.
5. Which measures can be taken in an economy in order to solve unemployment problems?
6. Describe the type of unemployment that is considered as a healthy part of the economy and explain why?
7. Briefly explain indicators of full employment.
8. Explain the ways of achieving full employment and problems of full employment.
9. With examples distinguish between full employment and under employment.
10. Why do you think it is important for countries to maintain minimal level of unemployment rate in their economies?
11. "The concept of full employment does not necessarily mean that every abled individual is employed". Explain.

MACROECONOMICS FORM 5&6 (2022).indd 60 07/03/2022 16:19

Chapter Three

Trade cycle

Introduction

Every country in the world has experienced economic fluctuations at different stages of their economic growth. This indicates that the economic activities are not smooth in their operations. There are periods of ups and downs or booms and slumps or expansion and depression. In this chapter, you will learn about features, causes and theories of business cycles. The competencies developed will enable you to analyse economic fluctuations and make efficient resources allocation.

The concept of trade cycle

Economic activities have periods of ups (boom) and downs (depression), and the tendency of fluctuations repeat periodically. These ups and downs in economic activities are sometimes referred to as trade cycle or business cycle. The effects of the business cycle are periodic in nature. Business cycles are characterised by wave like movements and have four distinct phases namely; boom, recession, depression and recovery. During the period of boom, a peak point is reached after which business activities gradually decline and enter the period of depression. The depression may persist for some time until a very low point is reached, after which business gradually recovers towards prosperity. The time span between two successive periods of boom or depression usually covers a number of years; say, 4 or 5.

The economy tends to move up and down with identifiable phases, but the length and strength of a cycle and its phases vary greatly. The first phase of a cycle is the growth phase, in which business invests and spends optimistically. At some point, growth is slowed or stopped by one or more factors such as limited resources, limited production capacity, tight employment, and market saturation that cause the economy to enter into a slowdown phase. As businesses lay off workers, stop investing their capital, and cut back production, the economy

MACROECONOMICS FORM 5&6 (2022).indd 61 07/03/2022 16:19

enters a recession phase. Unemployment rises, consumer spending slows down and business acts very conservatively, holding down wages and prices, avoiding risks and managing cash flow tightly. Eventually, the economy moves into a recovery phase, perhaps initiated by government action. Recovery may be slow or uneven across economic sectors, but eventually the economy moves to a new growth phase.

Types of trade cycle

Dynamic forces operating in an economy create various kinds of economic fluctuations. These fluctuations can be explained based on the following types:

Short-time cycles: These type of trade cycles are also known as minor cycles. They occur for a short period of time and last for about 3-4 years.

Secular trends: These type of trade cycles occur for a long period of time and are known as long-term cycles. They last for about 4-8 years or more. They are also known as major cycles.

Seasonal fluctuations: These type refer to a trade cycle which takes place due to seasonal changes in the economy. For example, poor rainfall can cause a downtrend in the economy where as good rainfall might increase the trend of economic activities.

Irregular or random fluctuations: These trade cycles are unpredictable and are associated with uncertainties. Events such as wars are unpredictable and may cause a shock on the economic system leading to economic downturn.

Cyclic fluctuations: These fluctuations are wave-like changes in economic activity caused by recurring phases of expansion and contraction. There is an upswing from a trough (low point) to peak and downswing from the peak to trough caused by economic changes like demand, or supply or various other factors.

NOTE: Consumption of durable consumer goods are affected mostly by cyclical fluctuations while consumption of non-durable consumer goods do not vary much during different phases of trade cycle.

Features of trade cycle

The following are the features or characteristics of trade cycle:

Movement in economic activity: A trade cycle is a wave-like movement in economic activity showing upward and downward trend in the economy.

Periodic: Trade cycles occur periodically; but they do not show the same regularity. That is the peak and trough do not occur at regular intervals. The duration of the cycle varies from two years to twelve years. Though trade cycles differ in timing, they have a common pattern of sequential phases.

Different phases: Trade cycles have different phases such as boom, recession, depression and recovery.

MACROECONOMICS FORM 5&6 (2022).indd 62 07/03/2022 16:19

Different types: There are minor and major trade cycles. Minor trade cycles operate for 3-4 years, while major trade cycles operate for 4-8 years or more.

Dynamic and all embracing: Business cycles cause changes in all sectors of the economy. Fluctuations occur not only in production and income but also in other variables like employment, investment, consumption, rate of interest and price level.

Phases are cumulative in nature: Expansion and contraction in a trade cycle are cumulative in nature in the sense that, each phase feeds on itself and create further movements in the same direction.

Uncertainty of businessperson: There is uncertainty in the economy, especially for the owners (business-person) as profits fluctuate more than any other type of income. That is profit fluctuates more than any other income like wages, rent and interest.

International in character: Trade cycle is international in character in a sense that once it starts in one country it spreads to other countries through trade relations between countries. For example, Global Financial crisis of 2008 affected economies of all countries in the world.

Nature of the movement: The movement from boom to depression is faster than movement from depression to boom.

Phases of trade cycles

A full trade cycle has got four phases:

(a) Recovery;
(b) Boom;
(c) Recession; and
(d) Depression.

The upward phase of trade cycle or prosperity is divided into two phases which are recovery and boom, and the downward phase of trade cycle is also divided into two stages which are recession and depression. Figure 3.1 shows the different phases of trade cycle.

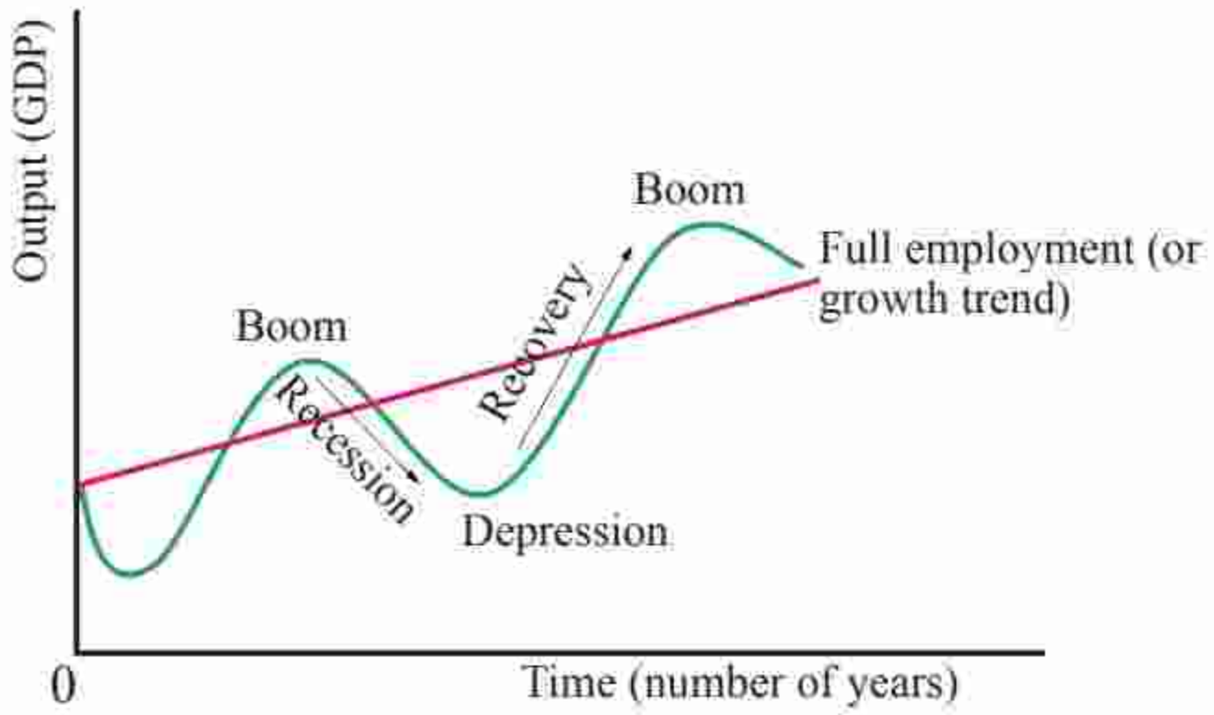


Figure 3.1: *Phases of trade cycle*

MACROECONOMICS FORM 5&6 (2022).indd 63 07/03/2022 16:19

Boom phase

Boom or peak is the period when the economy is at its highest level. It is the turning point of the trade cycle. The typical features of boom are as follows:

(a) A large level of production and trade;

(b) High level of employment and sufficient amount of job opportunities to permit a good deal of labour mobility;

(c) High structure of interest rates so that optimistic tendency rules stock exchanges;

(d) A large expansion of credit and borrowing;

(e) High level of investment, such as manufacturing or machinery;

(f) High wages and profits so that the community's income rises, and operation of the economy is at optimum capacity;

(g) Political and social stability;

(h) High standard of living; and

(i) High level of prices of goods and services.

Recovery phase

This phase is also known as 'expansion'. It is the period when the economy starts to expand or improve from depression to boom. It is characterised by:

(a) Increasing productive activities and entrepreneurs have sufficient financial backing;

(b) Increasing employment and income. Construction and allied industries are receiving orders and employing more workers, and thus, creating more income and employment;

(c) Increasing income and employment stimulates further investment and production. The whole economy is moving fast towards the boom;

(d) Living standards of people start to improve;

(e) Increasing demand for goods and services; and

(f) Increasing prices and profits.

Recession phase

Recession is the period when the economy is falling or declining from boom to depression. It is a slowdown in economic activities but it is different from depression or slump which is a more severe and prolonged downturn. In general, recession is characterised by the following:

(a) Decreasing investment;

(b) Decreasing production;

(c) Decreasing level of employment;

(d) Falling income;

(e) Falling standards of living;

(f) Falling level of business profit; and

(g) Falling prices of goods and services.

MACROECONOMICS FORM 5&6 (2022).indd 64 07/03/2022 16:19

Depression phase

In this phase, the whole economy is performing poorly and the business is at the lowest level. This phase is characterised by the following:

(a) Low level of general purchasing power of the community;

(b) Low level of production for both consumer goods and capital goods;

(c) Business goes down at a new equilibrium point with a low level of prices, costs and profits;

(d) The volume of trade shrinks;

(e) High level of unemployment and poverty;

(f) Overall prices fall;

(g) Low level of income. This is due to the fact that profits and wages fall, thus, the income of the community falls to a very low level;

(h) Low level of aggregate expenditure and effective demand;

(i) There is a general contraction of credit and little opportunity for investment; and

(j) Prices of all shares and securities fall.

Activity 3.1

Tanzania like any other country has been experiencing fluctuations in its economic activities since her independence in 1961. Use different learning sources such as magazines, country economic survey reports, e-library and websites to analyse the phases of trade cycle that Tanzania has been experiencing since 1961. Your results should include:

(a) The years of the occurrence of the phases;

(b) The features of the phases to justify their occurrences; and

(c) A sketch of trade cycle diagram that illustrates the phases Tanzania economy has experienced.

Exercise 3.1

1. Trade cycle has four (4) phases, which phase(s) do you think must be maintained by a country? Explain.
2. Describe various features of trade cycle.
3. Elaborate on the types of trade cycle.

Causes of trade cycle

Cyclical fluctuations in the level of economic activity are caused by several factors. These are classified into two categories; namely, internal and external factors as shown in Figure 3.2.

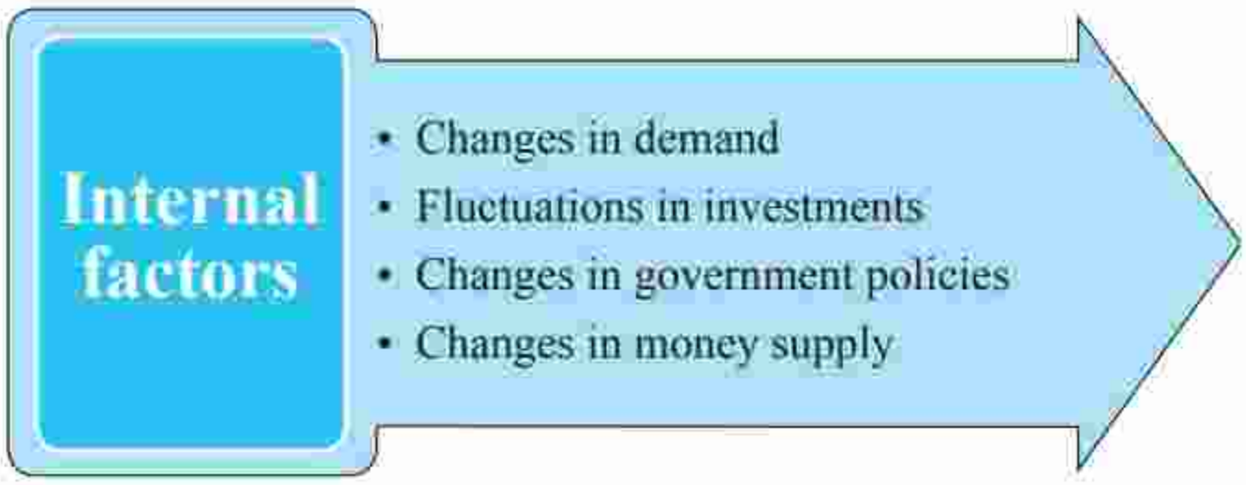


Figure 3.2: *Factors causing economic fluctuations*

Internal factors are endogenous in the sense that they are the outcome of performance of the respective economic system, while external factors are exogenous which means they are not basically determined within a particular economic system.

Internal factors

Changes in demand: According to John Maynard Keynes, when the demand increases firms start producing more goods to meet the increased demand. This means more output, more employment, more income and ultimately more profits. In the cycle this will lead to economic boom. On the other hand, excessive demand may also lead to inflation. But if demand falls and persists for a long time, it will lead to economic depression.

Fluctuations in investment: This is another factor that causes trade cycle. The investment will change on the basis of factors such as rate of interest in the economy and profit expectation. Such an increase in investment may lead to an increase in economic activities and this will lead to expansion. Also, decrease in investment has a reverse effect and may cause depression.

Changes in government policies: The government adopts various policies for various reasons in the country over time. On one hand, when the government adopts expansionary fiscal policies (by reducing taxes and/or increasing government expenditure) and/or expansionary monetary policies (by increasing money supply in the economy) it helps to stimulate the level of economic activities in the country and this action would lead to a peak. On

MACROECONOMICS FORM 5&6 (2022).indd 66 07/03/2022 16:19

the other hand, when the government adopts contractionary fiscal policies (rising taxes and reducing government expenditure) and contractionary monetary policies (decrease in money supply), these will lead to the decline in the level of economic activities and push the economy to a depression.

Changes in money supply: Changes in the money supply affects the trade cycle. Increase in money supply lowers the intrest rate; and hence, it rises the level of consumption and investment because consumption and investment are the two key components of the aggregate demand. Therefore, an increase in money supply will result in to the expansion of the economy. While an increase in money supply helps to expand the economy, it also has an adverse effect to the economy as it increases the general price levels (inflation). The decrease in money supply in the economy results in the fall in economic activities, which pushes the economy towards a depression phase.

External factors

Changes of weather: A trade cycle may be caused by weather changes which occur periodically. Periods of favourable weather condition such as reliable rainfall are associated with increase in employment, output, investment, and income in the agricultural sector, which in turn, affects output, income, investment and employment in the agro-based industries. These will move the economy towards a boom. However, poor weather conditions such as drought leads to the decline of the level of economic activities; and hence, it drives the economy towards a depression.

Technological innovations: A trade cycle is also caused by technological innovations which take place in the economy. A country with improved technology can produce high level of output at low cost of production compared to a country with outdated technology. Thus, technological innovation can push the economy towards a boom phase.

Political conditions: If there is stable political environment (peace and security), people will be settled and engage in production activities. In this case, investments will increase, more people will be employed, and the income will increase. This pushes the economy towards the boom. However, political instabilities will drive the economy towards depression. As people become unsettled, consequently, it leads to decrease investments, output, employment, and income.

Discovery of new natural resources: When a country discovers natural resources like minerals, gas and oil, they will open up new investments, create new jobs, increase output, and the income which will push the economy towards the boom. However, when the natural resources become exhausted; they will cause a contraction in the level of economic activities; and thus, it will push the economy towards the depression.

MACROECONOMICS FORM 5&6 (2022).indd 67 07/03/2022 16:19

Psychological factor: A trade cycle is said to be caused by unpredictable changes of business investment resulting from optimism and pessimism. Optimism is a hopeful disposition or a general belief that good things are going to happen; whereas pessimism describes a general expectation that bad things will happen. Therefore, optimistic business persons expect the increase in profits, and will be induced to invest, hence, it will move the economy to the boom. However, pessimists tend to withdraw their investments after projecting the period of adversity, and hence, it contracts their business activities.

Changes in population: Another important cause of cyclical fluctuations in the level of economic activity is change in population. Population expansion and migrations are the causes of huge investments in housing, other infrastructures, and consumer durables. As the population expands, growth, or expansion of markets is promoted which induce firms to increase investments and production. Basically, when the population increases more than the economic growth, total savings of an economy will start dwindling. Then, investment will be reduced and the economy will slow down leading to depression.

Measures to control trade cycles

There are various measures which can be employed from time to time to control fluctuations in the level of economic activities. These measures aim at stabilising the economy to avoid the negative effects of booms and depressions. The following measures are used to stabilise the economy:

Monetary policy

The monetary policy as a method to control business fluctuations is implemented by the central bank. It involves increasing or decreasing of the supply of money in the economy. The central bank adopts a number of methods to control the quantity and quality of credit. The central bank adopts contractionary monetary policies which involve raising bank interest rates, raising special deposits, raising minimum reserve requirements, and/or selling of government bonds to control the economic activities in the boom phase. On the other hand, the central bank adopts expansionary monetary policies to control a recession or depression. In this, the central bank can purchase government bonds, lower bank interest rates, reduce the minimum reserve requirement and/or reduce special deposits.

Fiscal policy

Fiscal policy is one of the measures used to control business fluctuations in the economy. The policy involves the government expenditure and taxation. Fiscal measures are highly effective for controlling personal consumption expenditure and private and public investment during boom. To control

MACROECONOMICS FORM 5&6 (2022).indd 68 07/03/2022 16:19

negative effects of boom, the government adopts contractionary fiscal policies which involve reducing government expenditure and rising taxes. On the other hand, in order to control recession or depression the government increases its expenditure and decreases taxes.

Direct controls

The government through its institutions may impose some direct control measures in order to regulate the economy. The aim of direct controls is to ensure proper allocation of resources. These measures are in the form of rationing, licensing, price and wage controls, export duties, exchange controls, quotas and monopoly controls.

There is no single method sufficient to control cyclical fluctuations. Its implication is that, all measures should be applied simultaneously. A simultaneous application of the measures to control trade cycles is recommended because some of the measures, for example, monetary policies can easily be applied but less effective. Conversely, direct control and fiscal policy measures are difficult to apply, but more effective. Thus, the combination of different measures need to be effectively used to achieve the goal of controlling trade cycle.

International measures

In today's world, every country has trade relations with other countries. Consequently, the occurrence of inflation or deflation in one country can easily be transferred to other countries. The trade cycle is a global phenomenon and it should be tackled internationally. Various means such as control of international production, international bill, international stock control and international investment control have been put forth by economists to control the fluctuations.

Activity 3.2

In activity 3.1 you analysed the business phases experienced by Tanzania in a given period of time. From your answers, suggest measures which the government of Tanzania can take to overcome business fluctuations. Share your work with your fellow students in the class.

Exercise 3.2

1. Why do the levels of economic activities fluctuate over time?
2. Suggest measures for stabilising the fluctuation in economic activities.
3. What are the corrective measures for economic depression?
4. How can a rapid increase in interest rates affect trade cycle?

MACROECONOMICS FORM 5&6 (2022).indd 69 07/03/2022 16:19

Theories of trade cycle

There are various theories which explain the causes of economic fluctuations. Figure 3.3 indicates some of the outstanding theories:

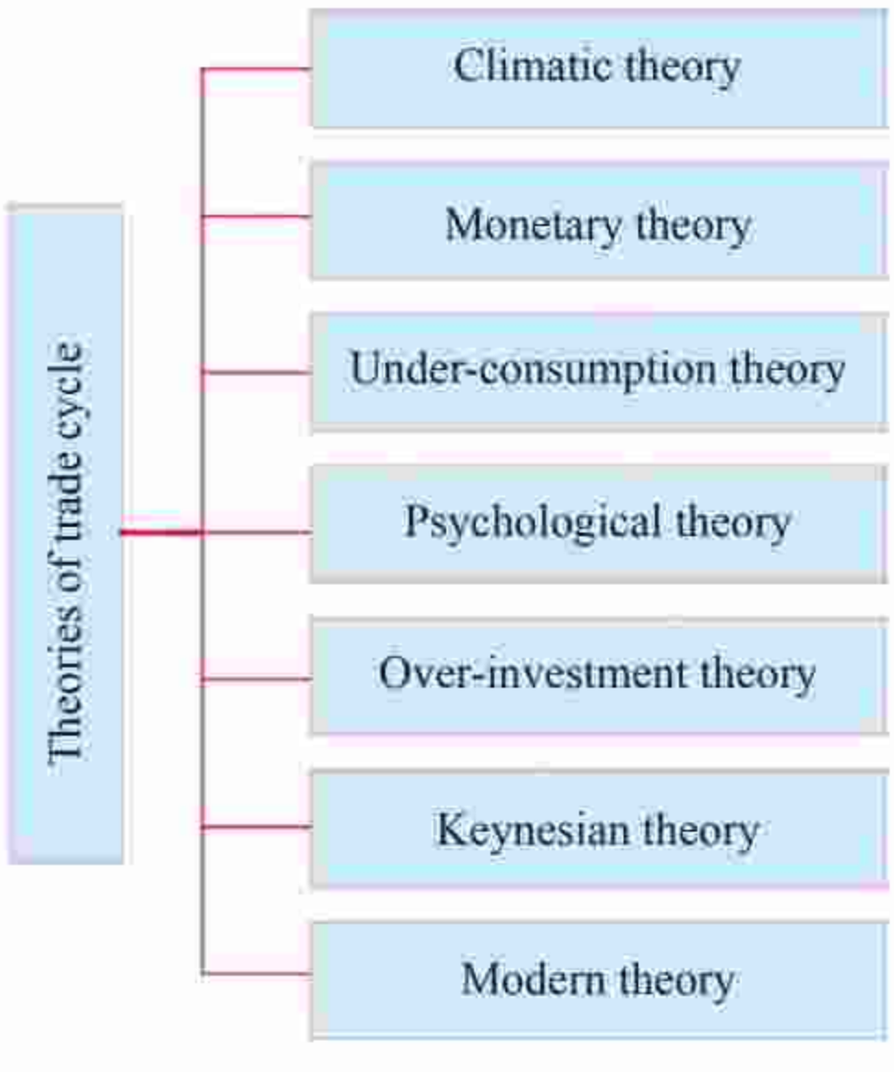


Figure 3.3: *Theories of trade cycle*

Climatic theory

According to this theory, economic fluctuations result from variations in climatic conditions over time. It is said that there are cycles of climate. In general, the theory argues that a favourable climate leads to economic expansion while unfavourable climate results in economic downturn. Climatic theory explains that for some years the climatic condition might be favourable and then, become unfavourable for other years. All the changes brought by climatic condition affects agricultural production positively or negatively. In that case, the cycle of agricultural production results in a cycle of industrial activity, only if the industry depends on inputs from agricultural sector. Thus, the industry is affected by the state of agricultural production. One of the famous climatic theories is 'Jevons' Sunspot Theory' (1835). According to Stanley Jevons, spots appear on the face of the sun at regular intervals. These spots affect the emission of heat from the sun, which, in turn, conditions the degree of rainfall. The rain affects agriculture, which, in turn, affects trade and industry as well as the whole economy, hence trade cycles.

Psychological theory

Arthur Cecil Pigou in the 20th century came up with the psychological theory. According to psychological theory of trade cycle, there are moods of optimism alternating with the moods of pessimism in the economy without any tangible basis. These mood swings are the main causes of trade cycle; that is optimism results in economic expansion or recovery; while pessimism results in economic downturn. At some stage, people just think that trade is good and that it is going to remain good. As a result, they increase production and investments to generate enough profit. The overall effect is that the economy or business activity is intensified and becomes favourable. After sometime, people start thinking that the period of prosperity has lasted enough and adversity is around the corner. Thus, they reduce investments

MACROECONOMICS FORM 5&6 (2022).indd 70 07/03/2022 16:19

and production in order to avoid making losses. Although there is no valid reason for depression to occur, but it is initiated by the people themselves – 'it is all psychological'.

Under-consumption theory

According to under consumption theory, fluctuations in the level of economic activities is caused by variations in the level of consumption. It postulates that there is too much of saving during the boom; and further, additions to saving reduces the level of consumption. A reduction in the level of consumption, in the face of increasing productive capacity, must sooner or later lead to the collapse of the boom. This theory is associated with the names of Hobson and Major Douglas (1889).

Monetary theory

Ralph George Hawtrey was a strong believer in monetary theory. According to the monetary theory, trade cycle results from variations in the flows of money supply in the economy. That is, variations in the flow of money is the only and sufficient determinant of business activity, and it accounts for alternating phases of prosperity and adversity. The monetary theory argues that an increase in money supply and demand for money for transaction motive, results into economic expansion or recovery; while decrease in money supply and demand for money for transaction motive, causes economic downturn or depression.

Over-investment theory

Friedrich Hayek came up with the over-investment theory in 1967. According to over-investment theory, fluctuation in the rate of investment is the main cause of trade cycles. Investment becomes excessive during the boom. Investment during the boom is borne by the fact that investment in capital goods expand faster than consumption goods during the upward phase of the cycle. During the depression, investment in capital goods suffer more than consumer goods. Therefore, according to this theory when investment of productive goods exceeds consumptions, economic activities start to fluctuate from boom to depression.

Keynesian theory

According to John Maynard Keynes, the business cycle is a fluctuation in the overall level of income, output, and employment. According to Keynes, fluctuations in the level of economic activity is caused by fluctuations in the rate of investment. The fluctuations in the rate of investment is mainly caused by fluctuations in the marginal efficiency of capital (MEC). The rate of interest, which is the other determinant of investment, is more or less stable and does not play a significant role in cyclical fluctuation in investment. Fluctuations in MEC or the expected rate of profit on new investment are due to: changes in the prospective yields, or returns and changes in the rate of interest or supply price of the capital goods.

MACROECONOMICS FORM 5&6 (2022).indd 71 07/03/2022 16:19

Towards the end of the boom, the decline in the prospective yields on capital is due to the growing abundance of capital goods which decreases the MEC. The turning point from expansion to contraction is, thus, explained by the collapse of MEC. As investment falls, because of the decline in MEC, income also falls. The multiplier works in the reverse direction. The collapse of MEC is the main cause of upper turning point in the trade cycle. Similarly, the lower turning point, that is, change from recession to recovery, is due to the revival of MEC.

The interval between the upper turning point and the start of recovery is conditioned by two factors:

(a) The time necessary for wearing out of durable capital assets; and

(b) The time required to absorb the excess stocks of goods left over from the boom.

Modern theory

The modern theory is also known as a theory of interaction between multiplier and accelerator. It was pioneered by Robert Barro in 1989. The theory argues that the Keynes theory has ignored the acceleration effect to explain trade cycle. According to this theory, trade cycle is a result of the interaction between multiplier and accelerator. The theory states that, an autonomous increase in the level of fixed investment would raise income by a marginal amount according to the value of the multiplier. The increase in the total income will induce further the increase in investment through acceleration effect. When this happens, the chain of causation is linked in a 'loop' where, investment affects income through multiplier which in turn, affects investment through accelerator.



Activity 3.3

Using the information obtained from activity 3.1, discuss the relevant trade cycle theory that applies in Tanzania.

Chapter summary

1. Trade cycle is the general fluctuation in the country's economic activities such as employment, output, prices, incomes and profits.
2. Short-time cycle, secular trends, seasonal fluctuations, irregular or random fluctuations, cyclic fluctuations are the major types of trade cycles.

MACROECONOMICS FORM 5&6 (2022).indd 72 07/03/2022 16:19

3. Trade cycle comprises of four important phases, these are recovery, boom, recession and depression.

4. The fluctuations in economic activities are caused by various factors which can be controlled and hence, stabilise the economy through monetary policy, fiscal policy and direct controls.

5. The economic fluctuations are caused by various factors which are explained by different theories of trade cycle. Those fluctuations can be controlled through monetary policy, fiscal policy and direct controls in order to stabilise the country's economy.

Revision exercise

1. Briefly explain the following:
   (a) Trade cycle;
   (b) Optimism; and
   (c) Pessimism.

2. The economy does not grow regularly; it tends to grow in cycles, usually called trade cycles. Give reasons why this happens.

3. Economists believe that, the fluctuations which occur in the economic activities can be controlled. Suggest measures for controlling recession.

4. There are different theories that explain the causes of trade cycle. Choose one of the theories you think is the best and provide reasons.

5. Describe the phases of trade cycle and illustrate them graphically.

6. Why economies of countries are not static in nature?

7. Critically analyse the types of trade cycle.

8. Over-investment theory is not the only theory of trade cycle. Elaborate.

9. Assume that, the economy of Tanzania is rapidly falling due to various natural disasters that occurred. As economist what advice would you provide in order to rescue your country's economy?

10. Do you think policies for controlling economic fluctuations are effective? Explain.

MACROECONOMICS FORM 5&6 (2022).indd 73 07/03/2022 16:19

Chapter Four

Theory of money

Introduction

People often go to the market to buy something of value to satisfy their needs. Firms also do the same when buying inputs for production of goods and services. But, what facilitates these transactions? In this chapter, you will learn about the nature and functions of money, price index, inflation and deflation. The competencies developed will enable you to apply acquired skills to deal with real life problems related to money.

Nature, evolution and functions of money

Nature of money

Money is anything that is generally accepted by the society as the medium of exchange and settlement of debts. It is defined as any good that is generally accepted for final payment of goods and services. In other words, money is the stock of assets that can be used to make transactions. However, this is a narrow definition because it considers only few functions of money. When buying goods and services, people may use either bank notes, coins, credit/debit cards, written cheques or e-money. All these are considered as money.

Evolution of money

Money has evolved in different forms since the existence of the world. The evolution of money is as described below:

Barter trade

Before the emergence of money, barter trade (exchange) system was used to facilitate transactions among members of the society. This system involved direct exchange of goods for other goods without the use of money. However, an economy that relied on the barter exchange regime encountered challenges in allocating resources efficiently. The following are the challenges encountered during the barter trade system:

MACROECONOMICS FORM 5&6 (2022).indd 74 07/03/2022 16:19

Lack of double coincidence of wants

This was a main challenge associated with the system of exchanging goods for goods. By definition, double coincidence of wants means there should be a coincidence that what one person wants to buy is exactly what the other person offers to sell. The barter exchange system highly depended on the simultaneous interests between a buyer and a seller of goods available for exchange. If a butcher has meat and wants beans, he must find somebody who not only has beans but also wants meat. However, it was difficult to find exact match of two people each having a good or service that is demanded by the other.

Lack of common measure of value

In the barter system, commodities were not of equal value. The system lacked a common measure (unit) of value of goods and services, in which exchange ratios could be expressed. For example, if person "A" has wheat and person "B" has rice, then it was difficult to decide the ratio of which wheat must be exchanged with rice and vice versa. In the absence of a common measure of value, one of the parties generally suffers.

Lack of standard of deffered payment

The contracts involving future payments or credit transactions could not take place during the barter trade due to the lack of standard of deferred payment. For instance, the borrower may not be able to arrange goods of exactly the same quality at the time of repayment. Therefore, it was very difficult to buy and sell goods by deferred payments.

Lack of store of value

The barter system was characterised by a lack of store of value. It was difficult for people to store wealth for future use as most of the goods were perishable. Goods like tomatoes, ripe bananas, mangoes and vegetables could not be preserved for a long time. Moreover, the quality of some relatively durable commodities deteriorated with time. This made it difficult for goods to be used as a store of value.

Difficulties in dividing commodities with high and low values

Due to the nature of some commodities, it was difficult to divide them during the trade as they would have had a significant drop in their value. For instance, a masonry having built a house, could not give a piece of the house in exchange for a sack of potatoes. Nor could a farmer give up a piece of cow for a shirt, without killing it. Therefore, it became difficult to trade items that had high value for those with low value due to their indivisibility.

Immobility nature of some of the goods

Moreover, some goods were difficult to transport from one place to another due to their bulkiness and level of durability. For instance, it was difficult to transport commodities like land and houses due to their immobility nature.

MACROECONOMICS FORM 5&6 (2022).indd 75 07/03/2022 16:19

Therefore, because of the problems mention above, barter trade had to be replaced with commodity money.

Commodity money

Following the challenges of barter economy, societies chose and used specific commodities as money. The commodities used for exchange differed from one society to another. At times, societies in Africa selected some commodities to be used as money. For instance, the hunting societies used skin of wild animals, pastoral societies used livestock and agriculture societies used grains. In other places like Europe, the Romans used cattle and salt as commodity money.

Metallic money

As humans (societies) became more modernised and civilised, they started using metallic money instead of commodity money. Metals like gold, silver and copper were used as they could be easily handled and their quantity could be easily ascertained. Later, mints of coins from precious metals like gold, silver and copper were produced. Metallic money evolved as a result of inconveniences in using the commodity money. Such inconveniences were associated with difficulties in transporting, measuring and storage of the commodity money. However, with time carrying gold and silver coins from one place to another became inconvenient and dangerous.

Fiat money

Fiat money is the kind of money which does not have an intrinsic value, such that if it is not used as money, it cannot be used for anything else. The value of fiat money is determined by legal means, usually by the order of the government. The fiat money includes paper money or bank notes and coins. The value of a bank note as a slip of printed papers is declared by the government Act (fiat). Paper money is a currency note issued, regulated and controlled by a central bank of the country. In Tanzania, for instance, the central body is the Bank of Tanzania (BOT). This type of money is a legal tender since it is officially recognised as a medium of exchange by legal obligations. Any type of money in which its value can be determined by legal authority is termed as fiat money. Figure 4.1 shows examples of fiat money in the form of Tanzania bank notes and coins.

NOTE: Commodity money and metallic money are not fiat money because they have intrinsic value which have an alternative use. For example, precious metals have other uses in the society.



Figure 4.1: *Fiat money (bank notes and coins)*

MACROECONOMICS FORM 5&6 (2022).indd 76 07/03/2022 16:19

However, the paper money could be stolen or lost. It also become expensive to transport paper money because of the bulkness. These factors among others, led to the development of credit and electronic money.

Electronic money

Electronic money (also known as e-money, electronic currency or digital currency) is the money which is exchanged electronically. Typically, this involves the use of computer networks, the internet and digitally stored value systems. It is the latest type of money in the form of credit cards and debit cards aiming at removing the need for carrying hard cash or cheques to make transactions.

A credit card is a plastic card issued by a financial institution that allows its users to borrow pre-approved funds at the point of sale in order to complete a purchase. Figure 4.2 shows a sample of a credit card. These cards are given by banks to individuals for purchasing purposes. The owners of the cards have the obligation to repay the money to the bank when they receive their monthly bill (or income), or over a period of time. The credit cards normally have a limit of the amount of money to be borrowed. Normally, interest is charged if the person does not pay the full amount owed at the end of the month.



Figure 4.2: *A credit card*

A debit card is a payment card that deducts money directly from a consumer's account to pay for a purchase without the use of cash or physical cheques. Therefore, debit cards are used by holders of bank accounts to buy goods or services without the need for cash. When used, a debit card (which looks like a credit card) transfers funds directly from your account to the merchant's account. Unlike credit cards, debit cards allow individuals to spend their own money previously deposited in their bank accounts.

Other forms of payment

Electronic payment is a transfer of funds from one account to another through electronic systems. In the past people had to pay bills by mailing a cheque, but now there is an electronic or wire transfer for paying bills. This, allows account holders to transfer funds from their bank account to another, from one mobile network to another and also facilitates transferring money from a bank account to a mobile network. For example, tele-banking transferring money from a bank account

MACROECONOMICS FORM 5&6 (2022).indd 77 07/03/2022 16:19

to a mobile phone like M-pesa, Airtel money, Tigopesa, T-pesa, Halopesa or Ezypesa. Electronic payments allow an automatic deduction of money from a customer's account for the payment of bills. Through electronic payment system, customers are able to deposit and withdraw money, check the account balances and transfer funds between accounts.

Functions of money

In today's society using money for transactions is the most convenient way of buying various goods and services. To appreciate the conveniences that money brings to an economy, think about life without money especially the problems associated with barter trade. If money was not there it would have been worse in this modern society given the functions it performs. There are four important functions of money in the economy. These are: medium of exchange, store of value, unit of account, and standard for deferred payment. The detailed discussion of these functions is presented below.

Money as a medium of exchange

Money provides the most efficient means of purchasing goods and services. In the market, money acts as an intermediary between a buyer and a seller. Instead of exchanging a cow for a piece of cloth, a consumer may buy a piece of cloth at a given price using money. In Tanzania, there are coins and paper money (bank notes) which carry different values. However, money is not the only medium of exchange, rather it is the only medium that is generally accepted by most buyers and sellers to settle transactions.

Money as a store of value

Holding money is an effective way of storing value than holding other items such as commodities because of its durability. Money provides means of storing items of value in an efficient manner, hence, it is a store of value. During the barter trade, for example, livestock keepers had to accumulate enormous amount of goods that they would trade for other goods when they become old. This was inefficient way of storing value of items because with time, the livestock might have got diseases and some might have died, deteriorating the value of the items stored. But with money the livestock keeper remains with money which is cheaper and safer to store for the future purchase of goods and services.

Money as a unit of account

Money facilitates the pricing of goods and services. With barter system, it was not easy to determine precisely the worth of the exchanged items. But with money people can compare the value of various goods and services. For instance, if one kilogram of rice costs Tshs 2,000 and one kilogram of maize flour costs Tshs 1,000 we can say that one kilogram of rice is worth twice as much as a kilogram of maize flour. Therefore, money as a unit of account provides the information about price of various items to the customers.

MACROECONOMICS FORM 5&6 (2022).indd 78 07/03/2022 16:19

Money as a standard of deferred payments

Money as a means of deferred payment facilitates the borrowing and repayment of loans. This is so because its value fluctuates less compared to the value of individual items. Lending money imposes fewer risks on the creditors and debtors than lending of commodities. Imagine if a maize farmer borrows some kilograms of maize with an agreement of paying back in the coming year, unfortunately, the value of maize declines due to unfavourable climatic conditions. The debtor will pay back kilograms of maize that has less value compared to what was borrowed. Thus, a creditor is likely to incur losses.

Qualities of good money

Historically, monetary standards of exchanging goods and services have evolved overtime. For example, in a barter trade system goods for goods were exchanged but during commodity money the society chose commodities with intrinsic value. However, today the society uses fiat money to facilitate various transactions. Therefore, for an item to function well as money, it should possess the following qualities:

Divisibility: Money must be easily divided into small units without losing value. The divisibility of money should enable people to purchase goods and services at a given price. For example, in Tanzania, the bank notes carry the values of Tshs 500; 1,000; 2,000; 5,000 and 10,000.

Acceptability: Money should be accepted as a medium of exchange by all society members. People should have confidence with money as an item that can later be exchanged for other goods without any inconvenience.

Homogeneity or uniformity: Money with the same value, must be the same in size and shape, that is money should be homogeneous. Its units should be identical and the quality should be equal and physically indistinguishable. If money is not homogeneous, the individuals will not be certain of what they are receiving when making transactions.

Durability: Money must be able to withstand the wear and tear whenever it is used by many people. The type of materials used for making money must be durable to avoid money losing its value.

Stability in value: The value of money must remain relatively constant over long periods of time in order to perform its function as a store of value.

Portability: Money must be easy to carry and transport when an individual wants to facilitate exchange in other places. Money should be easily carried or transferred from one place to another.

MACROECONOMICS FORM 5&6 (2022).indd 79 07/03/2022 16:19

Cognisability: Money should be easily recognised. If it is not easily recognisable, it would be difficult for the individuals to determine whether they are dealing with money or some inferior asset.

Scarcity: Money must be relatively scarce and hard for people to obtain in order to command value. Therefore, its supply must be regulated for stability of the economy.

Exercise 4.1

1. With vivid examples, explain what distinguishes money from other assets in the economy?
2. Discuss the difference between commodity money and fiat money?
3. Mention the kind of money which is currently used in the country (Tanzania).
4. With vivid examples, describe the functions of money.

Determination of the value of money

Money is an asset that is widely accepted for buying goods and services. Since it is easy to convert money into goods and services, money is considered as the most liquid asset. Liquidity is the ability of an asset to be quickly transformed into cash. When determining the value of money, the focus is on demand for and supply of money in the economy. Just as the price of blankets is determined by the supply and demand for blankets, the value of money is also determined by the demand for and supply of money.

Demand for money

This is the desire of an individual or business to hold an asset in a form of money. The demand for money reflects how much wealth an individual desires to hold in liquid form. Usually, people make a choice about how to hold their wealth by considering the relative benefits and costs associated with holding wealth in the form of money or in the form of other kinds of assets. Therefore, demand for money is the desire of holding financial assets in the form of money.

The demand for money explains the relationship between the quantity of money people want to hold and the factors that determine that quantity. Thus, the demand for money can be expressed either in nominal or real terms. Nominal demand for money is the demand for a number of specific units of currency such as shillings or dollars without considering economic factors such as inflation. The demand for money increases with the level of nominal output. Real demand for money is the demand for the real quantity of money. It is obtained by dividing the nominal amount of money demanded with the general price level.

MACROECONOMICS FORM 5&6 (2022).indd 80 07/03/2022 16:19

$$\text{Real money demand} = \frac{\text{Nominal money demand}}{\text{General price level}} \quad \text{.....(4.1)}$$

For example, if the price of sugar doubles in the market a consumer needs to hold twice the amount of money to buy the same amount of sugar.

Keynes liquidity preference theory

John Maynard Keynes in his famous 1936 book '*The General Theory of Employment, Interest and Money*' developed the theory of demand for money called '*liquidity preference theory*'. Liquidity describes how easily an asset can be turned into cash. The theory postulates that there are three motives that make people demand money:

(a) Transactionary motive;
(b) Precautionary motive; and
(c) Speculative motive.

Transactionary motive

Keynesian classical approach assumes that, people hold money because it is a medium of exchange. People demand money for carrying out day-to-day transactions such as purchasing of goods and services. The transaction demand for money is positively related to real income. This is due to the fact that people buy more stuff when income increases, thus triggering money demand to go up.

Precautionary motives

Keynes recognised that in addition to holding money for transaction motive, people desire to hold money as a precaution in order to meet unforeseen contingencies (uncertainty or emergencies) in the future. People often demand money to cover the unexpected expenditures such as bills and hospitalisation. The theory suggests that precautionary demand for money is positively related to an individual's income.

Speculative motive

Keynes took into consideration the view of money as a store of value. He believed that people demand money for storing wealth. However, there are various ways to hold wealth or value including saving deposits, stocks and bonds that pay interest. Keynes then asked why would individuals decide to hold their wealth in the form of money that does not pay interest rather than other forms? People demand money by considering the opportunity cost of holding money. Interest rate is an opportunity cost of holding money. The speculative motive for demanding money perceives that opportunity cost of holding money is low compared to the alternative ways of investing money.

The total demand for money is the summation of the transaction, precautionary and speculative demand for money. There are several variables that affect the demand for money, but the most important variables are the level of prices, interest rate and the real domestic

MACROECONOMICS FORM 5&6 (2022).indd 81 07/03/2022 16:19

output level. Money is a medium of exchange, how much individuals choose to hold depends highly on the prices of goods and services. As the price increases money demand increases because more money is required to carry out every day transactions. That is if price rises, then people will need to hold more money balances to purchase their goods and services. But, if price falls, then people will reduce the volume of money balances to purchase their goods and services. The quantity of money that people desire to hold is likely to vary with the interest rate of other forms of financial assets such as stocks, bonds and saving deposits. When the interest rate earned by bonds and stocks rises, people tend to hold less money. But when the interest rate falls people prefer to hold more money. Figure 4.3 illustrates the inverse relationship between interest rate and money demand.

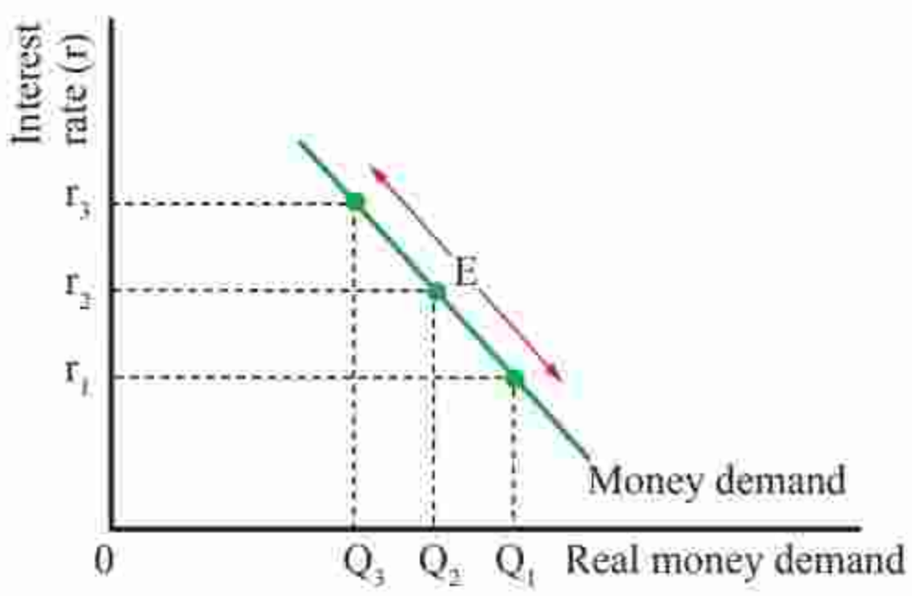


Figure 4.3: *Liquidity preference curve*

From Figure 4.3 suppose the current interest rate is r_2 and the quantity demanded is Q_2 (point E). If the interest rate falls to r_1, then the quantity of money decreases from Q_2 to Q_1. If the interest rate rises from r_2 to r_3 the quantity of money demanded falls to Q_3 from Q_2.

Supply of money

Supply of money is the quantity of money available in the economy. Economists have developed three measures of money supply as M1, M2 and M3. The Bank of Tanzania (BOT) uses M1, M2, and M3 as the measure of the quantity of money available in the economy.

M0 - Currency notes and coins. This is important because it is the component of money that the central bank (BOT) has direct control.

M1 - The narrow definition of money. It measures the forms of money that can be used as a medium of exchange. It defines money by including only the most liquid assets such as currency in circulation and demand deposits.

M2 - The broad definition of money. It measures the forms of money used as a store of value. M2 defines money by including the less liquid assets in addition to M1; notably the short-term deposits such as savings and time deposits held by all commercial banks in national currency.

M3 - The broader definition of money. M3 measures the entire supply of money within the economy. It includes the categories of money supply such as M1 and M2, long

MACROECONOMICS FORM 5&6 (2022).indd 82 07/03/2022 16:19

time deposits in the commercial banks and other financial institutions that are not chartered banks, and in particular the foreign currency deposits. Table 4.1 summarises the definitions of money supply in the economy.

NOTE: The Bank of Tanzania (BOT) currently uses M3 as a measure of money supply.

Table 4.1: *Summary of definitions of money supply*

Definition	Symbol	Assets included
Narrowest	M0	Currency notes and coins (currency in circulation)
Narrow	M1	M0 + demand deposits
Broad	M2	M1 + saving and time deposits in national currency
Broader	M3	M2 + long time deposits (at commercial banks and other financial institutions), including foreign currency deposits

The quantity of money supplied in the economy is determined by the central bank. The supply curve (Figure 4.4) is a vertical line because money supply (is not determined by behaviour of the economy rather) is determined by central bank. Changes in interest rates do not affect the level of money supply.

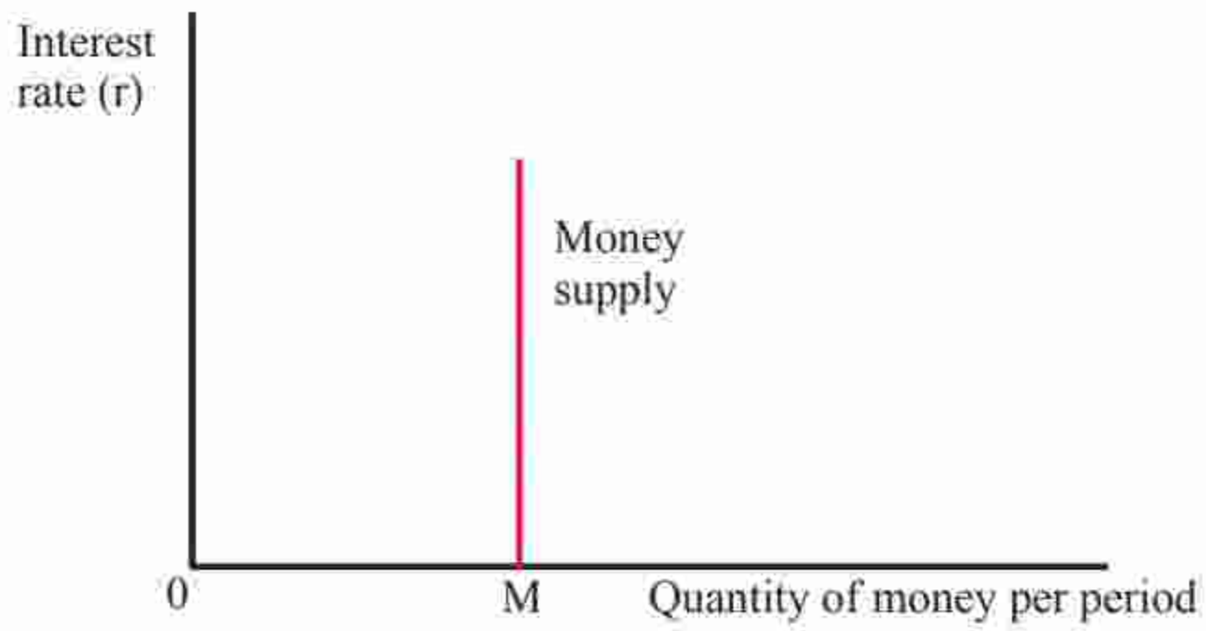


Figure 4.4: *Money supply*

Equilibrium in the money market

The equilibrium between money demand and supply is determined at the level of interest rate in which the quantity of money demanded is equal to the quantity of money supplied (Figure 4.5). The money demand curve is denoted by *D* and the money supply curve is denoted by *S*. Point *E* shows the equilibrium of money demand and supply at a given level of interest rate (*r*) and quantity of money per period. When the interest rate is above the equilibrium level, people will want to hold less money

MACROECONOMICS FORM 5&6 (2022).indd 83 07/03/2022 16:19

than other financial assets and when the interest rate is below the equilibrium level people will want to hold more money than investing in financial assets.

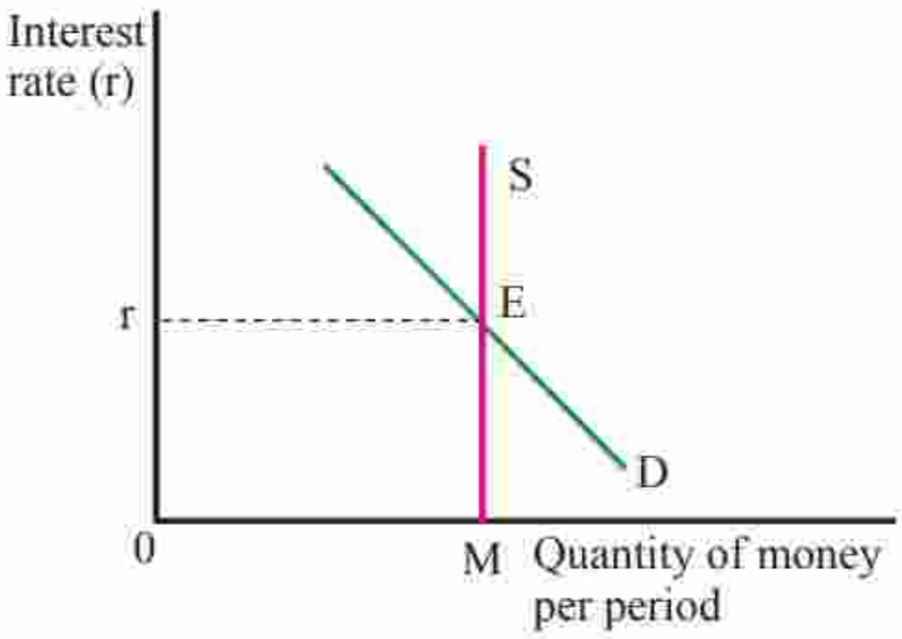


Figure 4.5: *Equilibrium in the money market*

Monetary policy

Monetary policy refers to the action of the nation's central bank to influence the amount of money and credit in the economy. Monetary policy means any conscious action undertaken by the monetary authorities especially the central bank to control the quantity of money in circulation. Monetary authority is an entity that manages country's currency and money supply.

Types of monetary policy

The central bank can use either expansionary monetary policy or contractionary monetary policy to influence the amount of money or credits in the economy. Expansionary monetary policy occurs when the central bank of a country [example the Bank of Tanzania (BOT)] increases the money supply through different methods like lowering interest rates to commercial banks and buying securities in the open market operation. On the other hand, contractionary monetary policy occurs when the central bank decreases the money supply through raising interest rates and selling securities in an open market.

Objectives or goals of monetary policy

The following are the principal objectives of monetary policy:

Full employment level: Attainment of full employment has been ranked among the foremost objectives of the monetary policy. It is an important goal not only because unemployment leads to poor living standards and wastage of potential output, but also it causes social evils and burdens the government as well. This objective is achieved through expansionary monetary policy.

Price stability: Another objective of the monetary policy is to stabilise the price level. Both economists and laymen prefer this policy because fluctuations in prices bring uncertainty and instability to the economy. For instance, in order to overcome inflation in an economy the central bank would adopt a contractionary monetary policy.

High rate of economic growth: Achieving a high rate of economic growth is one of the most important objectives of the monetary policy. Economic growth is defined as "the process whereby the real per capita income of a country increases over a long period of time. Expansionary

MACROECONOMICS FORM 5&6 (2022).indd 84 07/03/2022 16:19

monetary policy is adopted to influence economic activities so as to promote economic growth.

Exchange rate stability: The monetary policy can be applied to achieve a goal of exchange rate stability. The central bank can regulate exchange rate between domestic and foreign currencies. For example, the monetary authority may increase money supply (expansionary monetary policy) by increasing domestic currency. In such a case, the price of the domestic currency becomes lower than foreign currencies.

Instruments of monetary policy

The instruments of monetary policy affect the level of aggregate demand through the supply of money, cost of money and availability of credit. They can be quantitative or indirect instruments such as bank rate variations, open market operations and change of reserve requirements. These instruments are used to regulate the overall level of credit in the economy through commercial banks. Besides, there are qualitative direct instruments such as credit controls and selective credit controls, which govern specific types of credit. The monetary instruments are explained as follows:

Bank rate: This is the interest rate at which a nation's central bank lends money to commercial banks. Often these loans are very short in duration. Managing the bank rate is a preferred method by which central banks can regulate the money supply and thereafter the level of economic activities. Low bank rate is associated with the economy's expansion, when there is high level of unemployment and low GDP. Conversely, high bank rates help to govern the economy when inflation is higher than desired. In time of the inflationary pressure, bank rates are increased to discourage borrowing. Borrowing from the central bank becomes costly and commercial banks borrow less. The commercial banks, in turn, raise their lending rates to the business community leading to less borrowing by the general public.

Open market operations: This refers to the sale and purchase of government securities in the money market by the central bank. Purchases of securities inject money into the banking system and stimulate aggregate demand and employment which leads to economic growth while sales of securities do the opposite. When prices are rising and there is a need to control them, the central bank sells securities. The reserves of the commercial banks are reduced to limit their ability to lend more to the business community or general public. Furthermore, investment and aggregate demand are reduced and a rise in price is controlled. However, when there are the recessionary forces the central bank buys securities which increases the reserves of commercial banks and encourage lending. High volume of lending leads to more investment, output, employment, income and high demand.

MACROECONOMICS FORM 5&6 (2022).indd 85 07/03/2022 16:19

Reserve ratios: This is the ratio or percentage of total deposits of commercial banks required to be kept in the form of a reserve fund in their vaults and a certain percentage with the central bank. When prices are rising, the central bank raises the reserve ratio. In this case, banks are required to keep more reserves with the central bank causing the reduction in their reserves and consequently the fall in lending. The volume of investment, output and employment are adversely affected and a rise in prices is checked. Meanwhile, when the reserve ratio is lowered, the reserves of commercial banks are raised which encourage lending and stimulate the level of economic activity.

Selective credit controls: Selective credit controls are used to influence specific types of credit for particular purposes. They usually take the form of changing margin requirements to control speculative activities within the economy. When there is a rapid speculative activity in the economy or in particular sectors in certain commodities and prices are rising, the central bank raises the margin requirement on them. The result is that, the borrowers are given less money in loans against specified securities. In case of recession in a particular sector, the central bank encourages borrowing by lowering margin requirements.

Moral suasion: The term refers to the use of negotiation and persuasive power of the central bank over commercial banks. Under this monetary instrument the central bank persuades and advices commercial banks on matters of lending or credit creation depending on the situation of monetary system. For instance, in times of inflation the central bank would advise and persuade commercial banks to reduce volume of lending in order to control aggregate demand and check the rise in price.

Credit control: Involves quantitative restrictions on the amount of loans that commercial banks can make to the customers. These restrictions are applied during inflation. Limitation of the volume of cash that enters in the economy helps to reduce inflation in the economy.

Special deposits: The term refers to deposits that commercial banks are asked to hold with the central bank as an addition to their reserves. Special deposits reduce money supply in the economy because lending ability of commercial banks is reduced. This instrument is preferred in tackling inflation in the economy.

It should be noted that for effective anti-cyclical monetary policy, bank rate, open market operations, reserve ratio and selective control measures are required to be adopted simultaneously. However, in most cases monetary policy is not very effective during a phase of depression because business confidence during depression is at the lowest, but it is very effective against inflation.

MACROECONOMICS FORM 5&6 (2022).indd 86 07/03/2022 16:19

Limitations of monetary policy in developing countries

Monetary policy is a very important instrument in achieving macroeconomic objectives of the country. However, it is less effective in the developing countries due to:

Existence of a non-monetised transactions: Presence of non-monetised sector limits the success of the monetary policy in the developing countries.

Underdeveloped money and capital markets: Money and capital markets in the developing and least developed countries are underdeveloped. The least developed countries' markets run short of traded financial assets such as bills, stocks and shares which hinder the success of the monetary policy.

Large number of non-bank financial institutions (NBFIs): Developing countries have a large number of NBFIs such as informal financial institutions which operate on large scale. Most of the NBFIs in these countries are not controlled by central banks. This fact makes the monetary policy less effective.

High liquidity preference: The majority of commercial banks in developing countries posses high liquidity preferences and are not influenced by credit policy of the central bank leading to failure of the monetary policy.

Money not deposited with banks: Most rich people in developing countries do not deposit their money in banks but in luxury goods such as jewelry, posh and salon cars, and real estates. These activities lead to the inflationary pressure in the economy.

The quantity theory of money (QTM)

The quantity theory of money (QTM) states that, the general price level of goods and services is directly proportional to the amount of money in circulation or money supply. According to Irving Fisher, "Other things remain unchanged, as the quantity of money in circulation increases, the price level also increases in direct propotion and the value of money decreases and vice versa." That is to say, if the quantity of money is doubled, the price level will also double and the value of money will be one half. On the other hand, if the quantity of money is reduced by one half, the price level will also be reduced by one half and the value of money will be doubled.

Fisher's equation of exchange

Irving Fisher used the equation of exchange to build the quantity theory of money upon the following definitional relationship.

$$MV = PY \quad \text{.....(4.2)}$$

"M" is the total amount of money in circulation in an economy during a

MACROECONOMICS FORM 5&6 (2022).indd 87 07/03/2022 16:19

certain period (say a year), "V" is the velocity of money in the circulation which is the number of times money changes hands or the rate at which the money circulates. It reflects how fast people turn over their money, "P" is the general price index or implicit GDP deflator and "Y" is an index of the real value of aggregate transaction (amount of output).

Assumptions of the Fisher quantity theory of money

The Fisher's quantity theory of money is based on the following assumptions:

(a) Velocity of circulation (V) is assumed to be constant and independent of changes in Money in circulation (M), Price (P) and Output (Y);

(b) It assumes full employment in the economy, in the sense that an increase in money supply (M) has direct impact on price (P) rather than output (Y). The output is assumed also to be constant in the short run; and

(c) Supply of money is exogenous. That is, money supply is fixed, changes of money supply is determined by the central bank;

Criticisms of the quantity theory of money

The Fisher's quantity theory of money has been subjected to several criticisms by different economists. Some of the criticisms are as follows:

The theory is criticised for being a truism: According to Keynes, "The quantity theory of money is a truism," because it states that the total quantity of money (MV) paid for goods and services must equal their value (PY). But in real life certain percentage of change in the quantity of money does not lead to the same percentage change in the actual price level.

Velocity of money (V) and output (Y) are not constant: The quantity theory of money is based on the assumption that "V and Y remain unchanged". However, in real life, V and Y are not constant and they are not independent of M and P. Practically, all elements in Fisher's equation are interrelated. For instance, a change in M may cause a change in V, Y and P.

Fails to measure value of money: Fisher's equation shows the change in the value of money but does not measure the purchasing power of money.

It does not account for the rate of interest: One of the main weaknesses of Fisher's quantity theory of money is that it neglects the role of the rate of interest as one of the causative factors of the relationship between money and prices. Fisher's equation of exchange is related to an equilibrium situation in which the rate of interest is independent of the quantity of money.

MACROECONOMICS FORM 5&6 (2022).indd 88 07/03/2022 16:19

It ignores other factors which can affect the price levels and consequently the value of money: There are many factors which can influence prices of goods and services and thereby affecting the value of money. For example, the supply of goods, changes in the banking sector, level of demand, improvement in infrastructure facilities, among other factors can bring about change in price levels.

The theory ignores the functions of money other than being used as a medium of exchange: Fisher's theory regards money as merely a medium of exchange which is exchanged for goods. But in real life money is demanded for speculative and precautionary purposes and may be used as a store of value, thus money may be demanded for its own sake.

Example 4.1

Suppose money supply is Tshs 2,000,000, the price level is Tshs 2,500 and the real Gross Domestic Product (GDP) is Tshs 4,000,000. Find the velocity of money.

Solution

Given:

M = Tshs 2,000,000
P = 2,500
Y = Tshs 4,000,000
V = ?

From Fisher's equation of exchange;

$$MV = PY$$

To find the velocity of money, make V the subject;

$$V = \frac{PY}{M}$$

$$V = \frac{2{,}500 \times 4{,}000{,}000}{2{,}000{,}000}$$

$$V = 5{,}000$$

Therefore, the velocity of money in circulation is equal to 5,000 times. It implies the number of times each Tshs affect economic transaction.

Suppose the amount of money supply is raised from Tshs 2,000,000 to Tshs 3,000,000 and the velocity remains constant:

(a) Will the real GDP increase, decrease, or remain the same? If the outcome will change, find the new value; and

(b) Will the price level increase, decrease, or remain the same? If the outcome will change, find the new value and comment on the answer.

Solution for (a)

Given:

M = Tshs 3,000,000
P = 2,500
V = 5,000
Y = ?

To find real GDP make Y the subject

$$Y = \frac{MV}{P}$$

MACROECONOMICS FORM 5&6 (2022).indd 89 07/03/2022 16:19

$$Y = \frac{3{,}000{,}000 \times 5{,}000}{2{,}500}$$

$$Y = 6{,}000{,}000$$

Therefore, if the Central Bank increases money supply in the circulation, the real GDP will increase from Tshs 4,000,000 to Tshs 6,000,000.

Solution for (b)

Given:

M = Tshs 3,000,000
V = 5,000
Y = 4,000,000
P = ?

To find the price level make P the subject;

$$P = \frac{MV}{Y}$$

$$P = \frac{3{,}000{,}000 \times 5{,}000}{4{,}000{,}000}$$

$$P = 3{,}750$$

Therefore, if the Central Bank increases money supply in the circulation, the price level will increase from

Tshs 2,500 to Tshs 3,750. This is because the price level of goods and services has a direct relationship with the amount of money in circulation.



Activity 4.1

1. Visit the market near your school and observe different types of money that individuals use in making transactions at the market:
   (a) Ask individuals, where do they save their money?
   (b) From part (a) ask them why they hold money in different forms; and
   (c) Do the answers in part (b) relate to the motives for holding money you have studied in this section?
2. Explain circumstances under which an increase in money supply may not affect the price level.

Exercise 4.2

1. Referring to the quantity theory of money, explain the effect of an increase in the quantity of money?
2. Given the money supply is Tshs 3 billion, the price index is Tshs 3 million and the real Gross Domestic Product (GDP) is Tshs 5 billion. Find the velocity of money.

MACROECONOMICS FORM 5&6 (2022).indd 90 07/03/2022 16:19

3. If the amount of money supply in the previous question is raised from Tshs 3 billion to Tshs 4 billion, and the velocity remains constant:
   (a) Will the real GDP increase, decrease, or remain the same? If the outcome will change, find the new value and comment on your response; and
   (b) Will the price level increase, decrease, or remain the same? If the outcome will change, find the new value and comment on your response.

Concept of price index

Price is the amount of money that has to be paid to acquire goods and services. A price index is a measure of the average of price level for a particular class of goods and services in a certain region, during a specified period of time. It is a statistical device for measuring and comparing changes in price in different time periods or geographical locations.

Steps of computing price index

There are seven steps in computing price index. These steps are as follows:

1. Identify a specific area for conducting a survey to obtain necessary data for computing price index;
2. Select a representative sample of households. The households chosen for the survey should represent a typical average consumer in the economy;
3. Define the fixed basket of goods and services. Identify which goods and services a typical consumer spends his or her money on. In most cases visit websites of responsible authorities such as the National Bureau of Statistics (NBS) to gather information on fixed basket of goods and services;
4. Obtain (record) prices for every item in the fixed basket. Since the same basket of goods and services is used across a number of time periods to determine changes in price, the price for every item in the fixed basket must be found for every point in time;
5. Select the base year. The base year is generally the year in which prices were relatively stable. For this reason, the price index for the base year is assumed to be 100 percent meaning that prices were relatively constant;
6. Calculate the cost of fixed basket of goods and services for each time period. The cost of the fixed basket of goods and services is computed by multiplying the quantity of each item times its price; and

MACROECONOMICS FORM 5&6 (2022).indd 91 07/03/2022 16:19

7. Compute the price index. The price of the fixed basket of goods and services for each year in the comparison is then divided by the price of the fixed basket of goods in the base year depending on the formula or method being applied. The result is multiplied by 100 to give the relative level of the cost of living between the base year and the comparison years.

Types of price indices

There are several types of price indices namely; consumers price index, producer price index, retail price index and wholesale price index. In this chapter only consumer price index (CPI) is discussed.

Consumer price index (CPI)

A consumer price index (CPI) is a measure used for estimating changes of the prices in a basket of goods and services consumed by households. It calculates the weighted average of prices of bundles of consumer goods. The CPI is a widely used measure for identifying the rate of inflation and deflation in the economy and the relative level of cost of living of the people. Moreover, CPI enables producers to prepare business plans and product pricing. Thus, it guides investment decision.

The CPI is calculated as:

$$\text{CPI} = \frac{\text{Cost of buying market bundles in current year}}{\text{Cost of buying market bundles in base year}} \times 100$$

$$CPI = \frac{\sum(P_n \times Q_n)}{\sum(P_o \times Q_o)} \times 100 \quad \text{.....(4.3)}$$

Where:

P_n = the prices of goods and services in the current year

Q_n = the quantity of goods and services consumed by household in the current year

Q_o = the market basket of the year

P_o = the prices of the market in base year

$\sum$ = summation of

NOTE: The CPI for the base year is always 100.

MACROECONOMICS FORM 5&6 (2022).indd 92 07/03/2022 16:19

Example 4.2

Suppose there are only 2 goods namely maize and beans in Arusha region. Table 4.2 shows the quantities and prices of maize and beans produced in that region in 2018, 2019 and 2020. Calculate the price index for 2019 and 2020 given that 2018 is the base year.

Table 4.2: *Quantities and prices of the goods in 2018, 2019 and 2020*

Goods	2018		2019		2020	
	Price (in Tshs.)	Quantity (in tons)	Price (in Tshs.)	Quantity (in tons)	Price (in Tshs.)	Quantity (in tons)
Maize	500,000	500	500,000	500	600,000	500
Beans	1,000,000	300	1,500,000	300	1,700,000	300

Solution

The consumer price index for 2019:

$$CPI_{2019} = \frac{\text{Cost of buying market bundles in current year}}{\text{Cost of buying market bundles in base year}} \times 100$$

$$CPI_{2019} = \frac{(500{,}000 \times 500) + (1{,}500{,}000 \times 300)}{(500{,}000 \times 500) + (1{,}000{,}000 \times 300)} \times 100$$

$$CPI_{2019} = \frac{700{,}000{,}000}{550{,}000{,}000} \times 100 = 1.2727272727 \times 100$$

$$CPI_{2019} = 127\%$$

The consumer price index for 2020:

$$CPI_{2020} = \frac{\text{Cost of buying market bundles in current year}}{\text{Cost of buying market bundles in base year}} \times 100$$

$$CPI_{2020} = \frac{(600{,}000 \times 500) + (1{,}700{,}000 \times 300)}{(500{,}000 \times 500) + (1{,}000{,}000 \times 300)} \times 100$$

$$CPI_{2020} = \frac{810{,}000{,}000}{550{,}000{,}000} \times 100 = 1.4727272727 \times 100$$

$$CPI_{2020} = 147\%$$

While the CPI of the year 2018 is 100 percent, the CPI of the years 2019 and 2020 are 127 percent and 147 percent, respectively. From the year 2018 to 2019 price level increased from 100 percent to 127 percent which is an increase of 27 percent. In 2020, price level increased to 147 percent which is an increase of 47 percent. However, when comparing price levels of 2019 and 2020, there is an increase of 20 percent. Therefore, consumers were better-off in 2019 than in 2020 as the prices of beans and maize were low.

MACROECONOMICS FORM 5&6 (2022).indd 93 07/03/2022 16:19

Ways of calculating price indices

The following are the ways of calculating price indices:

Simple price index (unweighted price index)

Simple price index (SIP) compares only prices between two periods. It does not make any use of quantities or expenditure weights. These indices are called "elementary price index" because they are often used at the low levels of aggregation. It is given as:

$$SIP = \frac{\sum P_n}{\sum P_o} \times 100 \quad \text{.....(4.4)}$$

or

$SIP = \frac{P_n}{P_o}$, only if you are given one commodity.

Where: $\sum$ = summation of

P_n = Prices of goods in the current year

P_o = Prices of goods in the base year

Weighted price index

Weighted price index (WPI) is constructed by giving different weights to different commodities by considering their perceived importance to consumers. That is to say, weights are given on the basis of regularity in consumption, the amount of money spent to purchase the commodity and the number of consumers who purchase such a commodity. The commodities consumed by all or majority of consumers on which large amount of income is spent are given more weights and vice versa. To calculate the weighted price index, we have to find the weighted average price first. The average price is calculated by dividing the sum of weighted price by sum of weights. That is:

$$\text{Weighted average price} = \frac{\text{Sum of weighted price}}{\text{Sum of weights}}$$

$$WPI = \frac{\sum(P \times W)}{\sum W} \quad \text{.....(4.5)}$$

Weighted price index is calculated as the ratios of weighted average price for the current/comparison year and weighted average price for the base.

$$\text{Weighted price index} = \frac{\text{Weighted average prices of current year}}{\text{Weighted average prices of base year}} \times 100$$

$$WPI = \frac{\frac{\sum(P_n \times W)}{\sum W}}{\frac{\sum(P_o \times W)}{\sum W}} \times 100$$

$$WPI = \frac{\sum(P_n \times W)}{\sum(P_o \times W)} \times 100 \quad \text{.....(4.6)}$$

Where: $\sum$= summation of

P_n = Prices of goods in the current year

P_o = Prices of goods in the base year

W = Weights

Example 4.3

Table 4.3 reports the hypothetical data for consumer's spending on goods and services in area X.

Table 4.3: *Consumer's spending on goods and services*

Commodities	Weight (W)	Price in 2014 (in Tshs.)	Price in 2015 (in Tshs.)
Rice	1,000	1,600	1,800
Beans	400	1,800	2,000
Maize	3,000	800	1,000
Vegetables	500	150	250
Fuel	200	1,700	2,000

Calculate:

(a) Simple price index for rice and beans for 2015; and

(b) Weighted price index for 2015.

Solution

(a) Simple price index for rice and beans

From:

$$\text{Simple price index} = \frac{\sum P_n}{\sum P_o} \times 100$$

$$\text{Simple price index for rice} = \frac{1,800}{1,600} \times 100$$

$$\text{Simple price index for rice} = 1.125 \times 100$$

$$\text{Simple price index for rice} = 112.5\%$$

$$\text{Simple price index for beans} = \frac{2,000}{1,800} \times 100$$

$$\text{Simple price index for beans} = 1.1111 \times 100$$

$$\text{Simple price index for beans} = 111.11\%$$

(b) Weighted price index for 2015

From:

$$\text{Weighted price index} = \frac{\sum(P_n \times W)}{\sum(P_o \times W)} \times 100$$

MACROECONOMICS FORM 5&6 (2022).indd 95 07/03/2022 16:19

Clearly, a table can simplify the computation process. Table 4.4 illustrates more on the computation process. However, any convenient way can be used including the application of mathematical formula.

Table 4.4: *Simple and weighted price indices computation process*

Commodities	Weights (W)	Price in 2014 (in Tshs.)	$P_0 \times W$	Price in 2015 (in Tshs.)	$P_n \times W$
Rice	1,000	1,600	1,600,000	1,800	1,800,000
Beans	400	1,800	720,000	2,000	800,000
Maize	3,000	800	2,400,000	1,000	3,000,000
Vegetables	500	150	75,000	250	125,000
Fuel	200	1,700	340,000	2,000	400,000
Total			**5,135,000**		**6,125,000**

That is:

$$\text{Weighted price index} = \frac{\sum(P_n \times W)}{\sum(P_0 \times W)} \times 100 = \frac{6,125,000}{5,135,000} \times 100$$

Weighted price index = 1.1928×100

Weighted price index = 119.28%

Laspeyre's price index

This is the method of computing price index which involves the use of base year quantities.

$$\text{Laspeyre's price index} = \frac{\sum(P_n \times Q_0)}{\sum(P_0 \times Q_0)} \times 100 \quad \text{.....(4.7)}$$

Where: $\sum$ = Summation of

P_n = Prices of goods in the current/present year

P_0 = Prices of goods in the base year

Q_0 = Quantities of goods in the base year

MACROECONOMICS FORM 5&6 (2022).indd 96 07/03/2022 16:19

Paasche's price index

This is the method of computing price index which involves the use of current year quantities.

$$\text{Paasche's price index} = \frac{\sum(P_n \times Q_n)}{\sum(P_o \times Q_n)} \times 100 \quad \text{.....(4.8)}$$

Where: $\sum$ = Summation of

P_n = Prices of goods in the current year

P_o = Prices of goods in the base year

Q_n = Quantities of goods in the current year

The price index of the current (comparison) year is interpreted with reference to the base year price index which is assumed to be 100 percent. The current (comparison) year price index can be below or above 100 percent. The interpretation is based on two cases:

If the current (comparison) year price index is less than 100 percent it implies that the price level has fallen by more than 100 percent (computed index) and value of money has risen by more than 100 percent (computed index). Moreover, the cost of living has fallen by more than 100 percent (computed index) and standard of living has improved due to the fall in the cost of living.

If the current (comparison) year price index is greater than 100 percent it implies that price level has risen by more than 100 percent (computed index) and the value of money has fallen by more than 100 percent (computed index). Additionally, the cost of living has risen by more than 100 percent (computed index) and standard of living has deteriorated due to rise in cost of living.

Example 4.4

Table 4.5 reports the hypothetical data for consumer's spending on goods and services in area X.

Table 4.5: *Consumer's spending on goods and services*

Commodities	Quantities for 2015 (in Kg)	Price in 2015 (in Tshs.)	Quantities for 2017 (in Kg)	Price in 2017 (in Tshs.)
Rice	1,800	1,600	1,100	2,000
Beans	2,000	1,800	600	2,200
Maize	1,000	800	3,400	1,000
Vegetables	250	150	800	300
Fuel	2,000	1,700	500	2,100

(a) Calculate the Laspeyre's price index and interpret the results

(b) Calculate the Paasche's price index and interpret the results

(c) Compare the computed Laspeyre's price index and Paasche's price index.

Solution

Prepare a table like Table 4.6 to simplify the computation process.

Table 4.6: *Laspeyre's and Paasche's price indices computations process*

Commodities	Quantities 2015 in (Q_0)	Price in 2015 (P_0)	Quantities for 2017 (Q_n)	Price in 2017 (P_n)	$P_n \times Q_0$	$P_0 \times Q_0$	$P_n \times Q_n$	$P_0 \times Q_n$
Rice	1,800	1,600	1,100	2,000	3,600,000	2,880,000	2,200,000	1,760,000
Beans	2,000	1,800	600	2,200	4,400,000	3,600,000	1,320,000	1,080,000
Maize	1,000	800	3,400	1,000	1,000,000	800,000	3,400,000	2,720,000
Vegetables	250	150	800	300	75,000	37,500	240,000	120,000
Fuel	2,000	1,700	500	2,100	4,200,000	3,400,000	1,050,000	850,000
Total					**13,275,000**	**10,717,500**	**8,210,000**	**6,530,000**

(a) Laspeyre's price index

$$\text{Laspeyre's price index} = \frac{\sum(P_n \times Q_0)}{\sum(P_o \times Q_o)} \times 100$$

$$\text{Laspeyre's price index} = \frac{13{,}275{,}000}{10{,}717{,}500} \times 100$$

$$\text{Laspeyre's price index} = 1.2386 \times 100$$

$$\text{Laspeyre's price index} = 123.86\%$$

Interpretation:

The yearly price of goods in 2017 compared to 2015 were 123.86 percent. The result means that there was 23.86 percent yearly increase in price of goods during the two years from 2015 to 2017, that is 123.86 – 100 = 23.86 percent. This implies that, the value of money has fallen or cost of living has risen or the standard of living has deteriorated.

MACROECONOMICS FORM 5&6 (2022).indd 98 07/03/2022 16:19

(b) Paasche's price index

$$\text{Paasche's price index} = \frac{\sum(P_n \times Q_n)}{\sum(P_o \times Q_n)} \times 100$$

$$\text{Paasche's price index} = \frac{8{,}210{,}000}{6{,}530{,}000} \times 100$$

Paasche's price index = 1.2572 × 100

Paasche's price index = 125.73%

Interpretation:

The yearly price of goods in 2017 compared to 2015 were 125.73 percent. The result means that there was 25.73 percent yearly increase in price of goods during the two years from 2015 to 2017 found by 125.73 – 100 = 25.73. This implies that, the value of money has fallen or cost of living has risen or the standard of living has deteriorated.

(c) Comparison of computed Laaspeyre's and Paasche's price index

The computed Laaspeyre's and Paasche's price index differ as shown in calculation. The Paasche's gives higher (25.73) than the Laaspeyre's price index. The difference between the two index is due to the fact that Paasche's price index used current year quantity as weights whereas the Laaspeyre's price index uses quantity of base year as weight.

Utilities or uses of price index

Price index is useful for various purposes ranging from private investment decisions to economic policy analysis and formulation. The following are some of the utilities of price index:

Measuring changes in the value of money: It is possible to measure changes in different aspects of the value of money using the price index. For instance, if price index is greater than 100 percent it is interpreted as an increase in price and consequently, a fall in the value of money. Thus, desired measures may be adopted to improve the value of money.

Measuring changes in the cost of living: When price index is greater than 100 percent it is interpreted as a rise in the cost of living and vice versa. The rise or fall in the cost of living leads to the rise or fall in the real income of workers and the general public. It is on this basis that money wages are determined and other allowances are granted to workers. Price index is also the basis of wage negotiations and wage contracts.

Analysing markets for goods and services: The consumer price index number is used in analysing markets for particular kinds of goods and services. The weights assigned to different commodities like food, clothing, fuel, lighting, and house rent govern the market for such goods and services. This can guide decisions for investing in trading particular goods and services, and government decisions on regulating the supply and production of a particular commodity.

In calculating terms of trade in international trade: The terms of trade are computed as the ratio of price index of export to the price index of import. These indices reveal whether the external trade of the country is increasing or decreasing.

Computation of Purchasing Power Parities (PPP): Calculations of purchasing power parity for household expenditures require the price of individual consumer goods and services to be compared between different countries. The PPP involves compilation of international consumer price indices. Real expenditure and real income can be compared between countries in the same way as in different periods in the same country.

Price index is used as a GDP deflator: The price index is used to eliminate the elements of inflation (deflating) from country's nominal GDP to obtain the real GDP.

The analysis and formulation of economic policies: The price index is helpful to planners and economists in formulating and adopting appropriate economic policies. It measures changes in prices; and consequently the changes in living costs, incomes, wages, production, employment, exports, and imports. By comparing the price indices at different periods of time, one can know the present trend of economic activity and adopt appropriate economic policies such as price policy, foreign trade policy and monetary policy.

Assessing changes in living standards: Price index measures relative changes in expenditures of a typical consumer or households that can be utilised in assessing changes in living standards. For instance, if the computed index of a comparison year is greater than 100 percent implying a rise in price level, this has an implication that the cost of living has risen and consequently, people's living standards has deteriorated.

Problems in measuring or computing the price index

On computing the price index, one may encounter some difficulties. Regardless of these difficulties the price index is useful in economic analysis of some issues. Some of the difficulties or problems one may face on computing the price index are as follow:

Selecting representative sample of families: The representative sample of families ought to represent a typical

MACROECONOMICS FORM 5&6 (2022).indd 100 07/03/2022 16:19

consumer or household. It is difficult to choose a representative household from millions or thousands of families with different income levels, culture and consumption behaviour. One may find it difficult to choose the representative sample of families.

Selection of the base year: The base year should be a year in which prices are relatively stable, but it is difficult to determine such a year. Moreover, the normal year at one point of time may become an abnormal year after some period due to changes in the basket of goods.

Selection of commodities: The choice of representative commodities is not an easy thing. They have to be selected from a wide range of commodities which the majority of people consume. Again, what were representative commodities some years ago may not be representative today. The consumption pattern of consumer might change and make the selection of commodities difficult or the price index calculated before becomes useless.

Ascertaining prices for goods in the common basket: Often price discrimination exists across places, sex, race, quantity of purchase, time of purchase, nationality and so many other aspects. It is often not possible to get one price for a commodity in all places and for all consumers. Furthermore, there is a problem of choosing between wholesale and retail prices.

Assigning weights: In calculating weighted price index, a number of difficulties arise in giving different weights to commodities. The selection of high weight for one commodity and a low weight for another is not an easy one because commodities are equally significant to all consumers. This situation means that, different consumers may consider the same commodity differently. The importance of commodities also changes with the change in the tastes and incomes of consumers and also with the passage of time.

Selecting the method of averaging: There are a number of methods which can be used for computing the price index. But all the methods lead to different results from one another. It is therefore difficult to decide which method to choose.

Changes occurring overtime: The world is highly dynamic whereby the nature and the quality of commodities are taking place continuously due to technological changes. As a result, new commodities are introduced, the existing ones are modified and people start consuming them in the place of the old commodities. Moreover, prices of commodities might also change with technological changes. But all new commodities may not be considered in preparing the price index. Consequently, it makes the price index based on old commodities become inappropriate.

MACROECONOMICS FORM 5&6 (2022).indd 101 07/03/2022 16:19

The difference between the cost of living and the standard of living

Cost of living is the total average expenditure of individual households in the economy. It is determined by prices and quantities of goods and services purchased by a household in the economy in the base period. High price leads to high cost of living of the people and vice versa.

The standard of living is the state of well-being attained by household or all people in the society. It is determined by factors such as quality and volume of goods and services consumed by households in the base year period, associated externalities, enjoyed leisure time, entertainment, peace and security and justice in interacting with others. When the cost of living is high the standard of living of households decline. The reason is because high cost reduces consumption, which underlies welfare and thus, the standard of living.

Problems of using price index to compare the standard of living

Although price index is a convenient way to compute and compare relative price levels and cost of living across time, it does not provide a completely accurate estimate of the cost of living because of some limitations. Due to its limitations, the price index is considered a non-accurate measure of comparing the standard of living. The problems of using the price index to compare the standard of living are:

The substitution bias: Consumers tend to substitute one commodity for another following a rise in the price, but the preparation of the price index does not consider this substitution tendency of consumers. The substitution effects due to the price or level of satisfaction has an impact on the standard of living.

It does not consider the introduction of new items: Overtime new products are introduced in the market, but the price index cannot effectively consider new products that may have huge impact on the standard of living.

It does not account for the improvement in the quality of goods: The quality of goods and services is improved with the development of technology, invention and innovation, but the price index considers the change in the price alone. It does not account for changes such as improvement in the quality of goods which has impact on the standard of living.

It does not consider non-monetary factors: The price index measures the change in the cost of living using the relative prices of goods and services. However, there are various non-monetary aspects which influence the standard of living such as externalities (pollution, entertainments and leisure, peace and security).

MACROECONOMICS FORM 5&6 (2022).indd 102 07/03/2022 16:19

It considers only few goods: The price index considers only few goods especially those in the common basket of goods. However, the reality is that households consume many goods that determine their standard of living which are not in the common basket of goods.

It considers only few households: The preparation of the price index considers the representative sample households rather than all households in the economy. But its interpretation generalises the standard of living for all people in the economy. A realistic measure of the standard of living ought to consider consumption by not only a section of people but all individuals in the economy.

Activity 4.2

Choose any basket of three common goods available in your area. Find the information on its price and quantity demanded for the recent two years (you may get information on daily, weekly or monthly sales and prices in case they do not have annual information). After getting the information, create a hypothetical scenario of the annual data and answer the questions that follows:

(a) Using the information of goods, you have collected, complete the table below;

Commodities	Quantities for previous year (in Kg)	Price in previous year (in Tshs.)	Quantities for current year (in Kg)	Price in current year (in Tshs.)

(b) Calculate the consumer price index for each year;

(c) Calculate the Laspeyre's price index and interpret the results;

(d) Calculate Paasche's price index and interpret the results; and

(e) Compare the computed Laspeyre's price index and Paasche's price index.

MACROECONOMICS FORM 5&6 (2022).indd 103 07/03/2022 16:19

Exercise 4.3

1. With vivid examples differentiate between:
   (a) Price and price index;
   (b) Laspeyre's price index and Paasche's price index; and
   (c) Simple price index and weighted price index.
2. Elaborate the procedures for computing the price index.
3. Explain the shortcomings of the price index in comparing the standard of living.

Inflation

Inflation is a continuous/persistency increase in the general price level of goods and services in the economy. It measures how expensive a set of goods and services are over a certain period of time, in most cases within one year. Inflation causes a decline in the value or purchasing power of money in a given period of time. Inflation is not just a one-time rise in the prices of one or just few goods but it is a continuous increase in prices of almost all common goods available in the market. Inflation is measured by calculating the percentage rate of change of a price. There are several measures of inflation rate, the most common one is consumer price index (CPI). The inflation rate is denoted by π_t and calculated as a percentage change in the price index from the current years CPI_t and that of the previous period or year CPI_{t-1} or the base year. Thus:

$$\pi_t = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} \times 100 \quad \text{.....(4.9)}$$

whereby;

π_t = Inflation rate

CPI_t = Consumer price index in the current year

CPI_{t-1} = Consumer price index in the previous year

OR

$$\pi_t = \frac{CPI_t - CPI_b}{CPI_b} \times 100 \quad \text{.....(4.10)}$$

whereby;

π_t = Inflation rate

CPI_t = Consumer price index in the current year

CPI_b = Consumer price index in the base year

Example 4.5

According to National Bureau of Statistic (NBS), the consumer price index (CPI) for Tanzania Mainland in 2018 was 112.23 percent, 2019 was 116.10 percent and 2020 was 119.92 percent. Calculate the inflation rate using the given CPIs for 2018 to 2019 and 2018 to 2020.

Solution

$$\pi_{2018/19} = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} \times 100$$

$$\pi_{2018/19} = \frac{116.10 - 112.23}{112.23} \times 100$$

MACROECONOMICS FORM 5&6 (2022).indd 104 07/03/2022 16:19

$$\pi_{2018/19} = 3.4\%$$

$$\pi_{2018/20} = \frac{CPI_t - CPI_b}{CPI_b} \times 100$$

$$\pi_{2018/20} = \frac{119.92 - 112.23}{112.23} \times 100$$

$$\pi_{2018/20} = 6.9\%$$

Therefore, the rate of inflation in Tanzania Mainland from 2018 to 2019 was 3.4 percent and from 2018 to 2020 was 6.9 percent.

Inflation and value of money

Inflation causes the decline in the value of money. *"Inflation implies that your money cannot buy as much today as it could buy yesterday."* If the prices of goods increase, the same amount of money will purchase a small quantity of goods. This means that the money you have at the beginning of the year will purchase smaller quantity of the same goods and services at the end of the year.

Types of inflation

Inflation can be categorised according to the magnitude, or rate and causes of inflation.

Types of inflation on the basis of magnitude or rate of inflation

There are different types of inflation according to the rate or speed of inflation. The following are the common types of inflation according to this classification:

Moderate inflation

This comprises of creeping and walking inflation which are explained as follows:

Creeping inflation

Creeping or mild inflation occurs when prices rise by 3 percent or less per year. It is commonly agreed that, this rate of inflation is not harmful to the economy rather it is beneficial to economic growth. The low rate of inflation sets expectations that prices will continue to rise. As a result, it causes an increase in demand as consumers decide to buy now before prices rise in the future. By increasing the demand, inflation drives economic expansion as production increases, investment and employment increase as well.

Walking inflation

Walking inflation occurs when the general price level rises more than 3 percent, but less than 10 percent per year. It is undesirable to the economy as it heats up economic growth too quickly. Consumers purchase more goods than what they need just to avoid tomorrow's higher prices. This situation leads to an excessive demand which accelerates the continuous rise in the general price level in the economy.

MACROECONOMICS FORM 5&6 (2022).indd 105 07/03/2022 16:19

Rapid inflation (running inflation/ trotting inflation)

Rapid inflation occurs when rate rises by 10 percent or greater in a year. This type of inflation causes an absolute disaster in the economy because money loses its value so fast that business and employee's income cannot keep up with costs and prices of goods. Foreign investors avoid the country, because the economy becomes unstable. This type of inflation is harmful to the economy.

Hyperinflation

Hyperinflation also known as out of control inflation or runaway inflation which occurs when prices increase daily by more than 50 percent a month. It is uncontrollable rate of inflation giving the government no choice rather than to abandon its current currency and introduce new ones. It is very rare such that most examples of hyperinflation have occurred when governments printed money recklessly to pay for war or election activities. Example of this type of inflation occurred in Germany in the 1920s and Zimbabwe in the 2000s.

Stagflation

Stagflation occurs when economic growth is stagnant and prices are still increasing (inflation). The main question asked always is, why would the prices go up when there is no enough demand to stock economic growth?

Types of inflation on the basis of the causes of inflation

Inflation can also be categorised according to its causes. The following are the types of inflation due to the causes:

Demand pull inflation

Inflation that results from an excessive increase in aggregate demand in the economy is called demand pull inflation. This type of inflation occurs when factors such as consumer expenditures, investment expenditures, government expenditures, and exportation increase. Since these factors increase with the purchasing power of the people, they increase aggregate demand which results in an increase in the price of goods and services. Consider Figure 4.6, the initial equilibrium level of prices and quantity was P_1 and Y_1 as shown at point E where the aggregate demand curve AD_1 intercepts the aggregate supply curve AS. Now, assume that the government increased its expenditure through investments which result in the creation of employment and generation of income for households; the purchasing power of the people will increase, leading to an increase in aggregate demand shifting the aggregate demand curve from AD_1 to AD_2. The shift in aggregate demand curve from AD_1 to AD_2 leads to the establishment of a new equilibrium point at point F with high price level P_2. Increase in the aggregate demand causes an increase in price from P_1 to P_2, hence causing inflation in the economy.

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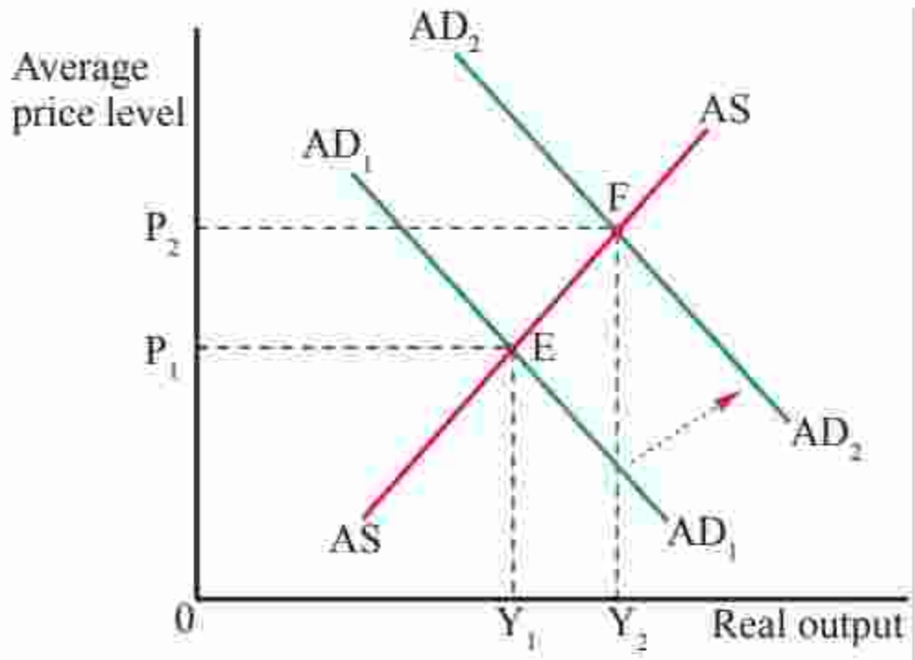


Figure 4.6: *Demand pull inflation*

Cost push inflation

Cost push inflation occurs when there is significant increase in the cost of production. As the cost of production increases, firms reduce production which puts pressure on the price. Similarly, when cost of production rises, firms respond to the rising costs by increasing prices to protect their profit margins. Figure 4.7 illustrates the cost push inflation arising from an increase in the cost of production which results to a leftward shift of the aggregate supply from AS_1 to AS_2. The result is an increase in the average price level in the economy from P_1 to P_2 and a fall in real output from Y_1 to Y_2.

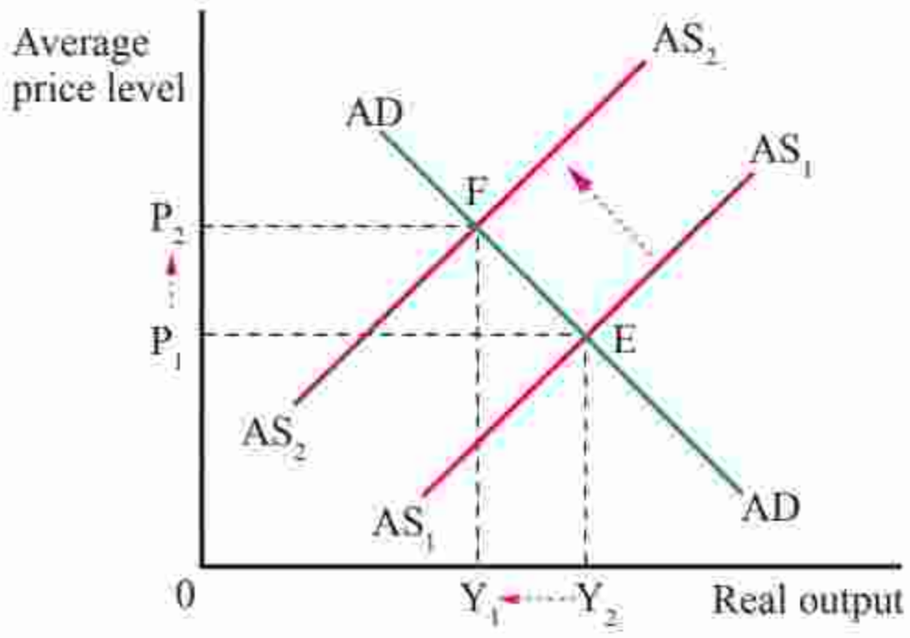


Figure 4.7: *Cost push inflation*

Structural inflation

Structural inflation is also known as wage price or spiral inflation or demand shift inflation. The structural inflation is self-sustaining upward trend in general price levels due to the interaction of demand pull and cost push inflation. It happens when factors such as excessive demand results into increase in prices and cost of living. High cost of living stimulates demands for higher wages which push production costs up forcing firms to increases prices, leading to further wage increases. From Figure 4.8, an increase in the aggregate demand from AD_1 to AD_2 has caused the price to increase from P_1 to P_2.

This increase in price will stimulate producers to produce more but in turn due to increase in price, employees will demand for more wages because of the fall in their purchasing power. Producers will increase wages of the employees but they will offset that increase in their cost of production by increasing price of the commodity. This increase in price of the goods and services will decrease again the purchasing power of the consumer and they will demand for more wages. The process will continue until the producer decides to decrease production due to increase in the costs of production. The decrease of production will go parallel with reducing the number of employees and force the output and employment to go back to its original equilibrium point.

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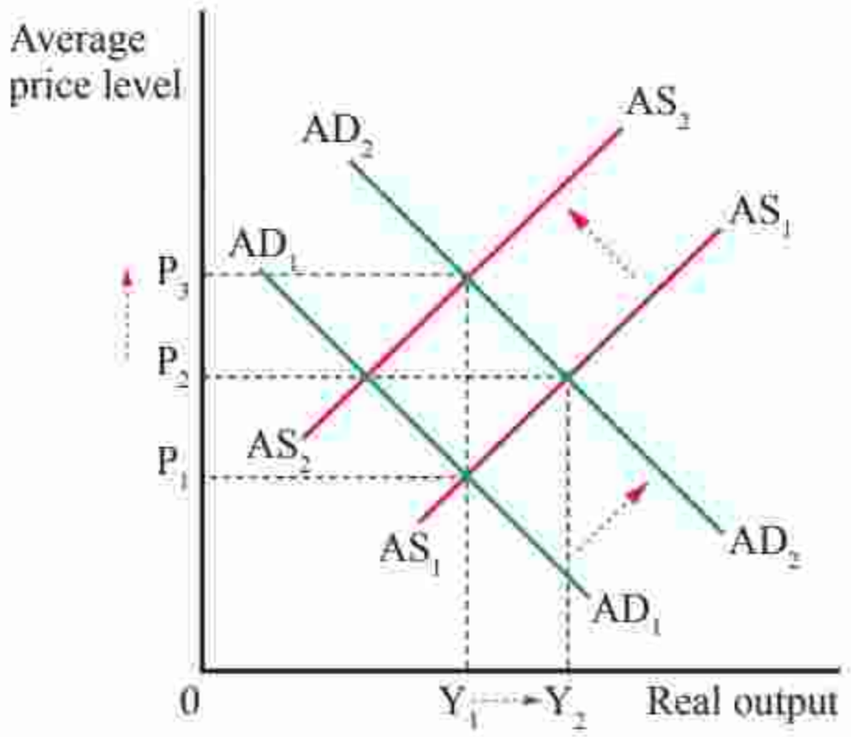


Figure 4.8: *Structural inflation*

Monetary inflation

Monetary inflation results from excessive money demand for transaction motives. This type of inflation is likely to occur at full employment level of output where any increase in aggregate demand is purely inflationary. Monetary inflation is illustrated in Figure 4.9. It is shown that an increase in money supply results in higher aggregate demand from AD_1 to AD_2 but without changing real output (Y). This results in an increase in price from P_1 to P_2 but without changing the real output. In figure 4.9 *LAS* stands for long-run aggregate supply where in the long-run it is vertical.

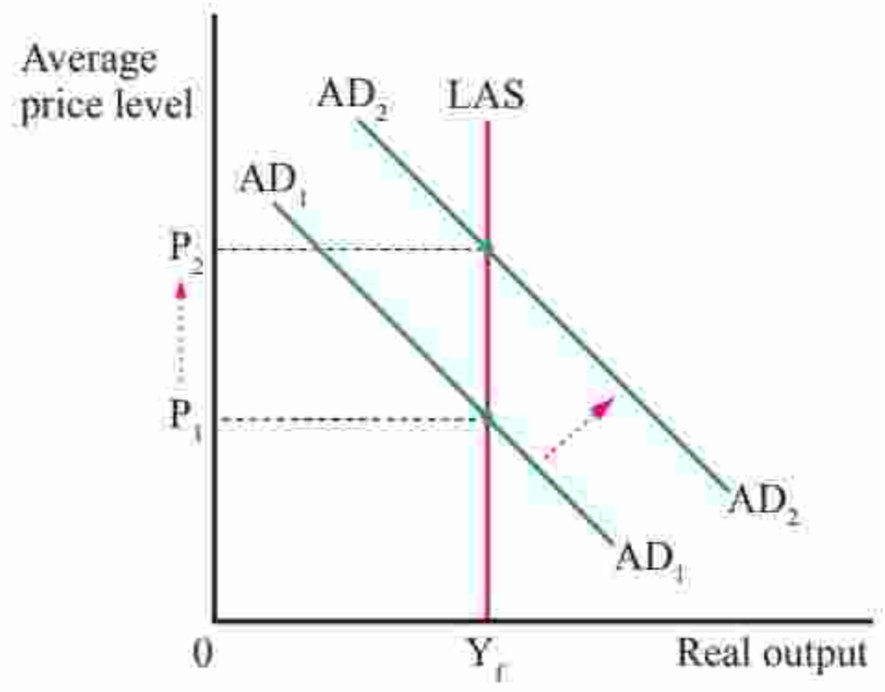


Figure 4.9: *Monetary inflation*

Causes of inflation

Inflation is caused by the actions of governments in changing monetary and fiscal policies or by the actions of individuals or firms. Changes of money supply, revenue raising and spending activities of governments have direct effects on the general price level. The following are some of the causes of inflation:

Printing more money: The general price level can increase if the central bank (such as the Bank of Tanzania - BOT) decides to print more money. This happens because money supply plays an important role in determining prices. If there is more money chasing the same amount of goods, then prices will rise. Hyperinflation is usually caused by an extreme increase in money supply in the economy.

Increase in the costs of production: An increase in cost of production results into a rise of prices of goods and services. This happens because a rise in the cost of production induces producers to raise the prices of their products in order to cover costs and/or maintain their profit margins. Moreover, an increase in costs of production tends to discourage the production and entry of new firms in the market. This obstacle causes low supply of goods in the market which, consequently, results into the rise in the price of goods and services. For example; the price of oil, can cause a significant impact on most goods in the

MACROECONOMICS FORM 5&6 (2022).indd 108 07/03/2022 16:20

economy since the cost of transporting raw materials and goods will increase significantly.

Increase in government spending: An excessive increase in government expenditure leads to an increase in people's income and stimulate aggregate demand. If an increase in demand is not matched with a simultaneous increase in supply, a change in price for goods depend on the elasticity of *AS*; if *AS* is horinzontal, then will be no change in price, otherwise then will be increase in price and increase in quantities. If *AS* is vertical there will be only increase in price.

Importation of goods: The importation of high-priced goods such as those from countries experiencing inflation will cause inflation in the other country. Moreover, the importation of goods at a significant high exchange rates may also lead to inflation in the local economy. Most of goods such as machines and spare parts for machines in developing countries are imported from developed countries. If there is inflation in these countries, then there will be a shift of inflation to the developing countries. Depreciation of currency makes import prices more expensive leading to an increase in inflation. A devaluation or depreciation makes the foreign currency expensive; that is, the shilling might become worthless and; as a result, people pay more to buy same amount of imported goods.

Change in tax policy: An increase in indirect taxes such as Value Added Tax (VAT) rate, increases the price of consumer goods at the same level of output. Similarly, a decrease of the rate of import duty encourages importation of goods even from countries with inflation. When tax increases, producers supply the same level of output at higher prices to increase their revenue. This situation results into an increase in prices of goods in the economy and causes inflation.

Excessive increase in the demand for goods and services: If for some reasons the demand for goods is more than the ability of the economy to produce goods (supply), a shortage of goods occurs in the market which consequently results into the rise of the prices of goods.

Natural calamities: Natural calamities such as drought, floods and others tend to hinder the production thereby reducing the supply of goods and services in the economy. A fall in the supply of goods in relation to their demand in the economy will eventually result in a rise in prices of goods.

Political instabilities: Political instabilities like civil wars cause the inflation in the same way as the natural disasters do. The instabilities hinder production of both raw materials for production and final goods for consumption, hence, reduce the supply of goods and services in the economy. Such situation may cause shortage of goods that will eventually lead to a rise

MACROECONOMICS FORM 5&6 (2022).indd 109 07/03/2022 16:20

in price of goods since demand exceeds supply in the market.

Policy measures to control inflation

Effective policies to control inflation need to focus on the underlying causes of inflation in the economy. There are several policy measures which a government can use to control inflation:

Contractionary monetary policy

The government uses the contractionary monetary policy which involves controlling the circulation of money in the economy to reduce inflation. The contractionary monetary policy controls inflation through:

Selling government securities: The central bank can sell government securities such as bonds and treasury bills to the public through commercial banks. When people buy bonds from commercial banks, they receive a document and give money to the bank. This practice reduces the circulation of money in the economy. The money in the commercial banks is later transferred to the central bank account, hence reduces credit creation capacity of the commercial banks.

Increasing bank rate policy to induce a rise in interest rates: The central bank can raise the bank rates (increase the cost of borrowing to commercial banks). Consequently, the commercial banks will raise interest rates to their customers. This increase in the rate of interest to the customers would discourage borrowing and encourage savings in commercial banks. In turn, the flow of money from commercial banks to the public would be reduced.

Increasing reserve requirement (cash reserve ratio): The central bank should raise the cash reserve ratio in order to reduce the lending capacity of the commercial banks (limit credit creation). As a result, the flow of money from commercial banks to public will decrease and people would soon find themselves short of cash which reduce their purchasing power and cause a fall in price.

Selective credit control (Special credit): In order to control inflation, credits should be advanced to selected sectors or projects only. The selected 'special' sectors or projects in this context are those which can significantly increase production and supply of goods and services which are in short supply and result into the fall in prices. In a country like Tanzania, the agriculture and industry sectors are arguably sectors in which most people depend on.

Controlling or limiting volume of credits: There should be quantitative restrictions on the amount of loans that commercial banks can advance to their customers during times of inflation. This will help to reduce volume of cash that enters into a circulation and help to control inflation.

MACROECONOMICS FORM 5&6 (2022).indd 110 07/03/2022 16:20

Contractionary fiscal policy

This policy controls inflation by manipulating government expenditure and government revenues especially taxes and borrowing. The following are some fiscal measures that can be used to control inflation:

Reducing government spending: Government can control inflation by reducing its expenditure. A reduction of government expenditure will result into a fall in people's income and demand in the economy. Low demand would eventually result into a fall in prices.

Increasing direct taxes: High direct taxes (tax on incomes) will reduce household's disposable income and thereby result into the fall in demand. Since the purchasing power of the households will be reduced, the demand for goods would fall and eventually prices would fall.

Reducing indirect taxes: Low indirect taxes (taxes attached to goods and services prices) will help to reduce the price which is actually being paid by buyers. By causing immediate fall in prices, it is a remedy to inflation already, but also, falling prices due to reduction in tax may induce people's expectation of fall in prices. This may reduce the demand as people spare time in order to buy at low prices in the future, the overall impact is a fall in prices.

Borrowing from the public and internal institutions: The government can borrow large sums of cash from some individuals and companies in order to reduce the volume of cash in circulation.

Direct wage controls policy

The government can control inflation by setting low wages, establish a wage limit and minimum wage of workers. By limiting the rate of growth of wages, there is a potential of reducing inflation. For instance, the government may freeze wages for a given period of time in order to reduce inflation.

Price control policy

The government can adopt price control measures to prevent further rise in prices and thereby help to control inflation. In order to control inflation, the government establishes a price ceiling. In Tanzania for instance prices of essential items like fuel and electricity are regulated to avoid a rise in the price.

Production promotion policy

Measures such as the provision of subsidies and technical support to promote large scale production can be adopted to curb inflation in the economy. An increase in production would help to increase supply and thereby result into a fall in price of goods and services.

External trade policy

In case there is short supply of essential items such as food stuff and fuel, the

MACROECONOMICS FORM 5&6 (2022).indd 111 07/03/2022 16:20

government can ban or discourage export and encourage imports of essential items which are in short supply. This will help to ensure sufficient supply of goods within the country and thus, this will lower the prices of such items and help to reduce inflation. Additionally, the government can prohibit the importation of high-priced goods such as those from countries affected by inflation.

Impacts of inflation

The impacts of inflation can be positive or negative, however, most of the impacts are negative and the positive ones are experienced if the rate of inflation is very low arguably less than 5 percent per annum.

Positive impacts of inflation (experienced if inflation is moderate)

Inflation induces people's expectation that prices of commodities will continue to rise. When consumer prices rise, people purchase more goods in the current period to avoid buying at high prices in the future. This leads to increase in demand which stimulates production. On the other hand, when producers have expectations that prices of commodities will continue to rise, they are motivated to increase investment and production in order to maximise profits. The overall impact is an increase in income, employment and booming of the economy.

Negative impacts of inflation

As stated in the previous section, inflation rate of more than 5 percent per annum is harmful to the economy. Some negative impacts of inflation to the economy are as follows:

Inflation discourages saving and investment: Inflation discourages entrepreneurs to invest because of the high risk of losing returns in the future. Uncertainty about the future purchasing power of money discourages investment and savings. Also, because of high rate of inflation, may be discouraged to invest in the country, thus leading into fall in foreign direct investment.

Inflation also results in black marketing: Sellers may stock up the goods to be sold in the future anticipating for further price rise. This leads to development of informal black markets as consumers search for goods and sellers hide the goods expecting to sell to high price bidders.

The effect of inflation is felt on the distribution of income and wealth: The majority of people lose incomes during inflation while some few gain incomes out of inflation. The following are groups of individuals and respective impacts of inflation on their incomes;

People on fixed income or wage earners: Those people who depend on wages, pension, house- rent and previous saving experience a decline in their purchasing

MACROECONOMICS FORM 5&6 (2022).indd 112 07/03/2022 16:20

power and consequently their standard of living goes down. However, people with variable incomes such as industrialists, businessmen and share-holders benefit or experience less impact of inflation because their incomes may increase during inflation.

Welfare reduction: Most of business communities, such as producers, business people, entrepreneurs and speculators earn high profits during inflation because they tend to increase the prices of goods more than increase in the cost of production. The impact of this tendency is a decrease in welfare of the society.

Low-income earners: Low-income earners suffer because inflation reduces the purchasing power of money and increase the cost of living that makes difficult for low-income earners to afford their basic needs.

Lenders: Lenders lose money during inflation because inflation reduces the value of money and interest paid back.

Savers: Savers lose in the same way as the lenders do, the value of saved money is depleted by inflation.

Farmers and/or peasants: Famers and peasants are severely hit by inflation because the prices of agricultural products tend to increase at lower rate than the prices of other products like manufactured goods.

Inflation discourages production: High inflation rate leads to an increase in production cost by inflating prices of factors of production making it difficult for the producers to produce effectively. This further, leads to a fall in output produced in the economy and increase in price.

Inflation leads to unfavourable balance of payment: If inflation rate is higher than that of other countries domestic products become less competitive. As a result, inflation will increase imports and reduce exports leading to a deficit in the balance of payments.

Inflation may lead to higher income tax rates on taxpayers: Government incurs high fiscal deficit due to decreased value of tax collections. In order to cover its expenses, the government may increase the tax rates and thereby result in high tax burden to taxpayers.



Activity 4.3

1. Read different materials about the economy of Tanzania from different sources such as the library, magazines and websites, then:
   (a) Describe the types of inflation experienced in Tanzania according to their magnitude;
   (b) Analyse the effects of inflation in the economy of Tanzania; and

MACROECONOMICS FORM 5&6 (2022).indd 113 07/03/2022 16:20

(c) Recommend policy measures to be undertaken by the government to control inflation in Tanzania.

2. Recall activity 4.2, then compute the inflation rate for the two years. Based on the inflation figures obtained, explain the type of inflation and suggest necessary control measures.

Exercise 4.4

1. Inflation can be categorised according to its magnitude and causes. Explain.
2. Inflation is always harmful to the society. Discuss.
3. How will the government use contractionary fiscal and monetary policies to control inflation?
4. Suppose the economy is experiencing a sharp rise in the inflation rate:
   (a) What change in the bank rate policy would you recommend to control inflation?
   (b) What impact would your recommendation cause on: the credit creation of the banking system; the interest rates; investment spending; aggregate demand; and the inflation?

Deflation

Deflation is the persistent fall in the average level of prices in the economy. A slight fall in prices may increase consumer spending which stimulates the long-run aggregate supply. On the other hand, a broad decrease in price results into a decrease in real output. A decrease in real output implies that the level of unemployment rises as firms need fewer workers if there is less demand. Figure 4.10 illustrates demand-side deflation resulting from a fall in the demand from AD_1 to AD_2 and supply-side deflation resulting from a fall in the supply from AS_1 to AS_2. The general price level has fallen from P_1 to P_2.

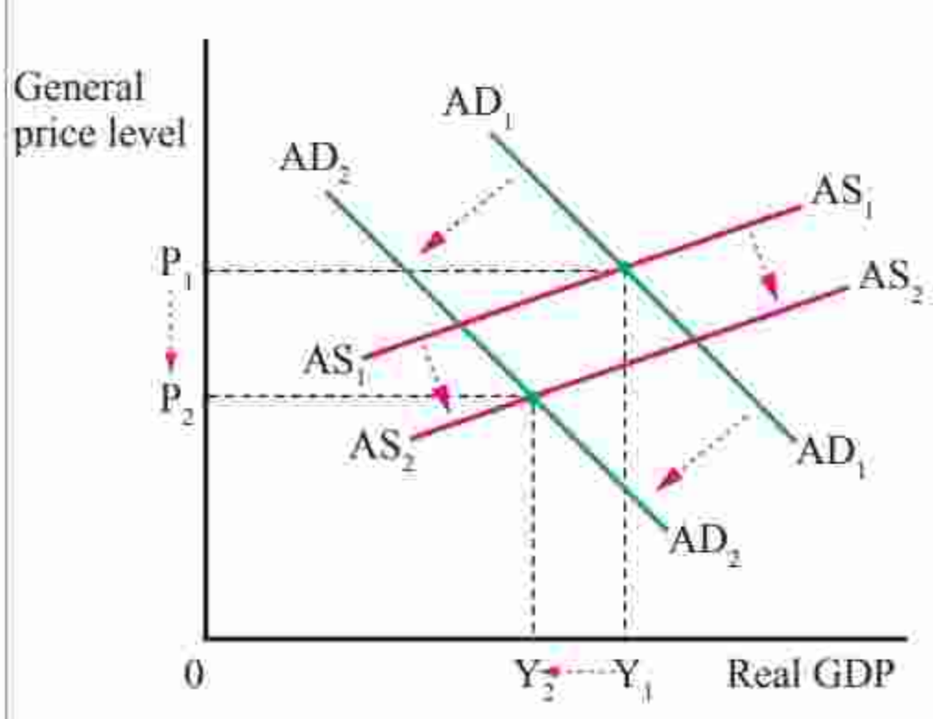


Figure 4.10: *Deflation*

Causes of deflation

Deflation is caused by factors that reduce aggregate demand or leads to excessive supply of goods in the market. The following are some causes of deflation:

Excessive supply of commodities in the market: Excessive increase in the supply of goods and services while

MACROECONOMICS FORM 5&6 (2022).indd 114 07/03/2022 16:20

the demand is low results into a fall in prices (deflation).

Ineffective aggregate demand in the economy: When the demand is ineffective or low, prices for most of goods and services fall and cause deflation.

Fall in government expenditure: When government spending decreases aggregate demand falls as well and people's income decreases. If this happens, it may hinder producers from producing more goods since the consumer's purchasing power would have decreased leading to a fall in prices of goods.

High income taxes: High income taxes reduce people's disposable income, thus reduce their ability to purchase goods and services, this results into fall in the demand and, consequently, a fall in prices.

Decrease in money supply: Low supply of money in the economy causes a fall in the demand. A decrease in money supply reduces consumer spending. Such a decrease in money supply causes a decrease in aggregate demand and consequent a fall in prices.

Unemployment: High rate of unemployment implies that the majority of people in the economy are actually not earning income; and they depend on those who are working to sustain their living. Such rate of unemployment reduces the total demand in the economy and result into a fall in prices.

Effects of deflation

The following are the costs of deflation:

Unemployment: If aggregate demand is low, businesses are likely to lay off workers. Moreover, if prices are falling consumers put off the purchase of any durable goods as they want to wait until prices drop further (deferred consumption). Consequently, this leads to further fall in aggregate demand.

Fall in investment: Deflation causes businesses to make less profit or even losse which reduces confidence among investors and leads to reduced investment. Consequently, low investment would have some negative implications for future economic growth.

Fall in production: If deflation resulted from the demand side, it would cause a fall in real output because producers produce less when demand is low. A fall in real output implies that the level of unemployment rises as firms need fewer workers if there is less demand.

Debtors or borrowers suffer: Anyone who would have taken a loan (including home owners who had taken a mortgage to buy a home) would suffer since the value of debt would rise. Furthermore, businesses would struggle or fail to pay back loans because of low profits. This struggle or failure may lead to bankruptcy.

MACROECONOMICS FORM 5&6 (2022).indd 115 07/03/2022 16:20

Lead to fall in confidence and saving: Falling asset prices caused by price deflation in the housing market hits personal sector; wealth and confidence and thereby result into a fall in saving, and would drive investors away from a country.

Economic policy measures to control price deflation

Governments can use several measures or approaches to avoid deflation. Governments can avoid deflation through the use of macro-stimulus policies either by loosening the monetary policy and/or the fiscal policy. The following policies may be used by governments to control deflation:

Expansionary monetary policy: This policy involves controlling deflation by increasing money supply in the economy. An increase in money supply helps to stimulate demand for goods and services in the economy. The increase in the demand causes a rise in prices which in turn, reduces deflation. Through expansionary monetary policy the governments may buy securities in the open market operation so as to increase the amount of money in circulation. The governments can also reduce bank rates to induce a rise in interest rates which will stimulate investments.

Expansionary fiscal policy: This measure involves controlling deflation by changing government expenditure and taxes to raise demand and prices. Increasing government spending in building infrastructures for instance, will reduce deflation because people would get employment and rouse income. Similarly, reducing direct taxes would increase disposable income of employees which increase the purchasing power of the people and, hence, increase in spending.

Other policy measures to stimulate aggregate demand are high taxes on savings to encourage consumption, price control to prevent further fall in price and increasing wages to stimulate further rise in demand.



Activity 4.4

Study (from different sources) the measures adopted by different governments to control deflation, and then answer the following questions:

(a) What are the suggested measures to stimulate aggregate demand during deflation?

(b) Which of the measures can be suitable in controlling deflation in Tanzania (if it happens)? Provide reasons; and

(c) Share your responses with your fellow classmates.

MACROECONOMICS FORM 5&6 (2022).indd 116 07/03/2022 16:20

Chapter summary

1. Money is an asset commonly used by the people to purchase goods and services.
2. The evolution of money started with barter exchange system where items for items were exchanged. It later failed mainly due to lack of double coincidence. This led to the emergence of commodity money were by a certain commodity served as money. Then metallic money such as gold coins and copper. Followed by paper money, credit money and electronic money which are commonly used today.
3. Money performs four main functions. Money serves as a medium of exchange, a store of value, a unit of account, and a standard of deferred payment.
4. The value of money can be measured through its demand and supply. According to Keynes liquidity preference theory people demand money for transaction, precautionary and speculative motives.
5. The quantity theory of money explains that the general price level of goods and services increase as the amount of money supplied in the economy increases.
6. The consumer price index is a statistical indicator that guides businessmen and investors in the production process as it determines the rate of inflation and deflation. This is through measuring the changes of prices of basket goods consumed by households.
7. Inflation is the persistent increase in the general price level of goods and services in the market, while deflation is a general decrease in the average price level of goods which results in a decrease in real output.
8. To control inflation the government adopts the contractionary fiscal and monetary policies and other direct measures.

MACROECONOMICS FORM 5&6 (2022).indd 117 07/03/2022 16:20

Revision exercise

1. Briefly define the following terminologies and provide relevant examples:
   (a) Barter trade;
   (b) Money supply;
   (c) Consumer price index (CPI);
   (d) Deflation; and
   (e) Liquidity.

2. With the aid of a diagram, elaborate the equilibrium of money demand and supply.

3. The *Utandawazi* family consume three (3) goods: laptops, mobile phones and watches. The following table shows the prices and quantities produced of these goods in 2016, 2017 and 2018.

Goods	2016		2017		2018	
	Price (Tshs)'000	Quantity (Units)	Price (Tshs)'000	Quantity (Units)	Price (Tshs)'000	Quantity (Units)
Laptop	600	20	700	10	750	30
Mobile phone	300	30	300	50	420	30
Watch	100	30	200	40	300	50

   (a) Using the given market bundle for a typical family, compute the consumer price index (CPI) for each of the three years, using 2016 as the base year;
   (b) Using the consumer price index (CPI) computed in (a), compute the rate of inflation from 2017 to 2018;
   (c) Compute the consumer price index for each of the three years using 2017 as the base year;
   (d) Using the CPI computed in (c), what was the inflation rate from 2017 to 2018? and
   (e) Is there any difference between the inflation rate computed in (b) and (d)? Explain your answer.

4. Explain the usefulness of contractionary monetary policy and fiscal policy in controlling inflation.
5. Briefly explain the concept of deflation with an illustration.
6. Define money supply with respect to its measures.
7. During inflation all income earners suffer. Discuss with vivid examples.
8. Critically examine the quantity theory of money.

MACROECONOMICS FORM 5&6 (2022).indd 118 07/03/2022 16:20

Chapter Five

Financial institutions

Introduction

As a student of economics, have you ever asked yourself how the modern economy would be without financial institutions? Do financial institutions contribute to economic development in Tanzania? In this chapter, you will learn about the concept of financial institutions, roles of the financial institutions, types of financial institutions and credit creation process. The competencies developed will enable you to identify different services offered by financial institutions and utilise them in daily financial decisions that you will be facing.

The concept of financial institutions

Financial institutions are agents that channel funds from savers to borrowers. These institutions are sometimes known as financial intermediaries, because they act as middle persons to channel funds from those with surplus (savers) to those in need (borrowers). In a nutshell, financial institutions exist to provide a variety of deposits, lending and investment products to individuals, businesses or both. Financial institutions are categorised under five subsectors namely: banking, capital markets, insurance, microfinance and social security.

Roles of financial institutions

Financial institutions play crucial roles in the economy through inducing increased productivity and improving peoples' standards of living. For example, in the absence of financial institutions, if you save Tshs 100,000 you will earn no return on this, it is the same as putting the money under your mattress. However, if a carpenter borrows this money with an interest rate and uses it to buy a new machine, his productivity will increase. In addition, the interest rate that you will receive for lending the money will increase your income and bring further improvement to your standard of living. Financial institutions are critical for producing an efficient

allocation of capital by allowing funds to move from people who lack productive investment to people who have productive investment.

The following are other roles of financial institutions:

Lowering transaction costs: Financial institutions take advantage of economies of scale by providing huge loans at the lowest possible interest rates compared to individual lenders. This action enables borrowers and savers to benefit from the presence of these financial institutions. The interest rates offered by an individual and those offered by the banks are quite different. Banks have low interest rates compared to individuals.

Sharing risks: By pooling a large number of borrowers and savers, financial institutions reduce the risk of losing financial resources in the case of a borrower defaults in paying the loan. By distributing funds across multiple investments and loans, financial institutions help people to share the risk of getting losses. Loans are beneficial to individuals and countries. Access to loans often assists countries to purchase commodities timely and spend more money than they could spend in the absence of financial institutions.

Channel funds to investors with the most productive investment opportunities: In order to screen out good debtors from bad debtors in the absence of financial institutions, the lender will need more information about the quality of the borrower. As a result, it will be difficult for lenders to channel funds to borrowers with the most productive investment. But through financial institutions, the lenders could just deposit their money in a financial institution and the same institution has the capacity to screen out the good and bad borrowers, and thus, channelling funds to most productive investment.

Efficient allocation of savings: Potential investors get funds only if the economy has a well-functioning financial institution. Despite the high savings, an economy may not progress if saving is not directed to its best uses, thus, financial institutions play this role.

Increasing the level of economic growth: The level of economic growth of a country depends on the rate of savings and investment. Vibrant financial institutions attract more people to save, which eventually leads to the availability of more funds for more investment. With adequate saving, companies may construct factories and use new technologies. This move would increase productivity, more profits and better wages for workers. Differences in saving rates help to explain why some countries grow faster than others.

Improving standard of living: When funds flow from savers to investors and funds are used in viable projects, the economy becomes productive and therefore, increases economic growth. If

MACROECONOMICS FORM 5&6 (2022).indd 120 07/03/2022 16:20

real gross domestic product for a country rises, production of goods and services will increase as well as consumption. Therefore, the standard of living increases with the level of economic growth.

Exercise 5.1

1. What is a financial institution? Give examples.
2. Why do you think it is acceptable to call financial institutions "financial intermediaries"?
3. The provision of saving services is not the only role of financial institutions, Discuss.

Types of financial institutions

Financial institutions are generally classified based on how they perform intermediary functions. As such, financial institutions are classified into banks and non-banks financial institutions.

Bank and non-bank financial institutions

Bank financial institutions: Banks are financial institutions that accept deposits and issue loans. These are government authorised financial institutions that provide banking services to the general public and government. The banking services include issuing money in various forms, accepting deposits, lending money, processing transactions and credit creation. Banks include central banks, commercial banks, saving and loan associations, mutual funds, trust funds, credit unions, saving banks, development banks, community banks, and cooperative banks.

Non-bank financial institutions: These are financial institutions which provide financial services but do not hold a banking license. These institutions do not accept deposits from the public. They facilitate alternative financial services, such as investment, risk sharing, transfer of assets and capital pooling. Examples of non-bank financial institutions include security markets, contractual saving associations such as insurance companies, and pension funds. Thus, non-bank financial institutions provide services that are not necessarily suited to banks and serve as competitors to banks.

Differences between bank and non-bank financial institutions

The following are the key differences between bank and non-bank financial institutions:

(a) Banks operate different accounts such as current accounts, saving accounts and fixed accounts for their customers; but non-banks do not operate accounts for their customers;

(b) Banks accept demand deposits which are repayable on demand; but non-banks do not;

(c) Banks facilitate the payment and settlement cycle; while non-banks are not part of that system;

(d) It is mandatory for banks to maintain reserves; but non-banks are not required to do that;

(e) Most of the banks, especially commercial banks are established to generate profit; whereas most of the non-banks are established to provide social security to the public or customers;

(f) Banks use persuasion and advertisement to induce people to save money, thus saving is voluntary; while mobilisation of saving by non-banks is compulsory or contractual;

(g) Banks operate accounts with central banks; while non-banks intermediaries do not operate accounts with central banks;

(h) Some deposits of customers in the commercial banks do not receive interest, for example current account deposits; but all deposits with the non-banks get interests; and

(i) Banks operate the cheque facility which makes them members of the central bank clearing houses; while non-bank financial institutions are not members of central bank clearing houses.

Types of banks

The following are the types of banks:

The central bank

The central bank is a monetary authority responsible for controlling monetary policy and managing the currency of its country or a group of member states. To ensure stability of the financial institutions, central banks have the mandate to supervise and regulate other financial institutions. Examples of central banks are the Bank of Tanzania (BOT) in Tanzania, Central Bank of Kenya (CBK) in Kenya, the European Central Bank (ECB) in the Euro Zone, and the Federal Reserve System (FRS) in the United States of America. Almost every country in the world has a central bank. A central bank is a nation's primary monetary authority responsible for regulating all money related problems in the country.

Functions of a central bank

The central bank generally performs the following functions:

To issue currencies: All currencies in the circulation are issued by the central bank. The central bank has the mandate to issue the notes and coins in a respective country. For instance, BOT is the issuer of currency in Tanzania. Printing notes and minting of coins is the primary function of the central bank and thus, the central bank becomes unlimited legal tender throughout the country.

Banker, agent and adviser to the government: The central bank functions as a banker, agent and financial adviser to the government;

MACROECONOMICS FORM 5&6 (2022).indd 122 07/03/2022 16:20

(a) Central bank as a banker to the government, performs the same functions for the government as a commercial bank performs for its customers. It maintains the accounts of the central and local government, receives deposits from government, makes short-term advances to the government, collects cheques and drafts deposited in the government account and provides foreign exchange resources to the government for servicing external debts or purchasing foreign goods.

(b) Central bank as an agent to the government, performs the following functions: buys and sells financial securities to the public, borrows from foreign countries and international agencies, manages public debt and represents the government in the international financial institutions and conferences.

(c) Central bank as a financial adviser to the government, gives advice to the government on economic, monetary, financial and fiscal matters such as deficit financing, devaluation, trade policy and foreign exchange policy among others.

Bankers' bank: The central bank acts as the bankers' bank in three capacities:

(a) *The custodian of the cash reserves of the commercial banks*: The central bank is the keeper of cash reserves of commercial banks. All commercial banks must keep a certain percentage of its cash balances as deposits with the central banks (reserve requirement). These cash reserves can be utilised by the commercial banks in times of emergency. This helps to promote confidence of the public in the banking system of the country;

(b) *The lender of last resort*: In case the commercial banks are not able to meet their financial requirements from other sources, they can approach the central bank for financial accommodation. The central bank provides financial accommodation to the commercial banks by rediscounting their eligible securities and exchange bills. In other words, the central bank provides financial help to the commercial banks in times of emergency;

(c) *The central clearing agent or house*: The fact that banks have their accounts with the central bank, the central bank is responsible for settlement of claims of various banks against each other.

The clearing house function of the central bank has the following advantages:

(i) *Controller of credit*: That is, the central bank controls money in circulation. The other most important function of the central bank is to control the credit creation power

of commercial banks so as to control inflationary and deflationary pressures within the economy.

(ii) *Custody and management of foreign exchange reserves*: The central bank is the keeper and manager of foreign exchange reserves of the country. It is the official custodian of gold and foreign currencies. It is responsible for all sales of gold to other countries' monetary authorities. It is also responsible for buying and selling of foreign currencies. Furthermore, for country with fixed exchange rate regime central bank fixes the exchange rates of the domestic currency in terms of foreign currencies. It is the responsibility of the central bank to hold these rates within acceptable limits to bring about stability in foreign exchange rates.

Contribution of the Bank of Tanzania (BOT) to economic development

The BOT performs the following roles to ensure economic development:

(a) Ensures the proper functioning of the financial institutions;

(b) Solves the balance of payment problems;

(c) Controls credits and provide financial assistance to commercial banks;

(d) Provides financial assistance to the government; and

(e) Provides employment opportunities.

Commercial banks

These are financial institutions which raise funds by accepting deposits. They use these funds to advance loans to individuals, institutions and business. They also buy securities and bonds. Typical examples of commercial banks in Tanzania are CRDB bank, NMB bank, NBC bank and Exim bank. The primary objective of the commercial banks is to maximise profits. The main source of funds for commercial banks is deposits, service/bank charges, and interest rates charged on loans and profits from trading securities.

Functions of commercial banks

Commercial banks perform the following functions:

Accepting deposits: The most important function of commercial banks is to accept deposits through the following accounts:

(a) Current account deposits (or demand deposits) are deposits which are repayable by the banks on demand. Drawings from these accounts are made without any restrictions. These accounts do not carry any interest, but banks impose service charges for running the accounts. Current accounts provide cheque facilities.

MACROECONOMICS FORM 5&6 (2022).indd 124 07/03/2022 16:20

(b) Fixed deposits or time deposits are deposits for which an amount is deposited with the bank for a fixed period of time. Fixed deposits do not enjoy checkable facility and banks pay an interest to these deposits. Table 5.1 describes the difference between current account deposits and fixed deposit.

(c) Saving deposits are deposits which combine features of both current and fixed accounts. A cheque book is given to account holders for withdrawing money from their accounts with some restrictions on the number and amount of withdraws to discourage frequent use of saving deposits. The interest rate charged on saving deposit is less than interest rate on fixed deposits. These are deposits which are suitable for individual households who want to save.

Table 5.1: Differences between current account deposits and fixed deposits

Current account deposits	Fixed deposits
They are chequeable deposits.	They are non-chequeable deposits.
They do not pay any interest.	They pay interest which varies directly with the period of time
The depositor can make any number of transactions for deposit or withdraw of money.	Depositor generally makes only two transactions: (a) Deposit of money in the beginning; and (b) Withdrawal of money on maturity.

Advancing loans: Commercial banks accept deposits of which certain percent is kept as required reserves and the remaining is used to issue loans to borrowers. The interest rate is charged from the loans to generate income for commercial banks. Loans are of different types as follows:

(a) *Cash credit*: This is a loan given to the borrower based on their current assets like shares, stocks, bonds, and others. A credit limit is authorised and the loan amount is credited to the borrower's account. Any amount within the credit limit can be drawn by the borrower and interest is charged on the amount actually withdrawn;

(b) *Demand or call loans*: These are loans which can be required to be paid back on demand by the bank at any time. The entire sum of demand loan is credited to the account and interest is charged on the entire sum;

(c) *Term loans*: This is simply a loan provided for business purposes that needs to be paid back within a specified time frame. It carries

MACROECONOMICS FORM 5&6 (2022).indd 125 07/03/2022 16:20

a fixed interest rate, monthly or quarterly repayment schedule and includes a set of maturity date. Term loans can be both secured (that is some collateral is provided) and unsecured. A secured term loan usually has a lower interest rate than an unsecured one. Depending upon the repayment period, this loan type is classified as short term loan with repayment period less than one year, medium term loan with repayment period between one to three years and long term loan with repayment period above three years;

(d) *Overdraft facility*: This is a loan facility in which a current account holder is allowed to overdraw up to an agreed limit. This service is normally given to some respectable and reliable customers for a short period. Borrowers must pay interest to the bank on the amount overdrawn;

(e) *Letter of credit*: A letter of credit is a document issued by a financial institution assuring payment to a seller. This facility ensures the payment will be made as long as the services are performed (usually the dispatch of goods). Thus, a letter of credit serves as a guarantee to the sellers that they will be paid as agreed. It is often used in international trade financing when goods are sold to customers overseas or when the trading parties are not well known to each other; and

(f) *Discounting bills of exchange*: A holder of a bill of exchange can get the bill discounted with the bank before the maturity. The bank deducts its commission before paying the balance to the holder. On maturity, the bank gets its payment from the party which had accepted the bill. It is normally used in international trade to direct one party to pay a certain fixed amount to another party in a given time. A sample of bill of exchange is shown in Figure 5.1.

Sample Format - Bill of Exchange

Amount in Tshs 2,000,000 Place, Date

Stamp

60 days after the date, pay Mr. ABC a sum of Tshs 2,000,000 for value received

Accepted (signed)
Drawee's Name
Drawee's Address

Drawer (signed)
Drawee's Address

Figure 5.1: *A sample of a bill of exchange*

MACROECONOMICS FORM 5&6 (2022).indd 126 07/03/2022 16:20

Agency functions: Commercial banks provide agency functions for their customers. They charge some commission from their clients. The agency functions of commercial banks are as follows:

(a) *Transfer of funds*: Commercial banks provide the most effective and easy way of remitting funds from place to place with the help of instruments like demand drafts and mail transfers;

(b) *Standing order payment and receipts*: Commercial banks collect cheques, bills, interest, dividends, subscriptions, rents and other periodical receipts on behalf of their customers. The banks also make payments like taxes and insurance premium on standing instructions of their clients;

(c) *Purchase and sale of foreign currency*: Commercial banks are authorised by central banks to trade foreign currency. They buy and sell foreign currency on behalf of their customers and help in facilitating international trade;

(d) *Trading of securities*: Commercial banks buy and sell stocks and shares of private companies and government securities on behalf of their customers;

(e) *Income tax consultancy*: Some commercial banks give advice to their customers on matters relating to income tax and even prepare their income tax returns;

(f) *Commercial banks as trustees and executors to their customers:* This is through preserving the wills of their customers as trustees and execute them after their death as executors; and

(g) *Letters of reference:* Commercial banks give information about the economic position of their customers to traders and provide similar information about other traders to their customers.

Provision of general utility services: There several general utility services that commercial banks offer such as;

(a) *Issuing traveller's cheque*: Commercial banks issue traveller's cheques to their customers, especially those travelling abroad to avoid risk of carrying cash during their journey;

(b) *Offering locker facilities*: Commercial banks offer safe deposit locker services to their customer to keep valuables such as jewellery or important documents.

(c) *Issuing debit cards and credit cards*: Commercial banks offer debit cards and credit cards to their customers.

(d) *Underwriting securities*: Commercial banks perform security underwriting tasks for their customers. The public has full faith in the credit worthiness of banks, thus do not hesitate in buying the securities underwritten by banks; and

MACROECONOMICS FORM 5&6 (2022).indd 127 07/03/2022 16:20

(e) *Collection and maintenance of statistics*: Banks collect and publish statistics relating to trade, commerce and industry. They advise customers on financial matters.

Roles of commercial banks in economic development of a country

Commercial banks play a great role of promoting economic development of a nation. The following are the roles of commercial banks in the economy:

Capital formation: Banks perform an important role in capital formation, which is vital for economic development of a country. Commercial banks mobilise savings and make funds available for productive purposes. Banks perform this role by attracting and persuading people to save their money with the banks and bring the saved money to the organised money market for investors who lack capital to borrow and invest. If the banks do not perform this function, savings would remain idle or be used in creating non-priority assets.

Creation of money: This is the process by which money supply of a country is created. Money is created when banks issue loans or credit for the purpose of providing more funds for productive investment opportunities and consumption. The process of credit creation in banking system leads to an increase in the money supply and stimulates the level of economic activity leading to increased production, employment, sales and prices, and promotes economic development.

Ensure full utilisation of resources: Banks help to pool savings together and use it to promote the utilisation of resources for the development of various regions in the country. The resources or funds pooled by the commercial banks are utilised to a great extent compared to non-pooled resources.

Promote development of priority sectors or industries: The banks help in the development of the right type of industries by extending loans to the right persons or industries. They grant loans and advances to projects or industries whose products are of great demand. This role helps industries to increase their products by enlarging scales of production and introducing advanced production techniques, thereby raising the national income of the country.

Commercial banks help in the stabilisation of the economy by helping the implementation of monetary policy: Commercial banks help to implement the instruments of a monetary policy for stabilising the economy. Some instruments of monetary policy include; changing the interest rates as per bank rate, selective credit controls and open market operation.

MACROECONOMICS FORM 5&6 (2022).indd 128 07/03/2022 16:20

Some commercial banks provide finance to governments: Banks invest their funds in government through purchase of bonds and treasury bills. They provide long-term and short-term credits to governments.

Commercial banks provide employment opportunities (bank as employers): Commercial banks employ a wide range of persons with a broad range of educational background and expertise.

Differences between central banks and commercial banks

Central banks differ from commercial banks in the following ways:

(a) Central banks are the top institutions of the monetary and banking systems of the countries. On the other hand, commercial banks are the organs of the money market;

(b) Central banks are institutions which implement the monetary policies of respective governments. They are not for profit; whereas commercial banks are profit-making financial institutions;

(c) Central banks are under government ownership and control; while commercial banks are owned by shareholders;

(d) Central banks are bankers to governments and do not participate in ordinary banking activities; while commercial banks are bankers to the general public;

(e) The central bank is the only organ in the country with the monopoly power to issue notes and coins; while a commercial bank issues only cheques;

(f) Central banks are the banks for all other banks. Central banks grant accommodation to commercial banks in the form of rediscount facilities, keep their cash reserves, and clear their balances; while commercial banks advance loans to and accepts deposits from the general public;

(g) Central banks control credit operations according to the needs of business and the economy; while commercial banks create credit to meet customer's demand;

(h) Each country has one central bank with its offices in important regions of the country; while, there may be many commercial banks with multiple branches within and outside the country;

(i) Central banks are the custodians of the foreign currency reserves of the country; while commercial banks are dealers of foreign currency exchange;

(j) The heads of central banks are known as "Governors"; while the heads of commercial banks are called 'Managing Directors'; and

(k) Central banks assist in establishing financial institutions to strengthen money and capital markets of respective countries; while

MACROECONOMICS FORM 5&6 (2022).indd 129 07/03/2022 16:20

commercial banks facilitate the underwriting of shares and debentures, and agriculture by meeting their financial requirements through cooperatives or individual settings.

Saving banks

These are depository institutions that serve a certain local community. They accept deposits from local residents and provide loans in the form of consumer loans, mortgages and small business loans. In Tanzania, the best example of saving banks includes the Kilimanjaro Cooperative Bank Limited, Mwanga Hakika Microfinance Bank Limited, Mufindi Community Bank (MUCOBA) and Tandahimba Community Bank Ltd.

Credit unions

These are depository institutions which are non-profit oriented. These financial institutions are owned by people belonging to a particular occupation (employees of certain institution or firm) or belongs to a certain religion or live in a certain specific area such as a ward or district. Since the credit unions are not profit-oriented and are owned by members, they charge low interest rates on loans and pay high rate of return on savings though this aspect of high rate of return on savings is impractical in Tanzania. Good examples of credit unions in Tanzania are Service and Credit Cooperative Societies (SACCOS) and Village Community Based Associations (VICOBA).

Development banks

These are government owned institutions whose priority is to fund new and upcoming businesses which facilitate growth and development in all areas of the economy. These institutions do not accept deposits; instead, they facilitate individuals, businesses and governments to acquire capital through the issuing of securities. Development banks issue loans either directly or through the Approved Financial Institutions (AFIs). Unlike depository institutions, the main function of development banks include, directing or managing funds on behalf of other persons. Development banks assist their customers in raising capital by acting as agents in the issuance of securities such as stocks and bonds. Examples of development banks include the Tanzania Agricultural Development Bank Limited (TADB) and TIB Development Bank Ltd (formerly Tanzania Investment Bank (TIB)) which later changed its functions to include other functions of commercial banks.

Specialised banks

These are banks mainly specialising in financing specific type of economic activities such as agricultural activities or industrial activities or specific economic sectors such as agricultural sector or industrial sector. They are established to contribute to the development of certain specific sectors. Specialised banks have the following characteristics; do not accept deposits, and thus, do not depend on deposit to raise funds, established to implement government policies, depend

MACROECONOMICS FORM 5&6 (2022).indd 130 07/03/2022 16:20

on capital from the government and through issuing bonds to raise funds and are designed to implement specific developments. Tanzania Agricultural Development Bank (TADB) is a good example of a specialised bank in Tanzania. The specialised banks perform the following functions:

Provide funds in specific sectors: Specialised banks provide loans with relatively long repayment periods and resources are employed in the long term. This differs from commercial banks where in most cases, loans are governed by funds deposited by their customers.

Provide assistance to investors in the form of both financial and technical support: The specialised banks assist investors with technical and financial assistance in related sectors of specialisation. For example, if the investment is specialised in agriculture sector, the banks would provide technical assistance in the agriculture sector.

Assist government to implement financial policies related to specific sectors: For example, financial policies related to agriculture or industry.

Promote development of capital markets: They encourage prospective borrowers especially those who need to register in stock markets such as the Dar es Salaam stock exchange. This increases the number of participants in the capital markets and rises the level of investment.

Help governments to supervise investment projects that are financed by governments: The specialised banks ensure that investment projects financed by the government are carried out as planned and are of good quality.

Features of specialised banks

The following are the features of specialised banks:

(a) They do not rely on financial resources from the deposits of individuals or institutions as it is for commercial banks. Specialised banks depend on the capital and issued bonds;

(b) The scope of their activities is limited only to the specialised ones and cannot expand into several other activities;

(c) Specialised banks are there to finance specific economic sector or certain activity in the economy. For instance, Tanzania Agricultural Development Bank (TADB) is specialised in financing the agricultural sector;

(d) The main objective is to promote and achieve economic and social development for a specific sector of the economy; and

(e) A specialised bank is not a profit-oriented bank that is why in most cases it is a state-owned bank.

MACROECONOMICS FORM 5&6 (2022).indd 131 07/03/2022 16:20

Non-bank financial institutions

Non-bank financial institutions are financial institutions that do not have full banking licenses and cannot accept deposits from the public. However, they do facilitate alternative financial services such as investment, financial consulting, money transmission, and risk pooling. There are various types of non-bank financial institutions. The following are the types of non-bank financial institutions:

Contractual savings institutions: These are financial institutions that raise funds on contractual basis at a certain periodic interval. They use the funds to invest on long term securities such as stocks, mortgages and bonds. Examples of contractual saving institutions include pension funds and insurance companies.

(a) Pension funds: These are non-bank financial institutions which provide benefits to its members through the provision of retirement income in the form of allowances to employees who qualify to be paid by a pension fund. The Pension fund raise funds through contributions from employees and employers. They use the funds to invest on long term investments such as bonds and stocks. Examples of pension funds in Tanzania are Public Service Social Security Fund (PSSSF) and National Social Security Fund (NSSF).

(b) Insurance companies: These are non-bank financial institutions which guarantee economic risks associated with death, illness, damage to or loss of property, and other risks of loss. They provide a contingent promise of economic protection in the case of loss. The examples of insurance companies in Tanzania are National Insurance Corporation (NIC), Alliance, Britam, Jubilee and Metropolitan Tanzania. There are two main types of insurance companies: general insurance and life insurance.

(i) *General insurance*: General insurance covers sudden unemployment, illness, and natural disasters. It also tends to be short term.

(ii) *Life insurance*: Life insurance insures against economic loss of the insured premature death. It is a long-term contract ending at the death of the insured.

Mutual and trust funds: These are investment companies which raise money from selling shares or units to shareholders/unitholders and invest these funds by buying stocks, bonds and money market instruments. Example, Unit Trust of Tanzania – Asset Management and Investors Services (UTT-AMIS) which oparates units and Real Investment Trust Funds (RITF).

Stock exchange: The stock exchange is a virtual market where buyers and

MACROECONOMICS FORM 5&6 (2022).indd 132 07/03/2022 16:20

sellers trade in existing securities. It is a market hosted by the institution where the companies registered by the stock exchange board, can buy and sell stocks and shares. A good example of stock exchange in Tanzania is the Dar es Salaam Stock Exchange (DSE).

Roles of non-bank financial institutions

Non-bank financial institutions play a greater role in the economy as follows:

Supplement banks in providing financial services in the country: Non-bank financial institutions complement banks in providing financial services. Banks provide a package (set) of financial services, non-bank financial institutions split these services and specialise in certain related financial services gaining information advantage and provide competition to banks which brings efficiency in financial sector.

Protect the economy from financial shocks and provides a way to recover from these shocks: The presence of multiple non-financial institutions, provide an alternative way of transforming savings into productive investments. In other words, once the primary way of financial intermediation process fails then the non-bank financial institutions provide an alternative form of financial intermediation.

Provide opportunity to investors: Non-bank financial institutions such as credit unions and mutual funds pool up funds in the form of savings and channel these funds to the individuals with more productive investment than it could be in the absence of these institutions.

Provide economic protection in case of loss: Insurance companies like life insurance companies and fire and casualty insurance companies insure people against risks such as illness, death, damage, theft and other losses. The companies provide assurance to individuals to recover financial losses in case risk occurs.

Improves liquidity condition of financial markets: The presence of licensed dealing members that is, brokers and dealers who conduct trade in financial market facilitates transactions of financial assets like bonds, stocks and foreign currency. After receiving the order, brokers-dealers sell the securities from their inventory or buy securities in order to offset losses. This improves the liquidity of financial markets.

Problems facing financial institutions in developing countries

Most of the financial institutions in developing countries like Tanzania face several problems that make them inefficient. The following are problems facing financial institutions in Tanzania:

Weak and underdeveloped financial systems: For financial institutions to perform their basic function of channelling funds to the most productive

MACROECONOMICS FORM 5&6 (2022).indd 133 07/03/2022 16:20

investment projects, they must have a stable and vibrant financial systems. In Tanzania, the financial market is performing less due to lack of competition in financial institutions, few financial assets are traded and inadequate information about financial services is provided by financial institutions. These factors hinder the effectiveness of the financial institutions in Tanzania.

Channelling of funds to unproductive sectors: Governments use financial institutions to channel funds to certain sectors that seem to be important. However, in most cases, the sectors do not perform as expected. Consequently, the funds directed to the sectors identified become unproductive.

Underdeveloped regulatory authorities: For the financial institutions to work efficiently, government regulations are important because they increase the amount of information in the financial institutions. In developing countries, the regulatory authorities are underdeveloped and have weak information systems, which hinder the agents to obtain the right and adequate information regarding operations of the financial institution.

Legal system is not fully operational: The legal system does not provide friendly environment for financial institutions to operate. For example, in most developing countries, the system of property rights, rule of law is not well functioning. Nonetheless, slow bankruptcy procedure hinders the allocation of funds to be channelled to productive investment.

Activity 5.1

Visit the library and read various sources on financial institutions in Tanzania. Then, do the following:

(a) Identify financial institutions existing in Tanzania;

(b) Categorise the financial institutions in part (a) according to their types;

(c) Compare and contrast the categories of financial institutions in part (b); and

(d) Share your findings with your fellow students.

Exercise 5.2

1. With examples, explain the main types of financial institutions that exist in Tanzania.
2. What are the basic functions of the commercial banks?
3. How do the central banks differ from other financial institutions?
4. What are specialized banks? Explain the main functions of specialized banks.

MACROECONOMICS FORM 5&6 (2022).indd 134 07/03/2022 16:20

Credit creation in banking system

Credit creation is the process by which banks are able to increase the volume of credit by granting loans. Banks are required by law to retain a certain percent of their deposits as a required reserve and use the excess reserves for lending purposes. Thus, banks use their excess reserve to create loans more times than initial level of excess reserve. This process is called credit creation. In this process whenever a loan is made another deposit is created automatically because loans are advanced in a form of deposit rather than cash. Once a loan is spent, it eventually finds its way back to the banking system as a new deposit. Banks keep the reserve in a form of required reserve and use the rest for lending. This process continues until the whole excess reserve is retained as reserve. Banks operate on reserve rather than total deposits because all depositors do not withdraw their money simultaneously, some withdraw while others deposit at the same time. Credit creation increases the volume of deposit and hence money supply, by doing that it affects the level of economic activity. Since money supply is made up of cash and bank deposits, commercial banks increase money supply through advancing loans to their customers. As the banks advance loans, new deposits are created, causing money supply to expand.

Process of credit creation

In order to understand the process of credit creation, let us assume a hypothetical banking system with excess reserve of Tshs 100,000 in bank "A" and a constant required reserve ratio (reserve deposit ratio) of 20 percent. If we further assume that commercial banks hold no excess reserve, it means that, the entire excess reserve is used to advance loans. In the process, bank "A" will create a loan of Tshs 100,000 to a first person who will deposit his money in bank "B". Bank "B" will keep 20 percent as reserve and advance a loan of Tshs 80,000 to the second borrower. The second borrower will deposit his or her money in bank "C" and the process will continue as shown in the Table 5.2.

Table 5.2: *Credit creation process*

Bank operations	Bank "A" & 1st borrower (Tshs)	Bank "B" & 2nd borrower (Tshs)	Bank "C" & 3rd borrower (Tshs)	Bank "D" & 4th borrower (Tshs)	Bank "E" & 5th borrower (Tshs)
Deposits	-	100,000	80,000	64,000	51,200
Reserve	-	20,000	16,000	12,800	10,240
Excess reserve	100,000	80,000	64,000	51,200	40,960
Loan to 1st, 2nd….	100,000	80,000	64,000	51,200	40,960

MACROECONOMICS FORM 5&6 (2022).indd 135 07/03/2022 16:20

The process will continue until the total excess reserve (amount which was initially advanced by bank "A") disappears in the form of reserves kept by commercial banks. The sum of loans (credit) created by commercial banks can be obtained as follows:

$100{,}000 + 80{,}000 + 64{,}000 + 51{,}200 + 40{,}960 + ... = 500{,}000$

This is the sum to infinite of a geometric progression with the common ratio of 0.8 between two terms. So, one can use the formula for sum to infinite of a geometric progression. The formula is given as,

$$S_{\infty} = \frac{G_1}{1 - r} \quad \text{.....(5.1)}$$

$$\frac{100{,}000}{1 - 0.8} = \frac{100{,}000}{0.2} = 500{,}000$$

Where, $\mathbf{S}_{\infty}$ is the sum to infinite of a geometrics progression, G_1 is the first term of a geometric progression and r, is the ratio between two consecutive terms in a geometric progression.

The same can be obtained by using another formula given as,

$$\text{Credit creation} = \frac{\text{Excess reserve}}{\text{Reserve deposit ratio}} \quad \text{.....(5.2)}$$

Excess reserve is 100,000 and reserve ratio is 20 percent = 20/100 = 0.2

$$\text{Credit creation (loan created)} = \frac{100{,}000}{0.2}$$

Credit creation = Tshs 500,000

Credit multiplier

Credit multiplier refers to the average number of times in which initial deposits are multiplied to give the final change in total credit (loans). It explains how credit is affected by any change in the amount of deposits. It represents the amount of credit that banks generate with each unit of excess reserves. It is represented by the following formula:

$$\text{Credit multiplier} = \frac{1}{\text{Reserve deposit ratio (r)}} \text{ or}$$

$$\text{Credit multiplier} = \frac{\text{Credit created}}{\text{Excess reserve}} \quad \text{.....(5.3)}$$

Using example from previous section which assumes reserve ratio is 20 percent which is 0.2, we can compute the credit multiplier as follows;

$$\text{Credit multiplier} = \frac{1}{0.2} \text{ or } = \frac{500{,}000}{100{,}000}$$

Credit multiplier = 5

MACROECONOMICS FORM 5&6 (2022).indd 136 07/03/2022 16:20

This credit multiplier implies that, for every unit increase of excess reserve, banks create 5 units of credit by granting loans assuming the required reserve deposit ratio is 0.2. That means, change in money supply is 5 times the initial deposit of Tshs 100,000.

Limitations of credit creation

The following are the limitations of credit creation:

High required reserve deposit ratio: High required reserve ratio reduces the credit creation while a low required reserve deposit ratio increases credit creation. This fact can be observed from the formula above (5.3).

Low level of demand for credits: Demand for credits affects credit creation in the banking system, as a result, low level of demand limits the credit creation. For example, during recession, banks create credit to a limited level due to low-level demand for credit facilities.

Low level of saving and investment habits in the society: Low saving limits credit creation, but if the general public has a habit of saving and depositing money in the commercial bank, credit creation will be high.

Hoarding: The habit of holding money in hands rather than depositing it in banks results into low credit creation.

Lack of collateral securities among borrowers: If the borrowers cannot offer better securities to commercial banks, they cannot get loans from commercial banks and thereby limit the creation of credit.



Activity 5.2

Visit any commercial bank at your locality. Find out how credit creation is done in that bank. Then, write a story about the process of credit creation that you have observed.

Chapter summary

1. Financial institutions channel funds from individuals or institutions that do not have productive investment opportunities to those who have them and make the capital more productive.

2. Financial institutions are divided into two types; bank and non-bank financial institutions. Bank financial institutions accept deposits and make loans, while non-bank financial institutions provide alternative financial services, therefore, non-bank institutions act as supplements to banks.

MACROECONOMICS FORM 5&6 (2022).indd 137 07/03/2022 16:20

3. Bank financial institutions include central banks, commercial banks, saving and loans associations, saving banks and credit unions.

4. Central banks are the monetary authorities that have monopoly power to supervise and regulate other financial institutions. Also, central banks have a mandate to issue currency (notes and coins) and control changes of money supply in the economy.

5. Non-bank financial institutions include contractual saving institutions such as life insurance companies, pension funds and fire and casualty insurance companies. Other non-banking financial institutions include stock exchange institutions such as brokerage firms which facilitate the transfer of securities and mutual funds.

6. Even though the development banks are called banks, they do not accept deposits. Their main role is to facilitate individuals, businesses and institutions to acquire capital. If the development bank is concentrated in providing financial services in only one economic activity or only one sector is known as a specialised bank.

7. Specialised banks specialise in financing specific economic sectors or certain activities, for instance, Tanzania Agricultural Development Bank (TADB) finances the agriculture sector. The specialisation enables them to perform better than unspecialised banks.

8. Financial institutions in Tanzania face several problems. Some of the problems include weak and underdeveloped financial systems, channelling of funds in unproductive sectors, underdeveloped regulatory authorities, and low involvement of private sector and the presence of legal systems which are not fully operational.

9. A process by which banks are able to increase the volume of credit by granting loans is known as credit creation.

10. Credit creation occurs when banks use excess reserves to create larger amount of loans. Therefore, the average number of times in which the loans are created using initial excess reserves (deposits) is known as credit multiplier.

MACROECONOMICS FORM 5&6 (2022).indd 138 07/03/2022 16:20

Revision exercise

1. With examples, explain the importance of financial institutions for the well-being of the economy.

2. "In the modern economy, the non-bank financial institutions play similar roles as banking financial institutions". Discuss.

3. Explain the main functions of the commercial banks as one of the financial intermediaries.

4. Explain the difference between central banks and commercial banks.

5. Explain the main roles of the Bank of Tanzania (BOT) as the financial overseer of the economy.

6. Compare and contrast specialised banks and development banks.

7. With examples, explain the advantages of specialised banks in Tanzania.

8. Assume the excess reserve in bank "A" is Tshs 1,000,000 and the required reserve deposit ratio is 10 percent. Suppose the bank "A" issues the loan of Tshs 1,000,000 to Juma and he deposits it to bank "B". Bank "B" uses the one million to issue a loan to Justin, and Justin deposits it to bank "C". Bank "C" issues a loan to Radhia, and Radhia deposits it to bank "D". Bank "D" uses the same to issue a loan to Micaela and Micaela deposits it to bank "E". Using information provided, do the following:
   (a) Compute the amount of credit created from these transactions;
   (b) If the process goes on to all rounds, what amount of credit will be created? and
   (c) Compute the credit multiplier from the above information.

9. Explain the limitations of the credit creation approach in explaining change in credit in the banking system.

10. With examples, discuss the major challenges facing financial institutions in Tanzania.

MACROECONOMICS FORM 5&6 (2022).indd 139 07/03/2022 16:20

Chapter Six

Public finance

Introduction

The government provides public goods and services by spending on things like defence, infrastructures and health services that private sector cannot provide. It finances these expenditures from different sources of revenue. In this chapter, you will learn about the concept of public finance, government revenues, taxation, government expenditures, national budget and public debt. The competencies developed will enable you to analyse sources of government revenue and expenditures for public welfare.

The concept of public finance

Public finance is an important branch of economics which deals with the analysis of the role of governments in the economy. It is the study of government revenues and expenditures in all levels of the government, that is local and central governments. Public finance deals with the role of governments in broad areas of revenues, expenditure, administration and control of public authorities in all levels with a view of achieving desirable effect and avoiding the undesirable ones. Public finance generally influences efforts of governments on the efficient allocation of available resources, distribution of income among citizens and stabilisation of the economy. It involves public revenues, public expenditures, public debt and other government concerns.

Private finance, as opposed to public finance, is the study of revenues, expenditure, borrowing and financial administration of individuals or private entities. Private finance aims at bringing benefits to individual economic units. The extent of availability of finance depends upon the ability of an individual/entity to raise money. Credit limit or loans depends on individual/entity's repayment capacity.

Therefore, the scope of public finance can mainly be divided into public revenues,

MACROECONOMICS FORM 5&6 (2022).indd 140 07/03/2022 16:20

public expenditures, public debt, public (government) budget and public financial administration. Public revenue is public income obtained from various sources such as taxes, fees and fines/penalties. Public expenditure is anything that government actually spends its money on. It includes the spending of the government on health, education, defence and infrastructures. When public revenue is less than the public expenditure, the government borrows from financial markets (internal and external) to fill the gap. The borrowed money constitutes public debt. Public financial administration is the control of the processes and operations of public revenues, public expenditure and public debt.

Role of public finance

Public finance plays an important role in the economy in the following ways:

Maintenance of economic and financial stability: The economic upswings and downswings over time brings instability. Public finance ensures stability in the economy through the formulation and implementation of appropriate fiscal and monetary policies. From time to time, governments change their fiscal and monetary policies to create positive effects and avoid negative effects on national income, production, employment and prices. For example, during boom or prosperity governments stabilise the economies by imposing more direct taxes and increasing the internal public debt and the opposite applies during the recession. Also, governments overcome inflation by reducing indirect taxes and expenditures.

Efficient utilisation of resources: Public finance helps to ensure optimal utilisation of scarce resources. For example, government imposes more taxes on undesirable goods and provides subsidises for production of more desirable goods.

Promotion of economic development: Public finance helps to promote economic development. Government uses fiscal policy to promote economic development by encouraging investment in social and economic infrastructures (capital formation), increasing employment opportunities, reducing balance of payment deficits, controlling inflation, reducing income and wealth inequalities and increasing national income.

Equitable income distribution: Public finance plays significant role in fair distribution of income. The government uses the revenues and expenditures in order to reduce inequalities by imposing more taxes on high-income earners. The money obtained from taxes benefits the low-income earners through subsidies, allowances, and other direct and indirect benefits. The government collects revenue from high-income class to support the low-income class (income re-distribution).

Functions of the government

Governments across the world perform various functions. The functions are as follows:

MACROECONOMICS FORM 5&6 (2022).indd 141 07/03/2022 16:20

Administrative functions: These are the day-to-day activities which governments perform; they include state visits, up keep of the head of the state, and so on.

Protective functions: Governments have to ensure that law and order are maintained in the country. It involves the use of court and police forces.

Defence functions: Governments have to ensure that the boundaries with neighbouring countries are safe. They have to maintain armed forces.

Social functions: Governments have the responsibility of providing and improving social services to the citizens. They have to provide social services such as education, health and sanitary services to the people.

Development functions: Governments are responsible to finance various development projects like construction of economic infrastructure such as roads, railways, harbours, airports, irrigation schemes and power plants. Modern governments have a duty to fight poverty and improve the quality of lives of their citizens. In order to achieve this, governments must create conducive environment for economic development.

Economic functions: Governments have the responsibility to ensure that there is efficient allocation of resources, fair distribution of income and stability of the economy. Governments use suitable monetary and fiscal policies to realise these functions.

NOTE: The success of governments to perform their functions depends on, among other things, the availability of sufficient funds.

Macroeconomic objectives of the government

All governments aim at achieving certain macroeconomic objectives. The followings are the macroeconomic objectives which governments aim to achieve:

Price stability: Governments would like to maintain price stability over a long period of time. This necessitates taking measures to control inflation and deflation within countries.

Full employment level: Governments would like to ensure that unemployment problem in the country is solved. Measures will be taken to create conducive environment for creating employment opportunities in the country.

Equilibrium of the balance of payments: Governments work to promote exports and control imports in order to reduce deficit in their balance of payments.

High rate of economic growth: Governments strive to raise the national and per capita income in order to improve the living standards of the people.

MACROECONOMICS FORM 5&6 (2022).indd 142 07/03/2022 16:20

Income redistribution: Another responsibility of governments is to reduce income inequalities in the economy. Through progressive taxation, for example, governments can reduce the growing income inequality between the low-income groups and the high-income groups.

Exercise 6.1

1. With examples, explain why is the government important in any economy?
2. Clearly distinguish between private and public finance.
3. Explain the functions of the government relating to public finance in a developing economy like that of Tanzania.

Government revenues

Government revenue or public revenue is that amount of money which is received by the government from tax and non-tax sources. It is an important component of the government budget and a tool of the government's fiscal policy. It is used to finance the expenditures in the government budget in a specific time. Governments work hard to increase their revenue in order to improve welfare of the people.

The organisation which is responsible for collection of the government revenue in Tanzania is called Tanzania Revenue Authority (TRA). However, other organisations such as the local government authorities also collect revenue on behalf of the government. The Ministry of Finance and Planning is responsible for planning and budgeting processes.

Sources of government revenues

The revenues can be collected from internal and external sources. Internal sources comprise of all revenues collected within the country and external sources comprise of all revenues collected outside the country.

The following are internal sources of revenues:

Taxes: Tax is a compulsory contribution which is imposed on individuals and corporate entities by the government for the purpose of financing expenditure of the government but the taxpayers cannot claim a direct return. The essence of a tax, as distinguished from other charges by the government is that, there is no direct relationship between payment of tax and benefits received. That is, it is a non-quid pro quo. Tax is the major means of raising government revenue.

Fees: Fees is the amount of money which is received by the government against direct services rendered to the public by the government. For example; school fees, import license fees, railway fare, power supply fees/charges, postage fees/charges and telephone charges.

MACROECONOMICS FORM 5&6 (2022).indd 143 07/03/2022 16:20

Fines: Fines are penalties imposed on individuals or companies for non-compliance with the law and regulations. For example, traffic police usually impose fines to drivers who break traffic laws and regulations.

Borrowing: The government can borrow funds internally through the central bank. For the case of Tanzania, it is the Bank of Tanzania (BOT). The central bank may borrow money through issuing of bonds and treasury bills to the public. In some cases, the government can add to its revenue by borrowing from domestic financial institutions.

Domestic grants and gifts: The government may receive grants and gifts from donors within the country.

State property: The government can raise its revenue from such departments like forests and national parks which are considered as government properties.

Sale of public enterprises: The government can raise revenue from the sale of public enterprises. Through the policy of privatisation, it can obtain revenue from selling former government-owned enterprises.

Solidarity tax: This is a government-imposed tax that is levied in an attempt to provide funding towards a common goal; example TOZO.

The government may as well raise revenue externally through the following sources:

Foreign loans/debt financing: Internal sources may not be sufficient to finance the government budget. The government, therefore may borrow from multinational corporations like the World Bank and International Monetary Fund (IMF).

Foreign grants and gifts: The government may receive grants and gifts from donors outside the country.

Foreign aids: International transfer of capital, goods, or services from a country or international organisation for the benefit of the recipient country or its population is called foreign aid. The aid can be economic, military, or emergency humanitarian purposes.



Activity 6.1

Study the current year government budget, then:

(a) Identify all sources of revenue that have been included;

(b) list them categorically (internal and external sources); and

(c) Show the proportion of the contribution of each source of the total revenue.

MACROECONOMICS FORM 5&6 (2022).indd 144 07/03/2022 16:20

Exercise 6.2

1. "Governments can only raise revenue internally". Discuss.
2. Distinguish between tax and non-tax sources of government revenue.
3. Elucidate differences between fees and fines.

Taxation

Taxation is the process of levying and collecting tax from taxable persons. The following are argurments for taxation:

Arguments for taxation

The government imposes taxes for the aim of achieving various social, political and economic objectives. A tax imposed for a certain purpose might also serve other unintended purposes. For example, the government may impose tax on a commodity in order to discourage people from consuming it but the taxes collected will increase the government revenue and in turn, the money collected may be used to improve the welfare of the society.

Taxes are imposed for the following reasons:

To raise government revenue: The government impose taxes in order to raise revenue which can be used to meet government expenditures such as paying wages to civil servants, meeting costs of supplying social services and construction of roads.

To discourage unhealthy consumption habits: The government imposes taxes on harmful products like tobacco and spirits in order to discourage their consumption by the public. A high tax on tobacco is likely to raise its price leading to a fall in its demand.

To reduce income inequalities: Progressive taxes are levied in order to reduce income inequality existing between the high-income earners and the low-income earners. These are taxes with rates proportional to income. Reducing income inequality involves well-off people paying more taxes than the less well-off people.

To stabilise prices in the country: Taxes are imposed in order to control inflation. During inflation governments increase direct taxes in order to reduce purchasing power of the people. The fall in purchasing power leads to the fall in aggregate demand and hence prices. Also, reducing indirect taxes lower the prices of commodities and therefore, controls inflation.

To correct a deficit in the balance of payments: Governments impose heavy taxes on imported goods in order to discourage their importation. The decrease of imports helps to correct a deficit in the balance of payments which occurs when imports exceed exports.

To prevent dumping: Governments may impose taxes for the aim of protecting a country from becoming a dumping ground for inferior (substandard) products through imposing heavy taxes on such goods.

To protect and promote growth of domestic production: Governments impose high taxes on goods imported from outside the country in order to allow domestic firms to capture the local market. A large domestic market to local producers will motivate them to increase production.

To promote employment: The government may impose taxes on foreign goods so as to allow local producers to increase production. The increase in domestic production will lead to the increase in demand for labour and other factors of production. As a result of this trend, more employment opportunities will be created in the country.

Arguments against taxation

Taxes are not always good. Uncontrolled imposition of taxes may lead to serious problems in the economy. Some of the problems related to tax are as follows:

Heavy indirect taxes may lead to inflationary pressures in the economy: Indirect taxes like Value Added Tax (VAT) lead to the rise of prices of goods and services in the economy. This rising taxes harms the welfare of the people.

Regressive taxes lead to high income inequalities in the economy: Imposing high tax rates to the low-income earners and low tax rates to the high-income earners lead to the growth of income inequalities in the society.

Taxes may discourage effort and hard work: High tax rates are charged on hard workers who earn higher incomes and non-hard workers are charged low tax rates. This may discourage effort of the hard workers.

Taxes reduce the ability of the people to save and invest: Profits which could be saved and re-invested are reduced by taxes and hence, limit the ability of the firms to expand.

Taxes may lead to the misallocation of resources in the economy: If a particular sector is highly taxed, investment in such sector may be discouraged. Potential investors may decide not to invest.

Taxes may adversely affect domestic production: Taxes are imposed to promote and support local industries in developing countries. When not well supported by other efforts, tax may end up promoting inefficient ways of production.

Canons or principles of a good tax system

Canons of taxation means characteristics or qualities which a good tax system

MACROECONOMICS FORM 5&6 (2022).indd 146 07/03/2022 16:20

should possess. Cannons of taxation are related to the administrative aspects of a tax. They relate to the rate, amount, methods of levy and collection of taxes. A good tax system should have a proper combination of all canons.

Main principles or canons of taxation are:

Equitable: A good tax system should meet the canon of equity. This principle says that every person should be taxed according to their abilities. That is, the high-income earners should pay more and the low-income earners should pay less. Taxes should be progressive in nature.

Certainty: A good tax system should be based on the canon of certainty. The time of payment, the manner of payment, and the amount to be paid, should be clear to the taxpayer and to the tax collector.

Convenience: A good tax system should satisfy the canon of convenience. That is, the time and mode of payment of the tax should be friendly and it is not inconvenient for the taxpayer. Example, the salary earners' convenient time of paying tax is at the end of the month, while for the farmers is during the harvest season.

Economic of cost effective: A good tax system should be cost effective to the government in the sense that the costs of collection of taxes should be small relative to the revenue collected. It is advisable that, the cost of paying and collecting taxes should not exceed 5 percent of the tax income collected.

Productivity: A government should impose taxes that do not hinder productive efforts of the community.

Elastic/flexible: A good tax system should be sufficiently elastic so that the tax revenue may be increased or decreased according to the requirements of the government.

Diversity: A good tax system should have multiple taxes rather than a single tax. It is best to rely on a few substantial taxes for the bulk of the tax revenue. A wide tax base helps to bring more taxpayers to the tax net leading to yielding more revenue. Nevertheless, it is important to avoid imposing nuisance taxes.

Simplicity: A good tax system should be simple to understand and administer. A complex tax system is expensive in the sense that even the most honest educated taxpayers will have to seek advice from tax consultants.

Economic neutrality: A good tax system from the economic point of view is that which has the least bad economic effects. It should not adversely affect production through effects on ability and desire to work, save and invest.

Systems of taxation

There are three systems which are used by the government to levy taxes. They are progressive, proportional and regressive tax systems.

A progressive tax system

A progressive tax system is the one whose percentage rate increases as income increases. In other words, as the income of a person increases, the tax rate also increases gradually, and vice versa. This reciprocative trend means the higher the income, the higher the rate of tax. A progressive tax is a graduated tax system in the sense that, the amount of tax is determined categorically depending on the level of tax payers income. Figure 6.1 shows that as the level of income increases the percentage of income paid in tax also increases. The example of progressive tax is the income tax imposed on employees' salary. Table 6.1 shows a progressive tax charged on income in 2021 in Tanzania according to Tanzania Revenue Authority (TRA).

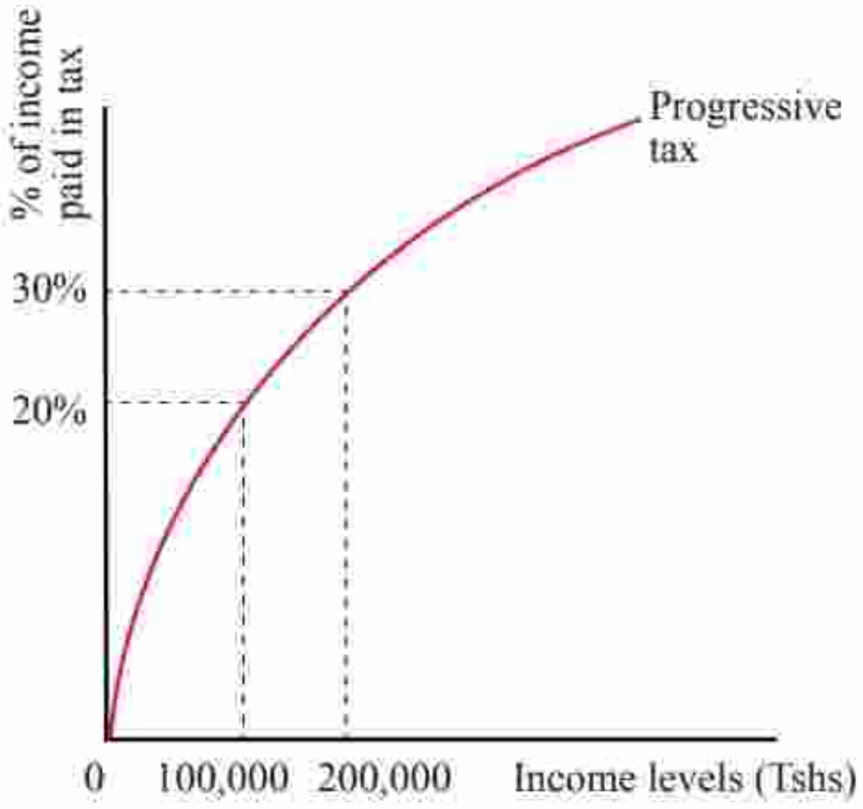


Figure 6.1: *Progressive tax system curve*

Table 6.1: *Income tax rates in Tanzania for 2021*

Taxable income (Tshs)	Tax rate (percent)	Amount of tax (Tshs)
0-270,000		0
270,000-520,000	8	8 percent of excess of Tshs 270,000
520,000-760,000	20	Tshs 20,000 + 20 percent in excess of 520,000
760,000-1,000,000	25	Tshs 68,000 + 25 percent in excess of 760,000
1,000,000 and above	30	Tshs 128,000 + 30 percent in excess of 1,000,000

Source: TRA, 2021

Advantages of progressive tax system

A progressive tax has the following advantages:

Economical: Progressive tax is economical because the cost of collection of tax does not increase when the tax rates are increased.

MACROECONOMICS FORM 5&6 (2022).indd 148 07/03/2022 16:20

Equitable: Progressive tax requires proportional sacrifice of tax payers. The high-income earners bear more burden than the low-income earners.

Ability to pay: Progressive taxes are based on the principle of ability to pay. Therefore, high-income people pay more because their ability to pay increases with relative increase in their income.

It promotes social justice: Fairness is attained, those who earn more pay more and those who earn less pay less.

It promotes income equality and economic stability: A progressive tax also requires those with the greatest amount of resources to fund a large portion of the services such as road maintenance, public safety and health that all citizens and businesses rely on.

Disadvantages of progressive tax system

Disincentive to high income earners: Progressive taxes are disincentive to high-income earners. This is because high-income earners and middle-income earners are considered unfairly punished by being highly taxed. This system may encourage tax evasion practices.

It discourages capital formation: Progressive tax system discourages capital formation which adversely affects savings and investment. This is because, high-income earners are source of saving in a country. Therefore, imposing taxes in this group discourage saving and investments.

A proportional tax system

A proportional tax system is the one whose percentage rate remains the same at all income levels. In proportional tax, all tax payers, both high-income earners and low-income earners are made to pay the same percentage of their income tax. Figure 6.2 shows the same percentage of income paid in tax as the level of income increases.

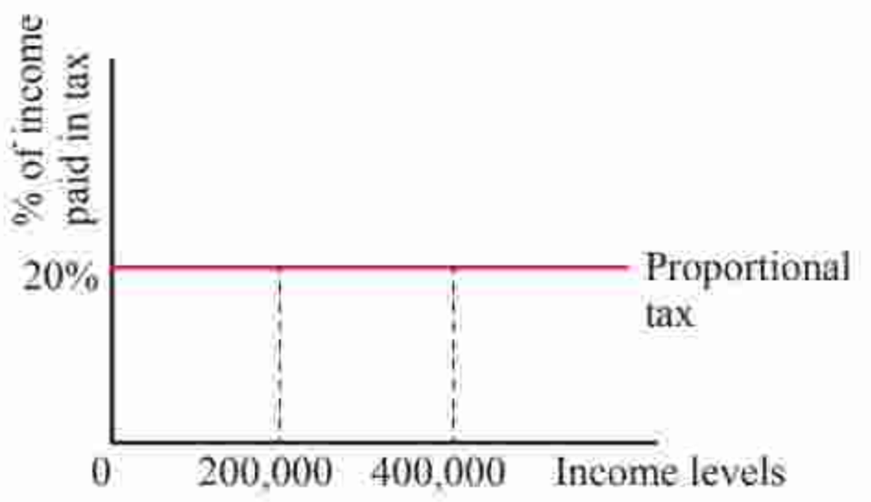


Figure 6.2: *Proportional tax system curve*

Advantages of proportional tax system

The following are advantages of proportional tax system:

Easy and simple: This is easy for every taxpayer to understand. Tax collecting authorities can also administer it easily because it is not complicated.

Reduces chances of tax evasion from high-income earners: When tax rate is the same for all groups of tax payers (small, middle and large), high-income earners find no motive for evasion.

MACROECONOMICS FORM 5&6 (2022).indd 149 07/03/2022 16:20

No change in income distribution: Under the proportional tax system, the relative economic status of all tax payers remains unchanged since all taxpayers pay a uniform rate regardless of their incomes.

Neutrality effect: The proportional tax system does not have any adverse effects on the incentive to work and saving of the tax payers.

Disadvantages of proportional tax system

The following are the disadvantages of proportional tax system:

Inequitable: Proportional tax system usually imposes equal rate among rich, middle class and poor people. This implies that, the high-income earners pay relatively less tax. This may lead to frustration and anger among the majority of people in the country as middle and poor class people feel that the rich should pay more.

Less productive: Proportional tax is not productive enough in the sense that, it does not bring sufficient revenues to the government due to a constant tax rate. Governments would have collected more revenue by charging high rates to high-income earners.

Increases inequalities: Proportional tax tends to increase social injustice as it widens inequality in the distribution of income and wealth because the burden of the tax is borne mostly by low-income people. It may lead to a huge gap between the rich and poor leading to anger, frustration and in the worst scenario may even lead to revolt from middle-and low-class people in a country.

A regressive tax system

A regressive tax system is the one whose percentage rate decreases as the income increases. In other words, as the income of a person rises, the tax rate decreases. That is, a person who earns high income pays lower tax rate than the one who earns low income. For example, assume two individuals earn a monthly salary of Tshs 500,000 and Tshs 1,000,000, respectively. If each purchases a cylinder of gas for Tshs 50,000 per month and pay Tshs 8,000 in tax on their purchase, an individual who earns low income pays a higher percentage of income compared to the one who earns higher income provided the tax is the same. Figure 6.3 shows a decrease in percentage of income paid in tax as the level of income increases.

NOTE: Lump sum tax system is a form of regressive tax system in which the same amount of tax is paid irrespective of the level of income.

Advantages of regressive tax system

The main advantages of regressive tax system are the following:

Incentive to succeed: The high-income earners and middle-income earners

MACROECONOMICS FORM 5&6 (2022).indd 150 07/03/2022 16:20

are taxed less. They remain with more money for saving and investment. For this reason, they are highly motivated to work hard.

Reduce tax evasion and avoidance practices: High-income earners are normally involved in evasion and avoidance practices, especially under progressive tax system since they believe it to be unfair tax. With regressive tax system, high-income earners comply easily since they pay less.

Disadvantages of regressive tax system

Despite the advantages, the regressive tax system has the following disadvantages:

It is unproductive: This system does not consider the ability to pay principle and thus, governments fail to collect sufficient amount of tax from high-income earners. Generally, the amount collected as tax revenue is usually low compared to other tax systems.

Fails to promote social justice: Fairness is not attained, those who earn more pay less and those who earn less pay more.

Fails to promote income equality and economic stability: A regressive tax requires those with the minimal amount of resources to fund a large portion of the services such as road maintenance, public safety and health that all citizens and businesses rely on and leaves a lot of money in the hands of high-income earners.

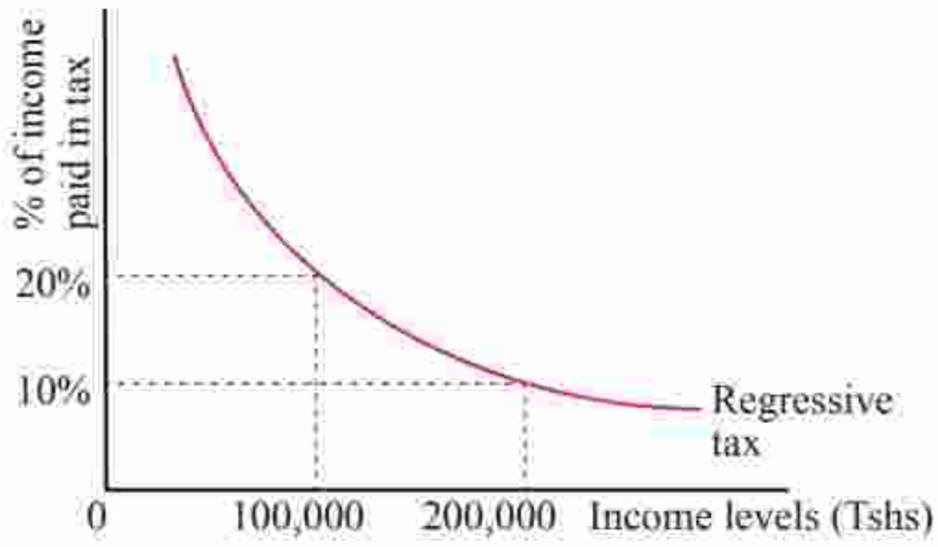


Figure 6.3: *Regressive tax system curve*

All the three tax systems; progressive tax, proportional tax and regressive tax can be illustrated using Figure 6.4 below.

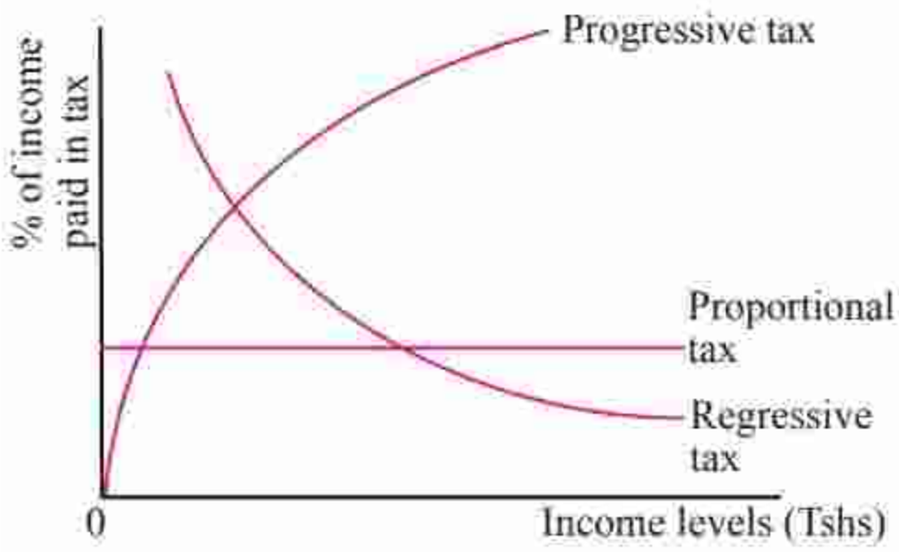


Figure 6.4: *Tax systems curve (hypothetical)*

Classification of taxes according to types

There are two major types of taxes, namely; direct taxes and indirect taxes.

A direct tax

A direct tax is a tax that an individual or organisation (companies) pays directly to the government. It is a tax whereby the incidence and burden of tax are borne by the same tax payer (individuals or companies).

The following are some of the examples of a direct tax:

MACROECONOMICS FORM 5&6 (2022).indd 151 07/03/2022 16:20

Income tax: This is the tax on income of the individual or company. It is usually termed as "Pay As You Earn" (PAYE) or a graduated tax.

Corporate income tax: This is a tax on the profits of the company, turnover or percentage of total sales.

Capital gain tax: Capital gain tax is the tax on capital or asset whose value has appreciated. It includes a tax on interest.

Advantages of a direct tax

A direct tax has the following advantages:

Equitable: Direct taxes are based on the canon of equity. The burden of a direct tax is equitably distributed as it is progressive in nature. With a direct tax, a heavy tax burden falls more on the high-income earners and less on the low-income earners.

Certainty: A direct tax satisfies the canon of certainty. The taxpayer is certain or aware of the time, manner and the amount to be paid in a direct tax. Similarly, the government is also certain on the amount of tax revenue which is going to be collected from that tax.

Economic or cost effective: The direct tax satisfies the canon of economic or cost effectiveness. That is, the cost of collection of a direct tax is small compared to the tax revenue collected.

Elastic: Direct taxes are flexible and thus, satisfy the canon of elasticity. The government can increase or decrease the rates of direct taxes according to the economic requirements of the country.

Simple: Direct taxes are simple and easy to understand by the tax payers and to administer by tax collectors.

Reduce inequalities: Direct taxes help to reduce income and wealth inequalities because they are progressive in nature.

Civic consciousness: The direct taxes help to inculcate civic consciousness among the taxpayers. The taxpayers come to know how the government gets its revenue (through taxes) and how it spends. They would also want to be assured that there is no wastage of public funds (revenue).

Disadvantages of a direct tax

A direct tax has the following disadvantages:

Discourages saving and investment: Direct taxes adversely affect saving and investment. When taxes based on income and wealth are excessively taxed, may discourage savings and investments.

Tax evasion: Since direct taxes hurt every taxpayer, some will try to evade by under reporting their returns and may even collude with tax experts. Direct taxes cultivate dishonesty and there is loss of revenue to the government.

MACROECONOMICS FORM 5&6 (2022).indd 152 07/03/2022 16:20

Discourages production: Direct taxes such as corporation taxes may discourage industries and firms which produce essential goods and services.

High rates of tax act as a disincentive to effort: Direct taxation may be a disincentive to hard work. The most efficient people are discouraged to work hard since by working hard they are going to be taxed heavily.

High taxation tends to repel foreign capital: High direct taxes may induce people to prefer to invest in companies operating in countries where there is a high return to capital – a high return which is associated with low taxes.

An indirect tax

An indirect tax is that a tax imposed on value of goods and services produced and consumed within the country, imported into the country or exported to other countries whose burden can be shifted in part or in full to the final consumer.

The following are some of the examples of indirect taxes:

Custom duty: This is a tax levied on goods transported across international borders. It is the tax that is levied on import and export of goods. Customs duties are collected at the borders, harbours and airports.

Value Added Tax (VAT): A value added tax (VAT) is a tax on goods and services at each stage of production, exchange and distribution.

Excise duty: It is a sales or purchase tax levied on domestically produced and domestically consumed goods. It is charged on the physical quantity of a good. For example, excise duty on wine, spirits, beer, soft drinks, mineral waters, fruit juices, cigarettes, petroleum products and natural gas.

Excise duty on old goods: A tax levied on vehicles older than eight years since its production.

Advantages of indirect taxes

Indirect taxes have the following advantages:

Minimal chances of evasion: It is very difficult to evade an indirect tax because it is mixed up with the price of the commodity one purchases.

Convenient: An indirect tax is convenient. The indirect tax is paid when we buy a commodity and at a time when we can afford it. Taxpayers do not feel when they pay it.

High revenue yield (wide) coverage: Indirect taxes can be levied on a large number of commodities. It brings more people into the tax net leading to high revenue yield to the state as the tax base becomes wide.

Help in reducing consumption of harmful goods: The government can use indirect taxes to discourage the consumption of harmful products such as tobacco.

Elastic: Indirect taxes are elastic in nature. They can be increased or decreased according to existing economic conditions.

Economic or cost effective: Indirect taxes are cost effective because of the little cost of collection and the producers and sellers can conveniently deposit them to the government.

Powerful tool of economic policies: Indirect taxes can be used as a powerful tool for implementing economic policies by the government. If the government wants to protect domestic industries from foreign competition, it can impose heavy customs duties.

Disadvantages of indirect taxes

Indirect taxes have the following disadvantages:

Regressive: Indirect taxes are regressive in nature. They do not satisfy the canon of equity. Indirect taxes cause high income inequality.

Accelerates inflation: Indirect taxes accelerate inflation. Imposition of indirect taxes tend to rise the prices of commodities, thereby leading to high costs, wages and prices.

Uncertain: Indirect taxes cause uncertainty on the part of the taxpayer who is not aware of the amount he/she is supposed to pay and uncertain to the government regarding the revenue which is going to be collected.

Adverse effects on production and employment: Sometimes, indirect taxes adversely affect production of commodities, and even employment. For example, when the price of a commodity rises as a result of a tax, its demand falls. As a result, its production falls, and so does employment.

Lack of civic consciousness: People who buy commodities do not know that they are paying taxes to the government at commodity price. As a result, such taxes do not inculcate civic consciousness among the majority of tax payers who are not aware of their contribution to the government.

Value Added Tax

The Value Added Tax (VAT) is a tax on expenditure. It is a tax on goods and services charged at each stage of production, distribution and exchange. VAT was established in Tanzania in 1996 and it became operational in Tanzania Mainland on 1st July, 1997. On its inception, VAT rate was 20 percent. Exports and some goods and services were exempted. In 2009 the Value Added Tax standard rate was reduced to 18 percent.

MACROECONOMICS FORM 5&6 (2022).indd 154 07/03/2022 16:20

Advantages of Value Added Tax (VAT) in Tanzania

The following are the advantages of VAT:

Increases government revenue: VAT helps to increase government revenue because of its wide tax base. In Tanzania, VAT has brought more tax payers into the tax net leading to high revenue yield to the government.

Promotes exports of commodities: VAT has promoted exports because exports are zero VAT rated. This has encouraged people to increase exportation leading to the rise in the country's foreign exchange earnings.

Promotes simplicity in tax payment: VAT has promoted simplicity in tax payment. VAT is easy to understand and administer, and it is fixed at single rate which is 18 percent.

Promotes honesty in tax payment: VAT promotes honesty on tax payment because businesses demand accurate invoice and hence, reduces tax evasions in the country.

Solves problem of misallocation of resources: VAT does not lead to misallocation of resources in the economy.

Disadvantages of Value Added Tax (VAT) in Tanzania

VAT being an indirect tax has similar disadvantages like other forms of indirect taxes. The disadvantages of VAT can be summarised as follows:

Uncertain: VAT is uncertain to both the taxpayers who do not know in advance the amount they are supposed to pay and to the tax collectors who are not certain of the amount of revenue they are going to collect.

High income inequality: VAT is regressive in nature; it leads to very high-income inequality in the society as those with high income pay less fraction of their income compared to their counterpart.

Inflationary pressures: VAT has led to the rise of the prices of goods and services in the economy leading to inflation. Since VAT is levied at every stage of production, the final effect of this process would be a rise in general price level which is inflation.

Does not promote civic consciousness: VAT does not promote civic consciousness as the taxpayers are not aware that they are contributing something to the state.

Incidence of tax

Incidence of tax means the final resting place of the tax burden after all individuals and firms have adjusted their behaviour. It is the study of the effects of tax on prices and welfare of individuals. The incidence is on the person (consumer or producer) who ultimately bears the true burden of the tax. Tax incidence

MACROECONOMICS FORM 5&6 (2022).indd 155 07/03/2022 16:20

can be statutory or economic. Statutory incidence of tax indicates who is legally responsible to pay the tax; that is, who physically remits a particular tax to the government. Economic incidence also known as final incidence which indicates who ultimately bears the actual cost of the particular tax.

Factors determining tax incidence

The incidence of a tax depends on a number of factors as follows:

Elasticity of demand and supply: The tax incidence will depend on the elasticity of supply and demand of a commodity. The elasticity of demand and supply is used to determine whether the tax burden will fall to consumers or producers.

Time: In the short run the producer cannot make any adjustment in plant and equipment and the tax incidence will fall on the producer through a loss of profit. In the long run, full adjustment can be made and the tax is shifted to the consumer.

Cost of production: Tax raises the price of the commodity. A rise in price reduces demand which in turn reduce supply. For example, if the industry aims to decrease cost of production. A reduction in production will raise the cost; and hence increasing the price of the commodity thus, shifting the burden of the tax to the consumer.

Nature of the tax: A tax, for example, on surplus will tend to remain where it is levied. It will only be on those who have surplus.

Market conditions: Under perfect competition, no single seller or single buyer can affect the price; hence shifting of the tax in either direction is not possible. But under monopoly, a producer is in a position to influence the price and hence, shifting the tax.

Tax incidence based on elasticity of demand and supply

The elasticity of demand and supply are the main determinants of tax incidence. The burden of the tax will depend on whether the demand and supply of a commodity is elastic, inelastic, unitary, perfectly elastic or perfectly inelastic. This can be explained as follows:

(a) If the supply of a taxed commodity is elastic, the tax burden will fall more on the consumer and less on the producer. Referring to Figure 6.5, before the introduction of tax the equilibrium price was P_e and equilibrium quantity was Q_e, but after the introduction of tax the consumer price increased to P_t and producer price declined to P. This action shifts the supply curve from S to S_t to match the quantity demanded as the increase in consumer price reduces the quantity demanded of the commodity and a decrease in producer price

MACROECONOMICS FORM 5&6 (2022).indd 156 07/03/2022 16:20

reduces the quantity supplied of the commodity. This is the effect of the introduction of tax. A consumer price (P_t) increases by a greater proportion than a proportional decrease in the producer price (P). This is the effect of elasticity of supply of a taxed commodity.

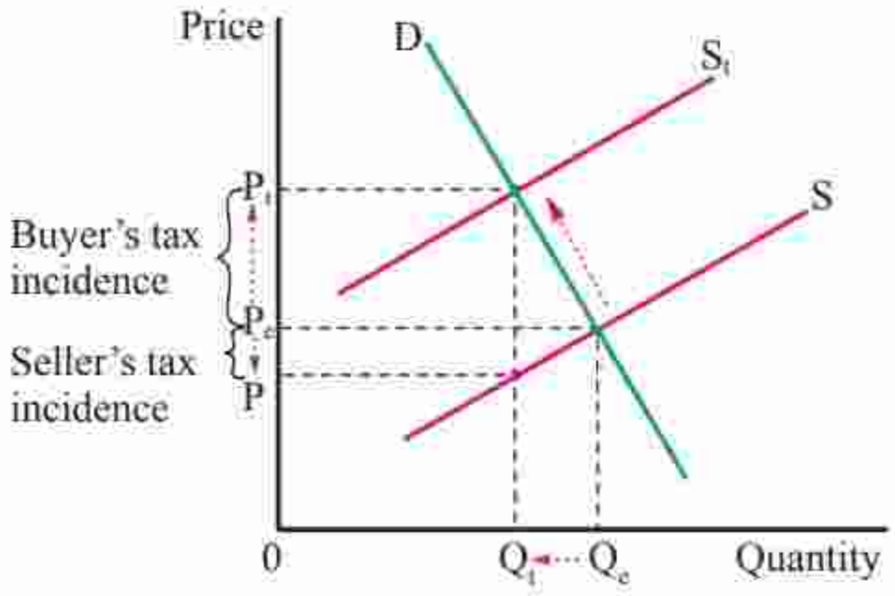


Figure 6.5: *Tax burden for elastic supply good curve*

(b) If the supply of a taxed commodity is inelastic the tax burden will fall more on the producer and less on the consumer. Referring to Figure 6.6, before the introduction of tax the equilibrium price was P_e and equilibrium quantity was Q_e, but after the introduction of tax, the consumer price increased to P_t and producer price declined to P. This action shifts the supply curve from S to S_t to match the quantity demanded as the increase in consumer price reduces the quantity demanded of the commodity and a decrease in producer price reduces the quantity supplied of the commodity. This is the effect of the introduction of tax. A consumer price (P_t) increases by a smaller proportion than a proportional decrease in the producer price (P). This is the effect of elasticity of supply of a taxed commodity.

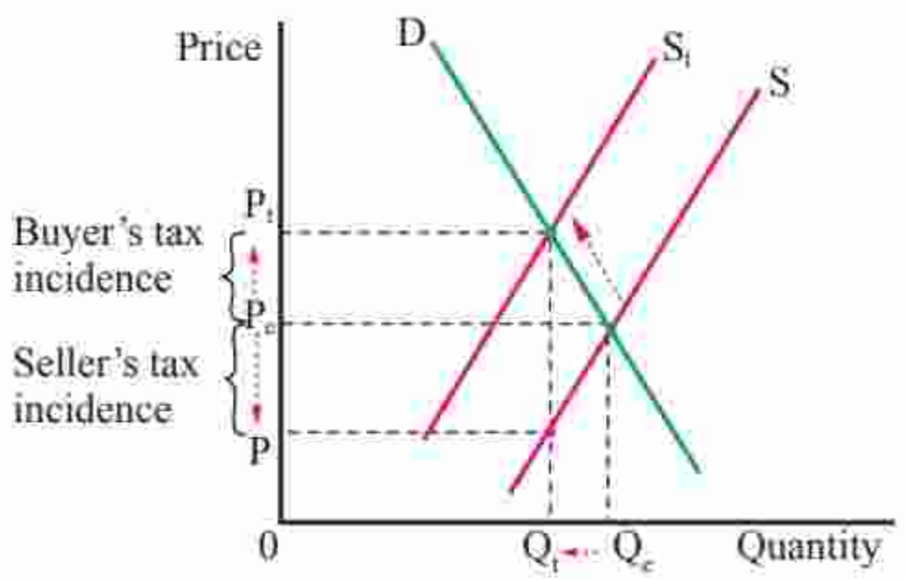


Figure 6.6: *Tax burden for inelastic supply good curve*

(c) If the supply for a taxed commodity is perfectly elastic, the whole burden of the tax will fall on the consumer. Referring to Figure 6.7, before the introduction of tax, the equilibrium price was P_n and equilibrium quantity was Q, but after introduction of tax the consumer price increased to P_t. This action shifts the demand curve from D to D_t because an increase in consumer price reduces the quantity demanded of the commodity so supply has to adjust itself to match the demand. This is the effects of the introduction of tax. A consumer price (P_t) increases by full amount of the tax.

MACROECONOMICS FORM 5&6 (2022).indd 157 07/03/2022 16:20

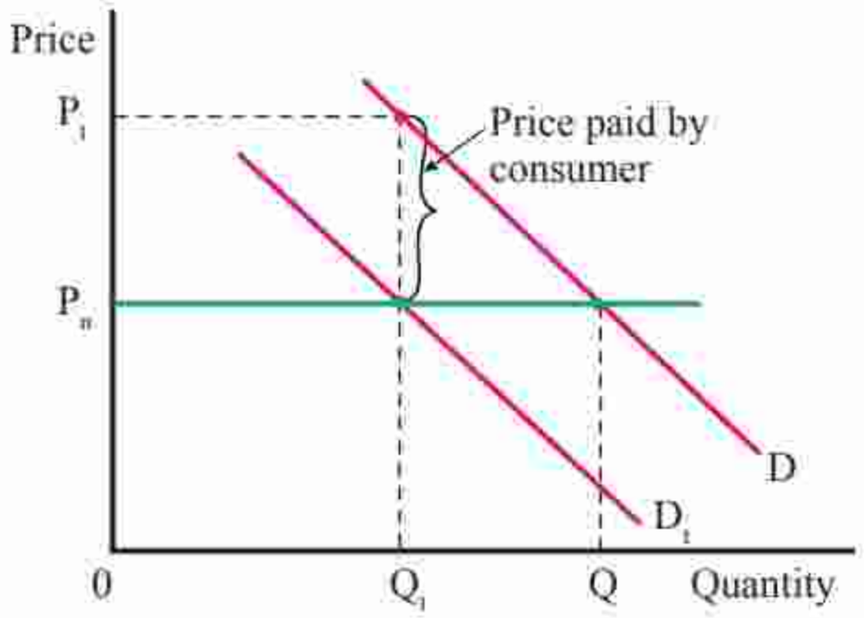


Figure 6.7: *Tax burden for perfectly elastic supply good curve*

(d) If the supply for a taxed commodity is perfectly inelastic, the whole burden of the tax will fall on the producer. Referring to Figure 6.8, before the introduction of tax, the equilibrium price was P_t, but after the introduction of tax, the producer price declines to P_n. This action shifts the demand curve from D to D_t because a decrease in producer price reduces the quantity supplied of the commodity, so the demand has to adjust itself to match the supply. This is the effect of introduction of tax. A producer price (P_n) decreases by full amount of the tax.

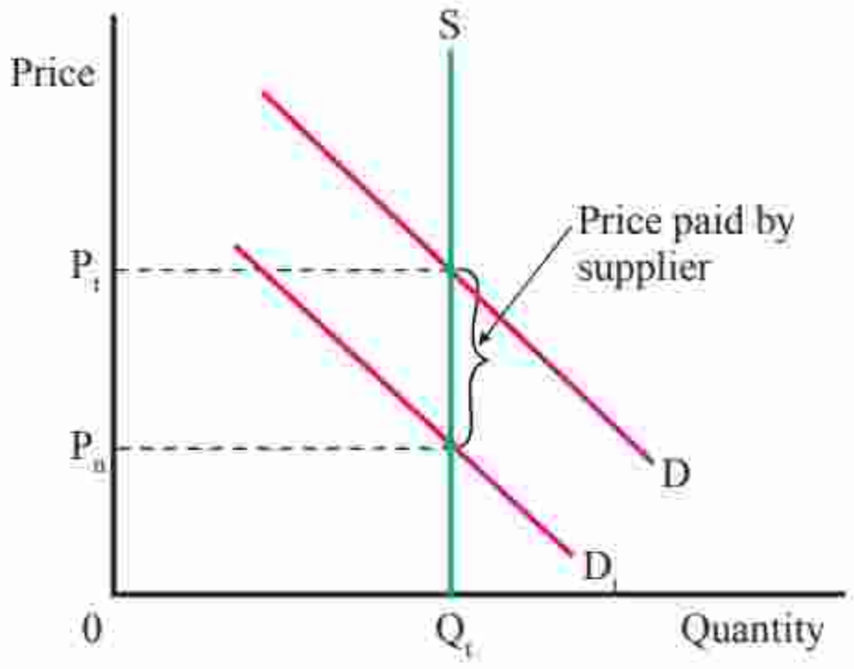


Figure 6.8: *Tax burden for perfectly inelastic supply curve*

(e) If the supply or demand of a taxed commodity is unitary elastic, the tax burden will be divided equally between the consumer and the producer. Referring to Figure 6.9, before the introduction of tax, the equilibrium price was P_m and equilibrium quantity was Q_m but after the introduction of tax the consumer price increases to P_b and producer price declined to P_s. This action reduces the quantity demanded and supplied by the same proportion. This is the effect of the introduction of tax. A consumer price (P_b) increases by the same proportion with the decrease in the producer price (P_s). This is the effects of elasticity of supply or demand of a taxed commodity.

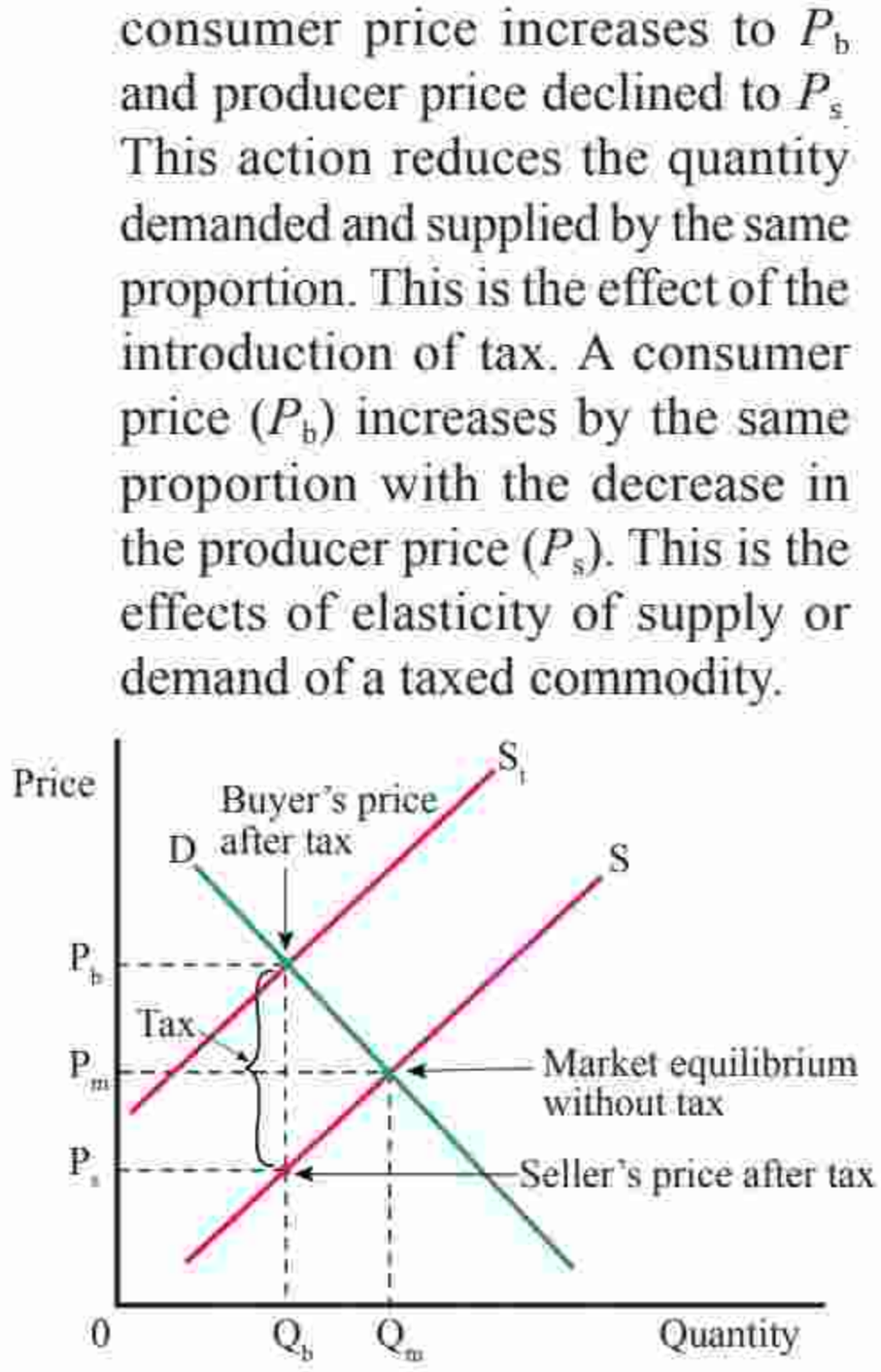


Figure 6.9: *Tax burden for unitary supply or demand good curve*

(f) If the demand for a commodity is elastic the tax burden will fall more to the producer and less on the consumer. Referring to Figure 6.10, before the introduction of tax, the equilibrium price was P_e and equilibrium quantity was Q_e but after introduction of tax the

MACROECONOMICS FORM 5&6 (2022).indd 158 07/03/2022 16:20

consumer price increases to P_t and producer price declines to P. This action shifts the supply curve from S to S_t to match the quantity demanded as the increase in consumer price reduces the quantity demanded of the commodity and a decrease in producer price reduces the quantity supplied of the commodity. This is the effect of the introduction of tax. A consumer price (P_t) increases by a smaller proportion than a proportional decrease in the producer price (P). This is the effect of elasticity of demand of a taxed commodity.

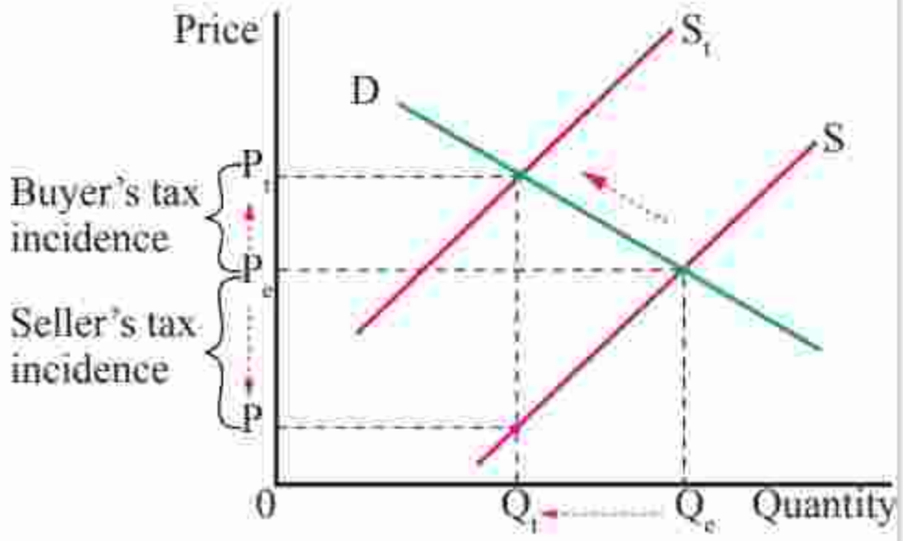


Figure 6.10: *Tax burden for elastic demand good curve*

(g) If the demand for a taxed commodity is inelastic the burden of the tax will fall more on the consumer and less on the producer. Referring to Figure 6.11, before the introduction of tax, the equilibrium price was P_e and equilibrium quantity was Q_e, but after the introduction of tax, the consumer price increases to P_t and producer price declines to P. This action shifts the supply curve from S to S_t to match the quantity demanded as the increase in consumer price reduces the quantity demanded of the commodity and a decrease in producer price reduces the quantity supplied of the commodity. This is the effect of the introduction of tax. A consumer price (P_t) increases by a larger proportion than a proportional decrease in the producer price (P). This is the effect of elasticity of demand of a taxed commodity.

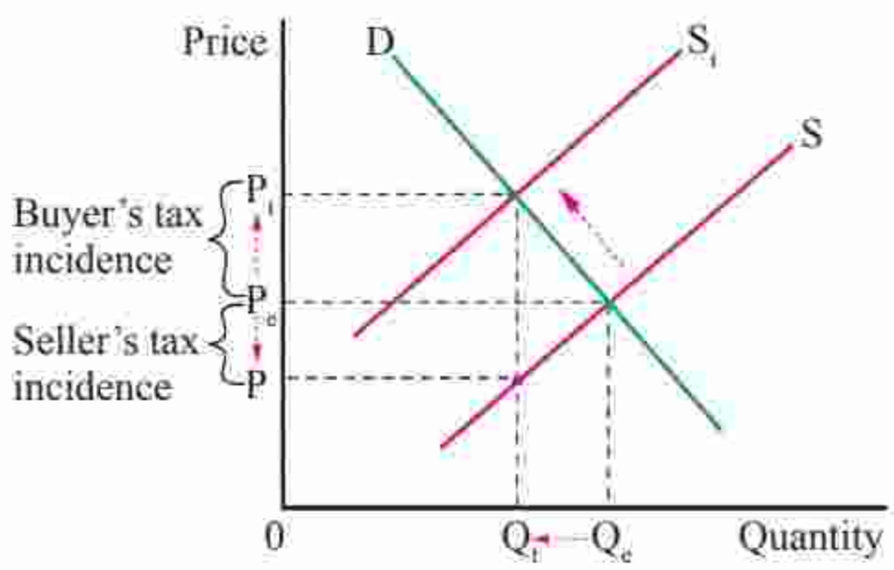


Figure 6.11: *Tax burden for inelastic demand good curve*

(h) If the demand for a taxed commodity is perfectly elastic the whole burden of the tax will fall on the producer. Referring to Figure 6.12, before the introduction of tax, the equilibrium price was P and equilibrium quantity was Q, but after the introduction of tax the producer price declines to P_s but the consumer price does not change (it remained the same). This action shifts the supply curve from S to S_t because a decrease in producer price reduces the quantity supplied of the commodity, so the demand has to adjust itself to match the supply. This is the effect of the introduction of tax. A producer price (P_t) decreases by full amount of the tax.

MACROECONOMICS FORM 5&6 (2022).indd 159 07/03/2022 16:20

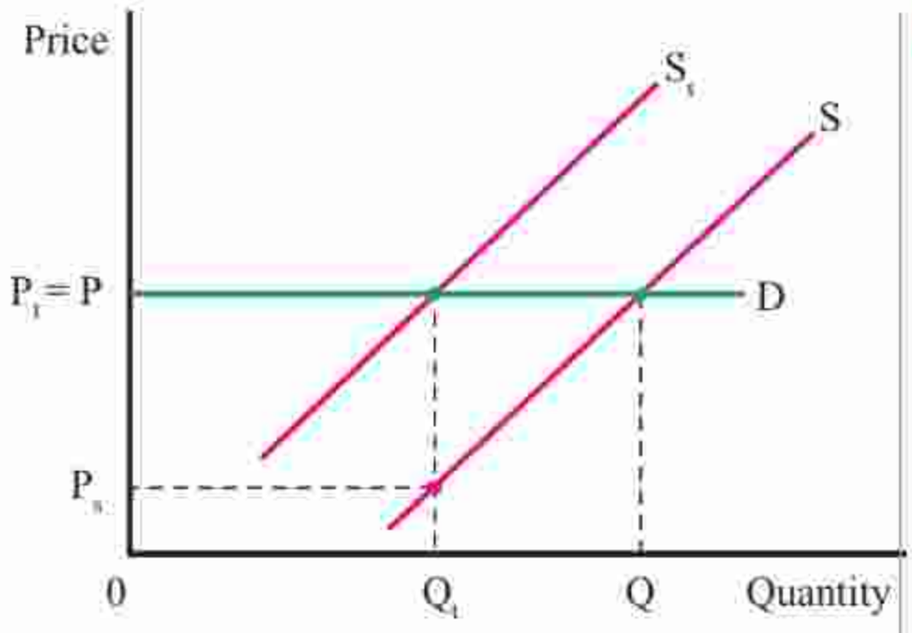


Figure 6.12: *Tax burden for perfectly elastic demand good curve*

(i) If the demand for the taxed commodity is perfectly inelastic the whole burden of the tax will fall on the consumer. Referring to Figure 6.13, before the introduction of tax, the equilibrium price was P, but after the introduction of tax the consumer price increases to P_t. This action shifts the supply curve from S to S_t because an increase in consumer price reduces the quantity demanded of the commodity, so the supply has to adjust itself to match the demand. This is the effect of the introduction of tax. A consumer price (P_t) increases by full amount of the tax.

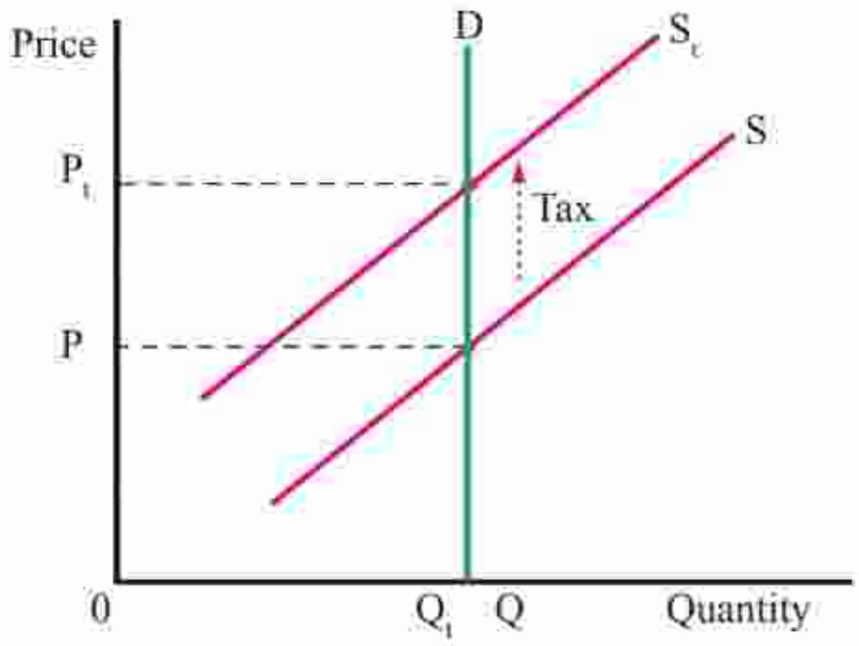


Figure 6.13: *Tax burden for perfectly inelastic demand good curve*

Relevant concepts in taxation

Tax evasion and tax avoidance

The tax evasion and tax avoidance are viewed as forms of tax non-compliances. Tax evasion and tax avoidance are distinct concepts used in taxation. Tax evasion is an illegal action of not paying tax. This occurs when the income of the business is not reported accurately. For example, an organisation may hide some business transaction records (information) which may be used to determine the amount of tax to be paid. Tax avoidance on the other hand is a legal action of not paying tax. It is the legal use of tax laws to reduce one's tax burden. For example, an individual may avoid paying tax by not consuming the taxed commodity. Cases of tax evasion and avoidance persist when tax incidence is high. If the tax incidence is affordable the problem of tax avoidance and evasion may not persist.

Tax impact

The word tax impact refers to the effect/burden on a person or firm who is required by the law to pay a particular tax imposed by the government. For instance, if the tax law requires house owners to pay property tax, then the house owners will bear the tax impact. The impact of a tax is on whom the tax is imposed. The tax impact can be shifted from producers to consumers through charging high prices. As a result of this, the tax impact will be on the producers while the tax incidence will be shifted from the producers to consumers.

MACROECONOMICS FORM 5&6 (2022).indd 160 07/03/2022 16:20

In other words, tax impact refers to the initial burden of the tax, while incidence refers to the ultimate burden of the tax. While impact is at the point of imposition, incidence occurs at the point of settlement. The impact of a tax falls upon the person from whom the tax is collected and the incidence rests on the person who pays it eventually. For example, if the excise duty is imposed on soap, then its impact is on the producers as they are liable to pay the tax to the government. However, the producers may succeed in collecting it from the consumers by raising the price of soap by the amount of tax. In that case, consumers eventually pay the tax and so the incidence falls upon them. The impact can be shifted but the incidence cannot. Tax incidence is the end of the shifting process. However, when shifting is not possible as in the case of income tax or such other direct taxes, the impact coincides with incidence on the same person.

Effect of taxation

The effect of taxation refers to the outcomes of the tax which has been imposed by the government. The effect of taxation may be on prices, employment, income distribution, balance of payments, production, consumption, investments and so on and such effects may be positive or negative. The best system of taxation from economic point of view is the one which has the least negative economic effects.

Taxable capacity

Taxable capacity means the capacity/ ability of individuals to pay tax to the government and remain with a reasonable income. It is the extent of the tax burden which the people can bear in a country. Taxable capacity may also mean the level to which taxes can be imposed without harming the interest of individuals in a community.

Factors determining taxable capacity

The taxable capacity of a country depends on the following factors:

Size of national income: Taxable capacity depends on the size of national income or wealth or natural resources of a country and the extent to which they are developed and utilised. The higher the size of national income, the higher the taxable capacity and the lower the size of national income, the lower the taxable capacity.

Stability of individual's income: In a country where income of the individuals is stable, the taxable capacity is expected to be high, where the income of the individuals is unstable the taxable capacity will be low.

Sources of revenue: Taxable capacity depends upon the number of sources of revenue available to the government. The higher the number of revenue sources that are productive, the higher the taxable capacity and vice versa.

MACROECONOMICS FORM 5&6 (2022).indd 161 07/03/2022 16:20

Political conditions: A country which has political stability is likely to have high taxable capacity. If there is political instability the taxable capacity will be low as the productivity may be low and hence, low taxable income.

Population size: The larger the population size the larger the taxable capacity and the lower the population size the lower the taxable capacity.

Purpose of taxation: If the purpose of taxation is to improve welfare of the people, people will be more willing to pay tax and hence, raise taxable capacity and vice versa.

Psychology of the taxpayers: Psychology of the people is an important factor in determining taxable capacity. Popular governments are able to convince people to pay high tax and hence, raise taxable capacity unlike unpopular governments where people are reluctant to pay high taxes.

Inflation: Inflation reduces the purchasing power of the people leading to adverse effect on taxable capacity.

Level of economic development: The level of economic development attained by a country is an important determinant of its taxable capacity because it reflects the income per head. All highly developed countries of the world have greater taxable capacity than developing countries.

Organisation of the economy: If the economy depends on primary product, the taxable capacity is likely to be low while if the economy is based on manufactured products, the taxable capacity is likely to be high.

Income distribution: Income distribution determines taxable capacity. If income is evenly distributed in the country, it will lead to low taxable capacity but if there is high income inequality in the country, the government can increase taxes on the rich people, hence, leading to high taxable capacity.

Activity 6.2

Do shopping for one month and observe if sellers will voluntarily give you electronic receipts, then:

(a) Record your observations and share your observations with your fellow students;

(b) Establish the level of voluntary compliance of business owners in issuing receipts; and

(c) Discuss to what extent the observed behaviour can positively or negatively affect the country's revenue collection efforts.

MACROECONOMICS FORM 5&6 (2022).indd 162 07/03/2022 16:20

Exercise 6.3

1. "Elasticity of demand and supply of goods and services may cause shifting of tax burden between a seller and a buyer". Discuss this statement with illustrations.
2. Identify prominent tax systems and suggest which one is the best to be adopted in a developing economy like Tanzania.
3. "Direct tax is said to be better than indirect tax". Discuss.
4. Identify the characteristics of a good tax system.

Government expenditures

Government or public expenditure is the money spent by public authorities like the central and local authorities on various activities for achieving social and economic objectives. It also includes spending for protecting citizens and satisfying the common need of the public at large. In Tanzania, public expenditure is broadly classified into two main categories as follows:

(a) Current expenditure (recurrent) expenditure; and

(b) Development or capital expenditure.

Current expenditure

Current or recurrent expenditure is ordinary spending of the government on day-to-day activities. It includes, spending on wages and salaries of public servants such as the armed forces, the police, teachers and civil servants as well as the supply of provisions to the armed forces, schools and hospitals. Other areas of current expenditure spending are administrative and maintenance. This is called current expenditure because the expenditure is of a recurring nature.

Development or capital expenditure

Development expenditure is the expenditure of the government on development projects. It involves direct purchase of plants and machinery and the construction of buildings, railways, roads, dams and other public works.

Objectives of government expenditure

The following are objectives of public expenditure:

To stabilise the economy: Public expenditure can be used as a tool to create effective demand and therefore, stimulating investment activities, production and employment. For example, increase in current expenditure such as spending on the wages of civil servants will increase spending capacity of workers. This will affect consumption which is an important in expanding the aggregate demand. Through public expenditure, total demand can be regulated in such a way that the demand matches the supply as a result inflationary pressure can be avoided.

MACROECONOMICS FORM 5&6 (2022).indd 163 07/03/2022 16:20

To increase production: Public expenditure can help the economy to attain a high level of production. For example, government spending on development projects can stimulate investment. Investment on capital goods may increase production in the long run because investors in different sectors can use the advantage of good public infrastructures such as transport and communication.

To attain economic growth: Public expenditure helps to maintain smooth growth rate. Public expenditure on economic and social overheads provide employment opportunities, raises income which lead to increase productive capacity of the nation.

To attain equitable income and wealth distribution: Public expenditure favours an equitable distribution of income and wealth, because the purpose of economic policy is to attain the maximum level of social benefits. Public expenditure helps in reducing inequality of income and wealth through maternity benefits, old age pension, free education, and subsidised services.

To maintain price stability: Public expenditure as a tool of economic policy may effectively be used to regulate general price level of goods and services in the economy. It can be injected during deflation and reduced during inflation.

To maintain balance of payment equilibrium: Public expenditure is used to stimulate investment and production, as a result country's export will increase and deficit in balance of payment will eventually be reduced.

Principles of public expenditure

The principles of public expenditure are:

Principle of maximum social benefit: Every amount of money spent by the government must aim at maximising the welfare of the society as a whole.

Principle of sanction: Every public expenditure before it is incurred should be sanctioned or approved by a legal and competent authority which is the parliament.

Principle of economy: Public expenditure must discourage wastage of public revenue. All wasteful, unproductive and unprofitable expenditures must be avoided at all costs.

Principle of elasticity: Public expenditure should be fairly elastic. It should be possible for public authorities to vary the expenditure according to circumstances to achieve maximum social benefit.

Principle of sound financial administration: Public expenditure accounts should be maintained accurately and systematically and later on be audited in order to find out the discrepancies and ensure continuous improvement.

MACROECONOMICS FORM 5&6 (2022).indd 164 07/03/2022 16:20

Principle of promotion of economic growth and stability: Another important principle of public expenditure is to promote economic development and economic stability of the country.

Principle of no adverse effect on production or distribution: Public expenditure should stimulate both production and distribution of income in the community. Public expenditure should stimulate productive activities to create positive multiplier effect on income, employment and general standard of living.

Causes of the increase in public expenditure

The following are the principle causes of growth of public expenditure:

Increase in population: Population increase lead to the increase in government expenditure. The share scale of various public goods and services like hospitals and schools has to rise in conformity with population growth.

Improvement of welfare: The government not only works to maintain law and order but also to improve the welfare of its people by providing quality social services.

War and prevention of war: Modern wars are costly and even when there is no war, large amounts of money are spent on preparing it or adopting means for its prevention.

Expansion of public sector: Tendencies to creation many ministries, independent departments and agencies calls for more government spending.

High price level and rising cost of public services: Governments, like individuals, have to find larger amounts of money to pay for the commodities they have to purchase. Therefore, a general increase in prices of commodities may result to more public spending.

Economic development: This is a very costly undertaking. A lot of money is spent on economic and social overheads and many costly projects like construction of roads, schools, hospitals have to be undertaken.

Burden of democracy: Governments have to spend a lot of money to promote democracy and civil societies through conducting general elections periodically and maintaining plural politics (multiparty democracy).

Provision of public utilities: Another important cause of the increase in public expenditure is the provision of more and more public utility services like water, electricity, and transport services.

Effects of public expenditure

The following are the effects of public expenditure:

MACROECONOMICS FORM 5&6 (2022).indd 165 07/03/2022 16:20

Effects on resource reallocation: Public expenditure affects the pattern of production through the reallocation of resources from existing uses to more productive uses. Public expenditure induces people to divert their resources to more productive uses.

Effects on income distribution: It reduces inequalities in income and wealth by increasing social welfare of people. A progressive public expenditure is one when a person with low income receives large income. Low-income groups can be given cash benefits in the form of unemployment, sickness, special needs, maternity benefits and old age pensions.

Effects on economic stability: Increase in public expenditure tends to raise national income, employment, output, and prices. An increase in public expenditure during deflation increases the aggregate demand for goods and services and leads to a large increase in income via the multiplier process.

Effects on economic development: Public expenditure lead to creation of positive multiplier effect in the economy, more employment opportunities, rising incomes and standard of living, encouraging private initiative and enterprises, and bringing about regional balance in economy.

Effects on production: Production and employment in a country depend on three factors; ability of the people to work, save and invest; willingness to work, save and invest and diversion of economic resource between different uses and localities. Public expenditure influences these factors in a number of ways and thus, helps in increasing production and employment within the country.

Activity 6.3

Visit different sources including websites and collect data on the government budget for atleast five years consecutively. Assess the proportion of the recurrent and capital expenditures. Has it been increasing or decreasing? Why?

Exercise 6.4

1. "Public expenditure is not an important tool of economic policy". Discuss.
2. With appropriate examples, explain possible effects of public expenditure in a country like Tanzania.
3. Distinguish the main categories of public expenditure in Tanzania and briefly discuss their objectives.
4. An increase in capital expenditure of the country is likely to raise recurrent expenditure. Explain.

MACROECONOMICS FORM 5&6 (2022).indd 166 07/03/2022 16:20

National budget

A national budget is the financial plan of the government. It brings together estimates of anticipated revenues and proposed expenditure, employing the schedule of activities to be undertaken and the means of financing these activities. It is an economic document which contains estimates of government revenue and expenditure for a year. The budget also contains a review of the financial position of the previous year, the proposals for financing revenue and capital expenditure for the coming year.

The budget in Tanzania is prepared and implemented on an annual basis and it runs according to the financial year (also known as a fiscal year) rather than a calendar year. In Tanzania the financial year (FY) goes from 1st July to 30th June. The financial year is typically cited in terms of the year it begins as well as the year it ends. For instance, the financial year began on 1st July 2020 and ended on 30th June 2021 is referred to as the financial year 2020/2021 (FY 2020/21).

The budgeting process in Tanzania

This is a process by which the government creates and approves the budget. The budget process comprises stages which feed into one another in circular process. There are four main phases in the budget process:

Budget formulation: This normally occurs between November and May. It involves formulation of budget policy and resource projections, issuance of planning and budget guidelines, estimating revenue and expenditure, scrutiny of estimates by parliamentary sub-committees and inter-ministerial technical committees and cabinet approval of budget estimates.

Debating and approval of the budget: Normally occurs between April and June. It involves tabling in the legislature, presentation of the budget speech, debating in full parliament and voting of the budget into law. The national assembly shall on/or before 30th June each year after debate approves the annual national budget.

Budget execution: Normally occurs between 1st July and 30th June. It involves preparation of action plans by ministries, departments and agencies, release of funds through cash budget system and actual delivering of services.

Oversight and control: This is an ongoing process of budget monitoring throughout the financial year. It involves external audit conducted by the Controller and Auditor General (CAG) and tabling of audit reports in the parliament, then follow-up actions are taken.

Types of national budgets

A national budget can either be a surplus budget or a deficit budget or a

MACROECONOMICS FORM 5&6 (2022).indd 167 07/03/2022 16:20

balanced budget. These are explained as follows:

A balanced budget: When the total revenue that a government collects in a year is equal to the amount it plans to spend on providing public goods and services and debt interest, it is called balanced budget. However, this is a rare case to be achieved.

A surplus budget: A surplus budget is the type of a national budget which occurs when government revenue collected in a given year exceeds the estimated expenditure. A surplus budget occurs as a result of adapting a fiscal policy which involves rising taxes, increasing borrowing and reducing government expenditure. Budget surplus is the saving of the government.

A deficit budget: A deficit budget is a national budget which occurs when government revenue collected in a given year is less than the estimated government expenditure. It is the opposite of a surplus budget. A deficit budget is essentially caused by the implementation of government fiscal policy which may lead to sharp increase in expenditures. This policy involves reduction of taxes and increasing government expenditure. A deficit budget aims at promoting the expansion of the level of economic activity which recover the economy from a depression. A deficit budget leads to a budgetary dependency.

Budget dependency has the following effects:

(a) Failure of the government to meet its plans;

(b) Rising of the public debt. The deficit will generally lead to an increase in public debts. Trying to meet its plan, the government would try to take loan which in turn enlarge the national debts;

(c) It creates a high degree of country dependency on foreign aids. The increase in debt may perpetuate the need for foreign assistance which makes a country a dependent;

(d) It may lead to a loss of political sovereignty. The more the dependency in foreign assistant the more the loss of county autonomy; and

(e) The country may be forced to abide to some conditionalities from international institutions like World Bank and International Monetary Fund (IMF) and donor countries.

Functions of the national budget

The national budget is prepared to perform the following functions:

National budget helps to stabilise prices: Through the national budget the government can control inflation and deflation. While a surplus budget helps to curb inflation, a deficit budget controls deflation in the economy.

A national budget helps to promote economic growth: A deficit budget helps to stimulate the level of economic

MACROECONOMICS FORM 5&6 (2022).indd 168 07/03/2022 16:20

activity leading to high rate of economic growth through injection of fund to the economy.

A national budget helps to redistribute income in the economy: The government can adopt progressive taxation and increase expenditure on basic social services to the poor in order to reduce the income gap in the economy.

A national budget can help to correct a deficit in the balance of payments: When a country facing difficulties in its balance of payments, the government can raise taxes on imports in order to discourage imports while providing tax relief and subsidies to exporters in order to promote exports. As a result of this, the deficit gets corrected.

A national budget can be used to achieve full employment level: This can be achieved by adopting a deficit budget which stimulates the level of economic activity and creates positive multiplier effect.

Exercise 6.5

1. Discuss the budgeting process of Tanzania.
2. Describe the types of government budget.
3. Why is the government budget an important tool of economic policy?

A public debt

A public debt is a debt which a state owes to its nationals or to the nationals of other countries. Public debt is one of the means to finance government expenditure. When the government expenditure exceeds revenues, it borrows from within and outside the country. Borrowing by the government leads to the public debt.

Types of public debt

The following are the various types of public debt:

Funded debt and unfunded debt: Funded debt is a long-term debt, exceeding the duration of at least one year. It comprises securities which are marketable on the stock exchange. Funded debt in its proper sense is an obligation to pay a fixed sum of interest, subject to the option of the government to repay the principal. In such debts, the creditor has no right to anything but the interest. Unfunded debts, on the other hand, are for a comparatively short duration. They are generally redeemable within a year. Unfunded debts are always incurred in anticipation of public revenue, a temporary measure to meet current needs.

Productive debt and unproductive debt: Public debt is said to be productive when government loans are invested in productive assets or enterprises such as railways, irrigation, and multipurpose projects. This yields a sufficient income

to the public authority to pay out annual interest on the debt as well as help in repaying the principal in the long run. When the government borrows for unproductive purposes like financing a war, natural calamities relief, or for lavish expenditure on public administration such public loans are regarded as unproductive. Unproductive loans do not add to the productive capacity of the economy, so they are not self-liquidating. Unproductive public loans thus, cast a net burden on the community, as for their servicing and repayment purpose, government will have to resort to additional taxation.

Internal debt and external debt: Internal debt is the one which the government borrows from individuals or institutions within the country. In the case of external debt, the government borrows from individuals or institutions or other governments outside the country. Such loans are subscribed by foreign governments, private foreign institutions, foreign individuals, and international organisations like United Bank of Africa, World Bank, African Development Bank and International Monetary Fund.

Voluntary debt and involuntary debt: Voluntary debt is a debt which is taken by the government without any force or pressure. People lend to the government voluntarily. On the other hand, an involuntary/compulsory or forced debt is that debt which the government compels the people to buy government bonds in case of a war or national emergency.

Redeemable and irredeemable debts: On the criterion of maturity, public debts may be classified as redeemable or irredeemable. Loans which the government promises to pay off on a future date are called redeemable debts. For redeemable debts, the government has to make some arrangement for their repayment. They are, therefore, terminable loans. Irredeemable debts, their maturity period is not fixed. They are generally of a long duration. Under such loans, public is burdened with a perpetual debt, as tax-payers would have to pay heavily in the end. On the ground of sound finance and convenience, redeemable debts are more preferred.

Causes of public debt

Governments borrow internally and externally for specific reason(s). The following are the reasons:

To finance deficit budget: The government borrows in order to finance the deficit budget. By so doing, it can meet expenditure of planned projects.

To finance a war: The government borrows when it is involved in a war. During war, the governments' expenditure increases to a great extent on armaments and forces. This can be met by raising public loans on a large scale rather than through taxation.

Natural calamities: Natural calamities like earthquakes, floods and famines tend to increase government expenditure in order to provide relief to the victims.

MACROECONOMICS FORM 5&6 (2022).indd 170 07/03/2022 16:20

This necessitates large public borrowings by the government.

Economic development: Developing countries and developed countries borrow in order to achieve high level of economic development. Developing countries do not have sufficient resource to finance their development plans because they are poor. These countries need to borrow in order to finance agriculture, industry, power, transport and communication. Developed countries also borrow, to modernise their infrastructure facilities such as roads, railways, and power.

Achieve economic stability: Government borrows to stabilise the economy. To control inflation governments, borrow to take away excess money supply from the public.

Public enterprises and utilities: Every country whether it is socialist or capitalist or mixed economy runs certain public enterprises and utilities like railways and power works, water supply and sanitation services which require large funds. The government cannot meet them only through public borrowing.

Sources of public borrowings

There are two major sources of public borrowings; internal and external. The government may borrow internally from individuals, banks and non-banking financial institutions like insurance companies, investment trusts, mutual funds, individual corporations, commercial banks and central bank. On the other hand, external borrowings are generally voluntary, whereby the government borrows from either citizens or institutions outside the country. Such institutions may include private foreign institutions, foreign individuals, and international organisations like World Bank (IBRD-International Bank for Reconstruction and Development), International Monetary Fund, International Development Association and African Development Bank.

Effects of public debt

When the government borrows, it transfers money from one social setting to another. Money flows from the people to the government. These transfers of money from one set of community to the other may affects on consumption, production, distribution and business activity as follows:

Effects on consumption: Normally people reduce their consumption level to save or invest. Therefore, when people voluntarily buy government bonds and treasury bills (investment), their level of consumption will be reduced. On the other hand, when the government spends the borrowed funds on public works like roads, canal and power, the incomes of the recipients will increase and the level of consumption will also increase.

Effects on price stability: When the general price of goods and services is high, governments may opt to borrow

MACROECONOMICS FORM 5&6 (2022).indd 171 07/03/2022 16:20

from the public and reduce inflationary pressure by taking money from them.

Effects on private sector: When the government spends the borrowed funds in buying goods and services from private sector and creation of infrastructure that supports private sector, it will lead to multiplier effect by increasing production, employment and eventually expansion of private sector.

Effects on economic activity: One of the most important objectives of public debt is to stimulate the level of economic activity in the country. When the government borrows, especially from external and injects the borrowed money in the economy to finance capital projects, it will stimulate employment, purchasing power, demand for goods and services rise, investment and production.

Effects on income distribution: Public debt leads to the transfer of money from one social setting to the other. If the government spends the borrowed money on public works and other development projects that focus the poor community, it will increase productive capacity, income and wealth of the community.

Management of public debt

This is the process of establishing and executing a strategy for managing the government's debt to raise the required amount of funding at the lowest possible cost over the medium to long term, consistent with a prudent degree of risk.

There are three major objectives of debt management. These are:

(a) To meet the borrowing requirements of the government;

(b) To borrow at the lowest possible cost over the medium to long run; and

(c) To keep a prudent degree of risk in the debt portfolio.

Techniques of debt management

The most important objective of debt management is to reduce interest cost of the public debt to the government so as to ensure the burden of servicing the debt is kept at minimum. The following are some techniques of debt management:

Changing the maturity structure: One of the techniques of debt management is to change the maturity structure of the debt as a device for economic stabilisation. For instance, during boom periods the central bank (the Bank of Tanzania to be specific) sells long-term government securities to the market and purchase short term government securities. During a recession, the central bank sells short term government securities and purchases long term government securities. This means matching of the debt maturities with ability to pay the government debt.

Advance refunding: Another method of lengthening the public debt is advance funding. The central bank offers the holders of a particular long-term

MACROECONOMICS FORM 5&6 (2022).indd 172 07/03/2022 16:20

government security, which still has some years to mature, to exchange the securities for new security with a longer maturity.

Coordination between monetary and fiscal policies: Debt management requires coordination of monetary and fiscal policies. The central bank, as the controller of monetary policies, should be ready to purchase or sell government securities in the open market in order to bring economic stability and minimise the interest cost of the debt to the government. For instance, a budget surplus has been used as a fiscal device during boom and a budget deficit during a depression.

Redemption (payment) of public debt

The government can employ the following methods to pay the public debt:

Utilisation of surplus revenue: Surplus budgets (spending less than the public revenue obtained) may be used for paying off public debts. However, in recent years due to ever-increasing public expenditures, surplus budget is a rare phenomenon.

Conversion: This is a method of reducing the burden of the public debt. A government may have borrowed when the rate of interest was high. When the rate of interest falls, it converts a high-rated loan into a low-rated one. The success of conversion however, depends on credit worthiness of the government, the efficiency in managing public debt and the maintenance of adequate stock of security.

Refunding: Refunding of debt means the issue of new bonds and securities by the government in order to repay the matured loans. Usually, short-term securities are replaced by issuing long-term securities. Under this method the money burden of public debt is not abandoned but it is accumulated owing to the postponement of debt redemption.

Sinking fund: A sinking fund is a fund created by the government and gradually accumulated every year by setting aside a part of current public revenue in such a way that it would be sufficient to pay off the funded debt at the time of maturity. This is the most systematic and best method of redemption

Capital levy: A capital levy is a tax on property and wealth on a progressive scale. Capital levy is strongly recommended as a method of debt redemption with the least real burden on the society. This tax is fixed just after a war or an emergency when the burden of the debt is very heavy.

Debt repudiation: This option occurs when the government declares that it does not recognise any responsibility for continuing to pay the debt service. In other words, the government refuses to repay the debt.

MACROECONOMICS FORM 5&6 (2022).indd 173 07/03/2022 16:20

Activity 6.4

Search from different learning materials on Tanzania national debt for the past three years, then:

(a) Examine the trend of the public debt.

(b) Organise a class debate which will expose you on reasons for the identified trend noted in part (a); and

(c) Suggest the means of correcting the public debt.

Chapter summary

1. Public finance is the branch of economics which deals with the functions and responsibilities of the government in the economy. There is both public and private finance.

2. The success of the government to perform its function depends on among, other things, availability of sufficient funds raised through both internal and external sources of government revenue.

3. Tax is a compulsory contribution which is made by individuals and corporate entities for the purpose of financing expenditure of the government. Taxation is therefore the process of levying and collection of tax from taxable persons. Taxes can be direct or indirect.

4. There are three systems which are used by the government to levy taxes. These are progressive tax system, proportional tax system and regressive tax system. Each has its advantages and disadvantages.

5. The Value Added Tax (VAT) is a tax on expenditure. It is a tax imposed on goods and services at each stage of production, distribution and exchange.

6. Incidence of tax means the final resting place of the tax burden after all individuals and firms have adjusted their behaviour. It is affected by factors such as price elasticity of demand and supply, time, cost, nature of tax and market conditions

MACROECONOMICS FORM 5&6 (2022).indd 174 07/03/2022 16:20

7. Taxable capacity is the level up to which taxes can be imposed without harming the interest of individuals in a community.

8. Government or public expenditure is the money spent by public authorities like central and local authorities on various activities for achieving social, political and economic objectives. It may be classified as capital expenditure and re-current expenditure.

9. A national budget is the financial plan of the government. It is of three types, namely; balanced budget, deficit budget and surplus budget. It is a four-step process, namely; budget formulation, parliamentary debate and approval, budget execution, oversight and control.

10. Public debt is one of the means to finance government expenditure. When the expenditure exceeds its receipts, the government borrows from within the country and outside the country. Borrowing by the government leads to a public debt.

Revision exercise

1. (a) Describe the differences between public and private finance.
   (b) Explain the roles of public finance in a developing economy like Tanzania.

2. (a) Describe the terms, public good and private good.
   (b) Discuss the principles of public finance.

3. (a) "A country can survive without taxation". Discuss.
   (b) Outline three systems of taxation and explain which one is relevant/ appropriate for Tanzania.

4. (a) Identify types of tax incidences
   (b) show how tax impact differ from tax incidence.

5. What is taxable capacity? Explain the determinants of taxable capacity.

MACROECONOMICS FORM 5&6 (2022).indd 175 07/03/2022 16:20

6. With the aid of illustrations, show how price elasticity of demand and supply of goods and services affect the tax incidence between a seller and a buyer.

7. Describe the budgeting process of the Tanzanian government.

8. With vivid examples, show how budgeting is important in a country like Tanzania.

9. Identify types of government budgets. Explain why Tanzania has continuously been experiencing deficit budget and suggest the ways to finance it.

10. Assess the burden (incidence) of public debt.

11. Study the table below and attempt the next questions:

Individual's income (Tshs)	**Amount paid by tax payers (Tshs)**		
	Moshi	Abdul	Ivan
200,000	10,000	10,000	10,000
400,000	10,000	20,000	25,000
600,000	10,000	30,000	45,000
800,000	10,000	40,000	70,000
1,000,000	10,000	50,000	100,000
1,200,000	10,000	60,000	135,000

(a) Which tax systems are adopted in imposing tax for incomes of Moshi, Abdul and Ivan?

(b) Illustrate the taxation systems above on the same axis.

12. (a) Describe sources and types of public debts

(b) Discuss ways of public debt redemption.

MACROECONOMICS FORM 5&6 (2022).indd 176 07/03/2022 16:20

Chapter Seven

International trade

Introduction

No country in the world is self-sufficient. Meaning that, countries depend on each other economically, socially and/or politically with the focus of meeting peoples' demands. In this chapter, you will learn about the concept of international trade, terms of trade, trade protectionism, free trade and exchange rate. The competencies developed will enable you to acquire knowledge and experience of doing cross border trade.

The concept of international trade

Generally, trade refers to the exchange of goods and services. Trade can occur among individuals or firms of the same country or among individuals or firms of different countries. If a country does not trade with some other countries, we refer to this country as a closed economy. However, this is a rare case. If a country has economic relations with the rest of the world, we refer to this country as an open economy. Retailers and wholesalers are the main agents of domestic trade in the closed economy while exporters and importers are the main agents of foreign trade in an open economy.

International trade is the trade among nations whereby goods and services are exchanged. It involves exports and imports of both visible and invisible goods. This gives consumers the opportunity to access goods and services which are not available in their own countries or are available but are more expensive than foreign goods and services.

The importance of international trade

International trade is important because there are gains from trade. Presumably, a country will voluntarily engage in trade only if it benefits from it. However, there are several other reasons for a country to engage in international trade. Some of the reasons are as follows:

Comparative advantage: This occurs when one country can produce a certain product at lower opportunity cost than its trading partners. So, the country specialises in the production of the commodity that it can produce at low opportunity costs and exchanges with the commodity that has high opportunity cost in its production.

Uneven distribution of natural resources: Countries engage in international trade because of uneven distribution of natural resources. For example, oil is needed all over the world; but the big reserve of oil is found in the desert region of the Middle East. Therefore, other countries must create strong trade links with the Middle East in order to get oil. Another example is Tanzanite which is only found in Tanzania. Therefore, Tanzania trade with other countries which need Tanzanite.

Technological advancement: Some countries are well developed technologically, to the extent that they can produce capital goods that cannot be produced by other countries. For example, China is advanced technologically to the extent that other countries are interested to trade with her.

Differences in geographical and climatic conditions: Some countries have suitable climatic conditions for production of certain agricultural products but others are not. Hence, countries with high production of certain crops may find it beneficial to trade with other countries which do not produce those crops. This brings the need for international trade.

Institutions that regulate the international trade

Historically, international trade used to be regulated by bilateral treaties between countries. After the World War II both bilateral and multilateral trade treaties have been regulated by the General Agreement on Tariffs and Trade (GATT) formed in 1947.

GATT was a legal agreement intended to minimise barriers to international trade by elimination or reduction of quotas, tariffs and subsidies while preserving significant regulations. Due to the need of international trade and requirements of many countries, the World Trade Organisation (WTO) was established in 1995 to replace GATT and that ensure global trade flows smoothly, freely and predictably.

The following are the functions of the WTO towards regulating world trade:

(a) To administer trade agreements;

(b) To act as a forum for trade negotiations;

(c) To handle trade disputes;

(d) To monitor national trade policies;

(e) To provide technical assistance and capacity building on trade to developing economies; and

(f) To ensure cooperation with other international institutions.

MACROECONOMICS FORM 5&6 (2022).indd 178 07/03/2022 16:20

Basic principles governing World Trade Organisation (WTO) roles

The following are the basic principles governing WTO roles in overseeing international trading system:

Principle of non-discrimination: This is a key concept in WTO law and policy. This principle is divided into two aspects:

(a) The Most Favoured Nation (MFN) principle: This principle entails that if the WTO member states provide a favour such as lowering a tariff to another member, then this favour must be extended to all other WTO members; and

(b) The National Treatment Principle: This principle entails that imported and locally produced goods should be treated equally.

Reciprocity: This principle means that WTO member states grant mutual concessions in tariff rates, quotas or other commercial restrictions. The advantage of this principle is that it limits the scope of free riding that may arise because of most favoured nation principle explained earlier.

Transparency: WTO members are supposed to publish their trade regulations, respond to information requests from other WTO members and also notify any changes of trade policies to WTO.

Binding and enforceable commitment: This principle means that any changes in tariff commitment made by WTO members in multilateral trade negotiations should be agreed after negotiating with other WTO trading partners. If the complaining country is not satisfied with the decision, it may request WTO dispute settlement procedures.

Safety valve: These are measures which enable governments to restrict certain goods or trade for specified reasons. This principle means that, in certain circumstances, to ensure fair competition governments may restrict trade to attain non-economic objectives.

Advantages of international trade

The following are the advantages of international trade:

Welfare increase: International trade increases welfare of the people. This happens when people of one country are able to get and consume what cannot be produced in their country. Without international trade countries could obviously not get commodities that cannot be produced domestically. But with international trade people enjoy varieties of goods and services from different countries.

Increase in the volume of world's production: International trade leads to increase in the volume of the world's production when a country specialises in production of the commodity that it can produce more efficiently.

MACROECONOMICS FORM 5&6 (2022).indd 179 07/03/2022 16:20

Transfer of technology: International trade facilitates transfer of technology; for example, this happens when hardware technology and software technology (technical part of the hardware) are exchanged. The transfer of technology leads to economic development.

Strengthen international relationship: Due to international trade there is improvement of social and cultural relationships among people of different nations, and this strengthens international peace.

Source of foreign exchange: International trade is the source of foreign exchange which is needed in exchange of goods that one country does not produce. For example, Tanzania produces and sells abroad agricultural products from which she earns foreign currency. In turn, the foreign currency earned is used to buy capital goods.

Increases government revenue: International trade leads to the increase in government revenue through different taxes like import tariffs.

Stimulates local industrial competition: International trade exposes local industries to competition which makes them more competitive by producing goods of high quality at low cost.

Expands market for goods and services: International trade leads to the expansion of markets for goods and services produced domestically. With international trade in operation, producers have a broader market to exchange their goods locally and globally.

Disadvantages of international trade

Although international trade has advantages in the economy, it also has the following disadvantages:

Undermine the growth of domestic infant industries: International trade may undermine country's infant industries. This is because the trade exposes the industries to competition with industries which enjoy economies of scale. Infant domestic industries are likely to produce at high cost and sell at high price compared to foreign industries that produce at low cost because of economies of scale and sell at low price.

Destruction of moral values in societies: International trade sometimes leads to the destruction of moral values among local societies. This happens when imported goods or materials are harmful. For example, increase in moral decay in Tanzania has been attributed to illicit drugs and pornographies from abroad.

Slows down the growth of the economy: If a country specialises in the production of a certain product and the demand for that product falls, that economy will surely suffer a great loss. Therefore, too much specialisation may slow the growth of the economy if demand for

MACROECONOMICS FORM 5&6 (2022).indd 180 07/03/2022 16:20

that particular good decreases. However, it is rare to find a country that practise total specialisation in producing certain commodities. Diversification of the economy is one of the national agenda for most countries.

Over exploitation of resources: International trade may lead to over exploitation of resources due to unequal exchange. Most of the third world countries like Tanzania export agricultural products at low prices in the world market and import capital goods at high prices from the world market. Tanzania needs to export tons of her products to get a unit of imported goods. More hectares of forests are being cleared annually, more minerals are being extracted annually in exchange for few capital goods.

Creates unemployment: International trade may lead to unemployment if most goods are imported from abroad. Imported goods discourage local industries which produce the same goods. And, when the industries collapse, rate of unemployment increases.

Some countries may be used as dumping areas of low quality goods: International trade makes other countries to be used as dumping areas where goods are sold at lower prices than their actual costs. This could be because exporting countries unfairly subsidise their products or companies which have overproduced and now are selling the products at reduced prices in foreign markets.

Theories of international trade

Trade theorists have laid down different theories of international trade. In this section, classical theories which are absolute advantage theory and comparative advantage theory are presented. However, some early ideas about gains from trade are found in the mercantilist school of thought, which is also presented below.

Mercantilism

Mercantilism refers to a collection of economic thoughts that came into existence in Europe from 1500s to 1750s. This collection of thoughts promoted restrictive trade policies. The emphasis was the accumulation of wealth in the form of precious metals such as silver and gold. This is because the wealth of a nation was measured by the stock of precious metals possessed. However, today we measure the wealth of a nation based on the stock of human capital development, natural resources and marketable capital goods. The theory promoted countries to export more and import less. The assumption was that, when the exports exceed imports, the resulting surplus would be settled by the inflow of gold and silver. It was believed that, the increase in gold and silver would lead to an increase in the prosperity of the nation. During the time of mercantilism, imports were restricted through tariffs, quotas and other measures. But this thinking was criticised by other theorists such as David Hume, Adam Smith and David Ricardo who argued that, the excess of exports

MACROECONOMICS FORM 5&6 (2022).indd 181 07/03/2022 16:20

over imports can only be possible in the short run. They asserted that in the long run, the inflow of gold and other forms of wealth may lead to an increase in the price of domestic goods.

Classical theories of international trade

The classical theories of international trade are guided by the following assumptions:

(a) Perfect mobility of factors of production; factors of production must be able to move from production of one good to another within the country but not between countries;

(b) No transport costs involved in trading between countries;

(c) No barriers to trade such as tariffs or quotas;

(d) The world comprises of two countries producing two goods only;

(e) Firms experience constant returns to scale where a proportional increase in inputs would result to the same increase in output; and

(f) Labour is the only factor of production.

The theory of absolute advantage

Free trade was propounded by the classical economist Adam Smith on the ground that it promoted the international division of labour. Trade could be beneficial when a country is a more efficient producer of one of the goods being traded. A country has an absolute advantage if it is more efficient in the production of one good over another country.

Example 7.1

Assume country "A" can produce 5 cars or 20 metres of cloth in an hour of labour time, while country "B" can produce 15 cars or 10 metres of cloth in an hour. This information is summarised in table 7.1.

Table 7.1: *Illustration of absolute advantage*

Countries	Output per labour hour	
	Car	Cloth (metres)
Country A	5	20
Country B	15	10

According to absolute advantage theory, country "A" has an absolute advantage in the production of cloth; because its cloth productivity (output per labour hour) is higher than that of country "B". On the other hand, country "B" has an absolute advantage in car production, because it can produce 15 cars per 1 labour hour compared to country "A" that produce 5 cars per 1 labour hour.

According to Adam Smith, each country should specialise in the production of the good that it produces more efficiently and import the good that it produce less efficiently.

MACROECONOMICS FORM 5&6 (2022).indd 182 07/03/2022 16:20

Example 7.2

Assume there are two countries: Tanzania and Uganda, endowed with same amount of labour hours which can be used to produce two goods cotton and coffee. Tanzania can produce 20 tons of cotton and 5 tons of coffee, and Uganda can produce 10 tons of cotton and 8 tons of coffee. Table 7.2 shows this production possibility.

Table 7.2: *Illustration of absolute advantage*

Countries	Tons of cotton that can be produced per labour hour	Tons of coffee produced per labour hour
Tanzania	20	5
Uganda	10	8

From Table 7.2, Tanzania produces more tons of cotton than Uganda per labour hour and Uganda produces more tons of coffee than Tanzania per labour hour. Therefore, Tanzania has an absolute advantage in the production of cotton because it can produce more tons of cotton than Uganda using same amount of labour. Uganda has an absolute advantage in the production of coffee because it can produce more tons of coffee than Tanzania using the same amount of labour. From the principle of absolute advantage, Tanzania has to specialise in the production and exportation of cotton and import coffee from Uganda while Uganda has to specialise in the production and exportation of coffee and import cotton from Tanzania.

How specialisation leads to an increase in the volume of trade?

From example 7.2, let us assume that the amount of resources available is 20 hours of labour. Where half of it (10 hours) is devoted in the production of cotton and other half (10 hours) is used in the production of coffee. Production possibility are as shown in Table 7.3.

Table 7.3: *Gains from specialisation*

Countries	Before specialisation		After specialisation	
	Tons of cotton produced in 10 hours	Tons of coffee produced in 10 hours	Tons of cotton produced in 20 hours	Tons of coffee produced in 20 hours
Tanzania	200	50	400	0
Uganda	100	80	0	160
Total production	300	130	400	160

From Table 7.3, the world volume of production will increase, if the country will specialise in production of goods she has absolute advantage. For example, after specialisation the volume of cotton increases from 300 tons to 400 tons and that of coffee from 130 tons to 160 tons.

However, absolute advantage can explain only a very small part of world trade today, such as some of the trade between developed countries and developing countries. But it fails to explain what happens to international trade if one country has absolute advantage in the production of both commodities and the other country has absolute disadvantage in the production of both commodities, as shown in Table 7.4.

The theory of comparative advantage

The theory of comparative advantage was developed by David Ricardo in 1817. The theory states that if the country is more efficient in production of both commodities than another country and the other country is less efficient in production of both commodities, there is still mutual benefit of trade to each country if they specialise in the production and export a commodity with relative low cost (low opportunity cost), and import commodity with relative high opportunity cost. Therefore, trade is based on opportunity cost, that is relative cost not absolute cost. Consider data given in Table 7.4.

Table 7.4: *Illustration of opportunity cost*

Countries	**Tons of cotton that can be produced per labour hour**	**Tons of coffee produced per labour hour**	**Opportunity cost = sacrifice/gain**	
			Cotton	Coffee
Tanzania	20	10	10/20 = 0.5	20/10 = 2
Uganda	10	8	8/10 = 0.8	10/8 = 1.25

From Table 7.4 Tanzania has to specialise in production of cotton because she has lower opportunity cost than Uganda (0.5 < 0.8) and Uganda has to specialise in production of coffee which she has lower opportunity cost than Tanzania (1.25 < 2). Note that; opportunity cost is equal to forgone production of the second best alternative commodity.

The Ricardian model uses the concept of opportunity cost and comparative advantage. The opportunity cost of producing something means the cost of not being able to produce something else. Opportunity cost can be illustrated by the Production Possibility Frontier (PPF), or transformation curve. The PPF is

MACROECONOMICS FORM 5&6 (2022).indd 184 07/03/2022 16:20

a curve that illustrates the possible combination of two products that can be produced if both depend on the same finite resources for their production. It is used to demonstrate the point that any country's economy reaches its greatest level of efficiency when it produces only what it is best qualified to produce and trade with the rest of the world.

Figure 7.1 and Figure 7.2 show the amount of cotton and coffee produced by Tanzania and Uganda respectively as depicted in Table 7.4.

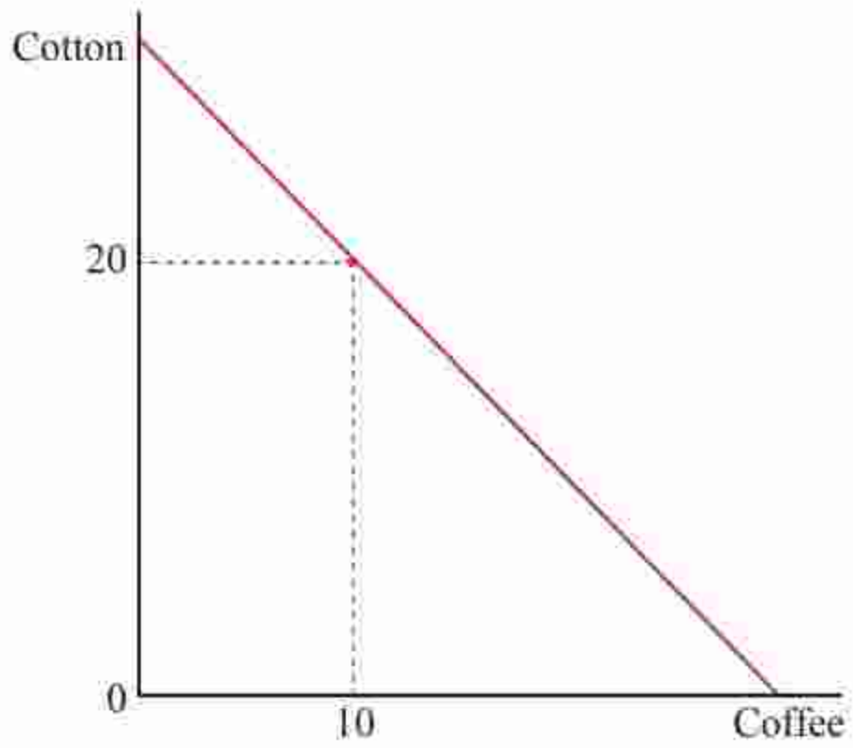


Figure 7.1: *The production possibility curve for Tanzania*

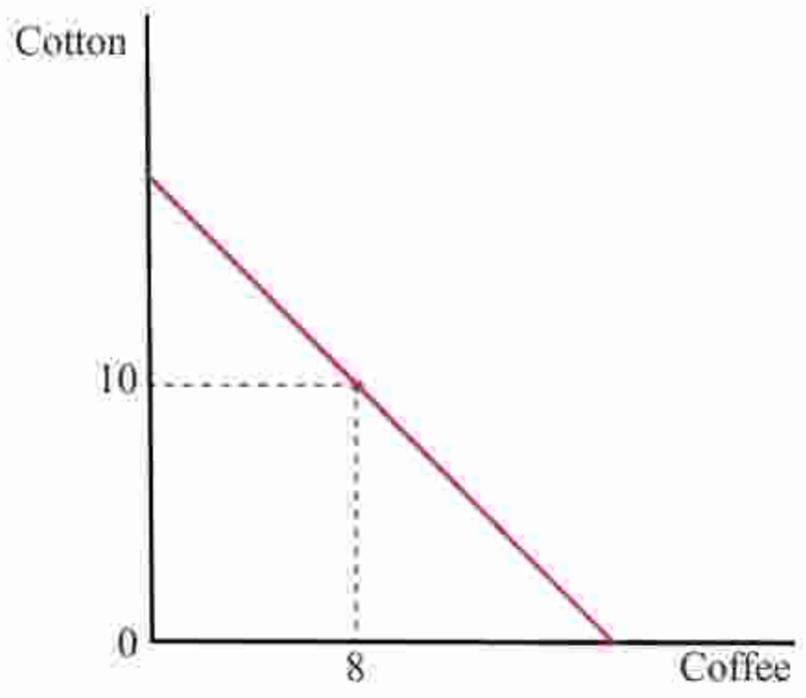


Figure 7.2: *The production possibility curve for Uganda*

The case of no comparative advantage

This occurs when absolute disadvantage that one nation has with respect to another nation is the same in both commodities. For example in Table 7.4, if in 1 labour hour Uganda would produce 5 tons of coffee, then Uganda would be exactly half as productive as Tanzania in both cotton and coffee. Uganda will then have comparative advantage in producing neither of the commodities.

Criticisms against the principles of absolute and comparative advantage

The following are the criticisms of the absolute and comparative advantage principles:

(a) The theories assume perfect mobility of factors within the country which is unrealistic because some labourers undergo long training such that you cannot shift them to another field easily. For example, a doctor cannot be a lawyer without going for law training.

(b) The assumption that there is no transport cost is unrealistic because transport cost is involved in trading between countries;

(c) The theories assume that there are no barriers to trade. This is not true because if there is no specific

MACROECONOMICS FORM 5&6 (2022).indd 185 07/03/2022 16:20

agreement like free trade, there are always barriers to trade such as tariffs and quotas;

(d) The theory assumes that the world comprises of two countries and produces two goods only. This is not the case because all countries produce many commodities; and

(e) Assumption that firms experience constant return to scale as the output changes is unrealistic. This is because, marginal rate of substitution is not the same in different countries and efficiency of factors is also not the same.

Application of theories of absolute and comparative advantage

The following are the general applications of the principles of absolute and comparative advantage:

Provides a basis for trade between nations: Comparative advantage theory indicates that international trade takes place when it is beneficial for both countries. This implies that, each country must identify the type of the product to produce locally and also identify which product to import.

Set the rate of exchange between two commodities: The differences in opportunity cost between two countries provide an indication on the rate of exchange which must be used by the trading nations.

Enables proper allocation of resources: Without the two theories countries would have not known the commodities which give them absolute or comparative advantage. As a result, they would have to allocate resources to produce unproductive commodities and this would worsen their economic condition.

Improves balance of payments position of trading nations: Balance of payments (BoP) indicate the volume of trade between countries. Using the theory of comparative advantage, each country specialises in a commodity which can be produced efficiently and at a low opportunity cost. This increases the volume of trade as all resources are rationally allocated towards the production of a particular commodity. Thus, it improves the BoP position of the country.

Improves quality of exports: Using a theory of comparative advantage, a country chooses a type of commodity to specialise on. Once the commodity is known, the country now pools all the available resources by investing in training and discovery of new technologies. Which will in turn help in improving quality and volume of the commodity for export purposes.

Promotes free trade: The two trade theories did not consider the presence of trade protectionism measures such as tariffs and quotas. Tariffs and quotas tend to increase costs of trade. For

MACROECONOMICS FORM 5&6 (2022).indd 186 07/03/2022 16:20

countries to benefit from trade they should not impose trade protectionism measures.



Activity 7.1

The law of comparative advantage is one of the most important laws of economics. It is applicable to nations as well as to individuals and it is useful for exposing many serious fallacies in apparently logical reasoning. In line with this statement visit a nearby library, read literature about classical trade theories and find out how absolute advantage and comparative advantage differ. Then:

(a) Write down what you have learnt;

(b) Explain how a country can gain from trade with absolute and comparative advantage scenarios; and

(c) Share the materials with your fellow students.

Exercise 7.1

1. With relevant examples, describe how a country can benefit from international trade.
2. Are there any criteria used for a country to engage in international trade? Explain.
3. With the help of WTO principles, explain how the organisation regulates global trade.

Terms of trade

This is defined as the ratio of the price of exports to the price of imports (for the two commodities case) or the ratio of the price index of exports to the price index of imports (for more than two commodities case). It shows the rate at which one country's product is exchanged with those of another country. It indicates how much of one product must be exported in order to obtain a unit of an imported product.

It can be expressed mathematically as follows:

$$\text{Terms of trade (ToT)} = \frac{\text{Export price index}}{\text{Import price index}} \times 100 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7.1)$$

The terms of trade are generally referred to as commodity or net barter terms of trade. It can either be favourable, unfavourable or balanced as explained below:

MACROECONOMICS FORM 5&6 (2022).indd 187 07/03/2022 16:20

Favourable terms of trade: This occurs when export price index is greater than import price index or where the unit of export is exchanged by more units of the imported goods. This implies that, terms of trade is greater than 100.

Unfavourable terms of trade: This occurs when export price index is less than import price index or is where the unit of import needs more units of exported goods. This implies that, terms of trade is less than 100.

Balanced terms of trade: This is the situation where the price index of export is equal to the price index of import or where the unit of export is exchanged by the same unit of import (term of trade is equal to 100).

Measurement of terms of trade

Terms of trade is measured from the base year where the value of export price index and import price index is 100. For example, taking the base year in Tanzania to be the year 2017 and at the end of the year 2019, the export price index decreased to 90 while that of import increased to 110, terms of trade will be equal to 82 which is unfavourable. However, if at the end of the year 2019 import price index decreases to 90 and that of export increases to 120, the terms of trade will be 133 which is greater than 100, implying favourable terms of trade. If at the end of the year 2020 export price index became 100 and import price index became 100 as well then, terms of trade will be 100 which is the balanced terms trade.

Ways of measuring terms of trade

There are many ways (methods) of measuring terms of trade. In this section, only three ways are discribed as follows:

Net barter (commodity) terms of trade

Terms of trade (ToT) is measured by taking the ratio of price index of a country's exports (P_x) to the ratio price index of imports (P_m). That is,

$$ToT = \frac{P_x}{P_m} \times 100 \quad \text{.....(7.2)}$$

Gross barter terms of trade

Terms of trade (ToT) is measured by taking the ratio of quantity exported (Q_x) to quantity imported (Q_m). That is,

$$ToT = \frac{Q_x}{Q_m} \times 100 \quad \text{.....(7.3)}$$

Income terms of trade

Terms of trade is measured by taking the ratio of the product of price index of exports (P_x) multiplied by quantity exported (Q_x) to price index of imports (P_m). That is,

$$ToT = \frac{P_X \times Q_X}{P_m} \quad \text{.....(7.4)}$$

Determinants of terms of trade

The following are the determinants of terms of trade:

MACROECONOMICS FORM 5&6 (2022).indd 188 07/03/2022 16:20

Trade restrictions like import tariffs and quota: Free trade may lead to deteriorating terms of trade because it encourages more import. Restriction on trade discourages importation, hence improves the terms of trade.

Subsidisation on export: A country can improve terms of trade if it increases the volume of its export. One strategy which can be used by a country to improve its export position is through provision of subsidies. Subsidised goods will lower production costs and this effect attracts many producers as a result volume of export increases and the terms of trade improves.

Degree of monopolisation in the world market: If the world market is monopolised by large producers, it results to low prices of exports. Low prices of commodities discourage small exporters as they get low profit when selling their commodities. This reduces the volume of exports and results into deterioration in the terms of trade.

Market forces: Forces of demand and supply influence the volume of goods to be exported or imported. For instance, if people in the domestic market in Tanzania demand more commodities from China, then imports will increase and terms of trade deteriorate. If people in China demand more agricultural products from Tanzania, then volume of export in Tanzania increases and this will improve the terms of trade.

Exchange rate: Exchange rate is the value of one country's currency in terms of another country. Exchange rate policy of a country influences the volume of export or import. For example, in the year 2019, 1 USD was equivalent to Tshs 2,300 and then, in the year 2020, 1 USD was equivalent to Tshs 2,500. This implies that, Tshs has depreciated relative to the USD. This makes the importation of the US goods expensive and the exportation of Tanzania goods to the US cheap leading to improvement in the terms of trade.

Taste and preferences: Situation of the market such as changes in the taste and preferences of consumers determine the volume of imports or export. For example, if consumer's taste has changed in favour of new mobile phone brand which is imported from abroad then imports will increase and this makes terms of trade to be unfavourable.

Reason for deteriorating terms of trade in developing and the least developed countries

The following are the reasons for deterioration of terms of trade in developing and the least developed countries (LDC's):

Goods with low price elasticity: Developing countries like Tanzania exports goods which have less price elasticity like unprocessed agricultural products. Agricultural products are sold at low price in the world market while

MACROECONOMICS FORM 5&6 (2022).indd 189 07/03/2022 16:20

capital goods are sold at high prices. This leads to deteriorating terms of trade.

Discovery of substitute materials: Discovery of synthetic materials like nylon has led to decreased demand for agricultural products like cotton and sisal. This makes the price of agricultural products to decrease and worsen the terms of trade.

Discovery of recycling techniques: Most developed countries have discovered the technique of recycling and raw material serving techniques. This has led to decreased demand of raw materials from the third world countries.

Technological development: High technological development in developed countries compared to developing countries has led to an increase in the demand of new technologies in third world countries. The prices for the new technologies are very high and leads to unfavourable terms of trade.

Import substitution industries: Establishment of import substitution industries in developing countries may lead to the decline in the terms of trade. Import substitution industries are the industries that produce commodities that were previously imported. Import substitution industrialisation process in developing countries has led to the import of capital goods to be financed by primary commodity exports. Since the prices of primary commodities are frequently lagging behind those of capital goods in the world market, and then importation of capital goods causes deterioration of terms of trade.

Increase in price of primary products: When some major suppliers of primary product like fuel decide to form cartels that make them to have monopoly power over the product, the price of those products will rise, hence, the terms of trade deteriorate for the countries that do not produce them.

Remedies for deteriorating terms of trade in developing countries

In order to solve the problem of deteriorating terms of trade in developing countries, the following measures may be applied:

Use of import control measures: One of the remedies of deteriorating terms of trade is to use import control measures like tariffs, quota, devaluation of currency and total ban. Import control measures discourage importation and improves the terms of trade.

Export promotion: Export promotion is another measure used to improve the terms of trade. Countries use this measure to promote exports of goods and services of their companies internationally. This is done through the establishment of export promotion zones and special economic zones purposely to produce goods for export. In Tanzania, the Export Processing Zone Authority (EPZA) was introduced to promote export. In addition, countries

MACROECONOMICS FORM 5&6 (2022).indd 190 07/03/2022 16:20

have established commodity boards to promote and finance export of certain products. For example; Coffee Board of Tanzania, Cotton Board of Tanzania and Cashewnut Board of Tanzania.

Economic integration: Economic integration blocks like East Africa Community (EAC) and Southern Africa Development Community (SADC) can be used to reduce the costs of trade, improve the accessibility of goods and services and increase consumer purchasing power in a partner state. Also, through economic integration employment opportunities tend to improve because of trade liberalisation. Consequently, trade liberalisation will lead to market expansion, technology sharing and cross-border investment among the participating countries.

Mechanisation: Requires machines whose importation can affect terms of trade. Can also lead to unemployment has discussed in the previous chapter leading to decrease in aggregate deman which will throw they economy in to a downward spiral.

Balance of trade

Balance of trade is the difference between the values of export of visible goods and import of visible goods. The balance of trade can be favourable, unfavourable or balanced as explained below:

Favourable balance of trade

The balance of trade is said to be favourable when export of visible goods is greater than import of visible goods during the year. That is when difference between visible exports and visible imports is positive.

Unfavourable balance of trade

Unfavourable balance of trade occurs when the country's visible exports is less than its visible imports during the year. That is when the difference between visible exports and visible imports is negative.

Balanced balance of trade

The balance of trade is said to occur when the value of visible exports trade is equal to the value of visible imports.

NOTE: Visible and invisible goods mean the following:

Visible goods

Visible good is one that can be touched or seen such as books, pen, cars, radios and furniture. The trade that involves visible good is called visible trade.

Invisible goods

These are the services such as those provided by doctors, lawyers, teachers, banking and insurance. Trade that involves invisible goods is called invisible trade.

Balance of payments (BoP)

This is a summary statement in which all transactions of residents of a nation with residents of all other nations are recorded during a particular period of time, usually a calendar year. Residents

MACROECONOMICS FORM 5&6 (2022).indd 191 07/03/2022 16:20

in the context of BoP is determined by the company's area of operation. For example, SONY company operating in Tanzania, though it is a Japanese company, is regarded as resident of Tanzania in all entries in the BoP. The main purpose of balance of payments is to inform the government about her position in international transactions. This information helps the government to formulate monetary, fiscal and trade policies. Balance of payments can be in equilibrium or disequilibrium as follows:

Equilibrium in balance of payments (BoP)

This is when the receipt from abroad is equal to the payments to abroad. This is also, known as the balanced balance of payments.

Disequilibrium in balance of payments (BoP)

This can either be surplus balance of payment or deficit balance of payment as follows:

Surplus balance of payments

The balance of payments is said to be in surplus when the value of receipt from abroad is greater than payment to abroad. That is, when the difference between receipts from abroad and payment to abroad is positive. This type is also, known as favourable balance of payments.

Deficit balance of payments

Balance of payments is said to be in deficit when the value of receipt from abroad is less than the payments to abroad. That means the difference between receipt from abroad and payments to abroad is negative. This is also, known as unfavourable balance of payments.

The following are the reasons for deficit in the balance of payments:

Increase in demand for import: There is increase in demand of import due to the low production in many developing countries. The effect of environmental degradation and low technology has led to decrease in production of necessary goods which leads to the increase in imports.

Changes in tastes, fashions and preferences: There are also dynamic factors such as changes in tastes, fashions and preferences of the people that bring disequilibrium in balance of payments. If nation's citizens prefer goods from abroad, this will lead to a negative balance of payments.

Drop in foreign reserve: Continuous fall in the country's foreign exchange reserves due to low elasticity of supply of exports and excessive demand for foreign goods and services, leads to unfavourable balance of payments.

Low competition: Another reason for disequilibrium in the balance of payments is nation's low competitive strength in world markets which unfavourably affects its exports.

MACROECONOMICS FORM 5&6 (2022).indd 192 07/03/2022 16:20

Deterioration in terms of trade: In many developing economies, imports are higher than exports. Therefore, the deterioration in terms of trade causes deficit in the balance of payments.

Capital movement: Disequilibrium in the balance of payments can be caused by the movement of capital such as borrowings and lending. This type of movement brings about deficit balance of payments on capital account especially when a country gives loans and grants on a large scale to other countries. Consequently, borrowing at a large scale by developing economies from international institutions or other countries may have the favourable balance of payments.

Correcting deficit in the balance of payments

The following are the means of correcting deficit balance of payments in the economy:

Establishment of competitive import substitution industries: Establishment of import substitution industries may eventually lead to the decrease in expenditure on imports.

Use of import control measures: Another way of correcting the deficit in the balance of payments is by country to use import control measures like use of tariffs and import quota.

Promote export: The government has to promote exports by exempting tax on export, provision of subsidies to producers in order to compete with foreign investors and organise trade fairs in different countries. Another way in which the government could use to promote export is by implementing devaluation policy; where the government purposely reduces the value of her currency as compared to the foreign currency. Devaluation will make export cheap and import expensive, hence encourage export and discourage import. This is possible if a country maintains a fixed exchange rate regime. With flexible exchange rate regime (market based exchange rate) there is automatic corrections through depreciation or appreciation of currency.

Acquire new and advanced technology: To acquire new and advanced technology in order to increase production. The new technology may lead to increase in the volume of exported goods and decrease the volume of imported goods.

Requisition of financial assistance: Balance of payments can also be corrected by requesting financial assistance from donors. Financial assistant in form of grants or loans contributes to the country's receipt of that year and this strengthen the BoP.

Main accounts of balance of payments

The balance of payments has the following main accounts:

(a) Current account;
(b) Capital account;
(c) Financial account; and
(d) Reserves account.

MACROECONOMICS FORM 5&6 (2022).indd 193 07/03/2022 16:20

Current account

Current account is the account that record all receipts from the export of visible and invisible trade and payments to visible and invisible trade. It is divided into goods account and services account. The overall balance of payment is the difference between receipt from abroad and payment to abroad from both current and capital account. It is called current account because it affect a given year income.

Capital account

Capital account records all the receipts into an economy resulting from the acquisition of domestic assets such as shares and stocks abroad by foreigners, and all payments to an economy by foreigners. The balance of payment on capital account is the difference between receipt from investments abroad and payment to foreigner's investment.

Financial account

The financial account has following functional categories:

Direct investment, which is further divided into equity capital, reinvested earnings, and other capital. Direct investment is calssified primarily on directional basis (investment in the domestic economy by residents abroad and by non-residents).

Portfolio investment (inflow and outflows), includes long-term debt and equity securities, money market debt instruments, and tradable financial derivatives, including currency and interest rate swaps.

Other investment such as trade credit and borrowing, including IMF credit and loans. Although transactions are classified primarily by instrument, they may also be classified according to their maturity structure, which is important in the analysis of indebtedness.

Reserves account

Reserves account are reserve assets (maintained by the central bank) that are available to meet immediate needs. Despite the name, reserve assets in the standard balance of payments accounts are not stocks but changes in gross external assets. These assets include foreign exchange (currency, deposits, and securities) and monetary gold.

Activity 7.2

Collect data on Tanzania terms of trade (ToT) from the National Bureau of Statistics (NBS), Bank of Tanzania (BOT) or Ministry of Finance and Planning over the past 10 years. Then:

(a) Observe the trend of terms of trade;

(b) Write down the results by explaining the observed changes; and

(c) Share the results with your fellow students and discuss.

MACROECONOMICS FORM 5&6 (2022).indd 194 07/03/2022 16:20

Exercise 7.2

1. Distinguish between balance of trade and terms of trade.
2. List and explain factors which are likely to affect a country's balance of payments.
3. What are the possible effects of an increase in a country's level of interest rates on its balance of payments?
4. Show how the terms of trade are calculated.

Trade protectionism

Trade protectionism is the import control policy of protecting domestic industries against foreign competition by means of tariffs, subsidies, import quotas, or any other restrictive measures placed on the imports of foreign competitors. It is also known as import control measures.

The following are the forms of trade protectionism measures:

Import tariffs: This is the type of taxes or duty charged on imports. This tax can be specific or ad-valorem. Specific tariff is a tax levied as a fixed rate for each unit of a good that is imported. An ad-valorem duty is levied as a percentage of the value of imported goods.

Example 7.3

Consider the following hypothetical example in Figure 7.3, Tanzania produces shoes domestically, but at price P_1 (free market price), domestic supply is Q_1, while demand is Q_2. Hence, there is a shortage of $Q_1 Q_2$ that is filled by imports from South Africa.When Tanzania imposes a tariff, domestic price rises to P_2 (P_1 + tariff). Domestic supply increases from Q_1 to Q_3, while domestic demand decreases from Q_2 to Q_4. There is still a shortage of $Q_3 Q_4$ that is filled by imports (less volume than before tariff) from South Africa.

The government receives revenue from the tariff equal to tariff rate times the volume of imports (green rectangle ABCD).

MACROECONOMICS FORM 5&6 (2022).indd 195 07/03/2022 16:20

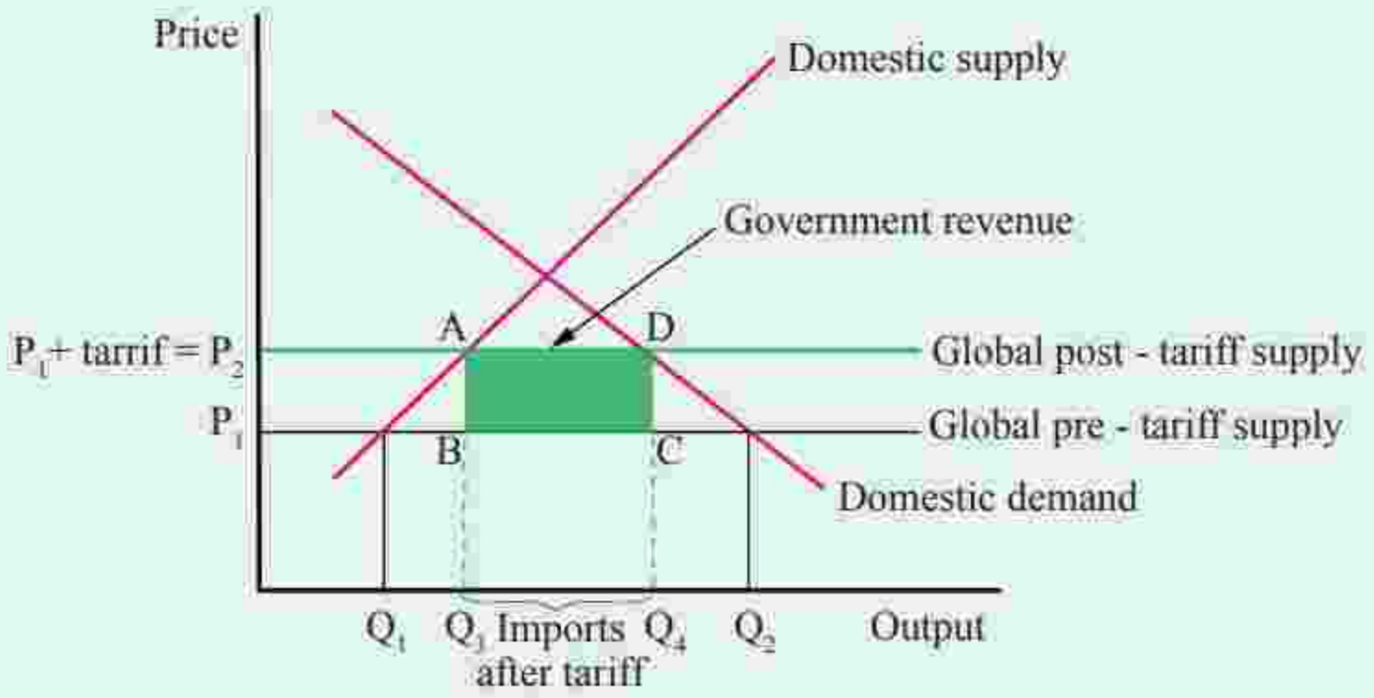


Figure 7.3: *Tariff impositon effects*

The resulting effects of tariffs are: increase in price from P_1 to P_2, reduction of imports from Q_1Q_2 to Q_3Q_4, expansion of domestic production from Q_1 to Q_3 and the government revenue received is shown in green rectangle (ABCD).

Import quotas: Import quotas is one of the non-tariff barriers, that entails restrictions on the volume of imports for a particular good or services within a particular period of time. The effect of the quota on goods that are legal is to increase prices of commodities with quota because of low supply in the country.

Exchange rate control: This is when the government controls the price of domestic currency interms of foreign currencies. This is done through controlling the flow of foreign currencies by limiting residents on the amount of foreign currencies that is purchased and sold in the country. The restriction on the foreign currency leads to a decrease in imports especially when large payments are needed for a large volume of goods to be imported.

Subsidies: Subsidy is a government support (incentive) given to an individual, business or institution. It is given to remove some type of burden, and is considered to be in the overall interest of the public such as to promote a social good or an economic policy. It can reduce imports as it increases the competitiveness of the domestically produced goods.

Voluntary export restrains: This is an agreement between two countries whereby one country agrees to restrict the volume of the products that is exporting to another country.

Devaluation: Devaluation is the purposeful government policy to reduce the value of the local currency relative to the foreign currencies. Devaluation makes exports cheap abroad (if domestic

MACROECONOMICS FORM 5&6 (2022).indd 196 07/03/2022 16:20

pricing is used) and imports expensive in domestic currency at home. Also, devaluation increases the domestic prices of exports. The effect is to encourage production of export and discourage importation.

Total ban (embargo): This form of trade is the situation where the government restricts completely the importation of a certain product because of the effect it has on culture and health of the society. For example, illicit drugs have been totally banned to be traded in Tanzania.

Arguments for trade protectionism

The following are the benefits of imposing restriction on trade with other countries:

Improve balance of payments: Trade protectionism improves balance of payments because it reduces imports and promotes exports especially when devaluation policy is implemented.

Protection of strategic industries: Strategic industries are industries that produce goods that are very important to the economy and therefore, they are given high priority in their operation. So, they have to be protected.

Support infant domestic industries: Infant industries are newly established industries that produce at a very high cost resulting to high prices of their commodities. If competition is allowed with foreign industries which enjoy economies of scale and sell similar products cheaply, these industries will collapse. Protectionism can shield these industries from foreign industries allowing them to grow. It is important to protect only industries that are potentially efficient. Do not protect inefficient industry as this will affect the economy.

Increase revenue collection: The trade protectionism increases the government revenue through import taxes.

Reduce dumping: The trade protectionism increases the price of import; this in turn, decreases the rate of dumping of unwanted products by foreign companies.

Retaliation: Protectionism is important especially when countries are not in good terms. The country imposes protection measures such as total ban of all imports from the country in which there is disagreements. Retaliatory tariffs are enacted as a response to excessive duties charged by trading partner nation.

Control imported inflation: Protectionism is also used to control imported inflation especially when trade barriers are used against the country affected by inflation.

Protection of cultures and values of the society: Import control helps in protecting national cultures and values. Free trade allows some of the harmful materials to the health and cultures of the societies to be imported. Trade protectionism helps in putting restrictions on what needs to be imported.

MACROECONOMICS FORM 5&6 (2022).indd 197 07/03/2022 16:20

Arguments against protectionism

The following are the arguments against trade protectionism:

Formation of monopoly: Trade protectionism leads to formation of monopoly power which is not good in the welfare of the people. This is when monopolies abuse their power by creating unnecessary shortage and raise the prices resulting to reduction in the welfare of the people.

Results into inflation: Protectionism may lead to inflation especially when the demand for imported goods is price inelastic. The aim of protectionism is to raise price of imports so as to discourage importation, but this works only when import is price elastic. When the demand for import is price inelastic people will not stop buying even at high price because of the necessity of the commodity. It can, thus, increase the cost of living and thus reduce the welfare of the people.

Protection and retaliation: Protectionism invites retaliation from other countries. If one country restricts importation of any product from the other country, the other country may reciprocate. This affects the growth of the economies of both countries.

It reduces the volume of trade: Protectionism discourages specialisation resulting into decline in the volume of trade. This is against the law of comparative advantage which advocates specialisation as a way to increase volume of trade.

Reduction in welfare: Through trade protectionism consumers who were enjoying a lower price will lose welfare with the price increase-part of which collected as government revenue, which can be injected back by way of government spending; part taken by producers; but there is a part of loss welfare that is not regained.



Activity 7.3

Visit any port (Post Offices, Airports, harbours and custom Offices) nearby your school (study tour) and learn how clearance of goods is conducted. Then:

(a) Write down what you have learnt;
(b) Write the categories of goods you encounter during the visit;
(c) State the type (category) of tariff applicable to those goods; and
(d) Share the results with your fellow students.

Exercise 7.3

1. With the help of graph, illustrate how a tariff distorts international trade.
2. Explain the advantages and disadvantages of trade protectionism.
3. Differentiate between specific and ad-valorem duties.

MACROECONOMICS FORM 5&6 (2022).indd 198 07/03/2022 16:20

Free trade

Free trade is the policy where the country removes all trade barriers such as tariffs, quotas and total ban. Through this trade, no restriction is made on imports or exports of goods and services.

Arguments for free trade

The following are the benefits of free trade in the economy:

Increased economic growth: Free trade enhances trade and investment opportunities that contribute to the economic growth of participating countries.

Promotes specialisation and improves welfare of the society: Based on the theory of comparative advantage, a country can specialise in producing goods that have lower opportunity cost and import commodities which have higher opportunity cost. This aspect leads to an increase in economic welfare for all countries involved. Consequently, free trade enables countries to specialise in roduction of goods where they have a comparative advantage.

Improves competition: Free trade open up markets for businesses and consumers, hence, improve access to a wider range of competitively priced goods and services, new technologies, and innovative practices.

Promotes regional economic integration: Free trade promotes regional economic integration and builds shared approaches to trade and investment between participating trading partners.

Lowers prices for consumers: Through free trade international commodities enter the local market. This implies that, there is more options for consumers and hence lower price. With trade barriers it is hard for foreign suppliers to sell in the local market due to taxes; on the other hand, when trade barriers are removed foreign suppliers sell goods at similar conditions to local suppliers in the local market. This strategy increases competition for customers in the market hence price drops.

Arguments against free trade

Even though free trade is very advantageous to the economy, there are arguments against free trade. These are elaborated below:

Collapse of infant domestic industries: Free trade may kill infant industries if countries have industries that are relatively new. Protection allows country's infant industries to progress and gain experience that enable them compete in future.

Balance of payments deficit: When a country imports more it worsens the current account and hence, balance of payments deficit.

Increases unemployment: Businesses move their production to a place where it is cheap to produce. If this happens, many people are likely to lose their jobs.

MACROECONOMICS FORM 5&6 (2022).indd 199 07/03/2022 16:20

Dumping: Dumping happens when a country has excess stock and so it sells at a low price on international markets causing other producers to become unprofitable. A good example includes allegations that China has been dumping excess supply of goods on global markets causing other firms to go out of business.

Reliance on agriculture: Developing economies rely on producing primary products, in which they have a comparative advantage. Consequently, relying on producing agricultural products is risky because their prices fluctuate more often than industrial goods. This is due to their biological nature that makes them prone to pests and diseases infestation and adverse weather conditions; and low price elasticity of demand, which in the end reduces the benefits of trade.

Westernisation: Another argument against free trade which is not economic factor is that of political and cultural differences. Many countries wish to protect their countries from what they see as western culture. Free trade results to importation of foreign culture which reduces society's values.

Increase dependency: Countries become reluctant to produce certain goods and services. It is risky to depend on import from foreign countries for vital goods and services. Certain industries should be protected in the interests of national security.

Barriers to international trade

The following are the barriers to the international trade:

Tariffs and non-tariff: Tariffs impede international trade as they entail taxes imposed to control importation or exportation of one or more products within a particular country. They are imposed on goods involved in international trade. It could be specific or ad valorem duties. Non-tariff barriers are the country's regulations, policies, or procedures other than tariff barriers that restrict international trade. Examples of tariff barriers are export tariff, import tariff, and transit tariff; and the non-tariff barriers are quotas, subsidies, product and testing standards, embargoes and local content requirements.

Language barriers: Effective communication is the key to success in international trade. Language is a natural trade barrier in international trade. If people cannot communicate effectively, it is difficult to negotiate trade agreements. In addition to that, a language barrier can lead to either delivery of unrequired goods; or goods may be delivered to a wrong destination. Language barrier can also lead the trading partners to enter into a trade agreement that may cost their government.

Difference in currencies: Currency differences is another major barrier to international trade because one currency can be strong than the other that makes the buyers with weaker currency to

MACROECONOMICS FORM 5&6 (2022).indd 200 07/03/2022 16:20

pay more than what is intended for a particular transaction. Fluctuation of currency discourages countries from buying goods and services from countries with currencies of higher value because they pay more. This situation occurs when a country's currency is devalued in relation to another country's currency.

Poor infrastructures in some countries: Improvement in infrastructure changes the comparative advantages of production since it lessens the production costs and rises the competitive prices of the product to be exported. Therefore, poor infrastructure in a given country may become a barrier to trade for that particular country.

Geographical barriers: Long distance among nations may create trade barriers as it is more costly to transport goods over long distance.

Immigration laws: Immigration laws could create a barrier to trade since there is underlying positive relationship between migration and international trade. Immigration induces population growth, in-turn it increases aggregate demand and output, of which increases the demand for imports

Political misunderstanding: Political misunderstanding between or among nations can increase transaction costs between exporters and importers; and therefore, it reduces incentives to create and maintain business relationships. On the other hand, political events mean a country/company will not be able to convert foreign currency, export or import goods and supplies. To large extent, political variables in international trade patterns are crucial; particularly, when imports and exports are becoming important for each country.

Exercise 7.4

1. Provide the meaning of free trade.
2. Give advantages and disadvantages of free trade.

Exchange rate

An exchange rate is the price or value of a country's currency in terms of another country or economic zone currency. Most of the exchange rates in the modern economy are free-floating. In a free-floating exchange rate regime the rise or fall of the value of a country's currency depends on the supply and demand of foreign currency in the market.

Types of exchange rate

The exchange rate system falls under the following types:

Fixed or pegged exchange rate

This is the type of exchange rate where the price of foreign currency is fixed by the government. The government intervenes in the foreign exchange

MACROECONOMICS FORM 5&6 (2022).indd 201 07/03/2022 16:20

market to neutralise changes in supply and demand for domestic currency to avoid free movement in the exchange rate.

Advantages of fixed exchange rate

The following are the advantages of fixed exchange rate:

Reduces risks: Those who are involved in international trade are risk averse; and that the existence of exchange rate risk when exchange rates are floating discourage them from exporting or importing. So, they prefer fixed exchange rate because it is free from fluctuation.

May reduce the problem of inflation: When there is high demand for foreign currency, the price for foreign currency increases. Without control the price of goods and services also increases. Fixed exchange rate stabilises the economy.

There is no speculation in fixed exchange rate: Speculation causes overvaluation or undervaluation of the exchange rate. Any overvaluation or undervaluation of the currency in relation to the equilibrium would affect the allocation of resources. Since the rate of exchange is fixed, there is no need for speculation.

Fixed exchange rates may attract foreign investors: Absence of risk and uncertainty on prices of imports or exports attracts foreign investors because of assured companies earnings resulting to an increase in economic growth and the welfare of the people.

May increase competitiveness of the economy: A country can keep its domestic currency low by controlling the prevailing exchange rate. This strategy helps in keeping competitiveness position of her goods when traded globally. Keeping the exchange rate low ensures a domestic product's competitiveness abroad and profitability at home.

Disadvantages of fixed exchange rate

The following are the disadvantages of fixed exchange rate:

It is costly: Fixed exchange rate is expensive to maintain. The fixed exchange rate requires large amounts of reserves as the country's government or central bank is constantly buying or selling the domestic currency.

Shortage of international liquidity: The shortages of international liquidity occurs as the monetary authorities minimise fluctuation beyond reasonable limits. Usually this situation leads to the formation of parralel markets that trade in foreign currencies (duality in exchange rate regime).

Misallocation of foreign exchange: Fixed exchange rate system may result into misallocation of foreign exchange as they impose a heavy burden on monetary authorities in an attempt to control foreign exchange reserve.

MACROECONOMICS FORM 5&6 (2022).indd 202 07/03/2022 16:20

Burden to domestic economy: Fixed exchange rate does not provide automatic mechanism to restore balance of payment equilibrium. The burden to adjust balance of payment deficit or surplus is thrown to the domestic economy.

Floating exchange rate

Floating exchange rate is also known as free, flexible, or fluctuating exchange rate. This is the type of exchange rate where the rate is determined by forces of demand and supply. If the demand for the currency is high, its value increases; whereas if the demand for the currency is low its value decreases.

Advantages of floating exchange rate

The floating exchange rate has the following advantages to the economy:

Management of exchange rate does not require international manager: Floating exchange rates do not require an international financial institution like International Monetary Fund (IMF) to look over current account imbalances. Based on the floating system, if a country has large a current account deficits, its currency depreciates.

No intervention by central bank: Floating exchange rate regime is different from fixed exchange rate regime where the central bank must frequently intervene in controlling foreign exchange. Central bank does not intervene in fixing prices of foreign currencies in floating exchange rate regime. Prices are determined by forces of demand and supply.

Improves market efficiency: In international market the macroeconomic fundamentals of a country affect the exchange rate under the floating exchange rate regime. In this case, the floating exchange rate systems improve market efficiency as the exchange rate responds differently to changes in economic situations.

Promotes fair trade: The price of domestic currency is determined by the forces of demand and supply which promote fair trade among countries.

High volumes of foreign currency: In fixed exchange rate system the amounts some times are restricted to a certain quantity, in floating exchange rate customers are free to buy or sell any quantity of foreign currency.

Disadvantages of floating exchange rate

The following are the disadvantages of floating exchange rate:

Highly unpredictable: Floating exchange rates are highly unpredictable. If the traders face a high transaction risk and high cost because of unpredictability of exchange rate, they will reduce the volume of trade.

The use of limited resources to predict changes in exchange rates: Unpredictability in exchange rates increase the exchange rate risk that the participants of the financial markets face. Consequently, they allocate significant

MACROECONOMICS FORM 5&6 (2022).indd 203 07/03/2022 16:20

resources to predict the changes in the exchange rate, in an effort to manage their exposure to exchange rate risk.

Transfer of inflation: High inflation rate in foreign countries increases foreign prices that result in high prices of imported goods. The high prices further lead to inflation in the domestic economy.

Possibility of speculations: Traders may speculate movement of exchange rates. Speculation can cause overvaluation or undervaluation of the exchange rate. Any overvaluation or undervaluation of the currency in relation to the equilibrium will affect the allocation of resources.

Discourage foreign investors: Floating exchange rate does not attract foreign investors because of risks and uncertainties that might lead to fluctuations in companies' earnings.

Smuggling of foreign money: The system sometimes leads to smuggling of foreign money because of the economic freedom; they can be sold in unauthorised market.

Mixed or managed exchange rate system

This is a type of exchange rate which is determined by both central bank and forces of demand and supply of foreign currency. Tanzania is one of the countries that follows a mixed exchange rate system.

Advantages of mixed or managed exchange rate system

The following are the advantages of mixed or managed exchange rate system:

(a) It helps to provide foreign exchange to all that need it;

(b) It enables the country to allocate foreign exchange to strategic areas of production so as to encourage the country's domestic production;

(c) It enables the country to control fluctuation of foreign exchange; and

(d) It enables the country to control imports and exports.

Disadvantages of mixed or managed exchange rate system

The following are the disadvantages of mixed or managed exchange rate system:

(a) It is difficult to implement; and

(b) It may distort international trade.

Factors affecting exchange rates

Exchange rates are affected by various factors such as inflation, interest rate, current account deficit, public debts, terms of trade, and political instability as shown in Figure 7.4.

MACROECONOMICS FORM 5&6 (2022).indd 204 07/03/2022 16:20

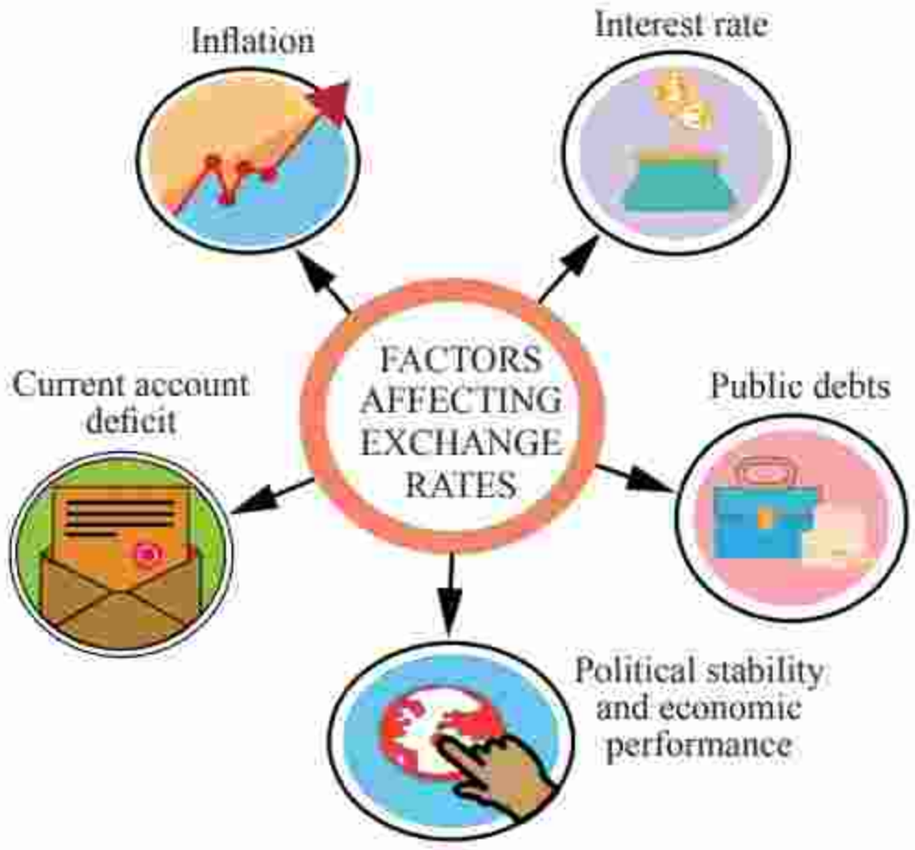


Figure 7.4: *Factors affecting exchange rate*

Inflation rates: Inflation is one of the factors affecting currency exchange rate. Low inflation rate appreciates the value of domestic currency. High inflation causes depreciation of the value of domestic currency as compared to that of their trading partners.

Interest rates: The currency value is affected by fluctuations in interest rate. Country's currency appreciates because of an increase in interest rate. This increase is due to the high interest rates that provide high returns to lenders and attracts more foreign capital. This situation causes a rise in exchange rates.

Current account deficit: Deficit in current account occurs when the value of imports exceeds the value of exports. This situation indicates that the country spends more on foreign goods than the amount received from exports. The currency will depreciate unless the capital inflow is large enough to finance the current account deficit.

Public debts: The term public debts is also known as government debts or national debts owed by the central government. A country with government debts tends to be less attractive to foreign investors. Consequently, this tendency reduces the supply of foreign currency that result in to depreciation of exchange rate.

Political stability and performance: A country with a history of political stability and strong economic performance with sound monetary policy, motivates investors to invest. This trend increases the supply of foreign currency and value of the country's currency appreciates.

A note on interpretation and comparability of exchange rates

There is misconception about the relationship between the level of exchange rate relative to the other currencies and the economic performance of the respective economy. For example, 1 South African (SA) Rand is exchanged for Tshs 146.46 and 1 Japanes (JP) Yen is exchanged for Tshs 20.07. Some people might wrongly conclude that SA economy is stronger and bigger than the Japanese economy. Exchange is a policy variable, and a country may at times decide to devalue or to revalue

MACROECONOMICS FORM 5&6 (2022).indd 205 07/03/2022 16:20

the currency for trade competitiveness purpose. The only concern is that if the exchange rate fluctuates too much, and largely, due to uneconomic or non-fundamental factors such as excessive speculation in the financial markets trade competitiveness may not occur.



Activity 7.4

Search information on financial markets from websites or different international and local newspapers and learn how currencies are traded. From the searched information, attempt the following:

(a) Identify different currencies mentioned in the newspaper;

(b) Explain how different currencies are traded in foreign exchange markets;

(c) Look at the current exchange rates in one of those newspapers. Note down what you have noticed;

(a) Practice converting back and forth among different currencies for example yen, dollars and euros against Tanzania shillings; and

(b) Share the results with your fellow students.

Depreciation, appreciation and devaluation of currency

The coins and notes used by a country are known as currency. In Tanzania, the central bank (BOT) issues coins and notes in circulation in the form of shillings (Tanzanian shillings). The value of a country's currency is likely to decrease or increase relative to a foreign currency when international transactions take place. That is to say, the value of a Tanzanian shilling can buy more or less of a dollar or euro in trading transactions. Under a fixed exchange rate system, devaluation and revaluation are official changes in the value of country's currency. Under a flexible (floating) exchange rate system depreciation or appreciation of a currency occurs through market forces that determine the changes in the value of the country's currency.

Depreciation of currency

The decrease in the value of a currency relative to another foreign currency is called currency depreciation. This applies in floating exchange rate regime. Depreciation of domestic currency occurs when more units of domestic currency are needed to buy one unit of foreign currency. Depreciation makes the domestic currency less expensive. Depreciation corresponds to an increase in the rate of exchange. For example, in the year 2020 the United States dollar (USD) price increased from Tshs 2,291 per $1 to Tshs 2,314 per

MACROECONOMICS FORM 5&6 (2022).indd 206 07/03/2022 16:20

$1; this is called the depreciation of the Tanzanian currency. Depreciation of currency promotes the growth of domestic industries in a country through exportation since the domestic goods become cheaper and imports more expensive.

Appreciation of currency

Appreciation is an increase in the value of a currency relative to another foreign currency. This applies in floating exchange rate regime. When the value of the foreign currency falls, the domestic currency becomes more valuable. Fewer units of domestic currency are needed to buy one unit of foreign currency. The appreciation of the domestic currency makes it more expensive relative to the foreign currency. It corresponds to decrease in exchange rate. For example, in August 2021 the United States dollar (USD) price fell from Tshs 2,314 per $1 to Tshs 2,310 per $1 due to the appreciation of the Tanzanian currency.

Devaluation of currency

Devaluation of currency is the downward adjustment of the value of the domestic currency relative to the foreign currency. This applies in fixed exchange rate regime. A country may decide to devalue its currency to increase the rate of exportation since devaluation makes exports to foreign countries cheaper. Conversely, as exports are made cheaper imports become more expensive to residents which makes locals to buy more of the domestic products. Moreover, a country may decide to devalue its currency to lower its trade deficits since the exported products become cheaper and the foreign demand for products increases; hence, the volume of imported products which are expensive fall.

Although, devaluation protects domestic industries, it may make them less efficient since they may lack pressure of competition from foreign industries. An increase in exportation relative to importation may lead to an increase in the aggregate demand which may cause demand pull inflation due to an increase in demand for goods for consumption.

Conditions necessary for devaluation

These are the necessary conditions for devaluation to take place:

(a) Price elasticity of demand for imports and exports should be elastic (higher);

(b) Other countries should not devaluate their currencies;

(c) Elasticity of supply for exporting country should be elastic;

(d) There should be fixed exchange rate system; and

(e) There should be no trade barriers against the exports of the country undertaking devaluation.

NOTE: Table 7.5 provides a brief summary on some of the differences between depreciation, appreciation and devaluation of currency.

Table 7.5: *Distinction between depreciation, appreciation and devaluation of currency*

	Depreciation	**Devaluation**	**Appreciation**
Value of currency	The value of currency decreases relative to another currency by forces of demand and supply of currency in the market.	The value of currency is decreased by the government relative to another currency. This happens under a fixed exchange rate regime.	The value of currency increases relative to another currency by forces of demand and supply of currency in the market.
How does it happen?	The value of the currency falls in terms of its exchange rate versus other countries.	The country devalues its currency purposefully to promote its trade. This is a conscious decision.	The value of the currency raises in terms of its exchange rate versus other countries.
Importation	Imports become more expensive in domestic. Importation decreases.	Imports become expensive locally, hence people may decide to consume more domestic products. Importation decreases.	Imports become cheaper in local currency. Importation increases.
Exportation	Exports become cheap since the value of the currency has fallen. Hence, it promotes exportation.	A country devalues its currency to increase exportation as exports become cheap; hence, the foreign country will demand more goods.	The rise in the value of a currency reduces exportation since the domestic goods become more expensive.
Terms of trade	More capital will be acquired by the government through exportation hence trade deficits will be lowered.	Foreign country will demand more goods leading to high accumulation of capital from abroad. This lowers trade deficits.	A country will acquire less capital from outside since exports are expensive. This might increase trade deficits.

MACROECONOMICS FORM 5&6 (2022).indd 208 07/03/2022 16:20

Domestic industries	It promotes domestic industries to produce more goods for exportation and consumption.	It encourages domestic industries to supply more goods to avoid the occurrence of inflation due to increase in aggregate demand.	It discourages domestic industries since the domestic goods are expensive and locals consume more imported goods.

Activity 7.5

With the help of various sources of information such as books, magazines, newspapers and websites assess the occurrence of devaluation, depreciation and appreciation of currency in Tanzania. Then:

(a) Identify the year(s) of occurrence of devaluation, depreciation and appreciation of currency;

(b) Explain what happened to exportation, importation, inflation rate and domestic industries as a result of depreciation, devaluation and appreciation of currency;

(c) Describe the advantages and disadvantages of devaluation, depreciation and appreciation of Tanzanian currency; and

(d) Share your work with your fellow students.

Exercise 7.5

1. Why do individuals in one nation demand currencies from another nations?
2. Explain any reasons for changes in floating exchange rate system.
3. Distinguish between floating and fixed exchange rates.

MACROECONOMICS FORM 5&6 (2022).indd 209 07/03/2022 16:20

Chapter summary

1. International trade is the trade among nations whereby capital, goods and services are exchanged.

2. The basis for international trade is the same as the basis for domestic trade; consequently, traders specialise in their comparative advantage.

3. Trading internationally gives consumers and countries the opportunity to be opened to goods and services that cannot be available in their own countries or sometimes they are expensive in their domestic market.

4. Tariffs and import quotas are the major trade protectionism policies.

5. World Trade Organisation (WTO) is an international organisation whose primary role is to regulate trade for the benefit of all.

6. WTO regulates global trade through the principles of non-discrimination, reciprocity, transparency, binding and enforceable commitment and safety value.

7. A country's imports are financed by its exports.

8. The value of a nation's currency in international trade is determined by the supply of and demand for the currency in foreign exchange market.

9. In international trade, the balance of payment always balances.

10. Exchange rate could be affected by either of the following: inflation, interest rate, public debts, current account deficit, terms of trade and political stability.

11. Deficit or surpluses in the current account are offset by deficit or surplus in capital account.

12. Fixed/pegged exchange rate are set to pre-established peg with another currency.

13. Floating exchange rate is determined by the market forces.

MACROECONOMICS FORM 5&6 (2022).indd 210 07/03/2022 16:20

14. A decrease in the value of domestic currency relative to another currency is termed as depreciation of currency; while an increase in the value of domestic currency relative to another currency is referred to as appreciation of currency. However, a downward adjustment of value of domestic currency through government policies relative to another currency is termed as devaluation of currency.

15. The adjustments of value of currency, whether through the forces of demand and supply or through policies, affect the economy both positively or negatively.

Revision exercise

1. Is there any difference between international trade and global trade?
2. Describe the international trade theories.
3. Explain the disadvantages of free trade.
4. Describe factors that influence the terms of trade.
5. Explain the role of World Trade Organisation (WTO) in international trade.
6. With the support of classical theories what determines the size of gain in international trade?
7. Explain the advantages and disadvantages of the floating exchange rate.
8. In international arena, there are institutions to regulate trade. Among them are the World Trade Organisation (WTO) and regional Free Trade Area (FTA). Explain which one is more efficient in managing international trade.
9. Describe gains from international trade in terms of production and consumption.
10. Explain at what terms of trade are products exchanged in the world market.

MACROECONOMICS FORM 5&6 (2022).indd 211 07/03/2022 16:20

11. Suppose there are two countries Uganda and Tanzania producing two commodities namely maize and rice. Output per labour hour is given below;

Countries	Output per labour hour	
	Maize	Rice
Uganda	1	2
Tanzania	5	3

(a) Should Uganda engage in trade with Tanzania? Explain.

(b) If yes in (a), show how both countries can benefit from international trade; and

(c) What price ranges should be set in order to have a mutually beneficial trade?

12. Suppose the following information was provided by the Central Bank of Tanzania indicating export and imports productivity indices for the year 2019 and 2020 respectively. Taking 2019 as the base year with price index of exports and imports 100 and 2020 as the current year with price index of export 95 and price index of import 110, compute the commodity terms of trade (ToT) and interpret your results.

13. Define the following concepts:
    (a) Devaluation of currency;
    (b) Depreciation of currency; and
    (c) Appreciation of currency.

14. Describe the importance of currency devaluation in economic growth.

15. Elaborate positive and negative effects of a devaluation policy.

MACROECONOMICS FORM 5&6 (2022).indd 212 07/03/2022 16:20

Chapter Eight

Economic integration and cooperation

Introduction

Why do countries integrate? Is there a need for countries to cooperate? Infact, all over the world countries are not self-sufficient and do not live in isolation. Therefore, economic integration and cooperation are key to sustainable development and strengthening of the economies. In this chapter, you will learn about the concept of economic integration, economic integration blocks and the concept of economic cooperation. The competencies developed will enable you to analyse the roles of economic integration and cooperation in fostering economic growth.

The concept of economic integration

Economic integration is the agreement between the participating countries to abolish trade barriers among the member states and agreeing on common rules of trade, monetary and fiscal policies in order to strengthen their economies.

In other words, economic integration is a process of eliminating restrictions on international trade, payments, and factors of production mobility. This implies that, economic integration results in uniting two or more national economies in a regional trading agreement. Regional Trading Agreements (RTAs) refers to a treaty that is signed by two or more countries to encourage free movement of goods and services across the member states. During the execution of such agreement, there are rules that member countries obey when dealing with non-member countries.

Essentially, there are two approaches to international integration: the international approach and regional approach. The international approach involves international conferences such as Tokyo round and Uruguay round under the guidance of the then General Agreement on Tariffs and Trade (GATT) now World Trade Organisation (WTO), with the intention of reducing tariff

MACROECONOMICS FORM 5&6 (2022).indd 213 07/03/2022 16:20

and non-tariff barriers to international trade. The regional approach involves agreement among member of nations whose purpose is to establish free trade or forming economic integration among themselves; while maintaining trade barriers to the rest of the world. Economic integration is also referred to as regional integration as it often occurs among neighbouring countries. In this chapter, the term 'regional trade agreement' and regional integration are used interchangeably.

Stages of economic integration

There are six stages of the formation of economic integration. Any economic integration must start with the formation of Preferential Trade Areas (PTAs) and then followed by Free Trade Areas (FTAs), customs union, common market, an economic union and a political federation. Many economic integrations existing in African countries are still in the early stages of their formation. For example, most of the African countries' economic integration such as East African Community (EAC), The Southern African Development Community (SADC) and Economic Community of West African States (ECOWAS) are either in PTAs, FTAs, common market or custom union. In the rest of the world, some economic integrations such as the European Union (EU) have reached the highest stage of economic integration, that is economic union. The stages of economic integration are explained below:

Preferential Trade Areas

Preferential Trade Areas (PTAs) is a stage of economic integration whereby member countries charge low tariffs to each member countries (except for the services of capital); but the members retain their original tariff schedules against non-member states. Examples of PTAs include the North America Free Trade Agreement (NAFTA) and Association of Southeast Asian Nations (ASEAN) FTAs.

Advantages of Preferential Trade Areas

The advantages of PTAs are as follows:

Competition among businesses: Because PTAs lower tariffs among member states, it makes businesses more competitive in foreign markets. Due to high competition, it is expected that the quality of products is improved as those corporations, which fail in competition would automatically be eliminated from the market.

Flow of Foreign Direct Investments: There are increased opportunities for the Foreign Direct Investments (FDIs) flows when countries exercise preferential trade agreement. FDIs will be encouraged by the preferential trade agreement between member countries as it widens the market and possibility for them to make profit.

Improves welfare of the society: PTAs lower tariffs that consumers and businesses pay. By lowering tariffs,

MACROECONOMICS FORM 5&6 (2022).indd 214 07/03/2022 16:20

prices of the commodities decrease and thus, improving the well-being of the people of the member countries.

Gains from trade: Adam Smith in his book *The Wealth of Nations* noted that when countries are in free trade agreement, more products are produced and made available to other countries at a cheap price, in this case both countries benefit from trade.

Specialisation and efficiency in production: David Ricardo argues that countries should specialise in production of the commodity that can be produced most efficiently than the trading partner. Therefore, specialising in the production of goods that have low opportunity costs, gives the countries a comparative advantage. Countries in a free trade agreement are more likely to benefit from comparative advantage.

Increase in foreign currency stock: Countries in preferential trade agreement tend to purchase and sell goods and services using foreign currency. If a country wants to import commodities from member countries, it must use a specified foreign currency. The foreign currencies used, are obtained when country exports. So, preferential trade agreement allows countries to engage in trade without any restrictions that consequently, increases the stock of foreign currency.

Disadvantages of Prefential Trade Areas

The PTAs have several disadvantages to the member countries. Some of the disadvantages are:

Increases unemployment: Elimination of tariffs among member countries allow companies to expand production to other member countries within the PTAs. This may make it difficult for the domestic companies with the same industries to compete, and therefore, may lay-off some of their workers.

Risks of currency manipulation: More risks of the manipulation of currency value may occur under PTAs. That is, one country may lower the value of its currency making goods to be cheap in other countries. If this happens, a country which has lowered the value of its currency may benefit more from trade than the others.

Few intellectual property right protection: The PTAs are more prevalent in low-income countries and most of the low-income countries lack laws to protect patents, innovations and inventions, and new production processes. Even if the law exists, there is no strict measures and commitment to enforce. As a result, companies often lose their innovative ideas to foreign companies.

Reduction of tax revenue: Most of the low-income countries are not able to replace the reduced revenue from tariffs eliminated on imports. The total effect of

MACROECONOMICS FORM 5&6 (2022).indd 215 07/03/2022 16:20

joining PTAs is the reduced government revenue from tax.

Free Trade Areas

Free Trade Areas (FTAs) is a stage of economic integration in which the member countries agree to eliminate all trade barriers (tariff and non-tariff except the services of capital) among the member states while maintaining its own set of trade restrictions against non-member countries. This is a second stage of economic integration.

Further be noted that, the advantages and disadvantages of PTAs applies also for FTAs. An example of FTA is South Asian Free Trade Area (SAFTA) comprising of countries such as Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka.

Customs union

Customs union is a third stage of economic integration in which apart from eliminating all trade barriers (tariffs and non-tariffs except the services of capital) the member countries agree to set common external tariffs to non-member countries. The major features of the customs union are as follows: first, is the elimination of all trade barriers on imports and exports of goods and services to the member countries. Second, adoption of uniform trade barriers such as tariffs and external policies to non-member countries. The main objective of the customs union is to increase exports and imports of goods and services among member states. The East African Community (EAC) is the best example of customs union.

Advantages of customs union

Members of a customs union agree to remove trade barriers among member states and adopt uniform tariffs to non-members. This allows free trade to the member states which have a number of advantages as follows:

Trade flows among member countries: The customs union eliminates the need for checks and verification of documentations at borders of member states. This encourages more business to take place, and transactions at borders are quickly verified. As a result, trade flows among the member states increase. By eliminating the barriers to trade, it becomes easy for business community to trade between countries belonging to a customs union.

Increased competition: Customs union allows competition among business firms hence, improves efficiency in production. Some business firms may merge for the aim of increasing efficiency, and production.

Improve welfare of the society: The removal of tariffs among members of a customs union improve competition which benefit consumers through accessing goods and services at a low price. When price of goods and services become low, the purchasing power of the consumers increases; and hence, their welfare is improved.

MACROECONOMICS FORM 5&6 (2022).indd 216 07/03/2022 16:20

Possibility of economies of scale to occur: The customs union enlarge the business area. Because of the free market, firms can expand their production by taking advantage of market size. If this happens there are possibilities for some firms to enjoy the advantages of large-scale production (economies of scale) and make more profits.

Stimulate investment: The removal of barriers of trade among member states allows firms to expand their investment to other member states by setting factories domestically and in other states within the union so as to enjoy the free trade.

Important step towards movement to other forms: Customs union is the third stage of economic integration; and the important one towards advanced stages of common markets, monetary union and economic union.

Disadvantages of customs union

Even though customs union has several advantages, there are also some disadvantages to the member states, including:

Loss of economic sovereignty: Countries in the customs union cannot individually negotiate with non-member countries on business matters of their benefits. Also, a country in the customs union cannot practice protectionism measures. Everything pertaining to production and business should be discussed and accepted by all members of the union.

Complexity in setting the tariff rate: It is very complex and costly in setting tariff rate that will be used by all member states in the custom union. This is because each member has self-interest on the commodities they produce.

Unfair distribution of tariff revenue: If within the custom union, some member countries trade more with non-members, then what they collect as tariff revenue should be distributed among members. Unfair distribution of the tariff revenue arises because the trading country receives a greater share of revenue than other members in the union. So, if few countries trade outside the union members, they will benefit more than other member countries.

Common market

Common market is a form of economic integration in which each member country applies a uniform external tariff; and it eliminates all trade barriers for goods, services and factors of production between the member states and allows free movement of the factors of production. In this foam trading arrangements, goods, services and factors of production (capital and labour) move freely among member countries. The Southern African Development Community (SADC) is a typical example of common market.

MACROECONOMICS FORM 5&6 (2022).indd 217 07/03/2022 16:20

Characteristics of a common market

In a common market, goods and services move freely among the member states since tariffs and quotas have been eliminated. In addition, the partner states adopt uniform policies for trading with non-members. At this stage, factors of production, for instance capital and labour, move freely across the member states.

Advantages of a common market

The common market has several advantages to the member states. Such advantages include:

Big size of the market: The common market allows free movement of goods and services across member states, hence, expanding the size of market. The firms operating within common market can easily move across the member states and are able to access the entire market of the member states.

Proper allocation of resources: Factors of production such as labour, capital and entrepreneurs are free to move across the member states; hence, it becomes easy to allocate resources in economic activities that the member states highly demand.

Increase efficiency: The free movement of goods and services give producers an incentive to produce quality goods and services. This free movement leads to an increase in some competition that in turn, promotes innovations, inventions, and discovery of the new production process. In this regard, the costs of producing goods and services are reduced while the production efficiency is maintained.

Widens employment opportunities: In a common market, there is free movement of factors of production such as labour, capital, and entrepreneurship across the member states. This free movement provides an incentive for factors of production to move across the member states. Thus, employment opportunities are created as the factors of production are efficiently allocated and utilised within the member states.

Disadvantages of a common market

Despite the advantages, the common market has some disadvantages as follows:

Threat to domestic firms: The free movement of goods and services threaten the infant domestic firms that are not able to compete with firms from the other member states. The risk may result into some of the domestic firms to stop production and close the business.

Reduction in tax revenue: Because most of the small and inefficient firms are likely to shut down, government revenue may fall. However, as member states eliminate tariffs, small economies may struggle to compensate for the loss of revenue from tariffs. This elimination puts the burden to the small economies.

MACROECONOMICS FORM 5&6 (2022).indd 218 07/03/2022 16:20

Stagnant domestic economic growth: The free movement of factors of production across member states to find productive investment opportunities and employment elsewhere may hinder the growth of the domestic economies of some state. The reduction of the revenues from tax has a greater impact to the small economies than the larger economies.

Economic union

Economic union is a form of economic integration which comprises all features of a common market; further, it unifies the states economic policies as well as the use of a single currency. This union is the advanced stage of economic integration just before the political federation. The unique features of economic union which distinguish it from the other forms of economic integration are:

(a) The establishment of general institutions and economic policies for trade unions; and

(b) The integration of monetary and fiscal policies in the union. European Union (EU) is one of the best examples of the economic unions. When an economic union adopts a common currency, it is known as Monetary Union; for example, the adoption of Euro by EU. This adoption means that there is a common exchange rate and a common monetary policy that includes the interest rates and the regulation of the quantity of money. Usually, a single Central Bank is established, for example the European Central Bank. However, there are potential concerns. While this level of economic integration is often aspired by member countries; it is in fact difficult for those countries to give up their sovereignty.

The advantages of an economic union

An economic union is very important for economic development of the member states. The advantages of the economic unions are:

Increases the bargaining power of member states: An economic union tends to act as a unifying force to member states to influence their interest in international affairs through bargaining.

Promotes competition among the member states: Some competition help to improve efficiency in the production of quality goods and services.

Leads to trade creation: As trade barriers are removed, volume of trade among the member states tend to expand. The expansion of trade promotes the growth of production in member countries.

Helps to attract foreign and local investments: This advantage is due to the fact that economic union enables member countries to enjoy economies

MACROECONOMICS FORM 5&6 (2022).indd 219 07/03/2022 16:20

of scale. As the market size becomes wide, firms are prompted to expand production of goods and services and hence lowering the production average cost.

Promotes world peace and security: When countries join their economies together, it becomes a milestone towards a political federation. Thus, the union creates peace and security in the whole region and among individual countries.

Promotes specialisation among the member states: Specialisation in production of goods and services leads to a large scale production in all countries in the economic union. In such specialisation, costs of production decrease due to exploitation on economies of scale and hence, increasing profit.

Reduces unemployment problem in the region: This can happen through increased production and free movement of labour from one country to another to search for jobs. Reduced unemployment is possible when production levels increase and call for the increase in demand for factors of production such as labour.

Possibility of operating common services jointly: At this stage of economic union, the common services like transport and communication such as air transport, road transport, and railways transport could be operated jointly. These advantages could cover a large area with a large population size. In this regard, there would be no need for every country to operate individually these services. The common services would reduce the costs of operation; and the quality of goods and services are provided to its member states.

Promotes the transfer of technology: Member states, may establish a joint education, training, science and technology hub as well as the research programmes. The sharing of skills and experiences among member states can spur growth and make easy the transfer of technology from one area to another.

The disadvantages of the economic union

Despite the fact that economic union is very important to the economic growth and development of each member state, it has some disadvantages. The following are the disadvantages of the economic union:

Investment congestion in some countries: The free flow of factors of production such as capital and labour may influence investors to move to the countries where the factors of production are cheap, and therefore, it may cause an investment congestation.

Few countries dominating the economy: Member countries with large economies are likely to dominate the decisions

MACROECONOMICS FORM 5&6 (2022).indd 220 07/03/2022 16:20

and policies affecting the union at the expense of the countries with small economies.

Loss of economic independence: The member countries have no choice in deciding the economic matters pertaining to their countries. They have to rely on the joint agreement in everything the affects the economic growth and development of their countries.

Brain drain problem: At the stage of economic union, there is free movement of labour. This may cause people who are highly level of educated to leave their home countries and seek for better employment opportunities in the other member states. The reduction of skilled labour force may undermine the development of some member countries.

Political federation

Political federation is an economic integration in which the member states agree to establish common foreign and security policies to protect common values, basic interest and independence of the member states. The political federation is achieved by strengthening security, promoting, and maintaining an enabling environment that are necessary for socio-economic development. Political federation is considered as the highest stage of economic integration. Attaining the political federation is a process and not an event.

The benefits of economic integration

Countries are seeking to strengthen their economies through forming economic integration of different forms. The Free Trade Areas (FTAs) and customs unions are increasing and expanding in both developing and developed countries because of the embedded benefits in economic integrations. The following are the benefits of economic integration to the member states:

Trade creation: Trade creation occurs when some domestic production in a nation that is a member state of the custom union is replaced by lower-cost imports from another member state. When economic integration is formed, the member countries tend to enjoy the increased size of the market. This happens because trade barriers among member states are removed; and allows the goods and services move freely within the territories of the member states. Therefore, the trade creation happens whereby consumption shifts from high-cost non-member states to low-cost member states.

Strong bargaining power: Establishment of economic integration helps to increase bargaining power of the member states. Member states can negotiate jointly on matters of their common interest. For example, Southern African Development Community (SADC) member states had common stand against economic sanctions to Zimbabwe.

MACROECONOMICS FORM 5&6 (2022).indd 221 07/03/2022 16:20

Attraction of foreign capital: The economic integration helps to attract foreign capital which leads to increase in investments in the region. More investors are attracted to invest in the region to enjoy economies of scale resulting from the market expansion. For example, the EAC has succeeded to attract many investors in the region from various parts of the world.

Promotion of friendly relationship: The formation of an economic integration helps to establish and strengthen social and political relationship among member states. Such relationships, in turn, promote political stability within the region. For example, the formation of the EAC has promoted peace and security in the territories of member states.

Transfer of technology: The formation of economic integration facilitates transfer of technology through cooperation in education, training, science and technology programmes. Through these programmes people may share some skills, experiences, and knowledge. Development of technology can help to raise productivity in all member states.

Promotes competition: Regional economic integration promotes competition in production among producers of the member states. The competition among businesses will force producers to increase efficiency in production leading to production of goods and services of high quality to win the market. Moreover, competition removes monopoly of domestic producers which results into greater efficiency. It also forces the application of new technology in the production fields.

Improvement of welfare: Economic integration helps to improve the welfare of the people in all member states due to the fact that commodity prices decrease. Prices fall due to the increase in production in member countries. This welfare improves the standard of living because the citizens of the member states will be able to buy goods and services at low prices.

Promotes specialisation: Economic integration promotes specialisation which leads to a large scale production. Economic integration allows member states to specialise in the production of commodities based on comparative advantage. As a result, production of goods and services among the member countries will increase.

Increases employment opportunities: Economic integration allows free flow of the factors of production including labour within the region. Unemployed individuals can move to other member countries where they can get jobs. In addition, growth of production, increases the demand for factors of production leading to increased employment.

Operate common services jointly: Member states may agree to run efficiently common services such as

MACROECONOMICS FORM 5&6 (2022).indd 222 07/03/2022 16:20

transport and communication while enjoying economies of scale. For example, the former EAC operated railway, air and water transport as common services.

The necessary condition for successful economic integration

For the integration to be successful, the following should be observed:

Removal of trade barriers: Member states should abolish trade restrictions to allow free flow of goods and services; as well as free flow of factors of production among member states. This is an indicator that the regional economic community has achieved a certain level of integration. Southern African Development Community (SADC) provides a good example of economic integration whereby in 2019 about nine of the member states had ratified the protocol to facilitate the movement of people among member states.

Infrastructure integration: The member states should have well-developed infrastructures such as transport and communication network to facilitate trade among the member states. All regional economic communities are working hard to develop their infrastructures. For example, SADC has infrastructural development framework and infrastructure vision of 2027. The aim is to develop sound infrastructural facilities within the member states.

Promote financial integration: The economic integration requires promotion and integration of the financial system such as banking system across the borders especially by engaging regional economic communities. For example, in order to promote efficient market, the East African Community (EAC) has a code of conduct for a designated market of government securities.

Close geographical location: The member states should be geographically close to simplify trade among the member states. Successful regional economic integration occurs when member states are geographically close to allow free flow of goods, services, and factors of production.

Use of common currency: The member states should use a common currency to facilitate exchange of goods and services within the region. Even if they do not have their own currency, but they must agree on the common currency that every member state should use in trading. For example, the EAC member states have signed a single currency protocol.

Same level of economic development: The member states should have reached the same level of economic development to enjoy equally the benefits of economic integration. Equal level of economic development among member states ensures that the path of growth and economic development are balanced. This equality allows all members to equally enjoy the benefits of integration.

MACROECONOMICS FORM 5&6 (2022).indd 223 07/03/2022 16:20

Use of common language: The member states should use a common language to facilitate exchange. For example, the EAC member states have agreed to promote Kiswahili in order to strengthen their regional economic integration.

Same commitment to serve the integration: The member states should be committed to promote the interests of integration. There should be a political will on the part of the governments to work together to meet the objectives of integration. This integration calls for a mutual trust and commitment among member states to consider that the integration is beneficial to all.

Political stability: The member states should ensure that political stability is maintained in the region. The most important condition for a successful regional economic integration is peace and security. Political stability does not only facilitate the free flows of goods and services as well as the movement of factors of production; but it also attracts both foreign and local investors in the region, stabilises prices, and encourages large-scale production.

Problems facing economic integration in Africa

Despite the resolutions and treaties made by African countries still there are number of challenges or obstacles to economic integration. These challenges are:

Unequal distribution of gains and costs among the member states: This problem becomes serious when there is a big gap in terms of economic development among member states. Normally, the highly developed member states tends to gain more at the expense of the less developed member states.

Trade diversion: Trade diversion occurs when the member states are obliged to import from a high-cost member state while they could import cheaply from a non-member state. Such trade diversion results from the preferential trade agreement given to member state. Economic integration promotes trade diversion among member states; further, it discourage member states to trade with non-members.

Currency variations: Currency variation among member states becomes a problem because it limits the volume of trade. Currency differences necessitate exchanging foreign currencies to proceed with trade. It may be hard also to determine exchange rates.

Loss of revenue: The establishment of an economic union involves the removal of tariffs to member states. Removing tariffs from imports leads to loss of revenues to the other government. Therefore, the government is bound to lose the same revenues unlike before the establishment of the economic integration.

Political instabilities: Political instability is one of the problems facing economic

MACROECONOMICS FORM 5&6 (2022).indd 224 07/03/2022 16:20

integration. Occurrence of civil wars or boarder wars among the states hinders the smooth trade between them. Political instabilities tend to weaken the strength of economic integration. For example, civil wars in Democratic Republic of Congo (DRC) weakened the Southern African Development Community (SADC).

Poor infrastructures: Poor economic infrastructures such as undeveloped transport and communication networks limit the flow of goods and services as well as the movement of the factors of production within the territories of the member states. Moreover, poor means of transport and communication limit the size of the market; and it reduces production of goods and services in member countries.

Lack of political will and commitment: Planned targets are likely to fail, if the member states are not fully committed towards achieving the goals and objectives of the integration. Lack of commitment by member states on the others' national interests, weakens the whole goodwill of economic integrations.

Differences in political ideologies: Differences in political ideologies among the member states is a serious problem in maintaining an economic integration. It is difficult to have a strong economic integration when some of the member states believe on the socialist ideology; while the other member states believe on the capitalist ideology. Moreover, under this situation, it becomes difficult to reach the agreements on matters of common interest.

Inadequate financial resources: Inadequate financial resource hinders the successful implementation of the regional economic plans. The shortage of financial resources lead to failure or slows the implementation of development projects that are formulated by partner states.

External interference: External interference, especially, from the donor countries, may affect and possibly weaken the strength of an economic integration. Donor countries may impose circumstances which are against the objectives of an economic integration leading to its failure.



Activity 8.1

Visit the library or different websites, read the literature concerning economic integration. Then:

(a) Explain how regional economic blocks implement common external tariff;

(b) Write down examples of regional economic blocks;

(c) Explain your understanding of the term common external tariff;

(d) Explain your understanding about forms of economic integration; and

(e) Share the work you have done with your fellow students.

MACROECONOMICS FORM 5&6 (2022).indd 225 07/03/2022 16:20

Exercise 8.1

1. What are the benefits to a country entering regional trade agreement?
2. Distinguish between the Free Trade Area and Customs Union.
3. Elaborate the key features of the economic union.
4. Distinguish between trade creation and trade diversion.

Economic integration blocks

An economic integration bloc refers to the group of countries which agree to join together and remove all barriers of trade. Sometimes they would conduct fiscal and monetary policies jointly. Geographical closeness of some countries may become a necessary condition for the establishment of economic integration. The main objective of economic integration is to yield a high economic growth, an alleviation of poverty, and an improved well-being of the people among the member states.

The East African Community

The East African Community (EAC) was initially formed in 1967. It was formed by three member states namely; Tanzania, Kenya, and Uganda. However, the EAC lasted only for 10 years before it collapsed in the year 1977. The main reasons of the collapse include: Kenya's demands for more representatives in the decision-making organs, the belief of the president of Uganda by then, Idi Amin that Tanzania was preparing her army to invade Uganda, differences in political ideologies among member states. For example, Tanzania was under socialism; while Kenya was under capitalism. The treaty to establish the current EAC was signed on 30th November, 1999. Three member states were involved: Tanzania, Kenya, and Uganda. The EAC, by end of 2021 consisted of six member states. These states are Tanzania, Kenya, Uganda, Rwanda, Burundi, and South Sudan. The headquarters of EAC is in Arusha, Tanzania.

Objectives of the East African Community

From its establishment, the East African Community (EAC) aimed to achieve the following objectives:

To achieve sustainable growth and development: By promoting a more balance and harmonious development of the member states, the EAC aimed at achieving sustainable growth and development.

To promote sustainable utilisation of natural resources: EAC aimed at promoting sustainable utilisation of natural resources of the member states while taking measures that effectively protected the natural environment of the member states.

To promote the role of women: EAC member states work to maintain gender

MACROECONOMICS FORM 5&6 (2022).indd 226 07/03/2022 16:20

equality and promoting the role of women in all aspects including cultural, social, political, economic and technological development.

Promotion of political stability: EAC member states are striving to promote peace, security, and good neighbourhood among the member states.

Promotion and strengthening of partnerships with the private sector and civil society: Partnership of member states with the private sector is of great importance for achieving sustainable socio-economic and political development.

To promote equitable economic development: Strengthening and consolidating cooperation in areas where the member countries have agreed would lead to equitable economic development within the member states. Further it would improve the well-being and quality of life of their people.

Promotion of social, economic and political relationship: The member states work hard in strengthening and consolidating the political, economic, social, cultural and traditional ties and promote good relationship between people of the member countries.

Fundamental principles of the East African Community

The East African Community (EAC) is based on certain principles. The fundamental principles that govern the achievement of the EAC objectives include the following:

Mutual trust, political will, and sovereign equality: EAC member states should trust each other, be committed to achieve the goals of integration, and respect each member as a sovereign state.

Peaceful co-existence and good neighbourliness: EAC member countries should live in harmony with each other as good neighbours.

Peaceful settlement of disputes: EAC member states should settle their disputes based on peaceful means. In case of any misunderstandings among the members, negotiations should be used as a means of settling disputes.

Equitable distribution of benefits: The member states should ensure that the benefits of integration are shared equally among partner states.

Cooperation for mutual benefit: EAC member states should cooperate for the purpose of maximising welfare to both partner states.

Good governance: The member countries should promote adherence to the principles of the rule of law, social justice, democracy, accountability, transparency, equal opportunities, gender equality, recognition, promotion, and protection of human and people's rights.

MACROECONOMICS FORM 5&6 (2022).indd 227 07/03/2022 16:20

Areas of cooperation within the East African Community

The East African Community (EAC) members have agreed to cooperate among themselves in the following areas:

Trade liberalisation and development: The EAC member states have agreed to co-operate in trade liberalisation and development by eliminating trade barriers. Formation of a customs union and a common market is the thrust of the community.

Investment and industrial development: The EAC has agreed to promote self-sustaining and balanced industrial growth, improve the competitiveness of the industry sector, and encourage the development of indigenous entrepreneurs.

Quality assurance, standardisation, metrology and testing: EAC member countries have agreed to cooperate in harmonisation of quality assurance, standardisation, metrology, and testing of products produced or traded in the community to facilitate industrial development and trade.

Monetary and financial cooperation: Another area of cooperation within the EAC is monetary and financial cooperation through monetary and financial policy harmonisation, promote market exchange rates, remove all exchange restrictions, and harmonise macro-economic policies such as banking with a view to achieve a monetary union.

Infrastructure and services: EAC partner states have agreed to coordinate, harmonise and complement transport and communication policies.

The development of science, technology and human resources: EAC member countries have agreed to harmonise their curriculum, education, and training programs for the development of manpower.

Promoting free movement of persons, labour, services, right of settlement and resident: EAC member countries agreed to cooperate in promoting free movement of the factors of production within the region with a view to achieve a common market.

Agricultural development and food security: Another area of cooperation within the EAC is in agricultural development and food security. This is based on having a common agricultural policy, food sufficiency within the community, post-harvest preservation, and joint programs for efficient and effective production.

Environmental and natural resource management: EAC member states aim to cooperate in environment and natural resources management through the sustainable utilisation of natural resources. This aim is achieved through, preventing and reversing the impacts of environmental degradation as well as enhancing sustainable utilisation and management of resources.

MACROECONOMICS FORM 5&6 (2022).indd 228 07/03/2022 16:20

Tourism and wildlife management: EAC member countries have agreed to cooperate in wildlife management and tourism by promoting and marketing the EAC as a single tourist destination. The member states also, agreed to conserve and ensure sustainable utilisation of wildlife and tourist sites.

Enhancing the role of women: Another area of cooperation within the EAC is the promotion of the role of women in socio-economic development. EAC agreed to promote women empowerment in social, political, cultural economic and all other aspects of human life.

Cooperation in promoting the private sector: EAC member countries have agreed to cooperate in promoting the role of private sector and civil society by creating a conducive environment for the private sector and the civil society to operate smoothly. The EAC recognises that the private sector is the engine of economic development

Benefits of the East African Community

The East African Community (EAC) has various benefits to the member states as follows:

Expansion of the market: The EAC has helped to expand the market for goods and services which are produced by member states. The abolition of trade barriers has increased trading activities in the region. For example, Said Salim (S.S) Bakhresa products are not only sold in domestic market of Tanzania, but also in other EAC member states.

Promotion of competition: There have been more competition among businesses in the region. The competion has been accelerated by free flows of goods and services, as well as the factors of production. This in turn, has promoted efficiency in production leading to production of goods and services of high quality.

Specialisation: Formation of the EAC has promoted specialisation among the member states. Specialisation has led to a large-scale production in member countries due to the fact that each member state specialises in production of goods and services that have low opportunity cost.

Transfer of technology: Establishment of the EAC has promoted transfer of technology among the member states. This aspect has been achieved through shared education and training programmes. Thus, it has given way to skills, knowledge, and experiences to be shared among the member states.

Promotion of friendly relationship: The EAC has helped to strengthen and consolidate social and political ties among the partner states. Trading activities and free movement of persons within the boundaries of partner states have increased social, cultural, and political relationships. These in turn,

MACROECONOMICS FORM 5&6 (2022).indd 229 07/03/2022 16:20

maintain peace and security in the whole region of the EAC.

Attraction of foreign investment: Another benefit for the establishment of the EAC is the attraction of foreign capital. The expansion of the market and reduction of average cost have attracted foreign investors to bring their capital and invest in the region. Foreign capital tends to flow in the area with the large market size so as to benefit from the economies of scale.

Increasing employment opportunities: The formation of the EAC has helped to increase employment opportunities within the region. Employment opportunities are created because of free movement of labour and creation of new investments. The growth of new investment promotes production which in turn, increases the demand for labour and other factors of production.

Increasing bargaining power: The EAC has helped to increase the bargaining power of partner states in international agenda on matters of common interest. It has acted as a unifying front in international affairs.

Problems facing the East African Community

The East Africa Community is facing the following problems:

Currency differences: Variation of currencies is one of the problems facing the EAC. The use of different currencies in trading activities reduce the volume of trade among partner states. EAC member countries use different currencies leading to small volume of trade between them.

Trade diversion: The EAC partner states trade among themselves at a high cost; while they could trade with non-member countries at low cost. For example, imports from Kenya by a member state may be more costly than imports of the same from China-a non-member state.

Poor transport and communication network: The EAC partner states are not linked with reliable transport and communication network. Poor transport and communication network pose a problem to the flow of goods and services in the region. As a result, poor transport and communication networks limit the volume of trade among partner states.

Political instability: The EAC faces the problem of lack of political stability in some member countries. For example, the presence of civil wars in Uganda, Burundi, South Sudan, Somalia and Kenya political tension have affected adversely trading activities in the region.

Language differences: Language variation is another problem facing the EAC. Each member state uses its own language leading to communication problems. For example, Rwanda uses

MACROECONOMICS FORM 5&6 (2022).indd 230 07/03/2022 16:20

Kinyarwanda, French and English as the national languages, Burundi uses Kirundi, French and English, Uganda and Kenya uses English and Kiswahili, Tanzania uses Kiswahili and English, while South Sudan uses English and Arabic.

Lack of commitment: Most of the EAC member states are not fully committed to achieve the objectives of economic integration. Countries put more interest on meeting national plans in order to win elections.

Unequal distribution of gains: EAC member countries face a problem of unequal distribution of the benefits of integration that arise from the differences in the level of economic development. The partner states which feel that they benefit less from integration, tend to be less committed towards achieving goals of integration.

Loss of government revenue: Countries engaged in economic integration tend to lose revenue since imports from partner states are no longer taxed are like used to be before the establishment of the integration.

Similar products: The economies of EAC member states depend mostly on the agriculture sector which makes it difficult to trade among themselves. As a result, EAC member states trade more with non-member countries than with the fellow member states.

Multiple membership: Multiplicity of member states to other blocks such as Southern African Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA) compromises commitment levels of member countries.

The Southern African Development Community

The Southern African Development Community (SADC) was established in 1980 as Southern Africa Development Coordination Conference (SADCC), and it was transformed into a development community in 1992. It is an inter-governmental organisation in which the main objective is to promote equitable economic growth and sustainable socio-economic development through efficient productive systems, deeper cooperation and integration, good governance, and sustained peace and security among Southern African member states.

Objectives of Southern African Development Community

SADC from its establishment has several objectives which are referred to as the common agenda. The SADC is aims at achieving the following objectives:

To ensure equitable economic growth and sustainable socio-economic development: The member countries aim at promoting sustainable and equitable economic growth and socio-economic development through: poverty

MACROECONOMICS FORM 5&6 (2022).indd 231 07/03/2022 16:20

alleviation, improving the well-being of the people in the SADC region, and supporting the socially disadvantaged groups.

To promote good governance: SADC members aim to promote good governance by promoting common social and political values, systems, and other shared values that adhere to the rule of law, legal, as well as effective institutions, human rights and democracy.

To promote political stability: SADC member countries aim to strengthen, defend and maintain democracy, and political stability in the territories of the member states.

To promote self-sustaining development: SADC states aim to achieve a self-reliance economy through collective effort of the partner states of ensuring efficient utilisation of resources. SADC has to reduce dependence on foreign aid to develop their economies.

Harmonisation of plans: SADC aims to harmonise economic plans of member states so that the national priorities, strategies, programmes, and objectives are consistent with the regional priorities, strategies, programmes, and objectives. The aim is to create complementarity between national plans and regional plans.

Environmental conservation: SADC aims to promote sustainable use of natural resources of the member states and effective management of environmental resources in order to protect the environment.

Promoting historical, social and cultural ties: The SADC member countries aim at strengthening and consolidating social, cultural, and historical relationships as well as networks among people living in the SADC area.

Promotion of the role of women: SADC member states aim at empowering women and promoting gender equality encourage women to participate in political and socio-economic development.

NOTE: SADC achieves these objectives by; harmonisation of the member countries by creating institutional mechanisms for resource mobilisation to implement programs; elimination of impediments to free movement of factors of production such as labour and capital, goods and services throughout the region; to promote the development of human resource and technological transfer.

Advantages of Southern African Development Community

The following are the advantages of SADC to the member states:

Promotion of peace and security: SADC has promoted political stability in the region through consolidation of democracy as well as sustaining peace, and security. For example, SADC has

MACROECONOMICS FORM 5&6 (2022).indd 232 07/03/2022 16:20

helped to bring back peace and security in Madagascar, Lesotho, and in the Democratic Republic of Congo.

Market creation: SADC has improved intra-region trade through customs and trade facilitation. Enhancement of trade infrastructures has simplified trade in the region.

Infrastructure development: Another advantage of SADC is that it has promoted development of infrastructures in areas of energy, transport, communication, information technology, and meteorology. Development of infrastructures will help to expand the size of the market.

Financial and monetary integration: Partner states have managed to promote financial and monetary integration. They have ratified a protocol to form a single currency area which will help to facilitate trading activities in the region.

Women empowerment: SADC partner states have succeeded to promote gender equality through promoting the role of women in social, political, cultural, and economic development.

Man power development: SADC partner states have succeeded to harmonize curriculum, harmonisation of education, and training programmes in order to develop competent and efficient labour force in the whole region. These programs have contributed to technological advancement in the region.

Increase bargaining power: SADC has increased its bargaining power in matters of its interest in international affairs. For example, SADC member states stood firm against imposition of political and economic sanctions to Zimbabwe during Robert Mugabe's regime. Otherwise, such sanctions could bring more harm to civilians than to political leaders.

Attraction of investors: SADC member states have attracted both local and foreign investors. This has been achieved by putting in place conducive investment policies in the region. In addition, the presence of a large market size, a large population, and a low per unit cost of production are some of the incentives that have attracted more investors in the region.

Problems facing Southern African Development Community

The Southern Africa Development Community (SADC) is facing several problems which have weakened its efficiency. Problems facing SADC include:

Political instability: Some SADC member countries experience political instabilities which adversely affect the achievement of the SADC objectives. For example, civil wars in Mozambique, Sychelles, and other parts of the region have hindered smooth trading and expansion of investment and production in the area.

Poor transport and communication networks: The SADC member countries are not well connected with the means of transport and communication. The poor networks hinder trading activities and movement of factors of production in the SADC area.

Lack of funds: SADC member countries are poor; and they lack financial resources for the implementation of joint programmes. SADC has many plans and programmes in place waiting for financial resources to take off.

Unequal distribution of gains: SADC member countries have attained different levels of economic development; and gains are not equally shared among the members' state. Economically, the developed countries, like South Africa, enjoy a lion's share of the gains of integration at the expense of the poor small countries like Eswatini and Lesotho which end up getting very little.

Currency differences: SADC member countries use different currencies in their trading activities, the currency difference lead to some complications in the determination of exchange rates and in the determination of price of goods and services. These complications hinder the volume of trade among the partner states.

Loss of government revenue: Establishment of SADC, has resulted into the loss of some governments revenues because goods and services imported from SADC countries to other member countries are no longer taxed unlike it used to be before. For example, if Tanzania used to earn revenues through taxing commodities from Zambia that revenue will no longer be collected due to removal of tariffs on goods imported from Zambia because Zambia is a SADC member.

Lack of political will: Some of the partner states are not committed towards achieving goals of integration. Most countries put more effort towards implementing their national plans and less effort is invested to achieve SADC objectives.

Multiple membership: Multiplicity of member states to other blocks such as South African Common Union (SACU) and COMESA compromises commitment levels of member countries.

Activity 8.2

Search different learning materials on economic integration blocks from different sources, then:

(a) Identify any other three (two from Africa and one from Europe) economic integration apart from EAC and SADC;

(b) Clarify on the objectives and challenges of the integration blocks you have identified in part (a);

MACROECONOMICS FORM 5&6 (2022).indd 234 07/03/2022 16:20

(c) Do the EAC and SADC face the same challenges as those you have clarified in part (b)? Explain; and

(d) Clarify the advantages and disadvantages of the integration block you have identified in part (a).

Concept of economic cooperation

Economic cooperation is an international collaboration which aims at getting mutual benefits through collective use of technological and financial resources among all member countries. It is recognised as an aspect of international cooperation with the aim of facilitating the process of integration in respect of financial and commercial aspects. At the regional level, it provides a model that attracts technology and investment. The United Nations specialised agencies such as the United Nations Conference on Trade and Development (UNCTAD), International Monetary Fund (IMF), the World Bank and World Trade Organisation (WTO) are the good examples of economic cooperation.

In this chapter only UNCTAD, IMF, the World Bank and WTO are discussed as follows:

United Nations Conference on Trade and Development

The UNCTAD is the economic cooperation which was established in the year 1964, with the main objective of formulating policies that promote trade and development. The cooperation's goals are to promote investment, trade and development opportunities in developing countries and to support the developing economies to integrate their economies to the global economy on an equitable basis. The other objectives are: to support developing countries to attain high economic growth, and to reduce or close the existing trade gap between developing and developed countries. The aspects of development that UNCTAD is dealing with are trade, finance, transportation, aid and technology. UNCTAD had about 195 member countries including Tanzania.

The main functions of United Nations Conference on Trade and Development

UNCTAD as an economic cooperation performs several functions to fulfil its objectives. The following are the main functions of the cooperation:

(a) Promoting quick economic development in developing countries by supporting them to stimulate export expansion;

(b) Promoting international trade between developing and developed countries with the aim of attaining accelerated economic development of the developing countries;

(c) Formulating principles and policies of international trade through which member countries should rely with, when participating in

MACROECONOMICS FORM 5&6 (2022).indd 235 07/03/2022 16:20

trade with other countries in the world;

(d) UNCTAD assists its members to negotiate trade agreements with other nations;

(e) Proposing the ways of implementations of its principles and policies;

(f) Promoting research and supporting commodity agreements negotiations, providing technical support of new trade activities in the area of trade and capital to developing countries;

(g) Coordinating and reviewing the activities of other United Nations institutions related to international trade and economic integration; and

(h) In fulfilment of the Article 7 of the United Nations charter, UNCTAD's main function is to harmonise policies of regional economic groupings and governments which are related to trade.

The International Monetary Fund

The IMF is an international monetary institution established by 44 nations under the Bretton Woods Agreement in July 1944 together with the World Bank in New Hampshire, United State of America (USA). The aim was to help rebuild the shattered post war economy and to promote international economic cooperation. It started to operate from 1st March, 1947. At the end of 2021, the institution had 190 member states.

Objectives of the International Monetary Fund

The IMF works to achieve the following objectives:

To foster global monetary cooperation: The IMF which acts as machinery for collaboration in international monetary problem promote international monetary cooperation among its members.

To facilitate international trade: The IMF facilitates the expansion and balanced growth of international trade. It also contributes to the promotion and maintenance of real income growth and development of productive resources of its members.

To maintain and secure financial stability: The IMF intends to promote the stability of exchange rates and maintaining orderly exchange rate arrangement so as to avoid periodic competitive exchange rate depreciation.

To put in place a multilateral system of payment: Moreover, the IMF assists in the establishment of a multilateral system of payment with respect to current transactions among its members. The institution is also responsible for and in elimination of foreign exchange rate restrictions which limit the growth of international trade.

To correct balance of payment deficit: The IMF acts as a safeguard by making resources available to its member state. The availability of resources will help the member countries to correct their

MACROECONOMICS FORM 5&6 (2022).indd 236 07/03/2022 16:20

balance of payment disequilibrium in case it happens. The institution ensures that this is done without resorting to measures that will destruct the national or international prosperity.

The functions of the International Monetary Fund

The International Monetary Fund (IMF) performs the following functions:

Provision of short-term loans: IMF provides short-term credits to member countries to correct a deficit in their balance of payments.

Reduction of trade restrictions: Another function of IMF is to promote a balanced growth of international trade through reduction of tariffs and non-tariff restrictions among member states.

Provision of technical advice: The IMF provides technical advice to its member countries on fiscal and monetary policies. IMF has skilled experts in this field of fiscal and monetary policies who can assist member countries facing difficulties in that area.

Conduct research: Another function of IMF is to conduct research and publication in finance and development journal and in staff papers. This publication will help the member states to update themselves in various issues related to monetary and fiscal policies.

Provision of technical assistance: The IMF provides technical support to the member countries who have difficulties in the balance of payments or any other problems.

Provision of training: The IMF conducts short term courses on fiscal, monetary and balance of payments for personnel from member nations through its Central Banking Service Department, the Fiscal Affairs Department, the Bureau of Statistics and the IMF Institute.

The World Bank

The World Bank is an international financial institution that provides loans and grants to the governments of low and middle income countries for the purpose of pursuing capital projects. It comprises of two institutions: International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA). World Bank was established in 1945 under the Bretton Woods Agreement of 1944 to assist in bringing smooth transition from a war-time before 1945 to peace-time economy that is after 1945.

Objectives of the World Bank

The World Bank was established in order to achieve the following objectives:

Reconstructing and developing the countries that were affected by World War II: Initially, the World Bank under International Bank for Reconstruction and Development (IBRD) aimed at assisting the reconstruction and development of the economies of countries like Britain,

MACROECONOMICS FORM 5&6 (2022).indd 237 07/03/2022 16:20

France and Holland which were severely affected by the Second World War.

Promotion of international trade: Another objective of the World Bank is to promote long run growth of the world trade and maintain the balance of payment equilibrium of the member countries.

Establish a strong economy in peace time: The other objective of the World Bank was to assist member countries to undergo a transition from a war time economy to the peace time economy. The World Bank had to assist member countries to recover the economies from a depression.

Global environmental protection: The global environmental protection is another objective of the World Bank. In order to achieve this objective, the World Bank provides enough financial assistance to developing countries with the purpose of protecting the environment.

Maintaining the balance of payment equilibrium: The World Bank assists its member countries to maintain equilibrium in their balance of payments. The World Bank promotes the long-run growth of international trade and the maintenance of equilibrium in the balance of payments of its members. This is done through promoting long term international investment in order to develop productive resources of member countries and thereby raising their productivity and the standard of living.

Promotion of capital investment: The World Bank encourages capital investment through encouraging private investors to invest their capital in the developing countries. This is done by providing guarantees for participation in loan and other investment made by private investors. When private capital is not available to private investors, World Bank provides capital to supplement private investment from its own source.

Functions of the World Bank

The following are the function performed by the World Bank:

(a) To assist the member countries in the reconstruction and development of their economy by facilitating the capital investments;

(b) To arrange all loans advanced by the bank itself or those that have been guaranteed by the bank itself in order to ensure that, these loans are used in an efficient way and the projects that are urgent receive first preference;

(c) To promote a long-term growth of international trade as well as maintaining its member states balance of payment. This is done by promoting international investment;

(d) To provide guarantees in international loan and investment so as to promote private investment and long-range balanced growth of international trade and balance of payment equilibrium; and

MACROECONOMICS FORM 5&6 (2022).indd 238 07/03/2022 16:20

(e) To provide advice and expertise where emphasis is on institutional technical assistance and infrastructure assistance.

World Trade Organisation

The World Trade Organisation (WTO) was established in 1995 as the only global international organisation dealing with the rules and regulations of international trade. The main objective of WTO is to ensure that there is smooth flow of international trade. At present (end of 2021), WTO has 164 members with its headquarters in Geneva, Switzerland.

Functions of the World Trade Organisation

The following are the functions of WTO:

Administering trade agreements: One of the functions of WTO is to administer trade agreements which have been reached by member countries.

Forum for trade negotiations: The WTO provides a forum for trade negotiations among the member countries. It provides facilities for negotiations regarding expansion of international trade.

Monitoring national trade policies: Another function of WTO is to monitor the implementation of national trade policies. It is the responsibility of WTO to monitor any kind of trade restrictions which a country imposes against free flow of international trade. Basically, WTO discourages trade restrictions.

Training and technical assistance for developing countries: The WTO provides technical assistance and training for developing countries on issues of international trade. It provides education and training to developing countries on export promotion, diversification of exports and benefits of free trade.

Cooperation with other international organisation: The WTO works to cooperate with other international organisations which promote growth and expansion of international trade like IMF, The World Bank, The World Trade Centre and UNCTAD in order to have better coordination and harmonisation of trade policies.

Handling trade disputes: Another function of WTO is to handle disputes arising from WTO negotiations. In case trade disputes arise between member countries, it is the responsibility of WTO to handle such disputes.

Advantages of economic cooperation

The following are the advantages of economic cooperation:

Promotion of employment: Economic cooperation has led to promotion of employment in member countries arising from growth of investments funded by international organisations like the World Bank and IMF. For example, many people get jobs in the World Bank financed projects.

MACROECONOMICS FORM 5&6 (2022).indd 239 07/03/2022 16:20

Promoting economic growth: Economic cooperation accelerates the speed of economic growth through medium-term and long-term loans offered by various international financial institution such as IMF, the World Bank and African Development Bank (AfDB). These funds have helped to increase the productive resources of the member countries leading to high national incomes.

Achieve equilibrium in balance of payments: Economic cooperation helps member states to adjust disequilibrium in their balance of payments through promotion of international trade, balanced growth, and promotion of private investment through WTO and UNCTAD arrangements.

Increase investments: Another advantage of economic cooperation is that they promote growth of investments in member countries. For example, loans from the World Bank have enabled member countries to increase investments, production, employments and finally contributing to the growth of national incomes of the member countries.

Improving standard of living: International economic cooperation has helped to improve standard of living of people in the member countries. Assistance in improvement of social services like education, health, water and sanitation, transport, power supply and many others have improved human welfare of member states. Moreover, reduction of trade restrictions has lowered prices of goods and services in member countries leading to increasing standard of living of the people.

Transfer of technology: Economic cooperation promotes transfer of technology through education and training facilities offered by various international economic organisations to member countries. For example, the World Bank, IMF, UNCTAD, WTO and many other international organisations provide technical assistance and training to member countries in various issues like fiscal and monetary policies and balance of payments. These help to improve efficiency in their economies.

Mutual political relationship: Economic cooperation helps to promote a friendly relationship among various member countries of the world. Trade negotiations, credit facilities and other trade arrangements allow many countries to come together and form relationship between them. This in turn, promotes world peace and security which is vital for economic development

Disadvantages of economic cooperation

Regardless of the advantages brought by economic cooperation, the following are its disadvantages:

Increase in dependency: Economic cooperation has left developing countries dependent on foreign technology, foreign capital and imports. Economic dependency has weakened political

MACROECONOMICS FORM 5&6 (2022).indd 240 07/03/2022 16:20

sovereignty of some member states of the developing countries.

Debt crisis: Economic cooperation worsens debt problem in some member countries. International economic cooperation involves provision of loans to member countries for investment and correction of a deficit in the balance of payments which has raised huge debts to poor countries.

Income gap: International economic cooperation leads to magnification of economic gap between developing and developed countries. The loans and grants provided by international financial institution are usually paid with high interest rates. These institutions are claimed to have taken resources of the poor countries and ship them to the rich countries.

Deficit balance of payments: Economic cooperation has failed to improve the balance of payments of the developing countries. That is, the value of imports exceeds the value of exports. The balance of payment deficit in the developing countries has been caused by many factors including weak bargaining power of the developing countries, unfavourable terms of trade, export of primary products by the developing countries, and protectionist policies of the rich countries. In addition, the developing countries have failed to produce on large scale leading to massive importation.

Exercise 8.2

1. With relevant examples explain the benefits of economic cooperation to Tanzania.
2. What are the functions of IMF?
3. Clearly explain the roles of Word Bank to the developing countries.
4. Explain how the economic cooperation has either reduced or improved the balance of payment in developing countries.

Chapter summary

1. Integration is the trade relations between the independent national economies.
2. Economic integration is an arrangement among nations that typically includes the reduction or elimination of trade barriers and the coordination of monetary and fiscal policies. It encompasses measures designed to abolish discrimination between economic units belonging to different partner states.
3. Economic cooperation is the international partnership focusing in obtaining mutual advantages through the use of resources such as financial, material, technology as well as capital.

MACROECONOMICS FORM 5&6 (2022).indd 241 07/03/2022 16:20

4. The forms of economic integration started from preferential free trade areas, free trade areas, customs union, common market, monetary/economic union and lastly political federation.
5. Economic integration has demonstrated that countries should gain from trade by entering into regional economic blocks which abolish trade barriers and encourage the free movement of goods, services and factors of production
6. The objective of economic blocks was mainly to achieve development and economic growth, alleviate poverty, and enhance the standard and quality of life of the people among the participating countries.

Revision exercise

1. Why is it impossible for Tanzania to form an integration block with United State of America (USA)?
2. Distinguish between the function of IMF and the World Bank.
3. Describe the common external tariff.
4. One of the initiatives of East African Community (EAC) is to attain political federation. What are the features of political federation?
5. Tanzania is among the members of EAC. Currently EAC is in the stage of implementing monetary union. Are there any challenges to the country being the member of EAC?
6. Based on the history of EAC, answer the following questions:
   (a) When was the EAC formed?
   (b) Mention countries that form EAC at present.
   (c) Which country among the member states is the last to join the EAC?
   (d) Why did the former EAC collapse?
7. What is the total market area occupied by the members of EAC?
8. The concepts of economic integration and economic cooperation can be used interchangeably; do you agree? Explain.

MACROECONOMICS FORM 5&6 (2022).indd 242 07/03/2022 16:20

Chapter
Nine

Economic growth and development

Introduction

Why some countries are more developed than others? What should be done to reduce the income differences between rich and poor countries? What conditions should be in place for a country to attain high level of economic growth? In this chapter, you will learn about the concepts of economic growth and development, determinants of economic growth, economic growth policies in Tanzania, the effects of economic growth, theories of economic growth, indicators of developing countries, sustainable development, the role of international trade and aid in economic development. The competencies developed will enable you to identify and apply various economic development initiatives for social and economic development.

Economic growth

Economic growth is an increase in a country's capacity to produce goods and services over a period of time. It can also be defined as a sustained increase in an economy's total output of goods and services. Since total production/output is usually measured by Gross National Product (GNP) or Gross National Income (GNI) or Gross Domestic Product (GDP), then economic growth is a sustained increase in real national income or income per capita of a nation. A point to note here is that, the increase in national income or more correctly increase in per capita income must be a sustained process if it is to be called economic growth.

Economic growth is a process whereby an economy's Gross Domestic Product (GDP) increases over a long period of time. In this context, it is necessary to distinguish between GDP and GNP. In a closed economy, no distinction is to be made between the two, whereas in an open economy, GNP may be greater or less than GDP depending upon the net inflow or outflow of income. A country may record an increase in its GNP if its people have invested massive capital outside the country and earn big profits there from. Of the two variables, GDP will be a more accurate picture of economic growth as compared to GNP.

MACROECONOMICS FORM 5&6 (2022).indd 243 07/03/2022 16:20

The increase in GDP must be steady and prolonged. Short period increase within the boom period of trade cycle, cannot be considered as growth. If the population in a country grows faster than GDP, product per capita (or income per capita) will decline, this cannot be termed as economic growth. Therefore, a sustained increase in population should be accompanied by sustained increase in GDP in order to avoid a decrease in GDP per capita.

Economic growth is a complex process and it is not limited to a mere increase in per capita income. A large number of changes continue to take place during the process of growth. The direction of these changes could be different. For example, the GDP or GNP may rise while per capita consumption may fall. Therefore, it is necessary to exercise extreme caution while selecting a variable that may be used as an index of economic growth.

If the objective is to study changes in the standard of living of the people, improvement in per capita consumption would be the most appropriate indicator of growth performance of an economy. However, this cannot be regarded as the best indicator of economic growth because during the process of economic development, many developing countries intentionally keep the level of consumption low in a bid to increase savings and investment.

Determinants of economic growth

Economic growth can be determined by various factors which affect productivity. The term productivity means the increase in the quantity of goods and services produced using the available factors of production. It is the change (increase or decrease) in these factors of production that determine the level of country's economic growth. The determinants of economic growth can be categorised into economic, political, and social factors. For the purpose of this chapter, we will focus only on economic factors which are *physical capital, human capital, natural resources,* and *technological knowledge.* Each factor is explained below:

Physical capital: This is the stock of equipment, machines, buildings and plants used by a worker to produce goods and services. For example, a carpenter in Kisisi village in Mpwapwa district who is manufacturing furniture would require a saw, a hammer, glue, timber and other tools. More tools allow the carpenter to produce more output quickly and accurately. A carpenter with only basic hand tools can make less furniture in each week and therefore, has less growth than a carpenter with sophisticated and specialised equipments. A country's investment in development of infrastructures such as railways, classrooms, health centres, and purchase of machines increase the capital stock, which is part of physical capital. A country with high amount of physical capital accumulation can produce more goods and services compared to a country with low amount of physical capital.

MACROECONOMICS FORM 5&6 (2022).indd 244 07/03/2022 16:20

Human capital: This is the knowledge and skills acquired by a worker through education, training, and experience. Human capital differs from labour force which refers to physical workers (quantity) of work force without considering skills and abilities. The Organisation for Economic Cooperation and Development (OECD) explains that human capital in terms of people's skills, learning, talents, and attributes as important factors that affect people's ability to earn a living and to widen the economic growth. Skills in human capital are accumulated in formal education programmes such as primary school, secondary school, university/college, and on-job trainings for adults in the labour force. One should note that unlike physical capital; human capital is not tangible and it is difficult to see its impact directly and in a short period of time. Like physical capital, human capital raises a nation's ability to produce goods and services. For example, a nation with a high number of university graduates is expected to have high economic growth because the obtained degrees from the university are expected to help graduates to participate effectively informal and formal employment. This will increase the county's volume of goods and services.

Natural resources: This include endowments such as land, forest, water bodies and mineral resources. Natural resources can be categorised into two which are renewable and non-renewable resources. The forest is an example of renewable resources; while the oil or natural gas is an example of non-renewable recourses. The forest is a renewable resource because when trees are cut down, they can be replaced by other trees through planting. But when a natural gas is depleted, it is impossible to create another reserve; and therefore, it is a non-renewable resource. The differences in endowments in natural resources across countries may result into the differences in economic growth around the world.

Technological knowledge: This is the technical know-how or the understanding of the best way of organising other factor inputs to produce goods and services. Technological knowledge may take many forms. Some technologies are common knowledge after one person uses it, everyone becomes aware of it. Other technologies are proprietary meaning that, they are only known by the company that discovers them. For example, Said Salim (S.S) Bakhresa group of companies, knows the secret recipe for making its famous soft drink Azam cola. All these forms of technological knowledge are important for the production of goods and services.

Growth policies of Tanzania in historical perspective

To improve economic growth, Tanzania has undergone many policy changes since her independence in 1961. The first major policy change was the Ujamaa policy under Arusha declaration followed by a series of other reforms from time

to time. As such, from a policy setting Tanzania's economic growth can be grouped into five distinct policy periods as follows:

The 1961-1969 periods

Immediately after independence, from 1961 to 1969, the government of Tanzania adopted an *import substitution industrialisation policy*. Import substitution industrialisation policy aimed at promoting production of goods locally with the aim of replacing similar goods which were imported from foreign countries. In this period, growth of the economy depended largely on investment by the private sector in both industrial and agricultural sectors. In addition to import substitution industrialisation policy, the government introduced the Three-Years Development Plan (TYDP) from 1961 to 1964 and the First Five-years Development Plan (FFYP) from 1964 to 1969. Both plans aimed at promoting growth through increasing private investment in those industries and were expected to bring rapid and high returns. To achieve that, a relatively low degree of regulatory control was exercised so as to promote domestic and international investment in the economy. The foreign owned companies based on the capital-intensive production of items such as non-metallic mineral products, repair of machinery and manufacture of metals and metal products, tobacco, textile, cement, radio assembly, and diamond cutting were invited to operate in the country. As a result, there was a gradual transformation of the structure of industries from labour to capital intensive. However, this transformation went parallel with a fall in the general employment level.

To accelerate employment levels and high levels of economic growth, major changes were introduced with the Arusha Declaration in 1967. It provided a blueprint for the development of Tanzanian *socialism*. The main agenda of Arusha Declaration was to nationalise the major means of production and to pursue the socialist ideology with the philosophy of self-reliance as a country. Under socialism, the role of the state was extended to cover the "commanding heights" of the economy. The government owned the main sectors of the economy including the financial sector. Most large-scale industries and a significant proportion of the large-scale agricultural sector were owned by the government. As a result, in 1969 Tanzania achieved a current account surplus on the balance of payments for the first time.The relative importance of public sector investment in total investment increased dramatically from 31.6 percent in 1965 to 63.8 percent in 1970 and investment continued to grow and exceeded a GDP of 20 percent in the year 1970.

The 1969-1981 periods

From 1970 onwards foreign exchange shortages were a regular feature as the country imported more capital goods for

MACROECONOMICS FORM 5&6 (2022).indd 246 07/03/2022 16:20

development of local industries. Tanzania started the road towards dependence on aid to finance the gap between export earnings and import requirements. The government followed a fixed exchange rate regime where it maintained a fixed exchange rate pegged to the dollar until 1974 during which internal inflation was higher than that of her major trading partners.

The major policy changes were introduced in 1973 and the subsequent few years. The most important change was the process of *villagisation*, justified partly by the desire to provide social services to the villages and partly by the aim to create more communal forms of production in the rural areas. The impact of this change varies from one location to another with the most severe one being disruption of production in areas with scattered settlement patterns where farmers failed to maintain perennial crops that were located too far from their new homes. Following Kagera War in 1979 and the relatively high international oil price, the economy suffered from declining terms of trade, high inflation rates, and sluggishness of the domestic economy and the emergence of an unofficial market which consists of smuggling of goods from abroad so as to avoid taxes and price controls. Despite the attempts to cut imports to the minimum, the trade deficit widened to an unprecedented level, and the balance of payments problem became so acute that development projects had to be suspended.

The 1981-1986 periods

The government introduced a National Economic Survival Programme (NESP) in 1981. Under NESP, taxation policy was used to remove export taxes. The comprehensive process of reform was initiated with a home-grown structural adjustment programme (1982-1984). It proposed a strategy based on the revival of traditional export crops. This was followed, by the *Agricultural Policy* of Tanzania in 1983. Here the role of the private sector and the need for security of land tenure were explicitly recognised and a policy decision was made for the cooperative unions to be re-introduced. Efforts were made to draw up programmes defining the requirements for investment and recurrent resources for the traditional export crops. These programmes depended on support from the donor community which was not forthcoming without agreement with the International Monetary Fund (IMF). IMF was unwilling to invest in what was perceived to be a risky environment.

The reforms of the early 1980s were significant. They reversed the trend of the previous decade towards public sector dominance of all major economic functions. This caused the share of public investment in total fixed capital formation to fall back to about 40 percent in 1980 and 35 percent in 1985. The state of the economy and the proportion of investment to GDP remained surprisingly high, but the productivity of that investment was clearly constrained by the economic conditions. Nonetheless,

MACROECONOMICS FORM 5&6 (2022).indd 247 07/03/2022 16:20

the progressive withdrawal of support from the donor community continued to trigger the economic crisis. In the year 1985 there was no devaluation and the reform process was stalled. By this time the real exchange rate had appreciated to over three times the level of 1961, a position that was clearly unsustainable in the long run, especially, when the terms of trade had also worsened.

By the year 1985, the economic crisis had caused severe strains on the physical and social infrastructure of the country. While adult literacy was improving as a result of past efforts, schools, and health centres were unable to deliver effective services. Primary school enrolment started to decline and the improvement in health indicators slowed down. The physical infrastructure also suffered and this effect was reflected in a rapidly deteriorating road system and inability to expand provision of utilities to meet the increasing demand.

The 1986-1995 periods

In the year 1986, the new government under President Ally Hassan Mwinyi reached agreement with the IMF under the Economic Recovery Programme (ERP). *Devaluation policy* was used where the agreed package involved an initial massive 63 percent devaluation followed by a steady depreciation to eliminate exchange rate overvaluation by 1988. By that time the real exchange rate had already fallen below the 1961 level. Measures were taken to control public expenditure, raise interest rates and liberalise both internal and external trade. Growth of the economy resumed, but after a temporary boom in 1986, real exports continued to decline until 1993 and did not recover to the 1984 levels until 1994. Fixed capital formation as a proportion of GDP declined, mainly as a result of the effects of restrictions on public expenditure, but also because the private sector response to reform was disappointing. Aid levels recovered and Tanzania became even more aid-dependent than before. The expectations for inflow of foreign investment failed to be realised.

1995 and beyond

After the election of 1995 the new government resumed negotiations with the IMF culminating in a new Enhanced Structural Adjustment Facility (ESAF) in 1996. The process of agreement was enhanced by the appointment of an independent group to review the relationship between the Tanzanian government and donors in order to improve the efficiency, relevance and effectiveness of aid programmes. The group proposed measures to ensure that agreements could be set out clearly in such a way that the performance of both the government of Tanzania and the donors could be monitored against agreed statements. It was hoped that, this would enhance the ownership of the reforms by the Tanzanian government. The report contributed to the development of a

MACROECONOMICS FORM 5&6 (2022).indd 248 07/03/2022 16:20

number of policy documents including the Tanzania National Development Vision 2025 (1997) and the National Poverty Eradication Strategy (1998). Relations with donors were defined in the Tanzania Assistance Strategy (TAS) (2000) in line with the newly required Poverty Reduction Strategy Paper (PRSP).

Although some of the original proposals of the consultative group have been eroded to some extent, it appeared that the TAS helped to establish a more genuine dialogue between the donors and the Tanzanian government. It was backed up by a renewed level of aid support. The economic performance of Tanzania started to improve in the year 1995 and this improvement accelerated up to the year 2000. Exports per capita were rising, thanks to considerable growth of exports of minerals and fish. Government recognition of the importance of exports and the need for diversification was reflected in a new *National Trade Policy* (2003). Earnings from tourism have risen and Foreign Direct Investment (FDI) finally became a significant factor. In the social field, primary school enrolment rates rose again, partly due to abolition of school fees in the year 2000. The proportion of the population proceeding to secondary and tertiary education also rose although at a low rate. With the above efforts, the country recorded a steady growth in GDP of up to 7 percent per annum by the year 2000 to 2019. However, the outbreak of the COVID-19 slowed the economic growth to 4.9 percent by December 2020.

Theories of economic growth

To an economist, a theory is a systematic explanation of interrelationships among economic variables, with the purpose of explaining causal relationships among the variables. Usually, a theory is used not only to understand the world better but also to provide a basis for formulation of various policies. The following are some of the major theories of economic growth in which solutions to the problems of economic growth are explained:

The classical theory of economic growth

Analysis of the process of economic growth can be traced back to the 18th-19th century from the work of three economists namely Adam Smith, Thomas Malthus, and David Ricardo. Though they lived in different times, they all wrote books with the interest to identify and analyse the drivers that promote and/or hinder economic growth in society. David Ricardo and other classical economists were influenced by Isaac Newton's theories. Just as Newton postulated that activities in the universe were not random but subject to some grand design, the classical economists also believed that the same natural order determined economic relationships.

MACROECONOMICS FORM 5&6 (2022).indd 249 07/03/2022 16:20

Adam Smith in his book '*The Wealth of a Nation*' suggests that, people should be allowed to trade freely and compete with each other. If people would be left to act according to their self-interest, market forces would drive the market to the equilibrium with high output. Adam Smith was the first economist who emphasised on the importance of division of labour and the principle of absolute advantage. Thomas Malthus in his book '*The Theory of Population*' was concerned with the problem of population growth as the hindrance of growth. Classical economist ideas reached the high level of development in the work of David Ricardo on '*Principles of Political Economy and Taxation*' in the 19th century. According to David Ricardo, production is a function of capital, labour, and land.

An important achievement of classical theory is the recognition that capital accumulation is an important driver of growth. Ricardo in particular emphasised that, capital acts as an engine of growth. In capitalism economy, capital is accumulated through an investment of profits. They criticised the social systems for unproductively consumption of the large part of profit. The willingness and capacity to save are important in capital accumulation. In classical theory of growth, diminishing return to capital, and population growth can constrain economic growth. When there is no further increase in capital, the economy is said to be at a stationary state. In this state, capital accumulation stops, population does not grow, and the wage rate is at subsistence level. International trade and technology can overcome constraints of growth and avoid a stationary state.

The limitations of the classical theory of economic growth are as follows:

(a) The role of technical progress has been underestimated in the theory;

(b) The classical theory is too simple to account for all the complex factors which influence growth; and

(c) The theory ignores the importance of government intervention in some cases.

Marxist growth theory

Marx rejected some principal features of the classical theory of economic growth. He offered his own theory within a socio-historical framework in which economic forces play a major role. He considered classical economic analysis as a still photograph, which describes reality at a certain time. But in contrast he considered his approach as similar to a moving picture as it looks at a social phenomenon and examining where it was and where it is going and its process of change. According to him, society transforms from one stage to another; that is; from communalism to slavery to capitalism and lastly to socialism.

MACROECONOMICS FORM 5&6 (2022).indd 250 07/03/2022 16:20

The transformation was based on the emerged changes between the ruling and oppressed classes and their relationship to each other. Conflict between the forces of production (the state of science and technology, the organisation of production, and the development of human skills). Also the existing relations of production (the appropriation and distribution of output as well as a society's way of thinking, its ideology, and worldview) provide the dynamic movement in the materialist interpretation of history. The simultaneous working of these would generate contradictory forces which would eventually sharpen the class conflict between capitalists and workers or between 'haves' and 'have-nots'. The interaction between forces and relations of production will also shape the politics, law, morality, religion, culture, and idea, hence economic growth.

The criticisms of the Marx's theory of growth is that:

(a) Marx's main analysis was on capitalism, but his discussions on socialism and communalism were not well developed. Even his analysis of capitalism, and the transition to socialism, had a number of mistakes; and

(b) Marx's theory rose in the industrialised West, but the revolution occurred first in Russia though it did not prove to be sustainable.

Rostow's stages of economic growth

Walt Rostow was a famous economic historian who sets a new historical synthesis about the beginnings of the modern economic growth. The theory was developed as an alternative to Marx's theory of modern history and suggested five stages of economic growth for the Least Developed Countries (LDCs). Rostow's stages of economic development include: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass consumption.

The traditional society: Rostow has little to say about the concept of traditional society except to indicate that it is based on attitudes and technology prominent before the turn of the 18th century.

The preconditions for take-off: Rostow's pre-conditions stage for sustained industrialisation includes radical changes in three non-industry sectors which are increased transport investment to enlarge the market and production specialisation, a revolution in agriculture so that a growing urban population can be fed, and an expansion of imports, including capital, financed perhaps by exporting some natural resources.

The take-off: Rostow's central historical stage is the take-off. This decisive expansion occurs over 20 to 30 years, which radically transforms a country's economy and society. During this stage, barriers to steady growth are finally

overcome, while forces making for widespread economic progress dominate the society, so that growth becomes the normal condition.

The drive to maturity: The drive to maturity is a period of growth when a society has effectively applied the range of modern technology to the bulk of its resources. A labour force that is predominantly urban and skilled, A leadership that is more professional, and increasingly state provision of economic security.

The age of high mass consumption: This last stage, reached in the United States in the 1920s and in Western Europe in the 1950s, it is symbolised by the presence of automobile, sub-urbanisation, and numerable durable consumer goods and gadgets. In Rostow's view, the other societies may choose a welfare state or international military, and political power.

Rostow's stages were criticised by the fact that:

(a) Countries may not necessary follow all the stages. For instance, countries like Canada, Australia and New Zealand did not follow the traditional society stage;

(b) It is not necessary that countries will follow Rostow's stages in the same order. For example, it is not necessary that pre-condition for take-off stage will precede take off stage; and

(c) The stages are not mutually exclusive and may overlap. Some conditions that occurred at later stage may have also occurred in previous stages. Hence, splitting the process of development into stages is difficulty.

Harrod-Domar growth theory

The Harrod-Domar (HD) model was developed by two economists namely Roy Harrod and Evsey Domar in the year 1939. In theory, the model is a hybrid of the classical and the Keynesian theories of growth. Harrod and Domar emphasise that, the prime mover of the economy is investment and it has a dual role to play. Investment creates demand but it also creates capacity, whereas the Keynesian theory concentrated only upon the former, the classical emphasises the latter. Harrod and Domar chose three aggregate variables namely investment, capital and output. The model assumes that saving (S) is equal to investment (I). That is, increase in saving goes proportional to the increase in investment. The theory assumes further that, given a certain amount of capital stock that a country holds, addition of new investment will increase the amount of existing capital stock. That is the difference in capital stock between two periods is equal to the amount of new investment. The model also assumes that capital and labour are used in a fixed technical relationship. For example, at a given level of technology if a production of 20 bags of rice requires one hectare of land and five workers

MACROECONOMICS FORM 5&6 (2022).indd 252 07/03/2022 16:20

(that is capital (K) is one and labour (L) is five), this technical relationship of production is uniquely given and cannot be changed. Production function is a technical relationship between inputs (capital and labour) used and output produced. In HD model the production function is given by:

$Y = f(K,L)$.....(9.1)

Where,

Y = aggregate output

K = amount of capital

L = amount of labour

f = function that shows a certain state of technology

A country with more advanced technology produces more output from the same quantities of K and L than a country with less advanced technology. If a country wants to double its output, it can either double the inputs or change the level of technology. The Harrod-Domar equation is given as:

$g = {}^{s}/_{v}$.....(9.2)

Where,

g = growth of output

s = saving

v = capital output ratio

The HD equation shows that, the rate of growth of output is determined by the ratio between saving and the national capital output ratio. For the GDP to grow, economies must save and invest a certain portion of their GDP because growth of output is directly (positively) related to the saving ratio. The more the economy is able to save and invest, the greater will be the growth of that GDP. The equation also shows that high level of capital to output ratio reduces GDP growth. The HD model helps the planner to predict the required saving rate, once the target growth rate and capital output ratio are given. In developing countries, since there is labour-surplus (relative to capital), capital is the determining factor for growth of output. In many less developed countries, there is a saving gap *(S < I)*. The low saving rate implies inefficiency of investment, hence, the growth of economy is low and may be insufficient to absorb a rapid increase in population.

The theory place a large emphasis on increasing domestic savings. Savings provide the necessary funds to finance investment. It is this investment which creates further growth. This has been an important factor behind the economic growth in Asia.

Despite all the good sides of the theory, HD theory was criticised as follows:

(a) The model does not provide a scope for substitution of capital for labour or vice versa;

(b) HD model is based on a number of simplifying assumptions, a fixed technology and reliability of the savings ratio. In the real world, technology is not fixed;

(c) The model aggregate major macroeconomic variables, hence fail to make analysis of structural changes which takes place in different sectors of the economy; and

(d) The model does not consider the law of diminishing returns as investment increases, the productivity of capital falls and capital-output ratio increases.

Modern theory of growth

There are several modern theories of growth. In this section we will discuss two theories which are the neo-classical theory of economic growth and new growth theory as follows:

Neo-classical theory of economic growth

Two economists, Trevor Swan and Robert Solow in 1956, made important contributions to economic growth theory in developing the Solow-Swan growth model. The model focuses on three factors that affects economic growth: labour, capital, and technology, or more specifically, technological advances. The main difference between the HD model and the neo-classical theory is that HD assumes constant return to capital while neo-classical assumes decreasing return to capital. The production function in neoclassical theory is given by:

$$\frac{Y}{L} = f\left(\frac{K}{L}, \frac{L}{L}\right) \quad \text{.....(9.3)}$$

That is, if we assume labour input is fixed $\left(\frac{L}{L} = 1\right)$, output per worker $\frac{Y}{L}$ is determined by capital per worker $\left(\frac{K}{L}\right)$. The theory assumes that output per worker increases with capital per worker but at a decreasing rate because of the diminishing marginal return. Capital stock is influenced by investment and depreciation (wearing out of capital). Investment causes capital stock to increase while depreciation causes capital stock to fall. Changes in capital stock over time will lead to the economic growth. However, the theory assumes further that, the economy will reach a time when there will be no changes in output per worker and capital per worker (no growth in both capital and output). That point is called a steady state of the economy. At that point the economy is considered to have reached a long-run equilibrium point.

The major contribution of this theory is the demonstration of the process in which saving rate affects growth rate. Thus, the saving rate determines the long-run equilibrium level of output. The economy with high saving rate will converge to a higher level of output per worker in the long-run than the economy with low saving rate. Neoclassical economists also consider the impact of technological progress in long-run. The country where there is technological progress has a positive rate of output even in long-run. This growth is independent of the saving

MACROECONOMICS FORM 5&6 (2022).indd 254 07/03/2022 16:20

rate. The neoclassical model predicts that countries with high population rates will have low levels of capital and income per worker in the long-run. Thus, the population has a negative effect on economic growth.

The major shortcomings of the modern theory of growth are:

(a) The conclusion that continuous economic growth can only occur with technological advances, which happen by chance; and therefore, it cannot be demonstrated. The theory does not explain the source of technological advances; and

(b) The theory relies on diminishing marginal returns of capital and labour. However, there is no empirical or real-life evidence to support this claim. Therefore, the model is known for identifying technology as a factor in growth but fails to substantially explain how.

The new growth theory

It was developed in the 1980's as a response to criticism of the neo-classical theory. While neo-classical emphasised on the close relationship between technology and physical capital, the new growth theory emphasises on the link between technical innovation, human capital, and institutions including government.

The works of Paul Romer in 1986, Robert Lucas in 1988, and Sergio Ribelo in 1991 form the group of economists who emphasised the role of investment in human capital to overcome challenges of diminishing return to capital accumulation. Human capital is an important input both in production of goods and services as well as in production of new knowledge. Investment in human capital creates knowledge which cannot diminish, unlike physical labour and other factors of production. Knowledge is expandable and self-generating with use. For example, as engineers get more experience, their knowledge base increases. Knowledge can also be transferrable and shared. The transfer of knowledge does not prevent its use by original holder.

Right institutions are needed to smoothly facilitate execution of economic activities. Well developed institutions for capital markets such as Dar es Salaam Stock Exchange (DSE) help to channel financial resources from savers to investors. Establishment of institutions that deal with corruption and fair competition. For example, Prevention and Combating of Corruption Bureau (PCCB) fights against corruption and Fair Competition Commission (FCC) promotes competition that allocate resources to their best use.

Activity 9.1

Organise yourself in a group of three students, select two countries (developed and developing country) and collect information on their real GDP over a period of 30 years. Analyse the trend of growth and explain what determine the increase or decrease in the level of economic growth.

Effects of economic growth

Economic growth has its effects which are both positive (benefits) and negative. In terms of benefits, economic growth widens the range of human choice although that may not necessarily increase happiness. For instance, you may become more satisfied, not only by having more wants met, but perhaps also by renouncing certain material goods. Wealth may make you less happy if it increases wants more than resources. Growth decreases famine, starvation, infant mortality, and death; gives us greater leisure; can enhance art, music, and philosophy; and gives us the resources to be humanitarian. Without growth, the desires of one group can be met only at the expense of the others. Also, economic growth reduces unemployment, improves living standards, improves public services, infrastructure and reduces poverty. Finally, economic growth can assist newly independent countries in mobilising resources to increase national power.

On the other hand, economic growth imposes some costs on society which has made some economists doubtful as to its continued desirability. Economic growth involves change which benefits many but may have negative effects to others. For example, technological innovation may create many new jobs; but at the same time, it may make current jobs absolete; and therefore, lead to some redundancies which widen the problem of unemployment. Economic growth can cause negative externalities. A rising real national income may impose costs on society in the form of pollution, noise and increased congestion. Economic growth can lead to losses arising from exhaustion of the non-renewable resources. Lastly, economic growth may lead to demand pull inflation, disequilibrium in the balance of payments, and high-income inequality.

Activity 9.2

With the help of websites, find out the effects of economic growth in Tanzania.

Economic development

Economic development should not be considered identical with economic growth. It is taken to mean growth plus progressive change in certain variables such as skilled labour, capital, technology, natural resources, market access and social capital, which

MACROECONOMICS FORM 5&6 (2022).indd 256 07/03/2022 16:20

determine the well-being of the people. There are qualitative dimensions in the development process which may be missing in the growth of an economy expressed in terms of an increase in the national product or the product per capita. Economic development involves a steady decline in agriculture share in GNP, and a corresponding increase in the share of industries, trade, building, construction and services. This transformation in economic structure is invariably accompanied by a shift in the occupational structure of the labour force and an improvement in skills and productivity. Growth involves a change in quantitative measures such as height in children or GDP for a country; whereas, the development draws attention to changes in capacities such as physical coordination and learning abilities for children, or the economy's ability to adapt the changes in tastes and technology.

The line of the distinction between economic development and economic growth has been unclear. Initially, the two terms were used interchangeably in most international conferences. However, by the end of the 1960s, the high growth rate achieved in this period did not translate into poverty reduction of the poorer. Some started to ask fundamental questions such as: What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If there is a reduction in all three central problems above, then there is development in that country. If one or two of the central problems have increased, especially if all three have, it is not appropriate to say that there is "development" in that country, even if per capita income has increased.

Economic development can therefore, be termed as economic growth which is accompanied by progress. It includes both growth of real per capita income and improvement of the quality of human life. Economic growth is a quantitative increase in real national income and per capita income while economic development is a quantitative as well as a qualitative increase. Economic development is not concerned only with more food, health services, education services and roads, but also more and better food, more and better health services, more and better education, more and better roads.

Classification of countries according to level of development

In the late 1940s and early 1950s, it was common to think of rich and poor countries and the distinction between the two was thought to be so clear. However, the boundary between rich and poor countries has become more unclear during the first decade of the 21st century. Today, an increasing number of the high and upper middle-income countries are non-western, and the fastest-growing countries are not necessarily the ones with the highest per capita GDP. As such the World Bank

MACROECONOMICS FORM 5&6 (2022).indd 257 07/03/2022 16:20

(WB) now divides countries into four groups on the basis of per capita GDP. The classification is in chronological order depending on amount of per capita GDP in United States dollars as follows: low-income countries, lower middle-income countries, upper middle-income countries and high-income countries. For example, in 2020/2021 the classification was:

(a) Low-income countries - per capita GDP of less than USD 1,046;

(b) Lower-middle income countries - per capita GDP between USD 1,046 – USD 4,095;

(c) Upper-middle income countries- per capita GDP between USD 4,096 – USD 12,695; and

(d) High-income countries - per capital GDP of more than USD 12,695.

Sometimes, the high-income countries are known as developed countries (DCs) or the North, and middle-and low-income countries as developing, underdeveloped, or least-developed countries (LDCs), or the South. The term underdeveloped countries was commonly used in the 1950s and 1960s;but it has since lost its flavour. Perhaps all countries are underdeveloped relative to their maximum potential. However, the term underdeveloped, like least developed, has declined in use recently, not because it is inaccurate, but because officials in international agencies consider it offensive.

The 134 Asian, African, and Latin American members of the UN Conference on Trade and Development (UNCTAD) are often referred to as the third world, a term originating in the early post–World War II. By refusing to align themselves with either the United States or the Soviet Union, non-aligned nations forged a third political unit in the United Nations. Today, the term has lost its original meaning, no longer connoting non-alignment.

Measures and indicators of economic development

Economic development is a concept and an activity generally used to assess the core competencies of a nation and its innovation, and the use of available resources. This process improves the political, economic, and social well-being of the people. When we discuss economic development, we often discuss terms like modernisation and industrialisation. Economic development is just a policy which aims at improving the social well-being as well as economic conditions of the nation. There are three main indicators of economic development as follows:

Real per capita income/GNP/GDP: One of the factors used to measure the level of economic development of a nation is the real per capita income/GNP/GDP. GDP is the total market value of all final goods and services produced within a country in one year. It is a measure of economic activity, or how much is produced in a

MACROECONOMICS FORM 5&6 (2022).indd 258 07/03/2022 16:20

country. The more the country produces per person, the more "developed" it is assumed to be.

Poverty index: The poverty index which is also called multidimensional poverty index (MPI) helps in identifying various deprivations at the household, and individual level in health, the standard of living, and education. This index uses the micro-data which is available from surveys. The data is collected on the basis of deprivation of toilet, water, cooking fuel and assets. Based on the availability of these factors each person is termed as poor or non-poor. The indicators are decided on this basis. For education, two indicators are considered; school attainment, and school attendance. School attainment is determined when no member of the family has attended at least 6 years of schooling. While school attendance is determined when the child is of the school age but is not attending the school. Whereas, for health, the indicators are child mortality and health. While for the standard of living the indicators are; availability of drinking water, electricity, sanitation, and cooking fuel.

Human development index: The United Nations Development Program (UNDP) defines human development as "a process of enlarging people's choices. The most critical ones are, having long and healthy life, to be educated and enjoy a decent standard of living. In the face of widespread assessment, UNDP has argued that human development disparities between developed countries and least developed countries are much less than disparities in income per capita, and that human development narrowed considerably between DCs and LDCs while income gaps were widening. In its effort to measure human development, UNDP has constructed another alternative measure of welfare, known as Human Development Index (HDI). The HDI was introduced in 1990 as part of the United Nations Development Programme (UNDP) to provide a means of measuring economic development. It is a summary measure of average achievement in key dimensions of human development; a long and healthy life, being knowledgeable and have a decent standard of living. Life expectancy at birth is an indicator of a long and health life, average years of schooling for adults aged 25 years and more, and expected years of schooling for children of school entering age are the indicators of being knowledgeable and gross national income per capita is an indicator of a decent standard of living.

Economic indicators of developing countries

The following are the indicators that characterise developing countries:

Low per capita income

The United Nations (UN) defines a developing country as the one in which per capita real income is low when

compared with the per capita real income of developed countries such as United States of America and Canada.

Occupational distribution

Countries in which the primary sectors (agriculture, forestry, and animal husbandry) provide employment to a large proportion of labour force are termed as under-developed. The occupational distribution of population and the sectoral distribution of national income are surely the indicator of the direction of economic change; but they do not always indicate correctly the level of development achieved in a particular nation.

Peasant agricultural societies

Most developing countries depend on agricultural activities. Peasants are rural cultivators, they may or may not run a non-farm business enterprise as do farmers in the developed countries. Although patterns of land ownership, tenure, and concentration vary considerably, most of the land in these societies is worked by landless labourers, sharecroppers, renters, or smallholders rather than large commercial farmers.

A high proportion of the labour force in agriculture

In low-income countries about 45–70 percent of the labour force is engaged in agriculture, forestry, hunting, and fishing; 10–25 percent of the labour force are engaged in industry (manufacturing, mining, construction, and public utilities); and 15–35 percent in services. In contrast, high-income countries tend to have less than 5–10 percent of the labour force in agriculture; 20–30 percent in industry; and 60–75 percent in services. In low-income countries, the average agricultural family produces a surplus only enough to supply for a small non-agricultural population. In these countries, one half to two-thirds of the labour force produces food; one third does so in the most developed countries. Obviously, agricultural productivity in low-income countries is much lower than in the developed countries.

A small group of political elites

Unlike Western democracies, political control in developing and least developed countries tend to be held by relatively small political elite. This group includes not only individuals who directly or indirectly play a considerable part in government – political leaders, traditional princes and chiefs, high-ranking military officers, senior civil servants and administrators, and executives in public corporations; but also large land owners, major business people, and leading professionals. Even an authoritarian leader cannot rule without some consensus among these influential elite; unless they use police and military repression, perhaps with the support of a strong foreign power. In LDCs, the group of elites are usually small.

MACROECONOMICS FORM 5&6 (2022).indd 260 07/03/2022 16:20

Extended family

The extended family, including a family with two or more nuclear families of parent(s) and children, is a common institution in developing countries and some scholars regard the extended family as an obstacle to economic development. To be sure, if one family member earns a high income and saves, others may demand the savings be shared, which hinders development, as funds are diverted from capital formation. However, if family members attend secondary school or university, acquire training, seek urban employment, or start a new business; a large family unit may pool risks to support them financially and so contribute to economic development.

Inadequate technology and capital

Output per worker in the least developed countries (LDCs) is low compared to developed countries because of poor production technology. Lack of equipment machinery and other such capital, and low levels of technology, at least throughout most of the economy, hinder production. Although output per unit of capital in LDCs compares favourably to that of rich countries, it is spread over many workers. Production methods in most sectors are traditional. For instance, seed is sown by hand. Oxen thresh the grain by walking over it. Water is carried in jugs on the head, and the wind is used to separate wheat from straw. Generally, most manufacturing employment is in the informal sector. These may be single-person enterprises, or at most, employ less than 10 workers, many of whom are trainee or family workers. Production is labour intensive. Simple tools are used, and there is very low use of mechanical power.

Low saving rates

The role of saving in economic development has been discussed widely and extensively in literature. Economic theory maintains that saving or accumulation of capital is the main determinant of economic growth and can be understood as a sustainable, long term rise in the income of the country. Despite the importance of high saving rates, world statistics indicate that, saving rate and levels are low in the developed and developing countries due to low productivity and low income.

Duality of the economy

Although in the aggregate low-income countries have inadequate technology and capital, this is not true in all sectors. Virtually, all low-income countries and many middle-income countries are dual economies with traditional and modern sectors. These economies have a traditional, peasant, agriculture sector, producing primarily for family or village subsistence. This sector has little or no reproductive capital, uses technologies handed down for generations, and has low marginal productivity of labour (that is, output produced from an extra hour

MACROECONOMICS FORM 5&6 (2022).indd 261 07/03/2022 16:20

of labour is less than the subsistence wage). Amid this labour-intensive, subsistence, peasant agriculture (together with semi subsistence agriculture, petty trade, and cottage industry) sits a capital-intensive enclave consisting of modern manufacturing and processing operations, mineral extraction, and plantation agriculture. This modern sector produces for the market, uses reproductive capital and new technology, and hires labour commercially (where marginal productivity is at least as much as the wage). According to the Lewis model, the dual economy grows only when the modern sector increases its output share relative to the traditional sector.

Rapid population growth

About 5.3 billion people, or nearly 80 percent of the world's population, live in developing countries. Developing countries have a population density of 500 per arable square kilometre (63 per square kilometre or 162 per square mile) compared to 263 per arable square kilometre (23 per square kilometre) in the developed world. These statistics contribute to a common myth that third-world people jostle each other for space. The problem in LDCs is not population density but low productivity combined with rapid population growth. The presence of high fertility means a high percentage of the population in dependent ages of 0–14, and the diversion of resources to food, shelter, and education for a large non-working population.

Low literacy and school enrolment rates

Compared to developed countries, literacy and written communication are low in developing countries. About 95 percent of the world's illiterate people live in developing countries among these, about 70 percent are women. Female illiteracy rates are particularly high in sub-Saharan Africa. Low-income countries have an adult literacy rate of 61 percent whereas sub-Saharan Africa has 65 percent.

A large proportion of unskilled labour force

In developing countries, a large share of labour force is unskilled and the population constitutes mainly with peasants and manual labourers.

Weak economic and political institutions

Economic policies are not better than the institutions that design, implement, and monitor them. Institution building takes time since it evolves locally by trial and error. Here the institutional development measures the quality of governance, including the degree of corruption, political rights, public sector efficiency, and regulatory burdens. Moreover, the protection of property rights and the limits on the power of the executive are both highly correlated with income per capita. Many LDC's lack strong economic institutions and governance structures. Many low-income countries, especially in Africa, are characterised by predatory rule, involving a personalistic

MACROECONOMICS FORM 5&6 (2022).indd 262 07/03/2022 16:20

regime ruling through coercion, material inducement, and personality politics, which degrades the institutional foundations of the economy and state.

Insufficient state tax collections and provision of basic services

One important institutional capability is the capacity to raise revenue and provide basic services. In some low-income countries the state has failed to provide minimal functions such as defence, law and order, property rights, public health, macroeconomic stability, let alone intermediate functions such as basic education, transport and communication, pollution control, pensions, family allowances, health, life, and unemployment insurance.

One way to increase legitimacy and raise tax revenue is to replace widely evaded direct taxes, such as personal income taxes, with indirect taxes. One example of such tax is the value-added tax (VAT), which is simpler, more uniform, and less distortive than a simple sales tax, and has a high-income elasticity of revenue generation. Still, VAT can face administrative problems, especially among the numerous small industrial firms and traders in low-income countries. Thus, the major point is that building economic institutions and infrastructure, including a tax system that raises enough revenue for basic services, is essential for spurring investment to increase economic growth and stability.

Lack of transparency and accountability

Transparency, political accountability, and knowledge transmission are key ingredients in effective development. The most important check against abuses is the presence of a competitive press that reflects a variety of interests. The media play a major role in the extent of support (or opposition) for governing elites and industrial leaders, acts as a voice for the people, and the spread of economic information. Media freedom is highly correlated with democracy, food security, efficiency, and economic development. However, when observing the situation in the most least developing countries (LDCs), these attributes are lacking or are weakly practised.

Exercise 9.1

1. Describe the classical and neoclassical theories of economic growth.
2. Discuss what Tanzania should do to foster economic growth and development as advocated by each economic theory.
3. Explain why economists have more than one theory of economic growth. Hint: In your example, highlight at least five strengths and weaknesses of each theory.

Sustainable development

Sustainable development refers to the development which meets the needs of the present generation without compromising the ability of the future generation to meet their own needs. The term began to gain wide acceptance in the late 1980s, after its appearance in the Bruntland Report. The report is a result of the United Nations (UN) convened commission created to propose "a global agenda for change" in the concept and practices of development. It was agreed during the UN convention that "intergenerational" equity would be impossible to achieve if the economic activities of some groups of people continue to jeopardise the well-being of people belonging to other groups or living in other parts of the world.

"Sustainable" development could probably be otherwise called "equitable and balanced," meaning that, in order for development to continue indefinitely; it should balance the interests of different groups of people, within the same generation and among generations, and do so simultaneously in three major interrelated areas which are economic, social, and environment.

Sustainable development goals (SDGs)

United Nations Development Programme (UNDP) in July 2017 published a list of targets and indicators for the 17 Sustainable Development Goals (SDGs) which would guide global development agenda all through to 2030; and by that time to have achieved the following goals, respectively:

1. End poverty in all its forms everywhere;
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
3. Ensure healthy lives and promote well-being for all at all ages;
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all;
5. Achieve gender equality and empower all women and girls;
6. Ensure availability and sustainable management of water and sanitation for all;
7. Ensure access to affordable, reliable, sustainable and modern energy for all;
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;
9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation;
10. Reduce inequality within and among countries;

MACROECONOMICS FORM 5&6 (2022).indd 264 07/03/2022 16:20

11. Make cities and human settlements inclusive, safe, resilient and sustainable;
12. Ensure sustainable consumption and production patterns;
13. Take urgent action to combat climate change and its impacts;
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development;
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss;
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels; and
17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.

Pillars of sustainable development

At the core of sustainable development there is a need to consider "three pillars" together: the society; the economy; and the environment. No matter the context, the basic idea remains the same - the people, the habitats and the economic systems are inter-related. We may be able to ignore that interdependence for a few years or decades, but history has shown that we are reminded of it by some type of crisis.

International trade, foreign aid and economic development

International trade and foreign aid are two economic aspects that play crucial role in economic development. There has been a long-held belief that there is a positive relationship between economic growth and increased levels of international trade and foreign aid.

International trade

International trade is the exchange of capital, goods and services across the international borders or territories. In most countries such trade represents a significant share of GDP. The international trade enables nations to sell their domestically produced goods to other countries of the world. It has been regarded as the engine of growth, which leads to steady improvement in human status by expanding the range of people's standard and preferences. Since no country has grown without trade, international trade plays a vital role in restructuring economic and social attributes of countries around the world, particularly, the less developed countries. Furthermore, over the years, development economists have long recognised the role of trade in the growth process of national economies as trade provides both foreign exchange earnings

MACROECONOMICS FORM 5&6 (2022).indd 265 07/03/2022 16:20

and market stimulus, for accelerated economic growth.

International trade and growth

The benefit of international trade for economic growth and development are difficult to understate. Imports bring additional competition and variety of goods and services to domestic markets which benefits the consumer. Exports on the other hand, enlarge markets for domestic production, and which benefits the businesses. Trade exposes domestic firms to the best practices of foreign firms and to the demand of discerning customers which encourages greater efficiency. Trade gives firms access to improved capital inputs such as machine tools that boost productivity and provide new opportunities for growth of developing countries. However, the contribution of international trade to economic growth depends on the context in which it works and the objective it serves.

Foreign aid

Foreign aid is the transfer of real resources from developed countries to less developed countries. The flows of foreign resources can be of many types. It is important to know their diverse elements. Foreign capital flows are generally divided into two broad streams –*official and private*. The official capital flows are in turn subdivided into *bilateral and multilateral flows*. Official bilateral flows consist of capital provided by the government of a donor country to the government of the recipient countries. Multilateral flows consist of the capital flows from multilateral Organisations such as the World Bank, the United Nations, and the International Monetary Fund. Both types of the official flow can take the form of grants, loans, or grant-like contributions. Grants should be considered as the most desirable type of foreign aid since they represent a net addition to the resources available for development purposes. Loans are given by the international lending agencies such as World Bank at interest rate which are lower than those in the capital markets.

Types of foreign aid

Foreign aids are of two types:

Bilateral aid: This is the type of aid which is done between the governments of two countries. The government of a donor country donates resource to the government of the recipient country. For this type of aid to occur, it depends upon political and economic relationships of various countries and it also depends on the will of donor country.

Multilateral aid: This is the type of aid which is done by financial institutions, agencies, or organisations to the government of a developing country. This type of aid is given to increase the pace of economic development; and it is

MACROECONOMICS FORM 5&6 (2022).indd 266 07/03/2022 16:20

normally distributed in a fair manner. So, it is better option than bilateral aid which is given on the basis of political considerations.

Forms of foreign aid

Foreign aid is subject to certain limitations which generate various forms such as:

Financial aid

This is the simplest form of capital inflow in which the foreign countries provide convertible foreign currencies to the recipient countries. The major challenge is that little foreign capital indeed comes to the under-developed world so conveniently; unless, if they are attached with certain "strings". Financial aid is divided into different sub-forms; tied and untied aids.

Tied foreign aid: This is of five types as follows:

Nation tied or resource tied aid: This is the aid which is given by the donor countries on the condition that it must purchase inputs and raw materials from donor country only. For example, Tanzania may be given aid by United States of America (USA). Then Tanzania would be required to import raw materials and machinery from USA only.

Project tied: This is the aid which is given by donor countries to accomplish specific projects. The aid cannot be transferred to the other projects.

Double tied: This is the type of aid which combines nation tied and project tied.

Commodity aid: This is the type of aid in which the donor countries provide commodities to the recipient countries to help them control problems of shortage of food and other consumer goods caused by famine. In addition, they provide support to recipient country's industries by providing raw materials. It would be more helpful if it is provided in cash form because a recipient country can then buy more commodities from cheaper sources locally. Commodity aid sometimes has a depressing effect on agriculture prices in a recipient country. Consequently, it serves as a disincentive for the agriculture sector. The donor country may have much political influence on a recipient country.

Technical aid: This is the type of aid where the recipient country is provided with technical assistance so as to increase the pace of economic development by using modern technology in some specific sectors of the economy. Under this aid programme, training facilities are provided by the donor country, which bears all the expenditures involved in the training of advisory technocrats. Technical assistance from donor's point of view has two main forms; first,

MACROECONOMICS FORM 5&6 (2022).indd 267 07/03/2022 16:20

people are recruited partly from the donor country for service to overseas, but often largely, at the expense of the donor government. Secondly, scholarships and training facilities are provided in the donor country.

Untied foreign aid: This type of aid is not tied to any project or nation. It is in all respects, better than the tied aid because it offers more efficient use of foreign resources. Untied aid is much desired because the recipient country is not bound to spend foreign resources on specific projects in the donor country.

Foreign Direct Investment (FDI)

This type occurs when a donor country decides to come and invest in the recipient country directly. For example, in Tanzania, the Foreign Direct Investment (FDI) companies are in the mining sector, telecommunication, oil, and gas.

It is sometimes argued that FDI is cheap for a recipient country because it entails no payment of principal or interest. Moreover, it is argued that the profit outflow may exceed the amount of repayment. FDI brings technical know-how to developing countries. But technical know-how can be purchased at cheaper rates on commercial basis if possible. So, the FDI may have both the positive as well as the negative effects for developing countries.

Loans

In order to finance short-term, medium-term, and long-term projects, poor countries normally borrow foreign exchange from rich countries. Loans are sub-divided into two types:

Hard loans: The hard loans are given for a period of five years or less to finance industrial inputs. This type of loan has to be paid back in an agreed hard currency. It contains no concessional elements, yet, the interest rate is usually lower than the prevailing rate in international market. However, the grace period is very much limited; the penalty is paid after expiry of stipulated time period.

Soft loans: These are normally given for a period between 10 to 30 years. The interest on these type of loans is less than hard loans and often these grace period is involved. Concessional elements are comparatively greater.

Grants

A grant is normally given by the foreign countries without payment of neither principal nor interest. It is a free gift from one government to other; or from an institution to a government. Grants are much desired because they increases internal expenditure; and they generate income. Grants are given on a humanitarian basis, especially in times of

MACROECONOMICS FORM 5&6 (2022).indd 268 07/03/2022 16:20

emergencies, earthquakes, floods, wars, or other special purposes.

Foreign aid and growth

The concept of foreign aid is widely used and accepted as a flow of financial resources from developed countries to developing countries on development grounds. In the previous decades much has been written on different aspect of aid. Generally, foreign aid is advocated as necessary for the promotion of economic growth and development in the least developed countries (LDC's). The purpose of foreign aid programme to LDC's is to accelerate their economic development up to a point where a satisfactory rate of growth can be achieved on a self-sustaining basis. Thus, the general aim of foreign aid is to provide in each LDC a positive incentive for maximum national effort to increase its rate of growth.

However, the role and effect of foreign aid on the economic development of the developing countries has been controversial. Some economic studies of the foreign aid suggest that it positively relates or causes economic growth; whereas, the other studies find no relationship between foreign aid and economic growth. Further some studies suggest that it retards economic growth of the developing countries by leading to the structural distortions of the economy.

Obstacles of economic development to developing countries

One of the main objectives of any country is to achieve a high level of economic growth and development that is to increase both real per capita income and improve the quality of human life. However, attempts to achieve this objective is limited by various factors such as poor economic infrastructures, inadequate physical and human capital, low level of technology, lack of capital, and declining terms of trade. On the other hand, non-economic factors that hinder economic developments are such as rapid population growth rate, political instability, poor governance, and foreign domination.

Activity 9.3

Collect data on per capita GDP of 20 countries of your choice. Classify them in terms of the levels of development according to the World Bank classification.

MACROECONOMICS FORM 5&6 (2022).indd 269 07/03/2022 16:20

Chapter summary

1. This chapter explained the meaning of economic growth, the meaning of economic development and how economic growth and economic development are interrelated.

2. Economic growth is considered as an increase in the country GNI/GDP and is measured as a percentage increase in the real GDP.

3. There are four major determinants of economic growth. These are natural resources, technological knowledge, human capital and physical capital.

4. Economic development, on the other hand, refers not only to the increase in real GDP but also to the improvement of society's well-being in terms of quality of education, health and living standard.

5. Economic development is measured by real per capita GDP, human development index or poverty index.

6. For development to be sustainable, it must meet the needs of the present society without compromising the ability of the future generation to meet their own needs.

7. In order for development to continue indefinitely; it should balance the interests of different groups of people, in three major interrelated areas of economic, social, and environment.

8. There is a potential relationship between economic growth or development, international trade and foreign aid.

9. Trade gives firms access to improved capital inputs such as machine tools, boosting productivity and providing new opportunities for growth of developing countries.

10. The contribution of international trade to economic growth depends on a great deal on the context in which it works and the objective it serves.

11. The role and effects of foreign aid in economic development of developing countries have been and are still controversial issues.

12. Generally, foreign aid is advocated as necessary for acceleration of developing countries economic development up to a point where a satisfactory rate of growth can be achieved on a self-sustaining basis.

MACROECONOMICS FORM 5&6 (2022).indd 270 07/03/2022 16:20

Revision exercise

1. Differentiate between economic growth and economic development.
2. Is it possible to have economic growth without economic development? Discuss.
3. Zambia has a GDP of $260 million more than that of Tanzania. Is Zambia more developed than Tanzania? Why?
4. Discuss the roles of international trade in economic development.
5. Describe some common indicators of developing countries.
6. Why economists are so much concerned with sustainable development?
7. Describe the major pillars of sustainable development.
8. From historical perspective, discuss the major Tanzanian growth policies.
9. Critically discuss the classical theory of economic growth.
10. Mention different types of theories of economic growth.
11. Mention and explain the drivers of economic growth presented in each theory.
12. Discuss the role of saving in economic growth as explained in Harrod-Domar and neoclassical theories.
13. Examine the major determinants of economic growth.

MACROECONOMICS FORM 5&6 (2022).indd 271 07/03/2022 16:20

Chapter Ten

Structure of Tanzanian economy

Introduction

The study of a country's economy in terms of its structure is essential in understanding the impacts of national economic policies and economic decisions of the country. In this chapter, you will learn about the structure of the Tanzanian economy and its constituent sectors, such as; agriculture, mining, infrastructure, transport and communication, water, electricity, and services. You will also learn about the roles of agricultural and industrial sectors in the economy, the problems faced and various strategies for improving their productivity. In addition, you will learn about the Tanzania development policies and how they evolved since independence in 1961. The competence developed will enable you to understand the main drivers of economic growth in Tanzania and be able to tap opportunities.

The economy of Tanzania

The Tanzanian economy is largely agrarian. Since her independence in 1961, the country has been concerned about increasing agricultural production, manufacturing, energy, housing, healthy, and education services. During the early years of independence, Tanzania's economy functioned mainly under free market principles. To achieve its objectives, the country had to transform the structure of its economy. The transformation of the economy started with the Arusha Declaration of 1967, in which the country followed a socialist and centrally planned economic system. The Arusha Declaration resulted in the nationalisation of major means of production such as industries, privately owned land, and public services. In addition, the declaration was meant to pursue policies which would facilitate the path towards collective ownership of the national resources, consequently, give the government effective control over the major means of production. The decision to move to the centrally planned

MACROECONOMICS FORM 5&6 (2022).indd 272 07/03/2022 16:20

economy contributed to a noticeable economic decline in the periods between 1970s and 1980s. There are the other factors that contributed to the decline of the economy such as increase in world oil price, drought of 1973-1975, Kagera war in 1978, and the break up of East African Community (EAC) in 1977. Another cause of economic decline was the emergence of smuggling where businessmen started to move goods abroad to avoid taxes and price control measures which were used by the government. Parallel market also emerged whereby entrepreneurs started selling goods and services in illegal markets. The emergence of parallel markets and smuggling made tax collection by the government to be difficult, hence big losses in government revenue. During that period, Tanzania experienced a slow growth of the economy together with high inflation (stagflation). In an effort to accelerate economic growth, the country decided to reduce the importation of goods and services from abroad. Reduction of imports of goods and services corrected trade deficit and the balance of payment (BoP).

To revive the economy, the government had to seek a loan from the Bretton Woods Institutions in 1986. The loans provided by the International Monetary Fund (IMF) as well as the World Bank were accompanied with some conditions prescribed in the Structural Adjustment Programmes (SAPs). These conditions included removing price controls, elimination of subsidies, changes in the provision of social services, devaluation of currency, removal of trade barriers, tax reforms, tariff reduction, and reduction of staff in state owned enterprises.

In the 1990s and 2000s, the government adopted the mixed economic system and reduced some of its roles, allowing the private sector to perform them. The major role of the government became to regulate the functioning of the private sector and other strategic sectors and provision of public goods and services. It is in this period that most of the policies and laws were reviewed to fit the market led economy. The government focused on the reduction of state control of the economy and promotion of the private sector. Therefore, the government started to rehabilitate key infrastructures such as transportation infrastructures (roads, railways and ports) and marketing facilities.

The structure of Tanzanian economy

The term structure of the economy entails the organisation of the economy in terms of the recognition of the major sectors, their growth and contribution, and the ownership of the major means of production. It is used to describe the changing pattern of output productivity, incomes and employment in the economy. The study of the structure of the economy is usually grouped into two major patterns, *sector and ownership*. These two patterns of the Tanzanian economy are explained in following section:

The sector patterns of the Tanzanian economy

The *sector pattern* is described by identifying the major sectors of the economy, and how they contribute to the economy in terms of output and employment. Under this pattern, agriculture, mining, manufacturing, communication, tourism and services are the main sectors of the Tanzanian economy. The sector pattern of the Tanzanian economy can be categorised into three major sub groups.

The primary sector: This sub group involves sectors that extract materials directly from the earth. Examples of the primary sectors are agriculture, mining and quarrying.

Secondary sector: Sectors in this sub group involve activities that transform raw materials into finished or semi-finished goods ready for consumption or further production. Examples of sectors falling in this category are industrial, electricity, water, gas and construction.

Tertiary sector: Sectors in this sub group involve the provision of commercial services such as transportation, and the provision of social services like education, health and water.

Contribution of each sector to the national economy

The contribution of each sector to the national economy can be explained in terms of proportion of each sector in country's Gross Domestic Product (GDP). Some examples of sectors contributions to the Tanzanian GDP are explained in agricultural, mining, industrial and tourism sectors.

Agricultural sector in Tanzania

Agriculture is the practice of farming, including cultivation of the soil for growing of the crops and rearing of animals. It is further concerned with fisheries and forestry. Crop cultivation includes the cultivation of food crops and cash crops. Food crops are the main source of food security in the country. The main food crops include maize, rice, sorghum, millet, wheat, beans, cassava, potatoes and bananas. Cash crops contribute largely to the country's foreign exchange earnings through exports. The main cash crops include coffee, sisal, tea, cotton, cashew nut and tobacco. Livestock production includes cattle, sheep, chicken and goats. In many parts of Tanzania, agriculture is practised at a subsistence level. Lack of finance, inadequate extension services, and technology hinder the performance of the agricultural sector in Tanzania. Large scale cultivation is practised for few products, such as sisal, tea, coffee, tobacco, sugar cane and wheat.

According to National Bureau of Statistics (NBS) in 2020/2021 the agricultural sector employed 61.1 percent of the population and contributes about 26.9 percent of the GDP. The major food crops are maize, cassava,

MACROECONOMICS FORM 5&6 (2022).indd 274 07/03/2022 16:20

sorghum, rice, millet, sweet potatoes, bananas, wheat and barley. The main staple food are rice, banana, and maize. Some food crops such as sweet potatoes and cassava tolerate drought and they are therefore, used as famine-preventive crops. In some regions for example, Mbeya, Ruvuma and Rukwa, maize and rice are grown not only for subsistence but also for commercial purposes. For some farmers along river banks, for example, along the Rufiji and Kilombero rivers, rice is produced mainly for commercial purposes. Traditional cash crops produced in mainland Tanzania include tea, cotton, coffee, cashew nuts, sisal and tobacco. Clove is the main cash crop produced in Zanzibar for export purposes, and it contributes significantly to the increase in foreign exchange earnings.

The livestock sub-sector involves keeping animals such as cattle, goats, sheep and chicken. In the year 2021, the annual growth rate of the sector was 2.2 percent, and it contributed about 7.4 percent of the country's GDP. The sector is severely constrained by low livestock reproductive rates, high mortality; and high disease prevalence. This sub-sector is dominated by traditional breeds and processes. Agro-pastoralists households' account for 80 percent of livestock production, pastoral communities account for 14 percent, and the remaining 6 percent comes from the commercial ranches and the dairy sector. Besides supplying food products, the livestock sub sector plays a major role as an engine for rural livelihoods and development. Livestock provides draught power, and manure as fertiliser for crop farming activities, and to some extent, potential energy sources through biogas technologies for rural electrification. This livestock sector also supplies raw materials for leather industry.

The fisheries sub-sector involves catching and rearing fish for consumption and commercial purposes. Fishing is mainly conducted in the following areas: (i) Major lakes (Victoria, Tanganyika and Nyasa) for all fin fish and sardines; (ii) Marine Territorial Waters for shell fish and fin fish; (iii) Marine Exclusive Economic Zone for fin fish-tuna and tuna-like species.

The forestry sub-sector provides both direct and indirect livelihoods to local communities. From the different types of forest, people obtain a variety of products such as timber, fuel wood (charcoal and firewood), medicinal plants, meat through hunting of wild animals, and fodder for livestock, honey, beeswax, fibres and gums. Studies have indicated that more than 90 percent of the population in Tanzania use fuel wood (charcoal and firewood) as a main source of energy. The Tanzania's natural forest is composed of hardwoods and softwoods. Mufindi district in Iringa region, for example, has large pulp and paper mills resulting from the presence of a large farm of softwood forest near Sao Hills.

MACROECONOMICS FORM 5&6 (2022).indd 275 07/03/2022 16:20

Evolution of agricultural sector in Tanzania

The evolution of the agricultural sector in Tanzania can be explained in three phases namely, the period before colonialism, during colonialism and the period after independence.

Before colonialism: Agriculture was at subsistence level, geared towards the production of food crops as the population was very low with people living a primitive life. Thus, there was no surplus production for sale because production was mainly for consumption purposes.

During colonialism: The agricultural sector was transformed to meet the interests of the colonialists. The sector was characterised by an emphasis on cash crops such as coffee, cotton, sisal and others. Land alienation policy and forced labour were two tactics used by colonialists to alienate indigenous fertile land and forced labour to grow cash crops.

After independence: The government recognised agriculture as the backbone of the economy and took different measures to improve the sector. Some of the measures were to emphasise the production of both cash crops and food crops, the introduction of Ujamaa villages and promotion of rural development, the establishment of the co-operative societies and Co-operative and Rural Development Bank (CRDB) to assist farmers with marketing and provision of subsidies to farmers, the introduction of agricultural extension services as well as the nationalisation of plantations which were owned by colonial settler farmers before independence.

Roles of agricultural sector in development of Tanzania

Agriculture as a backbone of the Tanzania's economy plays a crucial role in the development in the following ways:

Contribution to the GDP: Agriculture has been the leading contributor to the country's GDP. For example, in 2020, agriculture was the leading sector, contributing 26.9 percent to GDP.

Source of food supply: The agricultural sector is the main source of food supply in Tanzania. It helps to feed the rapidly increasing population and ensure that even workers in other non-agricultural sectors are fed.

Source of raw materials: Agriculture is the source of raw materials for industries. The sector provides raw materials for the agro-based industries in Tanzania and other countries. The agro-based industry comprises of food processing, fruits caning leather, and textile industries.

Boost exports: Agriculture helps to boost the country's exports. Agricultural activity especially estate cultivation may provide surplus goods which can be used to raise the volume of exports of the agricultural products in the country.

MACROECONOMICS FORM 5&6 (2022).indd 276 07/03/2022 16:20

The increase in export earnings is more desirable because it helps in increasing foreign exchange needed to finance imports of basic and essential capital goods.

Employment opportunities: Agriculture also plays an important role in employing the majority of the rural population in Tanzania. According to NBS, labour force statistics in Tanzania indicate that in 2020/2021, 61.1 percent of the population are employed in the sector. The sector also helps to stimulate aggregate demand and improves people's welfare.

Reduction of income inequality:The agricultural sector is important in reducing income inequality in the country. This is because majority of the people earn their income through agriculture.

Forward and backward linkages with other sectors: Agriculture has a strong forward and backward linkages with other sectors of the economy. It promotes the development of other sectors of the economy. Agricultural activities involve the use of industrial output like fertilisers, pesticides, and equipment (backward linkages). Output from the agriculture sector are used as inputs in industrial sector (forward linkages). Also, increase in agricultural productivity leads to an increase in the income of the rural population which in turn, leads to more demand for industrial products and thus, the development of the industrial sector.

Tanzania needs to invest more in agricultural sector as the sector significantly drives the national economic development.

Problems facing the agricultural sector in Tanzania

Like many other sectors of the economy, the agricultural sector faces various problems as follows:

Unreliable weather conditions: Agriculture in Tanzania depends on rainfall, which is highly affected by the change in weather conditions. For example; too much or too little rainfall, and long periods of drought affect crops yields.

Insufficient funds: Financial resource is an important factor to support investment in agricultural activities. Activities such as expansion of farm size, and application of modern inputs and technology require access to financial resources. Shortage of funds, therefore, hinders farmers to achieve their goals and consequently, remain as subsistence farmers.

Poor infrastructures: Most of the infrastructures especially means of transport and communication are not well developed in rural areas where agriculture is highly practised. This hinders transportation of agricultural inputs and products to and from the market, thereby discouraging increase in production. Storage facilities especially for perishable goods like milk, fish, tomatoes and fruits either are not in place or not well developed.

MACROECONOMICS FORM 5&6 (2022).indd 277 07/03/2022 16:20

Insufficient agriculture extension service: Insufficient agriculture extension service providers' in rural areas make the small-scale farmers to rely on traditional farming methods. As a result, it becomes difficult for farmers to advance.

Fluctuation of world market prices for agricultural products: The fluctuation of world market price not only affects planning but also brings uncertainty on incomes and investment in the agricultural sector. Markets for agricultural products are not well developed and sometimes are characterised by unstable prices. Some commodities command low prices during harvesting periods and high prices during the off-farm seasons.

Inadequate market: Market for agricultural produce is important for helping farmers to benefit from their harvest. Inadequate agricultural markets affect the agricultural sector negatively.

Rural-urban migration: Movement of people from rural to urban areas reduce rural labour force in the agricultural sector. Hence, it lowers production of agricultural products.

Poor technology: This is another problem facing agricultural sector in Tanzania. For agriculture to be fruitful, it needs to use modern technologies such as machines, information technology, modern storage facilities, and high yield seeds. Modern technologies help agriculture to be more beneficial, efficient and environmentally friendly.

Pests and diseases: Pests and diseases affect crops and livestock and hence lowering yields. To control pests and diseases farmers have to use agro-chemicals which are expensive and hence their use increases the costs of production.

Price fluctuations in agricultural products

Price fluctuations in agricultural products is one of the major problems facing the agricultural sector. Price fluctuation refers to the rise and fall of the price of a commodity over a period of time as a result of changes in demand and supply. Prices of agricultural products have been unstable over time and affect the incomes, planning, and sustainability of investments in the agricultural sector.

Causes of price fluctuations of agricultural products in Tanzania

Price fluctuations of agricultural products is a critical problem which affects directly or indirectly demand and supply of agricultural products. It, further, affects both consumers and producers. The following are the causes of price fluctuations of agricultural products in Tanzania:

Seasonal production (the mismatch between demand and supply): Price fluctuations can be seasonal, that is prices change during certain seasons of the year due to change in supply and demand. During the harvest season prices tend to be low as a result of excess supply. For

MACROECONOMICS FORM 5&6 (2022).indd 278 07/03/2022 16:20

example, there are some months when the harvest of fruits, like pineapples and mangoes, cause the prices to fall. On the other hand, there are other periods of scarcity of agricultural products which cause high demand, hence increase in price.

Yield variations: Agricultural products normally exhibit high yield variations due to various factors such as weather, pests, and diseases. These variations may reduce the supply of agricultural products thus resulting in high prices.

Rainfall variations: Like other developing countries, in Tanzania agriculture is mainly rain fed. Therefore, good weather could lead to increase in supply which may cause decline in price and vice versa.

Poor infrastructures: In rural areas where agriculture is taking place, infrastructures in some places are not well developed. Therefore, because of poor infrastructure, some areas are not easily accessible during the rainy season which causes price to increase.

Insufficient storage facilities: Insufficient storage facilities or low technology to store perishable products like tomatoes makes the sellers to sell their products at low prices.

Price inelastic demand of agricultural products: Some of the agricultural products especially foodstuffs have inelastic demand. For example, demand for tea and coffee are price inelastic, meaning that if price of tea falls, there will be a small rise in demand. Consumers cannot buy more than their consumable quantity even at a very low price. Another scenario is that consumers may decide to buy in bulk and store for future use especially during the period of scarcity. This stratergy is only possible if the product has a long shelf life. Inelastic supply of agricultural products is another cause of price fluctuation. This means that, if prices rise, farmers cannot promptly increase supply as it may take time to produce a commodity. Therefore, there is substantial delay in responding to price change.

Competition from developed countries: Competition from developed countries is another reason for price fluctuations in agricultural products. For instance, cotton and sisal compete against synthetic fibre and this greatly affects their prices.

Derived demand of agricultural products: Some agricultural products have the nature of derived demand as they save as inputs or raw materials to other products. As a result, changes in the price of final products made from agricultural raw materials causes a change in prices of the respective agricultural outputs.

Effects of price fluctuations for agricultural products

The following are the effects of price fluctuation for agricultural products:

MACROECONOMICS FORM 5&6 (2022).indd 279 07/03/2022 16:20

Discourage investment: Price fluctuation for agricultural products may discourage investment in the agricultural sector as the investors may hesitate to risk investing in the unstable sector.

Deficit in the balance of payments and unfavourable terms of trade: Price fluctuations of agricultural products may also lead to a deficit in the balance of payment and unfavourable terms of trade. This can happen because fluctuation in prices of agricultural products cause fluctuation in export revenues.

Fluctuations in the income and demand: Price fluctuations of agricultural products also affects the farmer's income and demand in the economy. As the prices of agricultural products fluctuate, the incomes of farmers also fluctuate and as a result, aggregate demand fluctuate in the economy. These fluctuations cause problems in planning by individual farmers in particular and the government in general.

Fluctuations in foreign exchange earns: Price fluctuations of agricultural products may also lead to fluctuation in foreign exchange earnings which is needed for importation of intermediate and capital goods that are essential for the national development.

Strategies for improving agricultural sector in Tanzania

Different measures can be adopted to improve the agricultural sector in Tanzania. The measures for improving agriculture can be classified into two broad categories: the *improvement approach* and the *transformation approach*.

The improvement approach: Refers to a set of strategies for improving the existing small-scale agricultural practices. The measures in this sub-group include provision of technical and economic advice to farmers, improving access to markets and marketing system, provision of subsidies to farmers, construction of enabling infrastructure like feeder roads, exercising price control for agricultural products, increase policy support and leadership, provision of storage facilities, provision of credits to farmers for investment in agriculture and provision of technical advice and farming education.

The transformation approach: Refers to a drastic reshaping of the conditions of agricultural production into modern and extensive farming practice. These include the introduction of capital equipments like tractors, establishment of extensive irrigation schemes, an extension of the public sector in agriculture through large scale state farms. In addition, there is a need of conducting research and providing technical assistance to farmers, the re-organisation of major settlement schemes, involving movement of population and providing appropriate technology, improvement of infrastructure and facilities, and the establishment of co-operative farms.

MACROECONOMICS FORM 5&6 (2022).indd 280 07/03/2022 16:20

In Tanzania, different strategies for improving agricultural sector are in place. Tanzania is now implementing its Agricultural Sector Development Programme II (ASDP II). This is a five year phase from 2017/2018 - 2022/2023. The phase I of the programme was implemented in 2006/2007 and continued for five years up to 2013/2014. The strategy for ASDP II is to transform subsistence small scale farmers into sustainable commercial farmers. It aims at enhancing and activating the sectors' drivers and supporting small scale farmers to increase productivity of target commodities. Also, to encourage the sustainable production systems and large market access for a competitive surplus commercialisation and value chain development. The programme aims at transforming the agricultural sector (crop, livestock and fisheries) toward the high production, commercialisation and improved small-scale farmers' income.

Both improvement and transformation approaches are suitable for the development of the agricultural sector in any country. However, this depends on some circumstances such as the financial position, level of technology and farmer's education.

Mining and quarrying sector

The mining and quarrying sector also falls under the primary sector. Mining is considered one of the main sectors in Tanzania, which contributes significantly to the economy. In 2020, the mining and quarrying sectors in Tanzania contributed about 6.7 percent of the GDP. Based on the Tanzania Development Vision 2025, the mining sector is expected to account for 10 percent or more of the Gross Domestic Product (GDP) by the year 2025. Minerals that are available in Tanzania include gold, diamonds, gemstones (such as rubies, Tanzanite, aquamarine, emerald and sapphire), iron (such as cobalt and nickel, platinum group of minerals like platinum, palladium and Rhodium), industrial minerals (such as kaolin, soda ash, salt along the coast and inland lakes, limestone, vermiculites, silica sands, gypsum, phosphate and mica), dimension stones (such as granites, marbles, travertine, quartzite and coal resources). Tanzania is one of the biggest producers of gold in Africa after South Africa, Ghana and Mali and is the sole producer of the precious stone-Tanzanite in the world.

Industrial sector

The industral sector is one of the economic sector that process raw materials into finished goods to fulfil society's material needs and creating wealth. The term industry can be defined in two ways. Firstly, the industry can be defined as a way of creating material goods through organised manufacturing processes. Secondly, the industry can be defined as those activities of large proportions aimed at generating income through service provision such as banking, tourism, insurance and entertainment.

MACROECONOMICS FORM 5&6 (2022).indd 281 07/03/2022 16:20

Countries in the world provide a solid argument for fostering industrial development. Industrial development is important in a country like Tanzania because of its roles in boosting growth and job creation. It acts as a major input by transforming agricultural goods into finished goods. In the process of transforming agricultural goods into finished goods, employment opportunities are created, variety of goods are produced, market are ensured and welfare of the farmers is improved. The sector is also responsible for increasing export earnings through sales of manufactured goods abroad.

Industries generate positive externality in terms of technological development and skills that are crucial for industrial competitiveness. For example, the manufacturing sector is the main driver of technological development and innovation. In the industrial sector, manufacturing offers potentials for innovation of informal activities which is the necessary incremental innovations in products and products' value addition. Industry uses technology to increase the returns to investment by enhancing productivity.

Structure of industry sector

Improvement of industrial sector has been part and parcel of Tanzania's development strategies since independence. The industrial sector contributed 8.4% of the GDP by year 2020. Industrial sector can change raw materials into finished products. Industrial sector is the secondary sector of the economy because it uses outputs of the primary sectors such as agriculture and extractive sector. The industrial sector in Tanzania is mainly small-scale manufacturing. Small-scale manufacturing industries mainly concentrate on food processing, textile and clothing, chemicals, beverages, leather and leather products, paper and paper products, plastics, tobacco, furniture, and wood allied products. Most of the manufacturing firms are owned by private companies.

The manufacturing sub-sector

The manufacturing sub-sector falls under the industrial sector. The Tanzania's industrial sector is relatively small; and it is based on the processing of agricultural goods and import substitute goods that were once purchased from abroad for domestic production and consumption. Despite the sector being small in size relative to other sectors, it continues to be important to the economy of Tanzania; and it is one of the most reliable sources of revenue.

The sector consists of food processing, textile and clothing, chemicals production industries and others including leather and leather products, beverage, paper and paper products, plastics, as well as publish and printing. In addition, production of cement, tires, footwear, bottles, batteries, steel mills, and paper mills take place as well. In Tanzania, the major challenge in the development of the manufacturing sector in the early 21st century is inadequate power supply.

MACROECONOMICS FORM 5&6 (2022).indd 282 07/03/2022 16:20

Energy, especially reliable electricity is vital for industrial development as it is needed to operate heavy-duty machines in manufacturing industries.

The manufacturing sub-sector in Tanzania comprises of three major segments which are:

Medium and large-scale firms: These firms are small in number and generally, have the following characteristics; employ more than 50 workers, are registered with the government, and provide employment contracts that follow labour legislation laws.

Registered micro and small enterprises (MSEs): These firms are many in number and have the following characteristics; employ less than 50 employees, and their capital is less than 200 million. It is estimated that there are more than 3 million MSEs that employ more than 5 million workers and contribute about 27 percent of the total GDP. Most of the MSEs are in the agricultural sector.

NOTE: The government organ which is responsible for the development of small-scale industries in the country is known as the Small Industries Development Organisation (SIDO) that is under the Ministry of Industry and Trade.

Household enterprises: These enterprises have the following characteristics: very small, not registered, and do not have paid employees. They consist of a single entrepreneur, perhaps working with unpaid workers who are likely to be family members.

Industrialisation policies

The government of Tanzania considers industrialisation as the main strategy to generate sustainable growth, transform the economy, and reduce poverty. Because of its importance, different policies, strategies and plans have been adopted to promote the development of industries since her independence as follows:

Early post-independence period (1960 – 1980)

Following independence, the government decided to put more effort to develop Tanzania's manufacturing sector which was virtually non-existent at that time. The main industrialisation strategy was to introduce industries that would produce goods that were initially imported during the colonial period. In this strategy, the Import Substitution Strategy (ISS) was introduced, whereby the country concentrated on the production of simple consumer goods. The strategy aimed at reducing foreign dependency through domestic production of industrialised products. As a result of this strategy, 569 firms were established each employing ten persons or more. In 1965 the Import Substitution Strategy (ISS) started to produce diversified products such as aluminium sheets, nails, screws,

MACROECONOMICS FORM 5&6 (2022).indd 283 07/03/2022 16:20

enamelware, wire, and razor blades. In addition, the production of paper, printing, glass, and wood products started. The main challenge was that, despite the gain in the manufacturing sector, the level of industrial output remained comparatively low. The share of industrial output to GDP was 6.6 percent in the year 1966, contrary to the expected 10 percent. In addition, there were recurring periods of deficit in the current account balance, which made the terms of trade unfavourable compared to the other East African countries. Poor performance of the sector was caused by a serious economic crisis that emanated from external shocks and internal constraints during the late 1970s.

Strategies for the period between 1980 and 1995

Tanzania faced economic crisis in late 1970s which necessitated adoption of the Structural Adjustment Programme of the World Bank and International Monetary Fund (IMF) in 1980s. In this reform the government adopted less restrictive trade measures such as reduction in taxes on export and import to restore the economy. Small and infant industries were affected by the removal of protective measures that subsequently led to massive flow of imported goods. As a result, several domestic industries collapsed. The stagnation of industries in this period was also caused by the decline in agricultural yields and poor product quality. The measures were later on proved to have a negative impact on the development of manufacturing sector.

Sustainable Industrial Development Policy (SIDP) between 1996 and 2000

In 1996, the Sustainable Industrial Development Policy (SIDP) was introduced to promote investment in productive industries and allow the private sector to take that leading role. The SIDP objective was to design a plan for industrialising the Tanzanian economy by 2025. In the short run, the policy aimed at consolidating the existing national capabilities in the sector. The medium term aimed at building up new strength in activities that have competitive advantages for export markets. The government used several measures which aimed at providing an enabling environment, such as the provision of tax incentives, stable and simple regulatory framework, transparency, and macroeconomic stability to achieve the policy objectives.

Industrial strategies in the 2000s and beyond

Since 2000, Tanzania's industrial sector has been transformed through consistent economic reforms. The sector has been experiencing gradual and steady growth. The growth has been attributed to the inflow of foreign direct investment and purchase of productive facilities by the private sector. The main factor which slows down the development pace of this sector is the country's reliance on agricultural and resource-based products which have minimal value addition. Several policy documents of the government have explained the

MACROECONOMICS FORM 5&6 (2022).indd 284 07/03/2022 16:20

importance of the industrial sector. The following documents provide information on the establishment of the industrial sector:

Tanzania Development Vision (TDV) 2025: The TDV aims to transform the country from a low-income country to a middle-income country by 2025. The key motive has been to transform the agricultural sector to a self-sustaining semi-industrialised economy. However, the policy document marks a significant milestone in the periods of reform in the country as the transformation was essentially important and boosting the industrial sector in Tanzania. The policy also lays the foundations for the country's new policy framework.

National Trade Policy 2003: This policy was formulated by the Ministry of Industry and Trade with the aim of stimulating and encouraging value addition in the industrial sector. The policy follows the principle of the Tanzania Development Vision (TDV) 2025. The policy was formulated to support and strengthening the private sector-led export economy.

Small and Medium Enterprise Development Policy 2003: This policy aimed to address the constraints to industrialisation and to tap the full potential of Tanzania's Small and Medium Enterprise (SME) sector. Specifically, the policy acknowledged the special role of SMEs in the context of Tanzanian industrialisation. Since its introduction, the policy had positive impact on SME performance.

Tanzania Mini-Tiger Plan 2020: The plan was formulated in the year 2005 in order to foster the implementation of Tanzania Development Vision (TDV) 2025. The plan clearly states that the successful development of the manufacturing sector lies on the formula that the sector's success holds the key to the country's economic development. This policy is aimed at replicating the Asian Tiger model in Tanzania. The significant contribution of the Mini-Tiger Plan was the introduction of Special Economic Zones in Tanzania (SEZs) which focused on export-led manufacturing growth. Unfortunately, the Mini-Tiger Plan failed to attract subsequent attention in the donor communities as their focus shifted towards the implementation of the National Strategy for Growth and Poverty Reduction (NSGRP).

Export Processing Zones Program (EPZ): The purposes of establishing the EPZs were to; promote the investment of export-led industries, increase employment, increase the foreign exchange earnings, and promote processing of local raw materials. This programme was introduced by the Export Processing Zones Act of 2002 and was formally institutionalised in 2006 by the creation of the Export Processing Zones Authority (EPZA). The main challenge in this programme is the inadequacy of funds for the development of the infrastructure for EPZ/SEZ.

MACROECONOMICS FORM 5&6 (2022).indd 285 07/03/2022 16:20

Five Year Development Plan (2011/12-2015/16) (FYDP I): The main goal of the first Five Year Development Plan (FYDP I) was to improve the country's economic resources. It was introduced in order to fast-track the provision of basic conditions for a broad-based and pro-poor growth. FYDP I came after the ten-year review of the Tanzania Development Vision (TDV) 2025. The Government realised that, the strategic medium- and long-term plans are required to achieve the objectives and goals set by TDV 2025. To ensure effective implementation of each priority, the plan proposes goals and strategic interventions, with the expected key output or targets to be achieved by 2015. The plan emphasised the building of a strong foundation for industrialisation and export-led growth. The industrial sector has been identified as a core priority in the FYDP.

Long Term Perspective Plan (2011/12-2025/26) (LTPP): The main goal of this plan was to remove the binding constraints to growth of natural gas-based industries, industries that use medium technology and agro-processing. The FYDP I1 (2016/17-2020/21) was meant to set the path to improved growth in the industry sector. FYDP III (2021/22-2025/26) focuses on promoting the competitiveness of the manufacturing sector which should lead to substantial improvement in Tanzania's share in global and regional trade. The LTPP is the roadmap for the development of three FYDPs for the realisation of the TDV 2025. The plan spells out a detailed industrial transformation path of the country. To achieve this, the LTPP will place industrialisation at the centre stage in Tanzania's future growth agenda as it is going to combine FYDP 11 and poverty reduction strategies.

Integrated Industrial Development Strategy 2025 (IIDS 2025): The strategy was introduced to accelerate the achievement of the goals stipulated in the TDV of 2025. This is the recent initiative by the Ministry of Industry and Trade that aimed at providing key strategies to the implementation of the SIDP objectives in the new economic environment. Since most of the industrial development strategies proposed in the IIDS cover issues across all sectors, it was crucial to establish close collaboration and harmonization with other central and sectoral economic authorities, parties and national planning agencies.

The Strategy highlights supportive frameworks which are vertical or horizontal and are required to create and position a competitive industry sector based primarily on labour-intensive industries. The industries dealing with the production of fertiliser and chemical, textiles, agro-processing, edible oil, iron and steel, processed cashew nuts, milk and milk products, processed fruits, leather and leather products, hospitality, and light machinery are the targeted ones in the IIDS 2025. The IIDS 2025

MACROECONOMICS FORM 5&6 (2022).indd 286 07/03/2022 16:20

also mentions the necessary policy measures to boost the industry sector and contribute to the structural change of the economy.

Therefore, currently, industrialisation has received more attention in the national development framework than ever before. Some of the successes in industrial performance can certainly be directly attributed to the government's policy interventions. However, there is still considerable room for efficiency gains through more policy intervention in the industry sector. Despite the success, the Tanzanian industrial sector is still weak, and can be improved further in order to harness its contribution to the national economy.

Strategies used to improve industrial sector in Tanzania

Although Tanzania has adopted various policies, strategies and plans, there are some policies which are more noticeable because of their impact on the development of the sector. These policies include the Import substitution strategy (1961-1975), Basic industrialisation strategy (1975–95) and the Sustainable Industrial Development Policy (SIDP) of 1996. Each strategy is discussed in a nutshell as follows:

The import substitution industrialisation strategy (1961-1975)

Import Substitution Industrialisation (ISI) strategy is a trade and economic policy that advocated the need to replace imports with domestic production. The aim of the ISI strategy was to reduce foreign dependency through the local production of manufactured products. The following were the advantages of ISI strategy:

(a) It helped to reduce the balance of payment problem through reduction of imported goods;

(b) It created markets for domestically produced raw materials and saves the country's foreign currency by reducing expenditure on importation of raw materials;

(c) It created employment opportunities as domestic labourers were hired to work in those industries. As local industries expand, more jobs are created in the industrial sector and in the other sectors which supply inputs to industries like agriculture;

(d) It helped to reduce dependence and promote efficiency and effective utilisation of domestic resources. The strategy enables the establishment of local industries, facilitates proper usage of countries productive resources that promote high production, economic growth and development; and

(e) It helped to reduce imported inflation and dumping. Import substitution industries helped to produce goods for the domestic market, and thereby, avoiding the importation of outdated, substandard and harmful goods that could affect the health of the people.

MACROECONOMICS FORM 5&6 (2022).indd 287 07/03/2022 16:20

Despite the advantages, the implementation of the policy of import substitution industries (ISIs) faced several challenges including the following:

(a) Unavailability of the market for the products which were domestically produced. In most developing countries, the effective demand tends to be low to sustain industrial production. Similarly, natives have the tendency of preferring foreign goods to domestically produced goods. Thus, the products of import substitution industries faced the problem of unreliable market;

(b) The established infant domestic industries required a high level of protection against foreign competition which cost the governments. The government provided subsidies and other kinds of support to the established Import Substitution Industries (ISI) industries. This increased the burden to the government which already had a huge burden of providing other public goods;

(c) Production of poor-quality products because of a lack of competition due to protection. In addition, lack of technical skills and experience resulted into the production of poor-quality products;

(d) The emergence of monopolies due to a high level of protection by the government. A number of such monopolies became inefficient.

(e) Initially, the emphasis of ISI was on the production of goods to serve the local market. This limited the country's export potential; and

(f) Most of the ISIs were located in urban and semi urban areas resulting into rural-urban migration. In some extent, ISIs required the importation of inputs which resulted into balance of payment problems and imported inflation. ISIs based on the production of luxurious and consumer goods rather than capital goods, hence limiting the rate of investment.

Small-scale industries programme of the early 1970s

The programme of small-scale industries was introduced in 1973 and was expected to use low amount of initial capital, indigenous technology and locally produced raw materials. The programme led to the formation of the Small-Scale Industries Development Organisation (SIDO). Since then, SIDO has been instructed to manage the establishment and development of small-scale industries all over the country, the small scale industries play numerous roles including the provision of market to the locally produced raw materials, employment, and foreign currency through export, and establishing a foundation for investment in heavy industries. Small-scale industries also provide essential goods and services, which help to improve people's welfare.

MACROECONOMICS FORM 5&6 (2022).indd 288 07/03/2022 16:20

Despite the benefits, small-scale industries are faced with some problems. Some of these problems are the production of poor quality products, poor and unreliable infrastructure like roads and electricity, stiff competition from large and foreign industries, inadequate capital for investing in production, and unreliable market due to low effective demand caused by low income and preference of imported goods.

Basic industrialisation strategy (1975–95)

This is the twenty-year industrialisation strategy established to improve the nation's industrial base and implement plans towards achieving national goals. The strategy aimed at reducing dependency on imports and increasing the importance of the manufacturing sector so as to achieve the national goals of increasing industrial growth, employment creation, structural changes in income distribution, workers' participation, regional distribution, and self-reliance. Industrial goods were to meet the basic needs of the population and also act as intermediate and capital goods in the production process. Examples of industries that were established under this strategy include Ubungo Farm Implements (UFI), Kilimanjaro Machine Tools and Mang'ura. These industries succeeded to produce tools like farm implements and spare parts. However, these industries failed to achieve their objectives because of the lack of finance, high production cost, small market size and lack of human capital and technical skills.

The Sustainable Industrial Development Policy (SIDP)

The Sustainable Industrial Development Policy (SIDP) (1996-2020) was developed with the main purpose of shifting the economy's engine of growth from the public to the private sector. That is making the private sector the key player in the country's economic growth. The private sector was recognised as the main driver of direct investment in the industrial sector while the government would regulate and provide an enabling environment. The government is expected to provide public goods. The government would also play a role of encouraging private sector to undertake activities of critical importance for the development of a country. The government intended to put an appropriate balance between ISI and export promotion mechanisms. This policy emphasised on creation of employment, economic transformation and equitable development. The strategy was designed to have three implementation phases as follows:

Phase I (1996–2000): This was a short-term programme that aimed at rehabilitating the economy and consolidating the existing industrial capabilities.

Phase II (2000–10): Phase II was the medium-term programme. In this phase,

MACROECONOMICS FORM 5&6 (2022).indd 289 07/03/2022 16:20

the emphasis was on initiating the production of intermediate goods and light capital goods. It aimed at creating new industrial capacities in areas with the potential for creating competitive advantage through the use of efficient technology and learning processes.

Phase III (2010–2020): This is the last phase which is considered as a long-term programme. The aim was to achieve major investments in basic capital goods industries to ensure the consolidation of the industrial structures developed in the first two phases.

Roles of industrial sector in the economy of Tanzania

From the perspective of its current development status, Tanzania is still lagging behind in terms of industrialisation. However, the effective use of abundant natural resources in the country may bridge a disconnection between growth, job creation and poverty reduction. Recent discoveries of significant gas reserves combined with other mineral resources suggest that Tanzania's economic prospects through industrialisation are promising. The industrial sector plays important role in the economy through job creation, poverty reduction, and diversification of the economy.

Job creation: Tanzania has a young population that grows rapidly. Approximately, more than 800,000 new workers enter the domestic labour market every year. Thus, the growth of the industry in Tanzania is necessary to provide employment to many unemployed people.

Diversification of the economy: The growth in the industry plays the role of diversifying the economy through servicing other sectors of the economy. For example, the industry creates a market for agricultural sector and acts as a market for raw materials produced in the agricultural sector. The sector can also create a base for tax revenue collections, which in turn, will help to promote the development of other sectors like agriculture and trade.

Poverty reduction: The reduction of poverty may be accelerated by the growth of industries. The expansion of industrial output and the obtained foreign exchange from the export of manufactured goods may increase per capita income of the people. Industries have the tendency of promoting massive production and thus, contribute to the country's GDP.

Correct balance of payments deficit: To reduce deficit in the balance of payments the country has to produce import substitute products.

Development of science and technology: Industrialisation brings positive externality in technology and science development. For example, industrial firms do research and develop new products.

MACROECONOMICS FORM 5&6 (2022).indd 290 07/03/2022 16:20

Industrialisation has spill-over effects on other sectors of the economy: The industrial sector stimulates the need for more and better services in banking, communication, transport, education, and health service.

Transportation sector

The transportation sector as well as the service sector fall under the tertiary sector pattern and its contribution to Gross Domestic Product (GDP) in 2020 was 8.4 percent. Transport in Tanzania extends to a wide range, from the traditional carrying of loads by animals and people to motorised means such as roads, airfields, seaports, and railways. Road is the major means of transport in Tanzania. It is responsible for transporting 90 percent of total passengers and 75 percent of freight traffic. The road network in Tanzania comprises 86,472 km of roads, of which 21,105 km are regional roads, 12,786 km are trunk roads and the remaining 52,581 km are district, urban and feeder roads. Management of trunk roads is the responsibility of the Ministry of Works, Transport, and Communication through the Tanzania National Roads Agency (TANROADS); whereas, management of regional roads is done by the Tanzania Rural and Urban Roads Agency (TARURA).

Railway is another means of transport in the country. The railway system dates back to pre-World War I when Germans built Central Railway Line, which bisects the country between Dar es Salaam and Kigoma, and the Tanga-to-Moshi railway. There is also a branch between these two lines, and another line connects Mwanza with Tabora regions. In Tanzania there are two major railway operators; Tanzania Railways Limited (TRL) and Tanzania-Zambia Railway Authority (TAZARA). TAZARA railway was built with Chinese aid to transport passengers and goods between Dar es Salaam and Kapiri-Mposhi which is the Zambian border. The Tanzania Railway is single-trunk railway in which 1,860 kilometres long is operated by the Tanzania-Zambia Railway Authority (TAZARA). Before the political changes in South Africa, TAZARA was the main means of transport for a landlocked country Zambia to transport copper in other countries of the world. The business began to decline in the 1990s because of the end of apartheid in South Africa and the independence of Namibia opened an alternative transport routes for Zambia. Currently, Tanzania is constructing the Standard Gauge Railway (SGR) connecting Dar es Salaam and Makutupora in the central region (Dodoma). The railway is expected to increase the level of business operations by reducing transit times between the two regions and nearby regions. The railway can also reduce the traffic jams in cities by offering alternative transport. For example, in Dar es Salaam there are commuter trains that operate from the city centre to different parts of the city.

MACROECONOMICS FORM 5&6 (2022).indd 291 07/03/2022 16:20

Water is another means of transport used by countries to facilitate trade between countries. Dar es Salaam port has deep waters which makes it the largest and busiest port that handles about 95 percent of export and import goods. The remaining area goes primarily to the port of Zanzibar, Tanga and Mtwara. The Tanzania Coastal Shipping Line offers transport services of passengers along the coast between Dar es Salaam and Zanzibar. In addition to these, there are also primary land ports situated on; Lake Victoria that is responsible for transporting goods and passengers between Tanzania and neighbouring countries of Kenya and Uganda; Lake Nyasa for handling goods and passengers between Tanzania, Mozambique and Malawi; Lake Tanganyika for handling goods and passengers between Tanzania, the Democratic Republic of Congo (DRC), Burundi and Zambia. The Tanzania Port Authority (TPA) is responsible for overseeing both seaports and inland ports.

Air is another means of transport. Tanzania Airport Authority (TAA) is responsible for managing airports in the country. Air Tanzania is the national carrier that provides domestic and international services. Some of the country's airports include the Julius Nyerere International Airport (JNIA) in Dar es Salaam, Kilimanjaro International Airport (KIA) in Kilimanjaro, Zanzibar International Airport (ZIA), Songwe Airport and Mwanza Airport. Well functioning airports increases the volume of trade and shortern time of on-transit thereby increasing government revenue and growth.

Tourism sector

The tourism sector is becoming one of the important contributors to GDP growth. Till recently (prior to the COVID 19 outbreak in 2020), the tourism sector was consistently the biggest forex earners in Tanzania. The contribution of tourism sector to GDP was 10.7 percent in 2019 and 5.3 percent in 2020. Tanzania is endowed with many natural resources such as mountains and national parks that attract tourists. Mount Kilimanjaro has the highest peak in Africa and is one of the major tourists attraction in the country. Other attractions include; network of national parks (such as Ngorongoro and Serengeti), reserves and conservation areas, beaches and coral reefs. The government has increased marketing of Tanzanian's tourist attractions. For the tourism sector to operate efficiently, the country needs to improve its tourism support sectors like transport sector (airports, harbours and roads), hotel, food industry, and financial sector.

NOTE: Figure 10.1 shows the growth rate of each sector in the years 2019 and 2020 while Figure 10.2 shows the contribution by each sector to the national economy in the year 2020 according to the economic survey of 2020.

MACROECONOMICS FORM 5&6 (2022).indd 292 07/03/2022 16:20

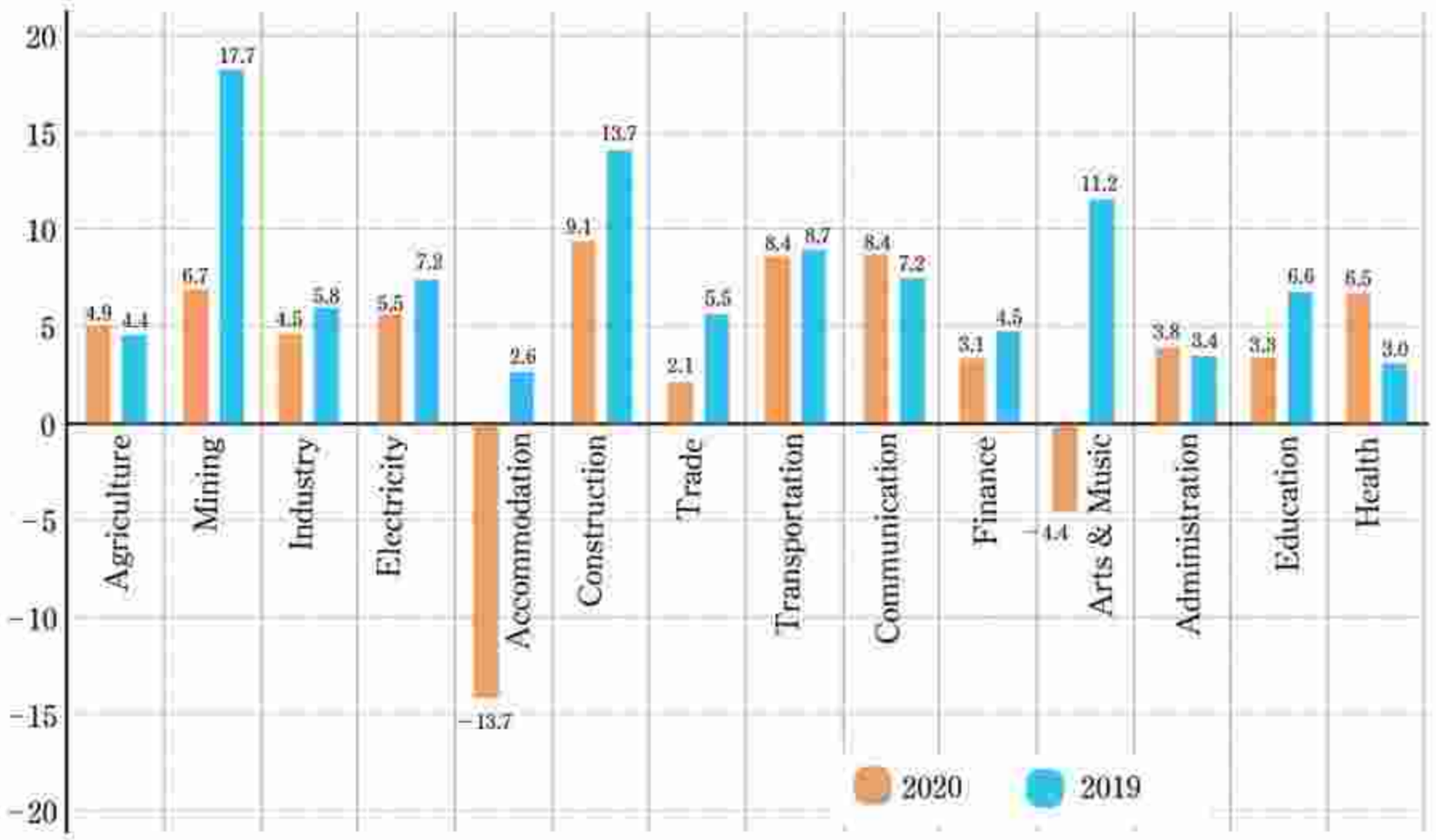


Figure 10.1: *The growth rate of various sectors in the Tanzanian economy for the year 2019 and 2020*

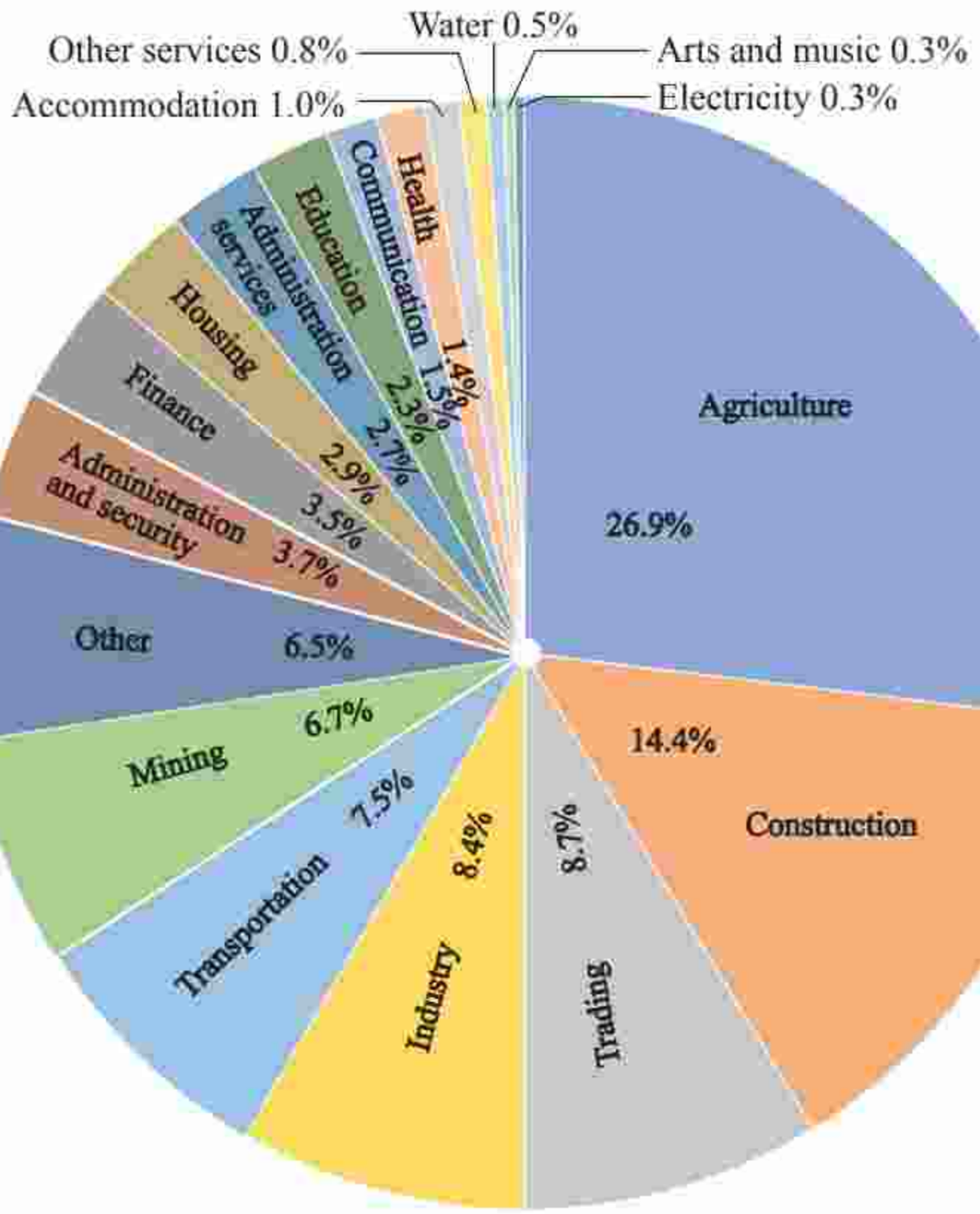


Figure 10.2: *The contribution of various sectors in the Tanzanian economy for the year 2020*

MACROECONOMICS FORM 5&6 (2022).indd 293 07/03/2022 16:20



Activity 10.1

Go to library or use official national sources from the internet to collect information on the growth rate and the contribution of each sector of the economy from 2015 to 2021. Share the results in class, then discuss any differences observed.

Pattern of ownership of Tanzania economy

The *ownership pattern* of the economy entails the analysis of who own the major means of production in the economy. This involve private or individual/companies' ownership, government ownership and co-operative ownership. Since independence the pattern of ownership of the Tanzanian economy has evolved over time. This can be explained using various policy reforms. The ownership pattern of the Tanzanian economy has been characterized by the shifts in the roles of the state and private sector in controlling the economy.

The ownership pattern of Tanzanian economy started with private sector domination. This system was inherited from the colonial rule up to the mid-1960s as reflected in the First Five-year Development Plan (1964–1969). This was followed by the state-driven industrial development between 1969–1974 and 1976–1981 as reflected in the second and third five-year development plans). The Economic Recovery Programme (ERP) of 1986–1989 and the Economic and Social Action Programme (ESAP) of 1989–1992 shows that the ownership pattern shifted back to private sector driven industrialisation after 1986. In addition, liberalisation and privatisation initiatives followed to renew industrialisation as a development agenda from the mid-1990s.

To promote economic growth in the country, a three-year development plan (TYP) for 1961–1964 and the First Five-year Plan (FFYP) for 1964–1969 were introduced. The purpose was to promote growth through increased investment in those economic activities that were expected to bring quick and high returns. Between the years 1961 and 1967, the ownership of the Tanzanian economy was dominated by the system that was used during period of colonialism. The country's economic agenda was mainly growth with very little attention to structural change. In the latter half of the 1960s, Tanzania's ideology shifted towards promotion of local ownership of major means of production. Therefore, the revision of the policy was necessary in order to achieve this goal and hence, the birth of the Arusha Declaration in 1967.

The Arusha Declaration mainly focused on public ownership of the major means of production. The Arusha Declaration advocated the utilisation of domestic resources in production and reduced to a large extent the reliance on foreign

MACROECONOMICS FORM 5&6 (2022).indd 294 07/03/2022 16:20

private investors, regulations and direct control of the economy. Large foreign-owned enterprises were nationalised, leading to the expansion of the public sector. Foreign ownership of production was subsequently limited to joint ventures with the government. This led to the decline in the size of the private sector and an increase in the public sector establishments. Also, direct regulatory control in sectors of the economy was then consolidated through the establishment of the National Development Corporation (NDC) and the State Trading Corporation (STC).

The Arusha declaration resulted in an increase in the role of the government in setting, implementing, and monitoring monetary and exchange rate policies. The overvaluation of the nominal exchange rate led to the establishment of the parallel foreign exchange market that was characterised by rates that roughly doubled the nominal rate between 1971 and 1973. This resulted in insufficient foreign earnings from trade in goods and services and a shortage of foreign currency. In 1981, an Export Rebate System (ERS) was introduced to serve as an export subsidy for producers of horticultural products. Alongside, a General Retention Scheme (GRS) was also introduced for exporters to deposit part of their foreign exchange earnings. Even after those measures, the conditions were still not satisfactory and the mid-1980s marked the period of economic deregulation for Tanzania.

Economic deregulation was part of the structural adjustment conditions of the international financial institutions in early 1980s that aimed at transforming the economy from being a purely state-owned to private ownership of the major means of production.

Public ownership of economic sectors in the economy

Public ownership of economic sectors in the economy entails that the major means of production in the economy are entirely owned by the state. Also, the production and distribution of the country's resources are controlled by the government.

Advantages of public ownership of economic sectors in the economy

The following are the advantages of public ownership of the economy:

Safeguard of the public interest: Public sector ownership in the economy safeguards the public interest. Profit motive is not the primary objective when offering certain public services such as health care and education.

Observation of workers rights: The public sector ownership in the economy, workers' rights are observed. The public ownership of the major means of production are associated with the improvement of minimum wage, decreased exploitation of workers, and improved access to justice for all.

No natural monopoly: Natural monopoly problem will be avoided. Some industries that are privately owned may gain monopoly power by selling their products at low prices such that other firms cannot compete against them. After obtaining the monopoly power, a private monopolist could easily use its monopoly power to set high price which burdens consumers and reduces their welfare. Government ownership of the means of production that prevent natural monopolies reduces exploitation in the society.

Cost cutting: Since the public owned entities are not motivated by profit, they may be interested in reducing the costs of production. Reduction of costs may have an implication on the services provided.

Disadvantages of public ownership of economic sectors in the economy

The following are some disadvantages of public ownership of the economy:

Inefficiency: Inefficiency is a common problem in the public sector. There is inefficiency in the management of public entities because of protection from competition provided by the government.

Government interference: The governments are not business entities and do not operate on business principles of profit maximisation like the private sector. Sometimes government actions are motivated by political pressures rather than by sound economic and business senses. For example, the government may hire too many workers for publicly owned firms for the purpose of boosting employment. This action increases the cost of operation which is a burden to the taxpayer and so it reduces efficiency. The government might then be reluctant to fire workers who are not performing well because of the negative publicity involved in job losses, and the fear of increasing unemployment levels in the economy.

Reduced competition: The government becomes monopolist in the production of certain goods and services. Reduced competition makes the government-owned enterprises work inefficiently, and they produce low quality products.

Private ownership of economic sectors in the economy

The private sector ownership of the economy entails that the major means of production in the economy are entirely owned by the private entities. Also, the production and distribution of the country's resources are controlled by the private entities.

Advantages of private ownership of economic sectors in the economy

The following are the advantages of the private sector ownership of the economy.

Increased efficiency: The private companies are profit oriented and thus, may tempt to cut the costs and produce

MACROECONOMICS FORM 5&6 (2022).indd 296 07/03/2022 16:20

more efficiently. In addition, private companies have pressure from the stakeholders to perform efficiently so as to gain profit.

Lack of political interference: In the private sector, there is minimal political interference and the private company hires sufficient number of workers and ensures that they work to full capacity. This tends to minimise costs while increasing productivity.

Long-term view of investment: The government effort to invest in the economy may be impeded with the next political election. Changes in leadership terms affect the long-term view of investment projects. For example, in Tanzania the term of the president is five years and can go up to a maximum of ten years. This trend makes the current government to propose investment activities which are within those ten years. In the private sector, the situation is different because the projects have long term plans which may not be affected by change in the government leadership.

Increased competition: Privatisation occurs alongside policies that allow more firms to enter the industry and increase the competitiveness of the market. The private firms will produce efficiently because of the fear of losing market position if they underperform.

Disadvantages of private ownership of economic sectors in the economy

The disadvantages of private sector ownership in the economy are:

Emergence of natural monopoly: Private sector ownership may result in an emergence of natural monopolies when there is one large firm that can produce more efficiently than others. The firm may initially sell at low price so as to eliminate small firms from competition. When other firms exit, the firm will use its monopoly power to reduce output and increase prices of its product which will reduce the level of consumer surplus. For example, tap water has huge start-up capital. Therefore, there is no scope for competition amongst firms as the cost is too high for the majority. In this case, privatisation would just create a private monopoly which might set high prices and exploit consumers.

Profit motive: There are number of private industries which perform important public services such as the provision of health care, public transport and education. The private firms are driven by profit motive and will shut down once losses are incurred. Therefore, the balance between profit motive and service provision to the public at low cost is important. For example, in the case of private provision of health care, it is feared that more priority can be given to profit rather than to patient care.

MACROECONOMICS FORM 5&6 (2022).indd 297 07/03/2022 16:20

The problem of regulating private monopolies: There is still a need for government regulation even with the presence of privatisation. Regulations are needed to prevent abuse of monopoly power and to ensure that the public get the quality services. This increases the cost to the government as it needs to form different regulatory authorities to regulate the private sector. An example of a newly established regulatory authority in Tanzania is Land Transport Regulatory Authority (LATRA) which regulates land transport.

The short-termism of firms: Some private firms collapse after operating for a short period of time, for example, some hospitals may survive for a short period. This creates disequilibrium in the health care provision. Sometimes, private firms may establish short-term investments so as to increase short-term profits and please their stakeholders.

Function and roles of the private sector in the economy

The private sector is central to economic growth and development. The sector plays significant role in boosting economic development. There are four major actors in the private sector namely:

(a) Local (large, medium and small) enterprises;
(b) Multinational (large, medium and small) enterprises;
(c) Individuals, (including self-employed, experts, diasporas groups and volunteers); and
(d) Non-governmental organisations (NGOs).

The following are the roles played by private sectors in the economy:

Undertaking of economic activities: The overall role of the private sector is to undertake economic activities that are not performed by the government. By undertaking economic activities, the private sector creates jobs, mobilise resources, introduce creative and innovative solutions and foster skills development and training and hence, improve economic growth.

Business operation: When the private sector starts to operate, it contributes to economic development through their core business activities. The private business operation can benefit the employees, entrepreneurs, suppliers, distributing partners, and consumers.

Tax revenue: Private sector investment is a source of tax revenues for governments. Private companies pay taxes and loyalties which contribute to the government revenue. Tax revenues are crucial in building government capacity to deliver services to its citizens. Through the private sector, governments expand their tax base.

Expertise, ideas and innovation: The private sector is also the source of technological innovation which is crucial for economic development. Through its expertise, innovative approaches and

MACROECONOMICS FORM 5&6 (2022).indd 298 07/03/2022 16:20

applications, the private sector can make important contributions to development efforts. An important example is the growing usage of mobile phones to access financial services which is a product of innovation in the private sector.

Coporate social responsibility: The private sector also contribute to the development of societies that surround them. For example, Geita Mining company has built dispensaries and classrooms to some villagies that surround the company.

Policies to encourage private sector ownership in the economy

The following are the policies for the encouragement of private sector ownership in the economy:

Investment policy: In order to encourage private sector ownership of the major means of production, the government may devise investment policy that create a good environment for a better and smooth operation of the economy. Investment policy provides framework for; investment benefits and guarantees, enterprises, transfer of capital profits, dispute settlement, expropriation and employment of foreign staff.

Deregulation policy: This is the policy whereby the government creates an environment which promotes private sector. Improvement of the country's infrastructure is one of the key ingredients to promote and encourage the private sector in the economy. Infrastructures can enhance the productivity of the invested capital that can eventually spur the growth of GDP. Well developed infrastructure attracts investors because they smoothen production, transport, processing, and marketing of goods and inputs.

Financial sector reform: The Tanzania financial sector is growing moderately. However, access to finance is still one of the factors hindering the growth of business in Tanzania. The financial sector remains highly concentrated and dominated by banking institutions. Reforms in the financial sector is crucial in fostering the private sector ownership of the economy. The financial sector provide access to credits to firms and facilitate investment in the economy.

Monetary and fiscal policies: The monetary and fiscal policies ensure the smooth running of the economy in terms of stabilising macroeconomic variables such as inflation. When these policies are favourable to the private sector, more private investments will be attracted in the economy.

Co-operative ownership of the economy

Co-operative ownership of the economy in this context is the joint ownership between the public and private sector. This is popularly known as Public-Private Partnership (PPP). In this kind of cooperation the government engages the private sector to develop facilities or supply goods or services. The private

MACROECONOMICS FORM 5&6 (2022).indd 299 07/03/2022 16:20

firm then own and operate the facility to deliver the public service.

Through this agreement, the assets and skills of each sector (public and private) are shared in delivering a service to the general public. In addition to sharing the resources, each party shares the potential risks and rewards. Sectors, where PPPs have been used successfully in Tanzania, are water and waste water management, transportation, urban planning, utility development, infrastructure, financial management, health care, and education. A good example of PPP in Tanzania is UDA Rapid Transit (UDART) in the transportation sector.

Advantages of co-operative ownership of the economy

The advantages of Public-Private Partnership (PPP) are as follows:

Transfer of risks: In the PPP projects, there is a possibility to transfer most or all of the risks to the private entity. The private entities operate under the principle of profit maximisation and thus, may want to explore the available opportunities. Though, the opportunities may involve risks, the private entities may optimise on the principle of, the higher the risk, the higher the return.

Business development: Through PPP, businesses are expected to develop more compared to when each sector acts independently. For instance, when partnering with the public sector, the private sector can work with schools, courts, waste management services or prisons. If these activities are managed properly and achieve the objectives they were intended for, the partnership can last long.

Cost minimisation: PPP minimises cost when the government outsource some of its activities to the private sector. One of the state's objectives is to reduce the government role and move them to the private sector. The government concentrates on performing its regulatory role and the business role is left to the private sector.

Constant cash flow: The presence of the PPP helps to provide constant cash flow for the completion of projects through the usage of funds from the private sector.

Possibility for multiple uses of the facilities: The possibility for the private sector to use government facilities in multiple ways represents another advantage of the PPP. With the PPP it is possible for the private sector to use public sector properties at a cost that is cheaper than the market value and this is advantageous to both sectors.

Quicker execution of a project (once the contract is signed): Execution of some projects is delayed after the budget approval because of the bureaucracy in the government systems. This is not the case with PPP because before signing a contract comprehensive

MACROECONOMICS FORM 5&6 (2022).indd 300 07/03/2022 16:20

planning, credible contract enforcement mechanisms, clear contractual rules and contingencies, and competitive procurement procedures are put in place.

Disadvantages of co-operative ownership in the economy

The following are the disadvantages of public-private partnership (PPP):

(a) Infrastructure or services delivered could be more expensive. Since the private sector operates for-profit motive, they tend to charge high prices which makes the services offered by the PPP to be more expensive than those offered by the government sector;

(b) The PPP service procurement procedure is costly and takes long period compared with traditional public procurement;

(c) The PPP project agreements are complicated, takes long period and are inflexible. This is caused by the impossibility to envisage and evaluate all particular events that could influence future activities;

(d) Expertise owner issue: If the expertise in the partnership is with the private entity, then public organ is at risk because it might be unable to assess the proposed cost of the project;

(e) The PPP involves risks for the private entity which needs to be compensated for accepting risks. This by implication may increase government costs; and

(f) Limited number of private partners, if there is small number of private firms who have the capacity to implement.

Roles of informal sector ownership

The informal sector refers to the part of the economy that does not fall under the organised economic activities. The informal sector is characterised by some qualities such as easy entry and exit, lack of stable employer-employee relationship, small scale operation by individual or family ownership, reliance on locally available resources, labour-intensive, unregulated and competitive markets, and low level of capital requirement. The informal sector activities such as casual wage labour, unpaid work in family enterprises, home-based work and street vending provide the opportunity for many poor households to secure their basic needs for survival. In countries without unemployment insurance or other kinds of social benefits, the only alternative to be employed is to engage in the informal sector.

In many countries, the contribution of the informal sector to economic development is substantial. The sector is not only important in providing employment opportunities in the country, but is also important in providing goods and services in the economy. The goods and services produced in the informal sector contribute a large percent to what is consumed by poor and households with moderate income.

The informal sector also plays a significant role in poverty reduction as it is the main source of income and employment for the poor. Despite its significance, many people engaged in the informal sector are still poor.

Major economic problems in Tanzania

The following are the major economic problems in Tanzania:

Poverty and inequality: Tanzania has experienced macroeconomic success over years. The economy has been impressively growing but poverty and inequality are still challenging issues.

Insufficient social development: The government of Tanzania has chosen to spend a significant amount of resources on the provision of public services such as health, education and access to water. As a result, provision of those services has improved significantly. Despite the improvement, the massive expansion of coverage and an attempt to reach everyone in the education and health sectors has reduced the quality of services provided across sector.

Fluctuations of prices of agricultural products in the international market: Agriculture contributes significantly to the Tanzanian economy. The fluctuations in the prices of the agricultural products in the international market affects the country Gross Domestic Product (GDP).

Corruption: Corruption is a significant economic problem in Tanzania. Corruption has negative effects on public service delivery, natural resource allocation and industrial production, and business. Corruption practices reduces the investors' confidence and the country may fail to attract potential local and foreign investors.

Climate change: The Tanzanian economy is vulnerable to climatic changes. Changes in climatic conditions have made electricity production to be insufficient because the country has relied heavily on hydro-power to meet its growing electricity demand. Furthermore, climate change also causes unpredictable rains which in turn affects agricultural productivity.

External assistance to Tanzania: There is a reduction of Tanzanian dependence on foreign assistance as the country achieves high economic growth and domestic revenue in the form of tax revenue. However, the country still depends on foreign assistance to finance public expenditure. In addition, the country debt has been rising over time, this may affect future capacity of the country's development as most of the funds will be used to service the debt.

Other major economic problems facing Tanzania are; Balance of Payment (BoP) deficits, budget deficits, unemployment, inflation and exchange rate fluctuations.

MACROECONOMICS FORM 5&6 (2022).indd 302 07/03/2022 16:20



Activity 10.2

Visit different sources of learning materials, then:

(a) Read the major industrial strategies adopted by Tanzania since independence in 1961; and

(b) Share the findings in part (a) with your fellow students.

Chapter summary

1. The term structure of the economy entails the organisation of the economy in terms of the recognition of the major sectors, their growth, contribution and the ownership of major means of production.

2. The economy of Tanzania is largely an agrarian economy.

3. The agricultural sector has been the backbone of Tanzania economy. It employs more than 70 percent of the population and it is the main contributor to the Gross Domestic Product (GDP). The sector contributes about 26.9 percent of the Gross Domestic Product according to the Tanzanian economy survey report of 2020.

4. Tanzania's industrial sector is relatively small and is based on the processing of agricultural goods and import substitution goods that were once purchased from abroad for domestic production and consumption.

5. Mining is considered as one of the drivers of the economy in Tanzania, which contributes significantly to the economy.

6. Tanzania's rapidly expanding tourism sector continues to be a source of great economic promise.

7. Transportation sector contributes to the economy of the country as it is the means of moving goods and people from one area to the other.

8. Price fluctuation refers to the rise and fall of the price of a commodity over a period as the result of changes in demand and supply forces. Price

MACROECONOMICS FORM 5&6 (2022).indd 303 07/03/2022 16:20

fluctuations in agricultural products is one of the major problems facing the agricultural sector.

9. Industrialisation is key for growth and job creation because industrialisation is linked to economic growth as it acts as a catalyst in transforming the economic structure of agrarian societies.

10. Import substitution industrialisation (ISI) is a trade and economic policy that advocate replacing foreign imports with domestic production.

11. For a developing country such as Tanzania to develop economically, it must develop good policies for the promotion of industries and agriculture.

Revision exercise

1. Write short notes on the four main sectors of the Tanzanian economy.
2. Discuss the roles played by the agricultural sector in the economy.
3. Describe the major problems facing the agricultural sector in Tanzania.
4. Describe the distinguishing features of the Import Substitution Industry (ISI) and Basic Industrialisation Strategy.
5. Discuss the roles of the industrial sector in the economy of Tanzania.
6. Trace out the pattern of ownership of the Tanzanian economy since its independence in 1961.
7. The agricultural sector and industrial sector are twin brothers. Discuss
8. Elucidate the evolution of industrial policies in Tanzania.
9. Briefly explain the approaches of development of the agricultural sector in Tanzania
10. Explain why there has been a periodic shift in the ownership structure of the Tanzanian economy.

MACROECONOMICS FORM 5&6 (2022).indd 304 07/03/2022 16:20

Glossary

Aggregate demand	is the total amount of demand for all finished goods and services produced in an economy at overall price level in a given period of time
Aggregate supply	is the total supply of goods and services produced within an economy at a given overall price level in a given time period
Agrarian	is an economy that depends on agriculture by large portion of its economic activities or income
Bank overdraft	is the facility provided by the banks under which customers are allowed to withdraw money more than their actual balance
Barter trade	is the exchange of one good or service for another
Bill of exchange	is an unconditional order addressed and signed by one person to another in writing requiring the person to whom it is addressed to pay on demand or at fixed or determinable future time a certain sum of money only to, or to the order of, a certain person or to the bearer of the instrument
Biogas	is a type of biofuel naturally produced from the decomposition of organic matters such as agricultural wastes, manure, sewage and food waste
Bonds	are investment securities where an investor lends money to a company or a government for a specific period of time, in exchange for regular interest payments. Once the bond reaches maturity, the bond issuer returns the investor's money
Borrower	is a person or organisation that takes out a loan from another party with the agreement that the money will be repaid, typically with interest
Business cycle	is the short-run alternation between economic downturns known as recessions and economic upturns, known as expansions

Cheque	is a document that instructs a bank to pay a stated sum of money from a person's account to the person in whose name the cheque has been issued. The person writing a cheque is known as the drawer, the person to whom it is to be paid is known as payee, and the bank which is supposed to honour the cheque is known as drawee
Collateral	is any property or asset that is given by a borrower to a lender in order to secure a loan, it will be taken by a lender in case the borrower fails to fulfil his/her obligation of repaying
Creditor	is a person, bank, or other enterprise to whom money is owed or extended credit to another party
Debtor	is individual or entity that owes money, whether to banks or other individuals.
Domestic trade	is the trade conducted within the boundaries of a country
Effective demand	refers to the willingness and ability of consumers to purchase goods at different prices in a specific period of time
Foreign direct investment	is an investment in form of controlling ownership of a business in one country by an entity based in another country
Foreign exchange	is the exchange/trade of one currency for another. It can take place on foreign exchange market
GDP deflator	is a measure of price level calculated as the ratio of nominal GDP to real GDP times 100
Household	refers to a social unit of people who live in the same residence and share resources, even if they are not related to each other
Income	is a net total of the flow of payments received by a person or a business in return for working, providing a product or service, or investing capital in a given period of time

MACROECONOMICS FORM 5&6 (2022).indd 306 07/03/2022 16:20

Insurance	is a contract, represented by a policy, in which an individual or entity receives financial protection or reimbursement against losses from an insurance company
Intermediate good	refers to a partly finished good that is then used in the production of other goods to become final goods
Intrinsic value	means that the item would have value even if it were not used as money
Invisible goods	refer to an international transaction which does not involve tangible goods, but services, such as consultancy services, insurance, banking, intellectual property and international tourism which are exported or imported
Large scale cultivation	is cultivation of large area of land, preferably for a single type of crop
Lender	is an individual, a public or private group, or a financial institution that makes funds available to a person or business with the expectation that the funds will be repaid, typically with interest
Line of perfect equality	is a completely equal income distribution in which every person has the same income
Marginal efficiency of capital	is the rate return expected to be obtainable on a new capita asset over its life time
Marginal rate of substitution	is the willingness of a consumer to replace one good for another good, as long as the new good is equally satisfying
Open economy	is the situation whereby a country trades with the other countries
Opportunity cost	is the cost of making one decision over another or is a benefit forgone as a result of making an alternative decision
Population	is a collection of people in a given area such as a village, ward, district, region or country

MACROECONOMICS FORM 5&6 (2022).indd 307 07/03/2022 16:20

Productivity	is the efficiency of production of goods or services expressed by some measure. Measurements of productivity are often expressed as a ratio of an aggregate output to a single input, or an aggregate input used in a production process, that is output per unit of input
Retailer	is a trader or business that sells goods to the public in relatively small quantities for final use or consumption rather than for resale
Shares	are the unit of capital, indicating a portion of ownership of the company
Statistical discrepancy	is the difference between two statistics that should be equal
Stock exchange	is a market place where securities, such as stocks and bonds, are traded
Transaction	is a completed agreement between a buyer and a seller to exchange goods, services, or financial assets in return for money
Transfer payment	is a payment made or income received in which no goods or services are being paid for, such as a benefit payment or subsidy
Treasury bills	are short-term government securities, which are issued at a discount and mature in less than a year. Treasury bills are used as a primary instrument for raising funds to meet temporary budget deficit and to regulate money supply
Visible goods	are the goods which can be touched and weighed. Some examples include trade in goods such as oil, machinery, food, clothes
Wholesaler	is a person or company that sells goods in large quantities at a low price, typically to retailers

MACROECONOMICS FORM 5&6 (2022).indd 308 07/03/2022 16:20

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MACROECONOMICS FORM 5&6 (2022).indd 309 07/03/2022 16:20

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MACROECONOMICS FORM 5&6 (2022).indd 311 07/03/2022 16:20

Index

A

acceleration 31, 32, 43, 72

aggregate demand 13, 17, 18, 24, 34, 52, 67, 85, 86, 106, 107, 108, 109, 114, 115, 116, 163, 166, 201, 207, 209, 277, 280

aggregate supply 17, 21, 24, 106, 107, 108, 114

appreciation 206, 207, 208, 209, 211

autonomous consumption 19

autonomous investment 17, 23, 27, 43

average propensity to consume 20, 22

average propensity to save 22

B

balanced budget 168, 175

balance of payments 35, 113, 142, 145, 161, 169, 186, 192, 193, 195, 197, 199, 237, 238, 240, 241, 246, 247, 256, 280, 290

bank rate 55, 85, 86, 110, 114, 128

banks 55, 77, 82, 83, 84, 85, 86, 87, 110, 120, 121, 122, 123, 124, 125, 127, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 171, 275, 305, 306

barter exchange system 75, 117

base year 9, 10, 11, 44, 91, 92, 93, 94, 95, 96, 97, 99, 101, 102, 104, 118, 188, 212, 311

boom 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 141, 172, 173, 244, 248

business cycle 49, 61, 71

C

capital account 193, 194, 210

central bank 54, 55, 68, 76, 83, 84, 85, 86, 87, 88, 108, 110, 122, 123, 124, 129, 144, 171, 172, 173, 202, 203, 204, 206

circular flow model 4, 16

commercial banks 55, 82, 83, 84, 85, 86, 87, 110, 121, 122, 123, 124, 125, 127, 128, 129, 130, 131, 134, 135, 136, 137, 138, 139, 171

common market 214, 217, 218, 219, 228, 242

communication 6, 21, 29, 35, 42, 164, 171, 200, 220, 223, 225, 228, 230, 233, 234, 262, 263, 272, 274, 277, 291

consumer price index 11, 92, 93, 103, 104, 117, 118

consumption 2, 3, 7, 8, 13, 15, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 29, 31, 32, 41, 42, 45, 54, 62, 63, 67, 68, 70, 71, 94, 101, 102, 103, 109, 115, 116, 121, 128, 145, 154, 161, 163, 171, 207, 209, 211, 221, 244, 250, 251, 252, 265, 274, 275, 276, 282, 303, 308

consumption function 19, 20, 21, 24, 26, 28

contractionary monetary policy 84, 110, 118

cost of living 11, 92, 97, 98, 99, 100, 102, 107, 113, 198

credit card 77

credit creation 86, 110, 114, 119, 121, 123, 128, 135, 137, 138, 139

current account 122, 125, 126, 199, 203, 204, 205, 210, 246, 284

custom union 214, 217, 221

cyclical unemployment 57, 59

D

debit card 77

deficit budget 28, 58, 167, 168, 169, 170, 175, 176

deflation 69, 74, 92, 114, 115, 116, 117, 118, 142, 164, 166, 168

demand for money 71, 80, 81

dependency ratio 35, 53

depreciation 2, 14, 30, 45, 109, 205, 206, 207, 208, 209, 211, 236, 248, 254

depression 28, 49, 53, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 73, 86, 168, 173, 238

devaluation 109, 123, 190, 193, 197, 206, 207, 208, 209, 211, 212, 248, 273

direct controls 69, 73

disequilibrium 28, 49, 192, 237, 240, 256, 298

disguised unemployment 59

disposable income 3, 19, 21, 22, 26, 28, 34, 111, 115, 116

double coincidence of wants 75

E

economic cooperation 213, 235, 236, 239, 240, 241, 242

economic development 12, 32, 44, 56, 119, 124, 128, 141, 142, 162, 165, 166, 171, 180, 219, 221, 223, 224, 227, 229, 231, 232, 233, 234, 235, 240, 243, 244, 251, 257, 258, 259, 261, 263, 265, 266, 267, 269, 270, 271, 277, 285, 298, 301

economic growth 13, 61, 68, 84, 85, 105, 106, 120, 121, 142, 164, 165, 168, 169, 199, 202, 212, 213, 219, 220, 221, 226, 231, 235, 240, 242, 243, 244, 245, 246, 249, 250, 251, 253, 254, 255, 256, 257, 261, 263, 264, 265, 266, 269, 270, 271, 272, 273, 287, 289, 294, 298, 302, 304

economic integration 191, 199, 213, 214, 216, 217, 219, 221, 222, 223, 224, 225, 226, 231, 234, 236, 242

economic union 214, 217, 219, 220, 221, 224, 226, 242

effective demand 17, 42, 65, 163, 288, 289

electronic payment 49, 78

employment 13, 27, 28, 31, 32, 34, 47, 48, 50, 51, 52, 54, 55, 56, 57,

MACROECONOMICS FORM 5&6 (2022).indd 313 07/03/2022 16:20

58, 59, 60, 61, 63, 64, 66, 67, 71, 72, 84, 85, 86, 88, 100, 105, 106, 108, 112, 116, 124, 128, 129, 141, 142, 146, 154, 161, 163, 164, 165, 166, 169, 172, 191, 218, 219, 221, 222, 230, 239, 245, 246, 260, 261, 264, 273, 274, 282, 283, 285, 287, 288, 289, 290, 296, 299, 301, 302

entrants 47, 59

equilibrium 3, 17, 18, 19, 23, 24, 26, 28, 29, 32, 42, 43, 46, 51, 58, 59, 65, 83, 84, 88, 106, 107, 118, 156, 157, 158, 159, 160, 164, 192, 202, 203, 204, 238, 240, 250, 254

exchange rate 15, 85, 177, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 219, 236, 247, 248, 295

expansionary fiscal policies 66

expansionary monetary policies 66, 68

expenditure method 7, 8

F

factor inputs 4, 5, 245

fiat money 76, 79, 80

firms 4, 7, 13, 17, 29, 30, 41, 42, 52, 59, 66, 68, 107, 108, 114, 115, 138, 146, 153, 155, 174, 177, 186, 200, 216, 217, 218, 220, 263, 266, 270, 282, 283, 290, 296, 297, 298, 299, 301

fiscal policy 28, 55, 69, 73, 111, 116, 118, 141, 143, 168

free trade 177, 186, 199, 200, 201, 211, 214, 215, 216, 217, 239, 242

free trade areas 242

frictional unemployment 51, 55

full employment 27, 28, 47, 57, 58, 84, 88, 108, 169

funded debt 173

G

GDP 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 36, 41, 42, 44, 45, 63, 85, 88, 89, 90, 91, 100, 114, 243, 244, 246, 247, 248, 249, 253, 256, 257, 258, 265, 269, 270, 271, 274, 275, 276, 281, 282, 283, 284, 290, 291, 292, 299, 302, 303, 306, 311

GDP deflator 9, 10, 11, 14, 88, 100, 306

government revenue 59, 140, 143, 145, 155, 167, 168, 174, 180, 196, 197, 216, 218, 231, 234, 273, 292, 298

gross domestic product 121

H

households 2, 4, 5, 6, 7, 8, 30, 40, 41, 42, 91, 92, 100, 102, 103, 106, 111, 117, 125, 275, 301

human capital 181, 244, 245, 255, 269, 270, 289

I

immigration 53

import quotas 210

MACROECONOMICS FORM 5&6 (2022).indd 314 07/03/2022 16:20

income inequality 1, 32, 33, 34, 35, 36, 40, 41, 43, 143, 145, 154, 155, 162, 256, 277

income method 7

indirect taxes 9, 109, 111, 141, 145, 146, 151, 153, 154, 155, 263

induced investment 32, 43

inflation 9, 11, 31, 43, 51, 52, 58, 66, 67, 69, 74, 80, 84, 85, 86, 92, 100, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 117, 118, 141, 142, 145, 154, 155, 164, 168, 171, 197, 198, 202, 204, 205, 207, 209, 210, 247, 256, 273, 287, 288, 302

injections 17, 18, 42, 43

intended investment 29

intermediate goods 2, 5, 8, 41, 42, 290

international trade 100, 126, 127, 177, 178, 179, 180, 181, 182, 184, 186, 187, 198, 200, 201, 202, 204, 210, 211, 212, 213, 214, 235, 236, 237, 238, 239, 240, 243, 265, 266, 270, 271

investment 1, 2, 3, 7, 8, 13, 17, 18, 19, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 41, 43, 45, 46, 56, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 85, 86, 92, 99, 105, 106, 112, 114, 115, 119, 120, 121, 128, 131, 132, 133, 134, 137, 141, 146, 149, 151, 152, 163, 164, 171, 172, 191, 194, 199, 217, 219, 220, 230, 233, 235, 238, 240, 241, 244, 246, 247, 248, 250, 251, 252, 253, 254, 255, 263, 277, 278, 280, 282, 284, 285, 288, 289, 294, 297, 298, 299, 305, 306

investment multiplier 23, 24, 25, 26, 27, 32, 43, 46

irregular or random fluctuations 72

L

labour force 11, 29, 31, 47, 48, 49, 56, 59, 221, 233, 245, 252, 257, 260, 262, 277, 278

leakages 17, 18, 42, 43

letter of credit 126

line of perfect equality 39

liquidity 81, 87, 117, 133, 202

liquidity preference 81, 87, 117

M

major trade cycles 63

marginal propensity to consume 19, 20, 21, 22, 24, 26, 27, 28

marginal propensity to save 21, 22, 26, 27, 28

market 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 21, 30, 34, 41, 43, 46, 47, 48, 49, 50, 53, 58, 59, 61, 74, 78, 81, 84, 85, 86, 90, 92, 100, 102, 104, 108, 109, 110, 114, 116, 117, 118, 128, 129, 132, 133, 134, 146, 172, 173, 174, 180, 181, 189, 190, 191, 199, 201, 202, 203, 204, 208, 210, 211, 214, 217, 218, 219, 220, 221, 222, 223, 225, 228, 229, 230,

233, 242, 247, 250, 251, 256, 258, 262, 266, 268, 272, 273, 277, 278, 281, 282, 287, 288, 289, 290, 295, 297, 300, 302, 306, 308

marketing 56, 112, 229, 273, 276, 280, 292, 299

mercantilism 181

monetary authority 85, 122

monetary policy 54, 73, 84, 85, 86, 87, 100, 110, 116, 118, 122, 128, 205, 219

money 4, 23, 37, 49, 53, 54, 55, 66, 67, 68, 71, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 94, 97, 98, 99, 104, 105, 106, 108, 110, 112, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 125, 128, 129, 132, 135, 137, 138, 140, 141, 143, 144, 145, 151, 163, 164, 165, 171, 172, 173, 175, 204, 219, 305, 306, 307, 308

money supply 54, 66, 67, 71, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 108, 115, 116, 118, 128, 135, 137, 138, 171, 308

multiplier 23, 24, 25, 26, 27, 28, 31, 32, 43, 46, 72, 136, 138, 139, 165, 166, 169, 172

N

national budget 140, 167, 168, 169, 175

national income 1, 2, 3, 4, 5, 7, 9, 11, 12, 13, 14, 16, 17, 18, 19, 23, 24, 25, 26, 27, 31, 32, 36, 37, 38, 39, 40, 42, 43, 44, 46, 128, 141, 161, 166, 243, 256, 257, 259, 260

national output 17, 42

natural rate of unemployment 51

net export 2, 8

net factor income from abroad 42

net national product 2

nominal 9, 10, 11, 16, 42, 80, 100, 295, 306

non-bank financial institutions 87, 121, 122, 132, 133, 137, 139

O

optimism 68, 70

output method 5, 6

P

paper money 76, 77, 78, 117

per capita income 12, 14, 15, 16, 84, 142, 243, 257, 258, 259, 269, 290

personal income 3, 37, 263

pessimism 54, 68, 70

physical capital 244, 245, 255, 270

planning 143, 167, 278, 280, 286, 300, 301, 309

political federation 214, 219, 220, 221, 242

population 3, 14, 15, 32, 36, 37, 38, 39, 40, 41, 43, 51, 66, 68, 144, 162, 165, 201, 220, 233, 244, 249, 250, 251, 253, 255, 260, 262, 269, 274, 275, 276, 277, 280, 289, 290, 303

MACROECONOMICS FORM 5&6 (2022).indd 316 07/03/2022 16:20

Price 10, 14, 15, 35, 44, 84, 88, 91, 93, 95, 96, 97, 98, 99, 100, 103, 104, 111, 118, 142, 157, 158, 159, 160, 196, 207, 278, 279, 280, 303

price index 11, 14, 74, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 117, 118, 187, 188, 212

private finance 174, 175

private investment 32, 56, 99, 238, 240, 246

private ownerships 33

progressive tax 35, 43, 148, 149, 151, 174

proportional tax 149, 150, 151, 174

public debt 123, 140, 141, 168, 169, 170, 171, 172, 173, 174, 175, 176

public expenditure 141, 163, 164, 165, 166, 175, 248, 302

public finance 140, 141, 143, 175

public revenue 141, 143, 164, 169, 173

R

Real GDP 9, 10, 42, 44, 114

recession 49, 61, 62, 63, 64, 68, 69, 72, 73, 86, 137, 141, 172

recovery 61, 62, 63, 70, 71, 72, 73

recurrent expenditure 163, 166

re-entrants 47, 59

regressive tax system 33, 150, 151, 174

revenue 4, 34, 41, 53, 59, 108, 109, 140, 141, 143, 144, 145, 147, 150, 151, 152, 153, 154, 155, 161, 162, 164, 167, 168, 169, 173, 174, 180, 196, 197, 215, 216, 217, 218, 219, 224, 231, 234, 263, 273, 282, 290, 292, 298, 302

S

saving 3, 13, 15, 17, 18, 19, 21, 22, 23, 24, 28, 42, 52, 71, 81, 82, 83, 112, 116, 120, 121, 122, 125, 130, 132, 137, 138, 149, 150, 151, 152, 168, 252, 253, 254, 261, 271

saving function 21

seasonal fluctuations 72

seasonal unemployment 49, 51, 56

secular trends 72

special deposits 68

standard of deferred payment 75, 117

standard of living 3, 12, 14, 15, 16, 23, 35, 42, 54, 59, 64, 97, 98, 99, 102, 103, 104, 113, 119, 120, 121, 165, 166, 222, 238, 240, 244, 259

structural inflation 107

structural unemployment 51, 56, 57, 58, 59

subsidies 9, 31, 36, 111, 141, 169, 178, 189, 193, 195, 200, 273, 276, 280, 288

subsidy 295, 308

supply of money 68, 80, 82, 85, 115

surplus budget 167, 168, 173, 175

T

tax 31, 33, 34, 35, 43, 53, 55, 59, 109, 111, 113, 127, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 169, 170, 173, 174, 175, 176, 193, 195, 215, 216, 218, 219, 263, 273, 284, 290, 298, 302

taxable capacity 161, 162, 175

taxation 23, 68, 140, 143, 145, 146, 147, 148, 153, 160, 161, 162, 169, 170, 175, 176, 247

tax avoidance 160

tax evasion 149, 151, 160

technological knowledge 244, 245, 270

the accelerator principle 43

theory 1, 9, 29, 42, 70, 71, 72, 73, 81, 87, 88, 89, 90, 117, 118, 181, 182, 184, 186, 199, 249, 250, 251, 252, 253, 254, 255, 261, 263, 271

total labour force 48

trade cycles 62, 63, 68, 69, 70, 71, 72, 73

trade diversion 224, 226

trade protectionism 177, 186, 187, 195, 197, 198, 210

transportation 13, 42, 235, 273, 274, 277, 291, 300

U

underemployment 59

unemployed people 48, 50, 52, 53, 290

unemployment 20, 28, 36, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 65, 84, 85, 114, 115, 132, 142, 166, 181, 199, 215, 220, 256, 257, 263, 296, 301, 302

unemployment rate 48, 49, 53

unintended or unplanned investment 29, 30

V

value added method 5

W

weighted price index 94, 101, 104

MACROECONOMICS FORM 5&6 (2022).indd 318 07/03/2022 16:20

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