NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF ART AND SOCIAL SCIENCE

COURSE CODE: ECO 122

COURSE TITLE: PRINCIPLES OF ECONOMICS II

ECO 122
PRINCIPLES OF ECONOMICS II

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INTRODUCTION

ECO 122: Principle of Economics II is a three-credit unit course for undergraduate students offering Economics. The course is made up of 21 units spread across 15 weeks. This course guide gives you an insight to the course in an elementary way and how to study the economy in larger dimension. It tells you about the course materials and how you can work your way through these materials. It suggests some general guidelines for the amount of time required of you on each unit in order to achieve the course aims and objectives successfully.

WHAT YOU WILL LEARN IN THIS COURSE

This course is basically an introductory course on Macroeconomics. The topics covered include the field of macroeconomics; national income accounting; money and banking; components of gross domestic product; aggregate demand and aggregate supply; government and the economy; and open economy macroeconomics.

COURSE AIMS

The aim of this course is to give you in-depth understanding of macroeconomics as a fundamental concept and practices of macroeconomics. The overall aims of this course are to:

- familiarise you with national income accounting
- stimulate your knowledge of money and banking
- Acquaint you with the components of gross domestic product
- expose you to differences between aggregate demand and aggregate supply
- provide you with information about the government and the economy
- introduce you to open economy in a macroeconomics context.

COURSE OBJECTIVES

To achieve the aims of this course, there are overall objectives which the course is out to achieve though, there are set out objectives for each unit. The unit objectives are included at the beginning of a unit; you should read them before you start working through the unit. You may want to refer to them during your study of the unit to check on your progress. You should always look at the unit objectives after completing a unit. This is to assist you in accomplishing the tasks entailed in this course. In this way, you can be sure you have done what is required of you by the

unit. The objectives serve as study guides. At the end of the course, you should be able to:

- define macroeconomics as a field of study and know the basic macroeconomics concepts, as well as distinguish between microeconomics and macroeconomics
- explain the transition from microeconomics to macroeconomics analysis with various reasons macroeconomics analysis is important
- describe how macroeconomics works in an economy
- explain the terms and measurement of national income as well as the importance of national income and discuss the meaning of consumption and its components
- explain the meaning of savings and its components and investment and its components as well as the meaning of economic welfare and national income
- discuss the relationship between economic welfare and national income and to explain the meaning of money and the history of money with its characteristics, functions and types of money as well as the Keynesian motive of holding money
- trace the history of Nigeria banking system and the meaning of commercial bank and its functions as well as the growth and development of commercial banks in Nigeria
- explain merchant banking in Nigeria and to discuss the evolution of central bank in Nigeria and the world at large. However, to also state the functions of central bank as well as the relationship between central bank and the government
- describe the concept of personal consumption expenditure and to evaluate the concept of gross private domestic investment and net exports with the concept of government consumption and gross investment
- describe the concept of gross private domestic investment and the concept of net export and discuss how to measure gross private domestic investment and net exports
- explain the meaning and concept of government consumption and the national accounts measurement of government as well as to define the meaning and concept of gross investment
- explain the meaning and nature of aggregate demand and its curve and state the differences between short-run and long-run aggregate demand and supply
- explain the meaning and nature of aggregate supply and its curve and also to discuss the meaning aggregate supply-aggregate demand model
- describe the analysis of shifts in aggregate demand-aggregate supply in aggregate supply-aggregate demand model, to explain

the meaning of government spending and state reasons for increase in government spending

- discuss the meaning of government spending and to give the reasons for increase in government spending as well as to state how government spending is financed
- explain the meaning of government revenue and to state different types of taxation as a source of government revenue as well as to explain the use of attributes or principles of taxation
- give the meaning of government budget and the reasons for increase in government expenditure as well as to explain how government expenditure is financed
- give reasons for international trade and also state the basis or theory of international trade as well as the analysis of gain from trade
- explain the basis of terms of trade and understand the reason for international trade as well as the basis or theory of international trade
- describe the gain from trade and also the terms of trade.

WORKING THROUGH THE COURSE

To successfully complete this course, you are required to read the study units, referenced books and other materials on the course.

Each unit contains self-assessment exercises. At some points in the course, you will be required to submit assignments for assessment purposes. At the end of the course there is a final examination. This course should take about 15 weeks to complete and some components of the course are outlined under the course material subsection.

COURSE MATERIALS

The major component of the course, what you have to do and how you should allocate your time to each unit in order to complete the course successfully on time are listed follows:

1. Course Guide
2. Study Unit
3. Textbooks
4. Assignment File
5. Presentation Schedule

STUDY UNITS

There are seven modules broken into 21 units in this course which should be studied carefully and diligently. They include:

Module 1

Unit 1 Meaning of Macroeconomics
Unit 2 Differences between Microeconomics and Macroeconomics
Unit 3 Importance of Macroeconomics

Module 2

Unit 1 Meaning of National Income Analysis
Unit 2 Consumption, Savings and Investment
Unit 3 Economic Welfare and National Income

Module 3

Unit 1 Origins of Money
Unit 2 Financial Institution
Unit 3 Central Banking

Module 4

Unit 1 Personal Consumption Expenditure
Unit 2 Gross Private Domestic Investment and Net Exports
Unit 3 Government Consumption and Gross Investment

Module 5

Unit 1 Meaning and Nature of Aggregate Demand Curve
Unit 2 Meaning and Nature of Aggregate Supply Curve
Unit 3 Short-run and Long-run Aggregate Demand and Supply

Module 6

Unit 1 Meaning of Government Spending
Unit 2 Meaning of Government Revenue
Unit 3 Budget Analysis

Module 7

Unit 1 Analysis of International Trade
Unit 2 Gain from Trade
Unit 3 Net Export Function in the Open Economy

Each study unit will take at least two hours, and it includes the introduction, objective, main content, self-assessment exercises, conclusion, summary and references. Other areas border on the Tutor-Marked Assignment (TMA) questions. Some of the self-assessment

exercises will necessitate discussion, brainstorming and argument with some of your colleagues. You are advised to do so in order to understand and get acquainted with historical economic event as well as notable periods.

There are also textbooks under the reference and other (online and off-line) resources for further reading. They are meant to give you additional information if only you can lay your hands on any of them. You are required to study the materials; practice the self-assessment exercises and tutor-marked assignments for greater and in-depth understanding of the course. By doing so, the stated learning objectives of the course would have been achieved.

TEXTBOOKS AND REFERENCES

For further reading and more detailed information about the course, the following materials are recommended:

Ajayi, I. (2004). *Introduction to Monetary Policy* (2nd ed.). Lagos: IPM Publication Limited.

Ajayi, I. (2005). *Paper Presentation on Component of Goss Domestic Product*. Lagos: IPM Publication.

Ajayi, S. I. (1995). "The Role of Central Banks in Economic Development*." CBN Economic and Financial Review.* London: George Allen and Unwin. Vol. 33.

Ajayi, S. I. & Ojo, O. (1981). *Money and Banking, Analysis and Policy in the Nigerian Context*. London: George Allen and Unwin.

Ansari, M., Gordon, D. V. & Akuamoah, C. (1997). "Keynes Versus Wagner, Public Expenditure and National Income for Three African Countries." *Applied Economics,* 29, 543-550.

Awotu, G. & Davies, D. (2011). *The Debate between Microeconomics and Macroeconomics Analysis*. Lagos: Mill Wall Publication Limited.

Abdullah, H. A. (2000). "The Relationship between Government Expenditure and Economic Growth in Saudi Arabia." *Journal of Administrative Science,* 12 (2), 173-191.

Al-Yousif, Y. (2000). "Does Government Expenditure Inhibit or Promote Economic Growth, Some Empirical Evidence from Saudi Arabia." *Indian Economic Journal,* 48 (2).

Asertkerson, D. (2006). *Principle of Economics in a Large Economy* (1st ed.). Rose World Publication Limited.

Akinsanya, T. (2011). *Macroeconomics Theory* (2nd ed.). Makinon Publication Limited.

Amin, S., Arrighi, A. F. & Wallerstein, I. (1981). *Dynamics of Global Crisis.* New York: Monthly Review Press.

Amin, S. (1977). *Imperialism and Unequal Development*. New York: Monthly Review Press.

Brown, C. V. (2006). *The Nigeria Banking System*. London: George Allen and Unwin.

Chipman, J. S. & Moore, J. C. (1972). "Social Utility and the Gains from Trade." *Journal of International Economics*, 2 (72), 157.

Central Bank of Nigeria (1970). *Amendment, No 3 Decree 1969 as Amended by Banking Amendment Decree 1970.*

Central Bank of Nigeria (1959). *The Bye Laws of the CBN*. CBN Bulletin.

Central Bank of Nigeria (1979). *Twenty Years of Central Banking in Nigeria.*

CBN Bulletin Lagos, Nigeria. Central Bank of Nigeria (2001). *Banking Supervision Annual Report*. CBN Bulletin.

Falegan, S. B. (2005). *Central Bank Autonomy, Historical and General Perspective*. CBN Economic and Fundamental Review, Vol. 33, No 4.

Ewing, B., Payne, J., Thompson, M. & Al-Zoubi, O. (2006). "Government Expenditures and Revenues, Evidence from Asymmetric Modeling." *Southern Economic Journal*, 73 (1), 190-200.

Fasano, U. & Wang, Q. (2002). *Testing the Relationship between Government Spending and Revenue, Evidence from GCC Countries*. IMF Working Paper WP/02/201.

Friedman, M. (1978). The Limitations of Tax Limitation. *Policy Review, Summer*, 7-14.

Jhingan, M. L. (2004). *Monetary Economics* (6th ed.), Delhi, Indian: Vrinda Publication Limited.

Jhingan, M. L. (2004). *Savings and Interest Rate Analysis*, (6th ed.), Delhi, Indian: Vrinda Publication Limited.

Jhingan, M. L. (2004). *Macroeconomic Theory* (11th ed.). Delhi: Vrinda Publications Limited.

Karl, E. C., Ray, C. & Fair, A. (2005). *Principles of Economics* (6th ed.). Prentice Hall, Michael, W. (2008). *Macroeconomics Theory, a Dynamic General Equilibrium Approach.* Princeton University Press.

Medelling, F. (2010). *Macroeconomics Theory, a Broader Perspective.* Sawer Mills Press Limited.

Olusanya, S. O. (2008). *Introduction to Business Loan and Finance* (1st ed.). Lagos: Bolu Bestway Printers.

Olukoya, D. H. (2010). *Introduction to Macroeconomics Theory* (1st ed.). Lagos: Stop-Over Publication Limited.

Robert, H. F. & Bernanke, S. (2007). *Principles of Economics* (3rd ed.). McGraw-Hill Irwin.

Sanya, A. (2012). *Introduction to Macroeconomics Theory* (2nd ed.). Macmillan Press Limited.

Von Furstenberg, G. M. R., Green, J. & Jeong, J. H. (1986). *Tax and Spend, or Spend* (3rd ed.).

Yahyah, R. (2011). *Introduction to Macroeconomics Theory* (1st ed.). Landmark Publication Limited.

ASSIGNMENT FILE

Assignment file and marking scheme will be made available to you. This file presents you with details of the work you must submit to your tutor for marking. The marks you obtain from these assignments shall form part of your final mark for this course.

There are four assignments in this course. The four course assignments will cover:

Assignment 1 - All TMA questions in units 1 – 3 (Modules 1 and 2)
Assignment 2 - All TMA questions in units 1 – 3 (Modules 3 and 4)
Assignment 3 - All TMA questions in units 1 – 3 (Modules 5 and 6)
Assignment 4 - All TMA questions in units 1 – 3 (Modules 6 and 7).

ASSESSMENT

There are two types of the assessment of the course. First is the Tutor-Marked Assignments; second, is a written examination.

In attempting the assignments, you are expected to apply information, knowledge and techniques gathered during the course. The assignments must be submitted to your tutor for formal assessment in accordance with the deadlines stated in the Presentation schedule and the assignments file. The work you submit to your tutor for assessment will count for 30% of your total course mark.

At the end of the course, you will need to sit for a final written examination of three hours. This examination will also count for 70% of your total course mark.

TUTOR-MARKED ASSIGNMENTS

There are four tutor-marked assignments in this course. You will submit all the assignments. You are encouraged to work all the questions thoroughly. The TMAs constitute 30% of the total score.

Assignment questions for the units in this course are contained in the assignment file. You will be able to complete your assignments from the information and materials contained in your set books, reading and study units. However, it is desirable that you demonstrate that you have read and researched more widely than the required minimum. You should use other references to have a broader viewpoint of the subject and also to give you a deeper understanding of the subject.

When you have completed each assignment, send it, together with a TMA form, to your tutor. Make sure that each assignment reaches your tutor on or before the deadline given in the presentation file. If for any reason, you cannot complete your work on time, contact your tutor before the assignment is due to discuss the possibility of an extension. Extensions will not be granted after the due date unless there are exceptional circumstances.

FINAL EXAMINATION AND GRADING

The final examination will be of three hours and have a value of 70% of the total course grade. The examination will consist of questions which reflect the types of self-assessment exercises and tutor-marked assignments you have previously encountered. All areas of the course will be assessed.

Revise the entire course material using the time between finishing the last unit in the final module and sitting for the final examination. You might find it useful to review your self-assessment exercises, tutor-marked assignments and comments on them before the examination. The final examination covers information from all parts of the course.

PRESENTATION SCHEDULE

The presentation schedule included in your course materials gives you the important dates for the completion of tutor-marking assignments and attending tutorials. Remember, you are required to submit all your assignments by due date. You should guard against falling behind in your work.

COURSE MARKING SCHEME

The table presented below indicates the total marks (100%) allocation.

Assignment	**Marks**
Assignments (Best three assignments out of four that is marked)	30%
Final Examination	70%
Total	**100%**

COURSE OVERVIEW

The table presented below indicates the units, number of weeks and assignments to be taken by you to successfully complete the course, *Principles of Economics II*.

Units	Title of Work	Week's Activities	Assessment (end of unit)
	Course Guide		
Module 1 The Field of Macroeconomics			
1	Meaning of Macroeconomics	Week 1	Assignment 1
2	Differences between Microeconomics and Macroeconomics	Week 1	Assignment 1
3	Importance of Macroeconomics	Week 2	Assignment 1
Module 2 National Income Accounting			
1	Meaning of National Income Analysis	Week 2	Assignment 1
2	Consumption, Savings and Investment	Week 3	Assignment 1
3	Economic Welfare and National Income	Week 3	Assignment 1
Module 3 Money and Banking			
1	Origins of Money	Week 3	Assignment 2
2	Financial Institution	Week 4	
3	Central Banking	Week 4	Assignment 2
Module 4 Components of Gross Domestic Product			
1	Personal Consumption Expenditure	Week 5	Assignment 2
2	Gross Private Domestic Investment and Net Exports	Week 5	Assignment 2
3	Government Consumption and Gross Investment	Week 6	Assignment 2
Module 5 Aggregate Demand and Aggregate Supply			
1	Meaning and Nature of Aggregate Demand Curve	Week 7	Assignment 3
2	Meaning and Nature of Aggregate Demand Curve	Week 8	Assignment 3
3	Short-run and Long-run Aggregate Demand and Supply	Week 9	Assignment 3
Module 6 Government and the Economy			
1	Meaning of Government Spending	Week 10	Assignment 3
2	Meaning of Government Revenue	Week 11	Assignment 3
3	Budget Analysis	Week 12	Assignment 4
Module 7 Open Economy Macroeconomics			
1	Analysis of International Trade	Week 13	Assignment 4
2	Gain from Trade	Week 14	Assignment 4
3	Net Export Function in the Open Economy	Week 15	Assignment 4
	Total	**15 Weeks**	

HOW TO GET THE MOST FROM THIS COURSE

In distance learning the study units replace the university lecturer. This is one of the great advantages of distance learning; you can read and work through specially designed study materials at your own pace and at a time and place that suit you best.

Think of it as reading the lecture instead of listening to a lecturer. In the same way that a lecturer might set you some reading to do, the study units tell you when to read your books or other material, and when to embark on discussion with your colleagues. Just as a lecturer might give you an in-class exercise, your study units provides exercises for you to do at appropriate points.

Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit and how a particular unit is integrated with the other units and the course as a whole. Next is a set of learning objectives. These objectives let you know what you should be able to do by the time you have completed the unit.

You should use these objectives to guide your study. When you have finished the unit you must go back and check whether you have achieved the objectives. If you make a habit of doing this, you will significantly improve your chances of passing the course and getting the best grade.

The main body of the unit guides you through the required reading from other sources. This will usually be either from your set books or from a readings section. Some units require you to undertake practical overview of historical events. You will be directed when you need to embark on discussion and guided through the tasks you must do.

The purpose of the practical overview of some certain historical economic issues are in twofold. First, it will enhance your understanding of the material in the unit. Second, it will give you practical experience and skills to evaluate economic arguments, and understand the roles of history in guiding current economic policies and debates outside your studies. In any event, most of the critical thinking skills you will develop during studying are applicable in normal working practice, so it is important that you encounter them during your studies.

Self-assessments are interspersed throughout the units. Working through these tests will help you to achieve the objectives of the unit and prepare you for the assignments and the examination. You should do each self-assessment exercises as you come to it in the study unit. Also, ensure to

master some major historical dates and events during the course of studying the material.

The following is a practical strategy for working through the course. If you run into any trouble, consult your tutor. Remember that your tutor's job is to help you. When you need help, don't hesitate to call and ask your tutor to provide it.

1. Read this Course Guide thoroughly.
2. Organise a study schedule. Refer to the `Course Overview' for more details. Note the time you are expected to spend on each unit and how the assignments relate to the units. Important information, e.g. details of your tutorials, and the date of the first day of the semester is available from study centre. You need to gather together all this information in one place, such as your dairy or a wall calendar. Whatever method you choose to use, you should decide on and write in your own dates for working breach unit.
3. Once you have created your own study schedule, do everything you can to stick to it. The major reason students fail is that they get behind with their course work. If you get into difficulties with your schedule, please let your tutor know before it is too late for help.
4. Turn to unit 1 and read the introduction and the objectives for the unit.
5. Assemble the study materials. Information about what you need for a unit is given at the beginning of each unit. You will also need both the study unit you are working on and one of your set books on your desk at the same time.
6. Work through the unit. The content of the unit itself has been arranged to provide a sequence for you to follow. As you work through the unit you will be instructed to read sections from your set books or other articles. Use the unit to guide your reading.
7. Up-to-date course information will be continuously delivered to you at the study centre.
8. Work before the relevant due date (about 4 weeks before due dates), get the assignment file for the next required assignment. Keep in mind that you will learn a lot by doing the assignments carefully. They have been designed to help you meet the objectives of the course and, therefore, will help you pass the exam. Submit all assignments no later than the due date.
9. Review the objectives for each study unit to confirm that you have achieved them. If you feel unsure about any of the objectives, review the study material or consult your tutor.

10. When you are confident that you have achieved a unit's objectives, you can then start on the next unit. Proceed unit by unit through the course and pace your study so that you keep yourself on schedule.
11. When you have submitted an assignment to your tutor for marking do not wait for it return before starting on the next units. Keep to your schedule. When the assignment is returned, pay particular attention to your tutor's comments, both on the tutor-marked assignment form and also written on the assignment. Consult your tutor as soon as possible if you have any questions or problems.
12. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives (listed in this course guide).

TUTORS AND TUTORIALS

There are some hours of tutorials (2-hour sessions) provided in support of this course. You will be notified of the dates, times and location of these tutorials. Together with the name and phone number of your tutor, as soon as you are allocated a tutorial group.

Your tutor will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you might encounter, and provide assistance to you during the course. You must mail your tutor-marked assignments to your tutor well before the due date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible.

Do not hesitate to contact your tutor by telephone, e-mail, or discussion board if you need help. The following might be circumstances in which you would find help necessary. Contact your tutor if you:

- do not understand any part of the study units or the assigned readings
- have difficulty with the self-assessment exercises
- have a question or problem with an assignment, with your tutor's comments on an assignment or with the grading of an assignment.

You should try your best to attend the tutorials. This is the only chance to have face to face contact with your tutor and to ask questions which are answered instantly. You can raise any problem encountered in the course of your study. To gain the maximum benefit from course tutorials, prepare a list of questions before attending them. You will learn a lot from participating in discussions actively.

SUMMARY

The course, *Principles of Economics II*, exposes you to the field of macroeconomics, national income accounting of a country through various terms of national income such as gross domestic product, gross national product, net national product, personal income, disposable income, etc. This course also gives you insight into money and banking which discusses the issue of money such as its functions and the Keynesian motive of holding money and financial institutions was also examined. The course shield more light on the components of gross domestic product which includes personal consumption expenditure, gross private domestic investment and net export. However, government consumption and gross investment were also examined. Furthermore, the course shall enlighten you about the aggregate demand and aggregate supply both in the short and long run and it will also make you to know the differences between government spending/expenditure and government revenue as well as the budget analysis. Conclusively it analyses the international trade in an open economy such as gain from trade, net export function in the open economy.

On successful completion of the course, you would have developed critical thinking skills with the material necessary for efficient and effective discussion on macroeconomic issues: national income analysis, monetary issue, government expenditure and macroeconomics in open economy. However, to gain a lot from the course please apply anything you learn in the course to term papers writing in other economic development courses. We wish you success with the course and hope that you will find it fascinating.

MAIN COURSE

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MODULE 1

UNIT 1 MEANING OF MACROECONOMICS

CONTENTS

1.0 INTRODUCTION

We will start this unit by trying to know the meaning of macroeconomics. Therefore we start by saying that the term "macro" was first used in economics by Ragner Frisch in 1933, but it was only used as a methodological approach to economic problems, it originated with the mercantilists in the 16th and 17th centuries. However, if you may ask, they were concerned with the economic system as a whole. In the 18th century, the physiocrats adopted it in their *Tableau Économique* to show the 'circulation of wealth' (i.e. the net product) among the three classes represented by the farmers, landowners and the sterile class.

Malthus, Sismondi and Marx in the 19th century dealt with macroeconomics problems. Walras, Wicksell and Fisher were the modern contributors to the development of macroeconomic analysis before John Maynard Keynes. Economists such as Cassel, Marshall, Pigou, Robertson, Hayek and Hawtrey, developed a theory of money and general prices in the decade following the First World War, but the credit goes to John Maynard Keynes who finally developed a general theory of income, output and employment in the wake of the Great Depression of 1929.

In this unit, we will examine the subject matter. We shall also attempt to look at the similarities and differences between the two fields and also the importance of macroeconomics as a separate field of study.

2.0 OBJECTIVES

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

- define macroeconomics as a field of study
- explain the basic macroeconomics concepts.

3.0 MAIN CONTENT

3.1 Definition of Macroeconomics

Let us start this unit by first of all defining what macroeconomics is. Can you define macroeconomics? Macroeconomics studies the behaviour of the whole (aggregate) economy or economic systems rather than individual economic markets (which is the domain of microeconomics). It is concerned primarily with forecasting of national income, through the analysis of major economic factors that show predictable patterns and trends, and of their influence on one another. These factors include level of employment/unemployment, Gross National Product (GNP), balance of payments position, and prices (deflation or inflation). Macroeconomics also covers role of fiscal and monetary policies, economic growth, and determination of consumption and investment levels.

However, we can also define macroeconomics as the field of economics that studies the behaviour of the aggregate economy. Macroeconomics examines economy-wide phenomena such as changes in unemployment, national income, rate of growth of gross domestic product, inflation and price levels. Alternatively, macroeconomics is the branch of economics that studies the behaviour and performance of an economy as a whole.

Having defined macroeconomics in different ways, it can be said that it is concrete that macroeconomics is a study of "the big picture" in the economy. Rather than focusing on individual households and firms, it examines conditions within the economy as a whole. This is the most vital differences between micro and macroeconomics. In more technical terms, macroeconomics looks at the factors that influence aggregate supply and demand. Although macroeconomics has a much broader focus than microeconomics does, many macroeconomic factors are essential to making predictions and conclusions at the microeconomic level. For instance, knowing what the unemployment rate is at the national level can help a macroeconomist to predict future layoffs in a specific industry.

SELF-ASSESSMENT EXERCISE

What do you understand by the term macroeconomics?

3.2 Goal of Macroeconomics

(a) Full employment

Full employment has been ranked among the foremost objectives of macroeconomic goal. It is an important goal not only because unemployment leads to wastage of potential output, but also because of the loss of social standing and self-respect. Moreover, it breeds poverty.

According to Keynes, full employment means the absence of involuntary unemployment. In other words, full employment is a situation in which everybody who wants to work gets work. Full employment so define is consistent with frictional and voluntary unemployment. To achieve full employment, Keynes advocated increase in effective demand to bring about reduction in real wages. Thus, the problem of full employment is one of maintaining adequate effective demand. Keynes gave an alternative definition of full employment at another place in his *General Theory* thus: "it is a situation in which aggregate employment is inelastic in response to an increase in the effective demand for its output." It means that the test of full employment is when any further increase in effective demand is not accompanied by any increase in output. Since the supply of output becomes inelastic at the full employment level, any further increase in effective demand will lead to inflation in the economy. Thus, the Keynesian concept of full employment involves three conditions:

(i) Reduction in the real wage rate
(ii) Increase in effective demand
(iii) Inelastic supply of output at the level of full employment.

(b) Price stability

One of the goals of macroeconomics policy is to stabilise the price level. Both economists and laymen favour this policy because fluctuations in prices bring uncertainty and instability to the economy. Rising and falling prices are both bad because they bring unnecessary loss to some and undue advantage to others. Again, they are associated with business cycles. So a policy of price stability keeps the value of money stable, eliminates cyclical fluctuations, brings economic stability, helps in reducing inequalities of income and wealth, secures social justice and promotes economic welfare.

However, there are certain difficulties in pursuing a policy of stable price level. The first problem relates to the type of price level to be stabilised, should the relative or general price level be stabilised, the wholesale or retail, of consumer goods or producer goods? There is no specific criterion with regard to the choice of a price level. Economists suggest the compromise solution would be to try to stabilise a price level which would include consumers' goods prices as well as wages. But this will necessitate increase in the quantity of money but not by as much as is implied in the stabilisation of consumer's goods price.

Second, innovations may reduce the cost of production but a policy of stable prices may bring larger profits to producers at the cost of consumers and wage earners. However, in an open economy which imports raw materials and other intermediate products at high prices, the cost of production of domestic goods will rise. But a policy of stable prices will reduce profits and retard further investment. Under the circumstances, a policy of stable prices is not only inequitable but also conflicts with economic progress.

Despite these drawbacks, the majority of economists favour a policy of stable prices. But the problem is one of defining price stability. Price stability does not mean that prices remain unchanged indefinitely. Comparative prices will change as fluctuating tastes alter the composition of demand; as new products are developed and as cost reducing technologies are introduced. Differential price changes are essential for allocating resources in the market economy. However, since modern economies tend to exhibit fairly rigid downward inflexibility of prices, differential price changes can only be attained by gradual increases in the aggregate price level over the long-run. Further, prices may have to be changed if costs of imported goods increase or if taxation policy leads to the rise in the domestic cost of production. It should be noted that price stability can be maintained by following a counter-cyclical monetary policy, that is easy monetary policy during a recession and dear monetary policy during boom.

(c) Economic growth

One of the most important goals of macroeconomics objective in recent years has been the rapid economic growth of an economy. Economic growth is defined as *the process whereby the real per capita income of a country increases over a long period of time.* Economic growth is measured by the increase in the amount of goods and services in each successive time period. Thus, growth occurs when an economy's productive capacity increases which, in turn, is used to produce more goods and services. However, economic growth implies raising the standard of living of the people, and reducing inequalities of income

distribution. We all will agree that economic growth is a desire goal for a country. But there is no agreement over *the magic number* viz., the annual growth rate which an economy should attain.

Generally, economists believe in the possibility of continual growth. This belief is based on the presumption that innovations tend to increase productive technologies of both capital and labour over time. But there is very likelihood that an economy might not grow despite technological innovations. Production might not increase further due to the lack of demand which may retard the growth of the productive capacity of the economy. The economy may not grow further if there is no improvement in the quality of labour in keeping with the new technologies.

However, policy makers do not take into consideration the costs of growth. Growth is not limitless because resources are scarce in every economy. All factors have opportunity cost. To produce more of one particular product will mean reduction in that of the other. New technologies lead to the replacement of old machines which become useless. Workers are also displaced because they cannot be fitted in the new technological set up immediately. Moreover, rapid growth leads to urbanisation and industrialisation with their adverse effects on the pattern of living and environment. People have to live in squalor and slums. The environment becomes polluted. Social tensions develop. But growth has other more basic effect on our environment, and, today, people are not so sure that unrestricted growth is worth all its costs, since the price in terms of change in, deterioration of, or even destruction of the environment is not yet fully known. What does seem clear, however, is that growth is not going to be halted because of environmental problems and that mankind must learn to cope with the problem or face the consequences.

(d) Balance of payments

Another goal of macroeconomic objectives has been to maintain equilibrium in the balance of payments. The achievement of this goal has been necessitated by the phenomenal growth in the world trade as against the growth of international liquidity. It is also recognised that deficit in the balance of payment will retard the attainment of other goals. This is because a deficit in the balance of payments leads to a sizeable outflow of gold. But it is not clear what constitutes a satisfactory balance of payments position. Clearly, a country with a net debt must be at a surplus to repay the debt over a reasonably short period of time. Once any debt has been repaid and an adequate reserve attained, a zero balance maintained over time would meet the policy objective. But how is this satisfactory balance to be achieved on the

trading account or on the capital account? The capital account must be looked upon as fulfilling merely a short-term emergency role in times of crises.

Again, another problem relates to the question: what is the balance of payments target of a country? It is where imports equal exports. But, in practice, a country whose current reserves of foreign exchange are inadequate will have a mild export surplus as its balance of payments target. But when its reserve becomes satisfactory, it will aim at the equality of imports and exports. This is because an export surplus means that the country is accumulating foreign exchange and it is producing more than it is consuming. This will lead to low standard of living of the people. But this cannot last long because some other country must be having import surplus and in order to avoid it, it would impose trade restrictions on the export surplus country. However, the attainment of a balance of payment equilibrium becomes an imperative goal of macroeconomics policy in a country.

Finally, if the money supply is below the existing demand for money at the given exchange rate, there will be a surplus in the balance of payments. Consequently, people acquire the domestic currency by selling goods and securities to foreigners. They will also seek to acquire additional money balances by restricting their expenditure relatively to their income. The central bank, on its part, will buy excess foreign currency in exchange for domestic currency in order to eliminate the shortage of domestic currency.

SELF-ASSESSMENT EXERCISE

List and explain the goal of macroeconomics.

4.0 CONCLUSION

We can vividly say that macroeconomics is seen as the study of aggregates or average covering the entire economy, such as total employment, national income, national output, total investment, total consumption, total savings, aggregate supply, aggregate demand and general price level, wage level and cost structure.

5.0 SUMMARY

You have been able to learn what is the meaning of macroeconomics and the basic concepts of macroeconomics. The unit takes a look at macroeconomics as the aggregate or the average of the whole economy. The concept of macroeconomics deals with the whole economy and gives us a deep knowledge about individual household in the economy.

Therefore, at this juncture, I believe you must have learnt a lot from the unit on the meaning of macroeconomics analysis.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define the term macroeconomics and give a detail explanation on how it works in the economy.
2. Discuss the goal of macroeconomics policy in a country.

7.0 REFERENCES/FURTHER READING

Karl, E. C. & Ray, C. F. (2005). *Principles of Economics* (6th ed.). Prentice Hall.

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UNIT 2 THE DISTINCTION BETWEEN MICROECONOMICS AND MACROECONOMICS

CONTENTS

1.0 INTRODUCTION

In this unit, we shall make a clear distinction between microeconomics and macroeconomics. You may be thinking in your mind what could have been the differences between the two and whether they are even the same, but it is not so. Microeconomics to some school of thought is a branch of economics that deals with individual firms, their output and cost, the production and pricing of single commodities, wages of individuals, etc. while macroeconomics is seen as the branch of economics that deals with the relationship between large aggregates such as the volume of employment, the total amount of saving and investment, etc. Therefore, in this unit, we will critically discuss their differences in detailed with examples to distinguish them.

2.0 OBJECTIVES

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

- distinguish between microeconomics and macroeconomics
- explain the transition from microeconomics to macroeconomics analysis.

3.0 MAIN CONTENT

3.1 Difference between Microeconomics and Macroeconomics

Microeconomics is the study of individual economic units of an economy whereas macroeconomics is the study of aggregates of an economy as a whole. For example, when we study an individual sugar mill manufacturing firm, our study is micro analysis but if we study the entire sugar manufacturing sector of the economy, our study is macro analysis.

Also please note if we study the problem of production of a firm, our analysis is micro study but if we study the problems of production of the whole economy, our analysis is macro study. Both microeconomics and macroeconomics are inter-dependent and complementary.

The main difference between microeconomics and macroeconomics are as follows:

	Microeconomics	**Macroeconomics**
1.	It is the study of individual economic units of an economy.	It is the study of economy as a whole and its aggregates.
2.	It deals with individual income, individual prices and individual output, etc.	It deals with aggregates like national income, general price level and national output, etc.
3.	Its central problem is price determination and allocation of resources.	Its central problem is determination of level of income and employment.
4.	Its main tools are demand and supply of a particular commodity/factor.	Its main tools are aggregate demand and aggregate supply of economy as a whole.
5.	It helps to solve the central problem of what, how and for whom to produce in the economy	It helps to solve the central problem of full employment of resources in the economy.
6.	It discusses how equilibrium of a consumer, a producer or an industry is attained.	It is concerned with the determination of equilibrium level of income and employment of the economy.
7.	Price is the main determinant of microeconomic problems.	Income is the major determinant of macroeconomic problems.

SELF-ASSESSMENT EXERCISE

Differentiate between microeconomics and macroeconomics analysis.

3.2 Transition from Microeconomics to Macroeconomics

In this section, we will discuss the transition from microeconomics analysis to macroeconomics analysis.

However, both microeconomics and macroeconomics were used by both the classical and the neo-classical economists in their analysis. Marshall was the one that developed and perfected microeconomics as a method of economic analysis. More so, Keynes was the one that developed macroeconomics as a distinct method in economic theory. Therefore, the actual process of transition from microeconomics to macroeconomics started with the publication of Keynes's general theory.

Microeconomics is the study of economic actions of individuals and small groups of individuals. It includes particular households, particular firms, particular industries, particular commodities, individual prices, wages and incomes. Thus, microeconomics studies how resources are allocated to the production of particular goods and services and how efficiently they are distributed. But microeconomics studied in itself, and does not study the problem of allocation of resources to the economy as a whole. It is concerned with the study of parts and neglects the whole, for example according to economists, "description of a large and complex universe of facts like the economic system is impossible in terms of individual items." Thus, the study of microeconomics presents an imprecise picture of the economy. However, the orthodox economist, like Pigou, tried to apply microeconomic analysis to the problems of an economy. Keynes thought otherwise and advocated macroeconomics which is the study of aggregates covering the entire economy such as total employment, total income, total output, total investment, total consumption, total savings, aggregate supply, aggregate demand, and general price level, wage level and cost structure. For understanding the problems facing the economy, Keynes adopted the macro approach which brought about the transition from micro to macro.

Microeconomics also assumes the total volume of employment as given and studies how it is allocated among individual sectors of the economy.

But Keynes rejected the assumption of full employment of resources, especially of labour. From the macro angle, he regarded full employment as a special case. The general situation is one of underemployment. The existence of involuntary unemployment of

labour in capitalist economies proves that underemployment equilibrium is a normal situation and full employment is abnormal and accidental.

Keynes refuted Pigou's view that a cut in money wage could eliminate unemployment during a depression and bring about full employment in the economy. The fallacy in Pigou arguments was that he extended the argument to the economy which was applicable to a particular industry.

Reduction in money wage rate can increase employment in an industry by reducing its cost of production and the price of the product thereby raising its demand. But the adoption of such a policy for the economy leads to a reduction in employment. When money wages of all workers in the economy are reduced, their incomes are reduced correspondingly. As a result, aggregate demand falls leading to a decline in employment in the economy as a whole.

Microeconomics takes the absolute price level as given and concerns itself with relative prices of goods and services. The way the price of a particular commodity likes rice, tea, milk, fan scooter, etc. is determined. The ways the wages of a particular type of labour, interest on a particular type of capital asset, rent on a particular land, and profits of an individual entrepreneur are determined. But an economy is not concerned with relative prices but with the general level prices. And the study of the general level prices falls within the domain of macroeconomics. It is the rise or fall in the general price level that leads to inflation, and to prosperity and depression. Prior to the publication of Keynes's General Theory economists concerned themselves with the determination for relative prices and failed to explain the causes of inflation and deflation or prosperity and depression. They attributed the rise or fall in the price level to the increase or decrease in the quantity of money. Keynes, on the other hand, showed that deflation and depression were caused by the deficiency of aggregate demand, and inflation and prosperity by the increase in aggregate demand. It is thus the rise or fall in aggregate demand which affects the general price level rather than the quantity of money.

SELF-ASSESSMENT EXERCISE

Discuss the view of the classical and neo-classical economists on the transition from microeconomics to macroeconomics.

4.0 CONCLUSION

In conclusion, the transition from microeconomics to macroeconomics has been the views of classical and the neo-classical economists on both the micro and macro level of the economy. We can then conclude that as micro economists made their view about the economy, the macro economists also made their own view too about the economy.

5.0 SUMMARY

In this unit, you have been able to learn the views of classical and neo-classical economists about the economy in small and large dimension. The unit takes us to the level of comparison of both the micro and macro economist about the economy. However, it is believed that you must have read through the discussion of the two views and must have learnt a lot about the microeconomics and macroeconomics analysis.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the transition of microeconomist to macroeconomist of classical and neo-classical economists.
2. Differentiate between classical and neo-classical economists.

7.0 REFERENCES/FURTHER READING

Sanya, A. (2012). *Introduction to Macroeconomics Theory* (2nd ed.). Macmillan Press Limited.

Jhingan, M. L. (2004). *Macroeconomics Theory* (11th ed.). Delhi, Indian: Vrinda Publication Limited.

UNIT 3 IMPORTANCE OF MACROECONOMICS AS A SEPARATE FIELD OF STUDY

CONTENTS

1.0 INTRODUCTION

This unit examines how important macroeconomics is to the generality of the whole economy. You may want to ask the question, "Of what importance is macroeconomics in a country?" However, the question may require lot of thinking and you may end up listing a lot of point on the importance of macroeconomics analysis. So let us start by saying that macroeconomic theory is important for several reasons, and some of such reasons are: it provides us with tools by which we can judge the performance of an economy. We can also say that the performance of an economy is judged by the Gross National Product (GNP) of the economy and it is generally assumed that the objective of the government in any country is to raise the material well being of the country. Now the question is how to define the material well being of the country. These questions are discussed in welfare economics which forms a part of macroeconomic theory. This unit will take you through why macroeconomics analysis is so importance in a country.

2.0 OBJECTIVES

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

- state why macroeconomics analysis is important
- describe how macroeconomics works in an economy.

3.0 MAIN CONTENT

3.1 Importance of Macroeconomics

The study of macroeconomics is indispensable for understanding the workings of the economy. Our main economic problems are related to the behaviour of total income, output, employment and the general price

level in the economy. The variables are statistically measurable thereby facilitating the possibilities of analysing the effects on the functioning of the economy. It gives a bird eye view of the economic world.

For the formulation of useful economic policies for the nation, macro-analysis is of the utmost significance; economic policies cannot be obviously based on the fortunes of a single firm or even industry or the price of individual commodity.

The Keynesian theory of employment suggested that increasing total investment, total output, total income and total consumption should raise unemployment caused by deficiency of effective demand. Thus, macroeconomics has special significance in studying the causes, effects and remedies of general unemployment.

The study of macroeconomics is very important for the evaluation of overall performance of the economy in terms of national income. National income data helps in forecasting the levels of economic activity and to understand the distribution of income among different groups of people in the economy.

It is in terms of macroeconomics that monetary problems can be analysed and understood properly. Frequent change in the value of money, inflation or deflation, affect the economy adversely. Adopted monetary, fiscal and direct control measures for the economy as a whole can counteract them.

We may conclude that macroeconomics enriches out knowledge of the functioning of an economy by studying the behaviour of national income, output investment, saving and consumption. Moreover, it throws much light in solving the problems of unemployment, inflation, economic instability and economic growth.

SELF-ASSESSMENT EXERCISE

List and explain five importance of macroeconomics.

4.0 CONCLUSION

In this unit it was seen that macroeconomics study the economy in a large dimension unlike the microeconomics. It also deals with aggregates like national income, general price level and national output.

5.0 SUMMARY

We have learnt in this unit that macroeconomics is very crucial and represent the key to any nation's economy. However, macroeconomics has brought about the dissection of the economy and this has helped a lot of economist experts in understanding the economy better.

6.0 TUTOR-MARKED ASSIGNMENT

1. List and explain importance of microeconomics and macroeconomics.
2. Discuss in details the importance of macroeconomics.

7.0 REFERENCE/FURTHER READING

Olukoya, D. H. (2010). *Introduction to Macroeconomics Theory*. Lagos: Stop-over Publication Limited.

MODULE 2

Unit 1 Meaning of National Income Analysis
Unit 2 Consumption, Savings and Investment
Unit 3 Economic Welfare and National Income

UNIT 1 NATIONAL INCOME ANALYSIS

CONTENTS

1.0 INTRODUCTION

National income accounting is a term used in economics to refer to the bookkeeping system that a national government uses to measure the level of the country's economic activity in a given time period. Such records include total revenues earned by domestic corporations, wages paid to foreign and domestic workers, and the amount spent on sales and income taxes by corporations and individuals residing in the country.

National income accounting provides economists and statisticians with detailed information that can be used to track the health of an economy and to forecast future growth and development. Although national

income accounting is not an exact science, it provides useful insight into how well an economy is functioning, and where money are being generated and spent.

2.0 OBJECTIVES

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

- explain the term and measurement of national income
- state the importance of national income
- describe the different methods of national income accounting.

3.0 MAIN CONTENT

3.1 Concept of National Income

National income has several concepts that are interrelated, they include: Gross Domestic Product (GDP), Gross National Income (GNP), Net National Product (NNP), Net National Income (NNI), Disposable Income (DI), Real Income (RI), GDP at factor cost, and GDP at market price, etc.

3.1.1 Gross Domestic Product (GDP)

The gross domestic product is the summation of all the values of goods and services produced in a country by the nationals and non-nationals. It does not include incomes and property earnings of the nationals abroad neither does it exclude the incomes and property earnings of the non-nationals in the country.

Gross domestic product is the market value of all the final goods and services that are produced in a country during a given period of time, usually in a year by all factors of production located within a country. Moreover, let us explain the points in the definition. The key words are **"market value"**, "**final goods and services**", "**produced within a country during a given period of time.**"

i. Market value

Gross domestic product or national income is an aggregation of the market values of all the goods and services produced in the economy in a given period. You should note that goods and services that are not sold in the markets such as unpaid house works are not counted in GDP. Important exceptions in this regard are goods and services provided by the government (they do not have market value) which are included in GDP as the government's cost of providing them.

ii. Final goods and services

In this case, we should note that not all goods and services that have a market value are counted in GDP. GDP includes only those goods and services that are the end product of the production process which are called final goods and services.

Many goods are used in the production process. For example, in order for a producer to produce a yam flour, yam must be planted and harvested, the yam must thereafter be peeled, dried, to have a dried yam and then grinded to become yam flour. Out of the process as mentioned earlier, that are used in the production of the yam flour, it is only the yam flour that is used by the consumers, since the production of the yam flour is the ultimate aim of the process, and the yam flour is therefore called a final good.

It can therefore be seen that a final good or service is the end product of the production process, or the product or service that consumers actually use. The goods and services produced in the process of making the final product (in our example, the yam and the dried yam) are called intermediate goods and services.

Since we are only interested in measuring items that are of direct economic value, only final goods and services are therefore included in the calculation of GDP. Intermediate goods and services which are used up in the production of final goods and services are not counted.

It should however be noted that some goods can either be intermediate or final. A special type of good that is difficult to class as intermediate or final is a capital good. A capital good is a long-lived good which is itself produced and used in producing other goods and services, e.g., factories, equipment and machines. Capital goods do not fit into the definition of final goods since their purpose is to produce other goods.

Also, they are not intermediate goods, because they are not used up during the production process except over a very long period of time. Thus, for the purpose of measuring GDP, economists have agreed to classify newly produced capital goods as final goods so as to avoid double counting.

To illustrate the distinction between final goods and intermediate goods, let us consider the following examples:

Illustration 1

Suppose that a bag of grain has a market value of ₦25 (twenty five naira, the price the milling company paid for the grain). If the grain then is milled into flour, which has a market value of ₦50.00 (the price the baker paid for the flour). The flour is then made into a loaf of bread worth ₦150.00 in the market.

In calculating the contribution of these activities to GDP, we cannot add together all the values of the grain, flour and bread, this is because the grain and flour are only intermediate goods used in the production of bread. So, the total contribution to GDP is ₦150.00 which is the market value of the loaf of bread, the final product.

Illustration 2
A tailor charges ₦1,000.00 for each cloth that she makes. The tailor pays her shop apprentice ₦100.00 per cloth made in return for sweeping the floor and other chores. For each cloth sown, what is the total contribution of the tailor and her apprentice to GDP?

Answer:
The answer to this question is simply ₦1,000.00 which is the market value of each cloth sown. This service is counted in GDP because it is the final service, the one that actually has value to the final user. The services the apprentice provided are intermediate services and have value only because the services contributed to the production of the making of the cloth; thus, they are not counted in GDP.

As earlier pointed out, intermediate goods are not counted in GDP to avoid double counting. Double counting can also be avoided by counting only the value added to a product by each firm in the production process.

Illustration 3
A farmer produces ₦1,000 worth of cattle milk. He sold ₦300 worth of milk to his friends and uses the rest of the milk to feed his livestock, which he at the end sold to his friends for ₦1,500. What is the farmer's contribution to GDP?

Answer:
The milk the farmer produced serves as an intermediate good and part as a final good. The ₦700 (₦1,000 minus ₦300) worth of cattle milk that was fed to the livestock is an intermediate good, thus, it is not counted as part of GDP. Whereas, the ₦300 worth of cattle milk sold to his friend is a final good. So, it is counted. Thus, final goods in the examples above are the ₦300 worth of cattle milk and the ₦1,500 worth of livestock that the farmer sold to his friend. Add ₦300 to ₦1,500 equals ₦1,800 which is the farmer's contribution to GDP.

As earlier pointed out, intermediate goods are not counted in GDP to avoid double counting. Double counting can also be avoided by counting only the value added to a product by each firm in the production process; the value added method would be explained later in the course of the study.

iii. Produced within a country during a given period

The word 'domestic' used in the definition of gross domestic product, tells us that GDP is a measure of economic activities within a given country. Therefore, only goods and services produced within the country's borders are counted. For example, the GDP of Nigeria includes the market value of all goods and services produced within the Nigerian borders even if they are made in foreign-owned industries or are produced by foreigners. Also, goods and services produced in Ghana by a Nigerian based company like Globacom, etc. are not counted. In addition, only goods and services produced during the current year, or the portion of the value produced during the current year, are counted as part of the current year's GDP.

The output produced by Nigerians abroad for example, Nigerian citizens working for a foreign company is not counted in Nigeria's GDP because the output is not produced within Nigeria. In the same vein, profits earned abroad by Nigerian companies are not counted in Nigeria's GDP. However, the output produced by foreigners working in Nigeria is counted in Nigeria's GDP because the output is produced within Nigeria. Also, profits earned in Nigeria by foreign-owned companies are counted in Nigeria's GDP. For example, while the output of foreigners working in Shell, Exxon, Mobil, etc. are counted as part of GDP, output produced by Nigerians abroad are not counted.

Illustration 4

Suppose a 10 year old house is sold to Mr. Olusanya Samuel for ₦5 million and Mr. Abdulrahoof Bello pays the real estate agent in charge of the sales a commission of one per cent which is ₦50,000 (1/100 x ₦5 million). The contribution of this economic activity to GDP is only ₦50,000. Generally, purchases and sales of existing assets such as old houses or used cars, do not contribute to the current year's GDP.

Since the house was not produced during the current year, its value (₦5 million) is not counted in this year's GDP. This is so because the value of the house has already been included in the GDP 10 years ago which was the year the house was built. However, the ₦50,000 will be included in GDP because the ₦50,000 fee paid to the real estate agent represents the market value of the agent's services in helping Mr.

Olusanya Samuel to find and purchase the house. Since these services were provided during the current year the agent's fee is counted in the current year's GDP.

The following goods and services are not included in the calculation of GDP:

a. Goods and services that have no market value are not included in GDP because it would be impossible to have a correct estimate of their market prices. Such goods and services that have no market value include those rendered free of charge. Examples include the bringing up of a child by the mother, songs recited to friends by a musician, etc.
b. Intermediate goods and services are not included in GDP. This is because many of the intermediate goods pass through a number of production stages or processes before they are finally purchased or consumed. If these products are now counted at every production stage, they would be included many times in GDP leading to the problem of double counting, and as a result, the GDP would increase or be overstated. Therefore, to avoid double counting, only the market value of the final products and not the intermediate products should be included in GDP.
c. The transactions that do not arise from current year product or which do not contribute in any form to production are excluded in GDP. Thus, the sale and purchase of old goods, fairly used goods, and of shares, bonds and assets of existing companies are all excluded in GDP because they do not make any addition to national product, and the goods are simply transferred.
d. Likewise, transferred payments (monies that you do not work for) such as payments received under social security e.g., unemployment insurance allowance, scholarship, bursary, gifts and bequests, old age pension, and disability pension are also not included in GNP because the recipients do not provide any service for them.
e. The profits earned or losses incurred on account of changes in capital assets as a result of the fluctuations in market prices are not included in GDP if and only if they are not responsible for the current year's production or current year's economic activity. For example, if the price of a house increases due to inflation, the profit earned by selling such a house will not be part of GDP, but if a portion of the house is constructed anew during the current year, the increase in the value of the house (after deduction of the cost of the newly constructed portion) will be included in GDP.
Similarly, variations in the value of assets which can be ascertained beforehand and that are therefore insured against uncertainties such as flood, fire, etc., are not include in GDP.

Note however that the depreciation of machines, plants and other capital goods is not deducted from GDP.

f. Income earned through illegal activities such as smuggling, drug trafficking, children trafficking, prostitution, etc. are not included in GDP. Also, goods sold in the black market, are excluded although they are priced (they have market value) and fulfill the needs of the people but from the social point of view, they are not useful, and thus, the income received from their sales and purchases is always not included in GDP.

There are several reasons for the exclusion of illegal activities and black market transactions from GDP. First, it is uncertain whether or not these products were produced during the current year or the preceding years. Secondly, many of the products involved in smuggling are foreign made products and are smuggled into the country; thus, are not included in GDP because they are not produced within the border of the domestic country.

Problem of computation of GDP

1. Problem of double counting or multiple counting: This problem arises when applying the output-expenditure method to estimating national income. If we add the market value of the output of all firms we would obtain a total that is greatly in excess of the value of output actually available to consumers (households). To avoid this difficulty, national income accountant use the value of the firm's output less the value of the inputs purchased from other firms. Therefore, a firm's output is defined as the value-added. The summation of all the value added would give the value, of all the goods and services produced in the economy. This allows us to differentiate between intermediate product and final product. Intermediate products are goods used as inputs in a further stage of production while final products are the outputs of the economy after eliminating double counting.
2. The problem of definition of conceptual variables: That is, the problem, of deciding what to include in the national income accounting and what not to include. For example, the exclusion of the services of full housewives in shopping and performing other domestic works and the recognition given to it when performed by a paid house maid in national income accounting.
3. The problem of owner-occupier properties: This is somehow related to the second problem highlighted above in the sense that it bothers on what to include or what not to include in the national income estimate. The practice is to put a value representing the normal rent which the owner could have paid had the property been let.

4. The distinction between receipts and payments of income and transfer payments.
5. Statistical problems: The problem of information or data collection, collation and analysis. Often, inadequate information would lead to errors in national income accounts.
6. Problems of treating depreciation: The way depreciation is recognised and treated vary from one firm to another, because there are many methods of calculating this depreciation and all of them give different values.

3.1.2 Gross National Product (GNP)

Gross national product is the market value of all goods and services produced by all the nationals (citizens) of a given country, irrespective of whether they reside within the domestic country or abroad. It includes the output or income of only the citizens of country resident in the domestic country, as well as the output or income of the citizens of a country who are abroad. The income of citizens of a country living abroad is termed factor income from the rest of the world. Unlike GDP, it excludes the output foreigners residing in the domestic country. Thus, it subtracts the income of the foreigners living in the domestic country that is called payments of factor income to the rest of the world.

GNP therefore takes account of three components which are the income or output of citizens of a country residing in the country (GDP), the income or output of citizens residing abroad (factor income from the rest of the world) and excludes the income or output of foreigners residing in the domestic country (factor income to the rest of the world).

Because GNP considers only the output of nationals of a country, GNP is therefore GDP plus receipts of factor income from the rest of the world less the payments of factor income to the rest of the world. Where the difference between the receipts of factor income from the rest of the world and the payments of factor income to the rest of the world is termed net factor income from abroad (Nf). GNP is therefore GDP plus net factor income from abroad: GNP = GDP + (Nf).

3.1.3 Net National Product (NNP)

It can be recalled that GNP includes the value of the total output of a country. In the production of these output or goods, capital goods such as machineries, equipments, etc. are used. Some of these equipment wear out, their components are damaged or destroyed, and others become obsolete (out of fashion) through technological improvement. All these are termed depreciation or capital consumption allowance. In essence, fixed capital is subject to depreciation.

To calculate NNP, we subtract depreciation from GNP because the word 'net' refers to the exclusion of the part of total output that has depreciated. Thus, Net National Product is Gross National Product minus Depreciation, that is,
NNP = GNP – D

3.1.4 Domestic Income

This is similar to GDP but is particular about income earned on the output produced. Domestic income is the income earned or generated by all the factors of production (land, labour, capital, entrepreneurship) within a given country from its own resources. Domestic income includes: (i) wages and salaries earned by labour; (ii) rent, including imputed house rents earned by land; (iii) interest on capital; (iv) dividends; (v) undistributed corporate profits including the surpluses of public sector undertakings; (vi) other incomes consisting of profits of unincorporated firms, partnerships, self-employed, and (vii) direct taxes.

Domestic income does not include the income earned abroad and so, it is the difference between National Income and Net Factor income earned from abroad.

Domestic Income = National Income – Net Factor income earned from abroad.

$$DI = NI - Nf$$

Note however that Net income earned from abroad can be positive or negative. It is positive if income earned on exports is greater than the payment made on imports. In this case, national income will be greater than domestic income. Whereas, if payments made on imports exceed the receipts from exports, net income earned from abroad will be negative, thus domestic income will be greater than national income. Note that domestic income can also be gross or net.

3.1.5 Personal Income

This is the total income received by the individuals of a country from all sources in one year before it is subjected to direct taxes.

Per Capita Income/GDP Per Capita
Per capita income is defined as the ratio of a country's income to its population, while GDP per capita is defined as the ratio of a country's GDP to the population of the country. Per Capita GDP or per capita income gives the value of the average income per person in the country. If the value is high, it shows that the standard of living of an average person is high, and if the value is low, it indicates that the standard of living per head is low.

$$\text{Per Capita Income} = \frac{\text{National Income}}{\text{Total Population}}$$

$$\text{Per Capita GDP} = \frac{\text{GDP}}{\text{Total Population}}$$

3.1.6 Disposable Income (DI)

Disposable Income or personal disposable income is the actual income which an individual spent on consumption. It is the income that remains after direct taxes have been deducted from one's personal income. Thus, Disposable Income = Personal Income – Direct Taxes.

3.1.7 Nominal versus Real GDP

To make justice to these two terms, gross domestic product of a country may rise or fall due to an increase or decrease in prices. The rise or fall of the gross domestic product may, however, not be real. That is, gross domestic product might not increase or fall in the real sense. To guide against erring on this account, real gross domestic product has to be calculated. Real gross domestic product is calculated using the prices of goods and services that prevailed in a base year rather than in the current year. Real gross domestic product is nominal gross domestic product that has been adjusted for inflation. In other words, inflation has been removed or taken care of in real gross domestic product. Thus, comparisons of economic activities at different times should be done using real gross domestic product and not nominal gross domestic product because using nominal gross domestic product to compare economic activities at two or more different points in time may give a misleading answer.

Nominal GDP is the GDP measured in the current market prices of the goods and services. In other words, it is calculated using current year prices. It can increase or decrease, but it does not tell us if the increase or decrease is as a result of rise or fall in inflation or price level. It is also called GDP at market or current prices. On the other hand, real GDP is called GDP at constant prices.

Illustration 5
Let us assume that Nigeria produces only two commodities: Rice and Yam. The prices and quantities of these two goods in 1990 and 1991 are presented in table 1.

Table 1: Prices, Quantities and GDP in 1990 and 1991

Year	Quantity of Rice	Prices of Yam (₦)	Quantity of Yam	Price of Yam (₦)
1990	20	5	30	4
1991	40	10	60	5

a. Calculating nominal GDP

If we calculate GDP in each of the two years as the market value of production, then,
GDP for 1990 = (20 bags of rice x 5) + (30 bags of yam x 4)
= **₦220**

GDP for 1991 = (40 bags of rice x 10) + (60 bags of yam x 5)
= **₦700**

These values (₦220 and ₦700) are referred to by the economists as GDP valued at current year prices or nominal GDP. If we compare GDP for 1990 with GDP for 1991, we might conclude that the GDP in 1991 is 3.3 times greater than 1990 GDP, that is (700 > 220).

As shown from the example, if we want to use GDP in comparing economic activity at different point in time, there is need to exclude the effects of price changes that is, we need to adjust for inflation.

To adjust for inflation, economists usually use a common set of prices to value quantities produced in different years. A particular year when prices are normal or stable is called the base year is usually selected, and the price from that year is then used in calculating the market value of output. Thus, real GDP is calculated using the prices from a base year; rather than the current year's prices.

b. Calculating real GDP

Still using the data contained in table 1, and assuming 1990 as the base year, the real GDP for years 1990 and 1991 can be calculated. Here, with real GDP, we are interested in knowing by how much real output grew between 1990 and 1991.

Solution:

To calculate Real GDP for 1991, the quantities produced in 1991 must be valued using the prices in the base year (1990)

1991 real GDP = (1991 quantity of rice x 1990 price of rice + ((1991 quantity of yam x 1990 price of yam)

= (40 x 5) + (60 x 4)

= ₦**440**

However, the real GDP for 1990 equals year 1990 quantities valued at base year prices. Since the base year is year 1990, therefore the real GDP for 1990 equals (year 1990 quantities valued at year 1990 prices which are the same as nominal GDP for 1990. Moreover, in the base year, real GDP and nominal GDP are the same.

Furthermore, having known how to determine the real GDP, we can now determine how much real production has actually grown over the two years period. Since real GDP was 220 in 1990 and 440 in 1991, we can clearly see that the physical volume of production doubled between 1990 and 1991. This conclusion makes good sense as we can see in table 1 that the production of both rice and yam exactly doubled over the two years period. In sum, using real GDP, we have eliminated the effects of price changes and have gotten a reasonable measure of the actual change in physical production over the two years period.

3.1.8 GDP at Factor Cost

We can find terms like GDP at factor cost in National Income accounting. GDP at factor cost is the sum of the monetary value of all goods and services produced by the factors of production or the income accruing to the various factors of production in one year in a country.

SELF-ASSESSMENT EXERCISE

Write short notes on the following:

(i) Gross Domestic Product
(ii) Gross National Product

(iii) Net National Product
(iv) Domestic Product
(v) Personal Income
(vi) Disposable Income
(vii) Nominal vs Real Gross Domestic Product.

3.2 Importance of National Income Accounting

1. National income is used to records the transactions that take place in the economy as whole, and information can be derived about the annual income of that country, how it generated, distributed and expended, how the wealth of the nation is being built up, etc.
2. The information obtained in a national income account provides a basis for national economic policies. It also helps the government in an attempt to maintain economic stability and prosperity and ensure an efficient distribution of economic resources as well as balanced growth.
3. The working of an economy depends on the availability of data about aggregate transactions recorded in the national income accounts. National income accounts are designed to reveal the significant relationship between the aggregates of transactions, which play important roles in the theory of the determination of the level of economic activity such as consumption investment, general price level, etc.
4. It is useful in the study of business fluctuations and economic policies generally.
5. The analysis of a well prepared national income account will help in understanding the complex system in the economy like changes in the structure of assets and commodity prices.
6. National income account provides an insight into how and why an economy functions the way it does. This is considered important because it provides us with a greater insight into the interdependency of different sectors of the economy.
7. It is a good instrument for the policy makers both in the domestic and international sectors because decisions are usually based on past records.
8. Comparisons of the changes in the components of the economy over time and across the frontiers are made possible only by the estimates in the national income accounts.
9. It is used to forecasts about the future of an events and it can also be used to analyse what changes are likely to occur in the economy either as a consignment of or independently of economic and political policies.

SELF-ASSESSMENT EXERCISE

Explain the importance of national income accounting.

3.3 Measuring GDP

There are three basic approaches to the measurement of GDP. These are: the value-added approach, the income approach and the expenditure approach.

3.3.1 The Value-Added Approach

Value-added method is used when the value of final good and services produced in the economy are added together, of particular period usually a year. On the other hand, it can be measured by estimating only the net values of output (value-added) at every stage of production in the economy during the course of the year.

The value added by any given firm equals the market value of its product or services minus the cost of the inputs the firm purchased from other firms. The summing-up of the value added by all firms (including the producers for both intermediate and final goods and services) gives the same result as simply adding together the value of all final goods and service. The major advantage of the value added approach is that it eliminates the problem of dividing the value of a final good or services between two periods and thus, prevents the double counting problems.

Let us now illustrate the value added method by using the following example: let us assume that in the production of yam flour we have already determined that the total contribution of the production process to GDP is ₦200.00, which is the value of the yam. It can be shown that we can get the same answer (₦200.00) by summing up the value added.

Suppose that bread baking is the ultimate product of these three firms (Yoyo Grain Company produces grain; Sam Flour produces flour; and Ikoyi Bread Bakery produces the bread). Given the market value of the grain, the flour and the bread, what is the value added by each of these three companies?

Solution:
Value added for any firm is the market value of its product or service minus the cost of inputs purchased from other firms. So, for these three firms, their value added can be calculated thus:

Obaka Grain Company
Obaka Grain Company produces ₦5.00 worth of grain using no inputs from other companies. Since it purchased no input from other companies, therefore, the cost of inputs purchased is zero naira. Obaka's value added is therefore ₦5.00 [which is the market value of its product less the cost of inputs purchased]. Thus, Obaka Grain Company's Value added = ₦5.00 – ₦0.00, that is, ₦5.00.

Olusanya Flours Company
Olusanya flour purchased ₦5.00 worth of (input) grain from Obaka and used it to produce ₦15.00 worth of flour. The value added by Olusanya flours company is thus the market value of its product (₦15.00) less the cost of the inputs it purchased (₦5.00), which gives ₦10.00. That is, ₦15.00 – ₦5.00 = ₦10.00.

Jelili Bread Making Firm
Finally, Jelili bread making firm buys ₦15.00 worth of flour from Olusanya flours and used it to produce ₦30.00 worth of bread. So, the value added by Jelili bread making firm is the market value of its product minus the cost of inputs it purchased from Olusanya flours Company. That is, Jelili Bread Making Firm's value added = 30.00 – 15.00 = ₦15.00. The total value added by all the firms is 5 + 10.00 + 15.00 = ₦30.00. However, it should be noted that the summation of the value added by each company gives the same answer as the method of calculation of final goods and services that is shown in the first illustration. Thus, summing the value added by all the firms in the economy gives the total value of final goods and services, or GDP.

Table 2: Analysis of Value Added in Bread Production

Company	Market Value of Products (₦)	Cost of Purchasing Inputs (₦)	Value Added (₦)
Obaka Grain	5	0	5
Olusanya Flours	15	5	10
Jelili Bread	30	15	15

3.3.2 The Income Approach

The income approach to the calculation of GDP measures GDP in terms of who receives it as income.

According to this approach, national income is the sum of eight income items which are compensation of employees, proprietors' income, rental income, corporate profits, net interest, indirect taxes minus subsidies, net business transfer payments, surplus of government enterprises.

Table 3: Illustration of National Income

National Income (NI)	Million Naira (₦'m)
Compensation of Employees	xxx
+ Proprietors' Income	xxx
+ Rental Income	xxx
+ Corporate Profits	xxx
+ Net Interest	xxx
+ Indirect Taxes minus Subsidies	xxx
+ Net Business Transfer Payments	xxx
+ Surplus of Government Enterprises	xxx
= National Income	**xxxx**

However, it should be noted that NI is the total income of the country but it is not quite GDP. The NI is GDP less net factor income from abroad (which is equal to GNP) less depreciation (which is equal to NNP) less statistical discrepancy. This is illustrated in table 4.

Table 4: Illustration of GDP, GNP, NNP and National Income

National Income	Million Naira (₦'m)
GDP	xxx
Plus: Receipts of factor income from the rest of the world	xxx
Less: Payments of factor income to the rest of the world	(xxx)
Equals: GNP	xxx
Less: Depreciation	(xxx)
Equals: Net National Product (NNP)	xxx
Less: Statistical Discrepancy	(xxx)
Equals: National Income	**xxxx**

The NI is the income of the country's citizens and not the income of the residents of the country and therefore, we need to move from GDP to GNP. After subtracting depreciation from GNP, what we get is called net national product (NNP). The NNP and NI are the same except for a statistical discrepancy (data measurement error), which may lead to differences between the two. If the government is absolutely accurate in its data collection, this statistical discrepancy would be zero. However, data collection is not perfect and the statistical discrepancy is the measurement error in each period. Therefore, NI is NNP less statistical discrepancy.

3.3.3 The Expenditure Approach

It should be noted that the expenditure approach measures the total value of all, expenditures on goods and services by individual private

businesses and public sector (governments) in a particular period of time. In order to avoid double counting, all expenditures on intermediate products should not be included in the measurement.

This can be symbolically stated thus:

$Y = C + I + G + (X – M)$
OR
$Y = C + I + G + X_n$
Where
Y = The value of national income
C = Aggregate consumption expenditure
I = Private investment expenditure
G = Government expenditure
X = Exports expenditure
M = Imports expenditure
X= Net exports ($X_n > 0$)
<
Alternatively, national income may be computed using the output-expenditure method.

The output-expenditure method calculates the total expenditure required to purchase the nation's output. In a spend thrift economy (an economy where all income is spent on goods and services for current consumption and all current output is consumed) national income may be calculated via the output-expenditure approach by measuring the actual expenditure of households on currently produced goods and services.

The expenditure approach considers GDP in terms of expenses incurred on purchases of goods and services produced by a country. The expenditure approach sums the expenditure from the four main economic agents in the country which are the households, the firms, the government and the rest of the world. More so, these are four main categories of expenditure and these are personal consumption expenditure, gross private domestic investment, government consumption and government gross investment consumption, net exports (X – M).

Table 5: Analysis of Components of the Expenditure Approach

National Income	Million Naira
Personal Consumption Expenditure (C)	50
Durable goods	20
Nondurable goods	25
Services	5
Gross Private Domestic Investment (I)	100
Non-residential	40
Residential	45
Change in business inventories	15
Government Consumption & Gross Investment (G)	80
Federal	49
State and Local	31
Net Exports (X – M)	30
Exports (X)	20
Imports (M)	50
Gross Domestic Product	**200**

The expenditure approach calculates GDP by adding together all these four component of spending.

In equation form, GDP = C + I + G + (X-M). The four components of the expenditure approach are depicted in the table 5.

SELF-ASSESSMENT EXERCISE

Discuss the three basic approaches to measuring GDP.

3.4 National Income Measurement Problems

There are several problems that are encountered in the computation of NI, some of these problems are:

1. Problem of double counting: the greatest difficulty in measuring national income is that of double counting, which arises from the improper distinction between final and intermediate products. There is always the possibility of a good or a service being included more than once.
2. There is also the difficulty of defining "nation" in national income. Although every nation has its political boundaries, the income earned by nationals of a country in a foreign country beyond the territorial boundaries of that country is also included in national income.
3. The problem of measuring non-market or domestic activities: national income is always measured in monetary value, but there are a number of goods and services that are difficult to measure

or assess in terms of money and are therefore excluded. Such activities include house works, child care, driving one's car, etc., they are excluded in GDP even though they amount to real production. However, if one decides to send his/her children to the day-care, or hire a cleaner or a chauffeur to drive his/her car, GDP will increase because the salaries of day-care staff, cleaners and chauffeurs would be counted in GDP whereas, the time spent by individuals in doing the same activities is not counted. Excluding all such activities will make national income to be less than what it should actually be.

4. Income earned through illegal activities also makes national income to be less, because they are excluded from GDP.
5. Measuring national income in monetary terms leads to the underestimation of real national income. This is because national income measured in monetary value does not include the leisure forgone in the process of production of a commodity. For instance, if two individuals earn the same amount as income but if one of them works for longer hours than the other, it would be right to state that the real income of this individual has been understated.
6. Some public services cannot be estimated correctly. For example, how should police and military services be estimated? In days of war, the forces are active but during peace, they rest in their cantonment. Also, measuring the contribution of profits earned on certain projects such as power project and irrigation to national income in terms of money is a difficult task.

SELF-ASSESSMENT EXERCISE

Differentiate between income approach, value-added approach and expenditure approach of national income.

4.0 CONCLUSION

In this unit national income accounting was examined and it was seen as the total value a country's final output of all new goods and services produced in one year. However, the terms of national income was discussed such as gross domestic product, gross national product, net national product, domestic product, personal income, disposable income, nominal and real gross domestic product.

5.0 SUMMARY

The unit vividly takes a look at national income accounting, and a deep explanation of the term was discussed at length. However, simple calculation of national income was examined with various terms. You must have learnt a lot from this unit on national income accounting.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss in detail the various methods we can use to measure national income.
2. Differentiate between gross national income and gross domestic product. State the similarities between them.
3. List and explain the importance of national income accounting.
4. Discuss the problem of national income measurements.

7.0 REFERENCES/FURTHER READING

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UNIT 2 CONSUMPTION, SAVINGS AND INVESTMENT ANALYSIS

CONTENTS

1.0 INTRODUCTION

Savings according to Keynes is the amount left over when the cost of a person's consumer expenditure is subtracted from the amount of disposable income that he or she earns in a given period of time. However, consumption is the use of any commodity or service for the satisfaction of our wants. Investment is related to saving and differs from consumption. Investment involves different areas of the economy, such as business management and finance whether for households, firms, or governments.

2.0 OBJECTIVES

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

- state the meaning of consumption and its components
- explain savings and its components
- discuss the meaning of investment and its components.

3.0 MAIN CONTENT

3.1 Consumption

Consumption is the use of goods and services by households. Consumption is distinct from consumption expenditure, which is the purchase of goods and services for use by households. Consumption differs from consumption expenditure primarily because durable goods, such as automobiles, generate an expenditure mainly in the period when they are purchased, but they generate "consumption services" (for example, an automobile provides transportation services) until they are replaced or scrapped. More so, it is the final purchase of goods and services by individuals constitutes consumption and it is also the aggregate of all economic activity that does not entail the design, production and marketing of goods and services (e.g. the selection, adoption, use, disposal and recycling of goods and services).

3.1.1 Consumption Function

It is a single mathematical function used to express consumer spending. It was developed by John Maynard Keynes and detailed most famously in his book "The General Theory of Employment, Interest and Money". The function is used to calculate the amount of total consumption in an economy. It is made up of autonomous consumption that is not influenced by current income and induced consumption that is influenced by the economy's income level. This function can be written in a variety of ways, an example being $C = a + b(Y - T)$. This is probably the most simplistic form of the consumption function.

The simple consumption function is shown as the affine function
$C = c_0 + c_1 Y^d$
where
C = total consumption,
c_0 = autonomous consumption ($c_0 > 0$),
c_1 is the marginal propensity to consume (i.e. the induced consumption) ($0 < c_1 < 1$), and
Y^d = disposable income (income after government intervention – benefits, taxes and transfer payments – or Y + (G – T)).

Autonomous consumption represents consumption when income is zero. In estimation, this is usually assumed to be positive. The Marginal Propensity to Consume (MPC), on the other hand measures the rate at which consumption is changing when income is changing. In a geometric fashion, the MPC is actually the slope of the consumption function.

The MPC is assumed to be positive. Thus, as income increases, consumption increases. However, Keynes mentioned that the increases (for income and consumption) are not equal. According to him, as an income increases, consumption increases but not by as much as the increase in income.

However, the aggregate consumption and can be determined by subtracting aggregate savings from national income. The aggregate consumption of any economy depends on a number of factors. These include:

1. **Government fiscal policy:** A reduction in tax rate will increase disposable income and consequently the consumption of the people.

2. **Expected future change in income:** If the income level is expected be higher in future relative to the present income level, then people will tend to consume more out of their present income.

3. **Credit facilities:** This is the act of enjoying a particular commodity which are not out rightly or fully paid for but whose full payment can be made at a future time. The more readily available these facilities a higher will be the consumption level of the household.

4. **Inherited wealth:** The higher the environmentally inherited wealth by the community or society the wealthier it becomes and the higher will be their level of consumption all things being equal.

5. **Population distribution with respect to age:** The aged and the infants are prone to consuming more than the active and productive age of the population. Hence, the higher the population of the aged and the infants of any society the higher will be their propensity to consume from their income.

6. **Societal attitudes towards current savings:** The more favourable disposed the society is towards present savings and investment, the lower will be the consumption level.

From the above stated factors determining consumption, it implies that consumption is dependent on disposable income and has a positive correlation with income levels (that is the higher the disposable income the higher will be the consumption level all things being equal). Thus,

consumption is the dependent variable, and disposable income is independent variable.

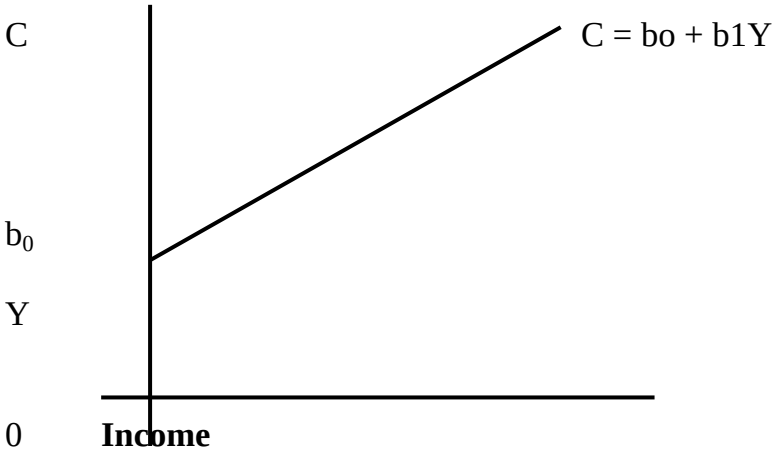

Fig. 1: A Graph Showing Consumption Function

The graph in figure 1 shows the relationship between consumption and income. The graph cut the consumption axis at point bo and the equation is given as follows

C = bo + b1Y where bo is the autonomous consumption, b1 is the marginal propensity to consume. However, it should be noted that the graph can also start from the origin.

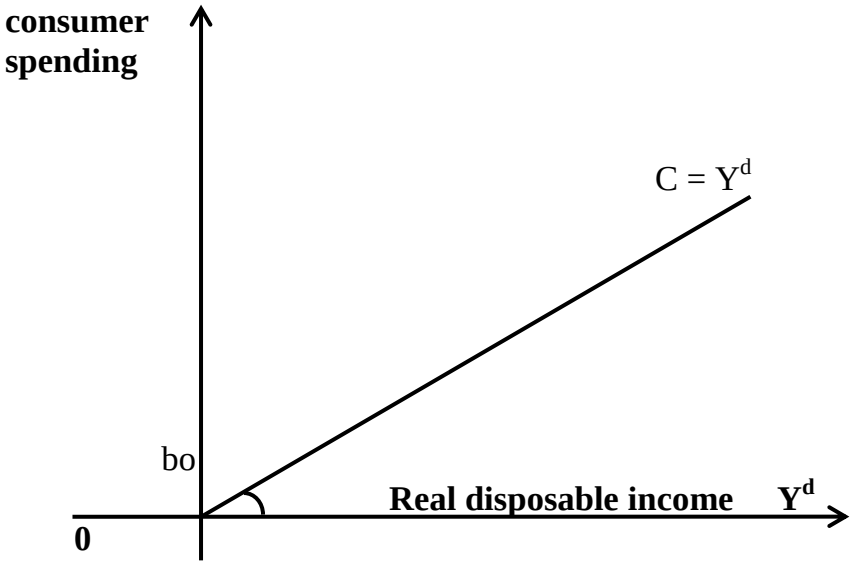

Fig. 2: Relationship between Consumption and Income

Figure 2 also shows the relationship between consumption and income. The Keynesian consumption function expresses the level of consumer spending depending on three items.

- Yd – disposable income
- a – autonomous consumption (consumption when income is 0. (e.g. even with no income, you may borrow to be able to buy food)
- c – Marginal propensity to consume (the % of extra income that is spent) Also known as induced consumption.
  Consumption function formula
- **C = a + c Yd**

  This suggests Consumption is primarily determined by the level of disposable income (Yd). Higher Yd, leads to higher consumer spending.

  This model suggests that as income rises, consumer spending will rise. However, spending will increase at a lower rate than income.

- At low income, people will spend a high proportion of their income. The average propensity to consume could be one or greater than one. This means people spend everything they have. When you have low income, you don't have the luxury of being able to save. You need to spend everything you have on essentials.
- However, as incomes rise, people can afford the luxury of saving a higher proportion of their income. Therefore, as income rise, spending increases at a lower rate than disposable income. People with high incomes have a lower average propensity to spend.

3.1.2 Average Propensity to Consume (APC)

The Average Propensity to Consume (APC) refers to the percentage of income that is spent on goods and services rather than on savings. One can determine the percentage of income spent by dividing the average household consumption (what is spent) by the average household income (what is earned). The inverse of the Average Propensity to Consume is the Average Propensity to Save (APS).

That is,
$APC = \frac{C}{Y}$
$0 < APC < 1$ (provided $0 < C < 1$)
$APC = 1$ (as $C = Y$),
$APC < 1$ (as $C > Y$) – dis-saving

3.1.3 Marginal Propensity to Consume (MPC)

Marginal Propensity to Consume is defined as the ratio of the change in consumption to the change in income that necessitated it. That is,

$$MPC = \frac{\Delta C}{\Delta Y}$$

Where

ΔC = Change in consumption

ΔY = Change in income

$0 < MPC < 1$ (Marginal Propensity to consume ranges between zero and unitary)

SELF-ASSESSMENT EXERCISE

Discuss the factors that determine consumption.

3.2 Savings

This is income not spent on goods and services for current consumption. It is the act of abstaining from consumption. Savings can be done by the keeping your money income in the bank (financial investment). Aggregate savings can be defined as the summation of households' savings (S_h) and firms' savings (S_f) or undistributed profits of the firms (π_u)

Symbolically written as:

$S = S_h + S_f$

OR

$S = S_h + \pi_u$

3.2.1 Determination of Savings Function

Given National Income as $Y = C + S$ …… (1)

Therefore $S = Y-C$ ……..... (2)

Where Y is the National Income, C is the consumption and S is the savings and Consumption function as $C = b_0 + b_1 Y$

Then Substitute for C in equation 2;

So the equation becomes:

$S = Y- (b_0 - b_1Y)$

$S = Y – b_0 + b_1 Y$

$S = -b_0 + (1 – b1) Y$

$S = - b_0 + BY$

Where S is the savings –bo is the autonomous savings and B marginal propensity to save.

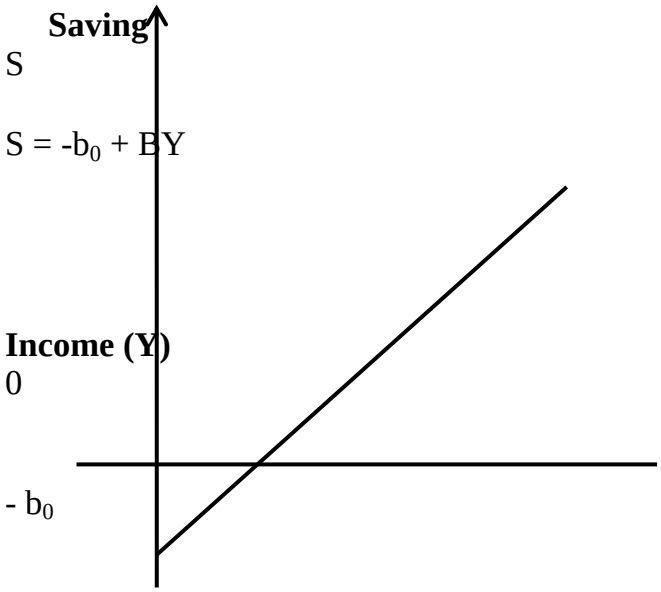

Fig. 3: A Graph Showing the Savings Function

The graph in figure 3 shows the relationship between savings and income. The graph cut the savings axis at second quadrate at –bo and the curve give rise to the equation S = -bo + BY.

3.2.2 Determinants of Savings

1. **Income level:** The higher the levels of income the higher will be the amount of savings all things being equal.

2. **Interest rate:** The higher the interest rates the more people will be willing and be attracted to save.

3. **Government fiscal policy:** The fiscal policy of the government affects the disposable income of the people. If, for example, there, is an increase in taxation, it will lead to a decrease in people's disposable income and consequently leads to a reduction in the level of savings (people will .be constrained from saving because of the smaller income at their disposal).

4. **Habits and environmental factors:** Some people save out of habit cultivated in saving towards certain ceremonies or occurrence like burial ceremonies or children's school fees. The efficiency of the banking institutions can equally encourage savings. Savings and income are positively correlated, that is S = - a + b Y (where b > 0).

3.2.3 Average Propensity to Save (APS)

The Average Propensity to Save (APS) is an economic term that refers to the proportion of income that is saved rather than spent on goods and services. Also known as the savings ratio, it is usually expressed as a percentage of total household disposable income (income minus taxes). The inverse of average propensity to save is the average propensity to consume (APC).
That is,

$$APS = \frac{S}{Y}$$

$0 < APS < 1$ (provided $0 < S < Y$)
$APS = 1$ (as $S=Y$)
$APS = 0$ (as $S = 0$) - zero savings.

3.2.4 Marginal Propensity Save

Marginal Propensity to Save is the ratio of the change in savings change in income that necessitated it. It is the fraction of an increase income that is saved. .

$$MPS = \frac{\Delta S}{\Delta Y}$$

Where
ΔS = Change in savings
ΔY = Change in income
$0 < MPS <$ (MPS ranges between zero and unitary)
$MPS + MPC = 1$
$MPS = 1 - MPC$.

SELF-ASSESSMENT EXERCISE

What are the determinants of savings?

3.3 Investment

Investment in economics can be defined as the act of producing capital goods which are not for immediate consumption. It may be defined as net additions to capital stocks.

3.3.1 Components of Investment

1. **Autonomous investment:** This is an exogenously determined investment, that is $I = 1_{0,}$ is the investment that yield profit and interest rate levels in an economy, and which is not related to the economy's growth.

2. **Induced investment:** This is an endogenously, determined investment, that is $I = 1_0 + vY$ defining investment as a function of income.

3. **Net investment:** Defined as the gross investment that occurs in an economy less capital consumption allowance (depreciation).

3.3.2 Determinants of Investment

1. **Level of National Income:** Income and investment are positively related; therefore the Equilibrium level of National Income will be when the total demand for all the types of goods.

2. **Cost of funds (lending rate or interest rate):** The higher the cost of funds (interest rate) the lower the volume of investment in an economy.

3. **Technical progress (technological changes):** The higher the rate of technological progress the more profitable it becomes to undertake more investment in order to produce new types of goods by using new and more economical production techniques.

4. **Government fiscal policies in respect of minimum wages and salaries, and taxes:** The volume of new investment undertaken in an economy will be determined by the policy of the government regardless of the costs.

5. **Business climate:** In the view of the business investors, if the climates is perceived hostile no matter how low the lending rate (cost of funds) investment level may not appreciated.

SELF-ASSESSMENT EXERCISE

Define investment and discuss the determinants of investment.

4.0 CONCLUSION

This unit discusses the meaning and various components of savings, consumption and investment. However, the unit explains the graph of savings and investment function with a simple derivation of their formula.

5.0 SUMMARY

In this unit we have been able to discuss consumption, savings and investment which are the three key terms in national income accounting.

Average/Marginal Propensity to Consume and Save was analysed and the component of investment was also examined.

6.0 TUTOR-MARKED ASSIGNMENT

1. Differentiate between consumption, investment and savings
2. List and explain all the determinants of savings and investment.
3. Write short note on the following:

    i. Autonomous savings, consumption and investment.
    ii. Induced investment.
    iii. Propensity to consume.

7.0 REFERENCES/FURTHER READING

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UNIT 3 ECONOMIC WELFARE AND NATIONAL INCOME

CONTENTS

1.0 INTRODUTION

In this unit we shall base our discussion on the relationship between economic welfare and national income. This unit will also take a look at the national income as a measure of economic welfare in an economy.

2.0 OBJECTIVES

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

- explain economic welfare and national income
- discuss the relationship between economic welfare and national income.

3.0 MAIN CONTENT

3.1 Economic Welfare and National Income

Let us start this discussion by asking ourselves what is economic welfare? Economic welfare is a state of the mind which reflects human happiness and satisfaction. In actuality, welfare is a happy state of human mind. According to one of the great welfare economists A.C. Pigou regards individual welfare as the sum total of all satisfactions experienced by an individual; and social welfare as the sum total of individual welfare. He divides welfare into economic welfare and non-economic welfare. Economic welfare is that part of social welfare which can directly or indirectly be measured in money. Pigou attaches great importance to economic welfare because welfare is a very wide term. However, the range of our analysis will be restricted to the part that discusses social (general) welfare that can be brought directly or

indirectly into relation with the measuring rod of money. But it should be noted that non-economic welfare is that part of social welfare which cannot be measured in money, for example moral welfare.

More so, caution should be taken when differentiating between economic and non-economic welfare on the basis of money and even an economist Pigou also accepts this stand. However, according to Pigou, non-economic welfare can be improved upon in two ways.

First, by the income-earning method, that is longer hours of working and unfavourable conditions will affect economic welfare adversely; second, by the income-spending method. In economic welfare it is assumed that expenditure incurred on different consumption good which provide the same amount of satisfaction, but in actuality it is not so, because when the utility of purchased goods starts diminishing the non-economic welfare declines which results in reducing the total welfare. However, Pigou is of the view that it is not possible to calculate such effects, because non-economic welfare cannot be measured in terms of money. Hence, Pigou arrives at the conclusion that the increase in economic welfare results in increase of total welfare and vice versa.

It should be noted that it is not possible always, because the causes that lead to an increase in economic welfare may also reduce the non-economic welfare. The increase in total welfare may, therefore, be less than anticipated. For instance, with the increase in income, both the economic welfare and total welfare increase and vice versa. But economic welfare depends not only on the amount of income but also on the methods of earning and spending it. When the workers earn more by working in factories but reside in slums and vitiated atmosphere, the total welfare cannot be said to have increased, even though the economic welfare might have increased. Similarly, as a result of increase in their expenditure proportionately to income, the total welfare cannot be presumed to have increased, if they spend their increased income on harmful commodities like wine, cigarettes, etc. Finally, you should note that economic welfare is not an indicator of total welfare.

SELF-ASSESSMENT EXERCISE

Make a clear distinction between economic welfare and national income.

3.2 Relationship between Economic Welfare and National Income

Let us now look at the relationship between economic welfare and national income. According to an economist, A.C Pigou, there is a close relationship between economic welfare and national income, because both of them are measured in terms of money. When national income increases, total welfare also increases and vice versa. The effect of national income on economic welfare can be studied in two ways:

(a) By change in the size of national income
(b) By change in the distribution of national income.

(a) *The change in the size of national income* may be positive or negative. The positive change in the national income increases its volume, as a result people consume more of goods and services, which leads to increase in the economic welfare. Whereas the negative change in national income results in reduction of its volume. People get lesser goods and services for consumption which leads to decrease in economic welfare. But this relationship depends on a number of factors.

Moreover, let us ask ourselves a question: is the change in national income real or monetary? If the change in national income were due to change in prices, it would be difficult to measure the real change in economic welfare. For example, when the national income increases as a result of increase in prices, the increase in economic welfare is not possible because it is probable that the output of goods and services may not have increased. It is more likely that the economic welfare would decline as a result of increase in prices. It is only the real increase in national income that increases welfare.

Second, it depends on the manner in which the increase in national income comes about. The economic welfare cannot be said to have increased, if the increase in national income is due to exploitation of labour. For example, the increase in production by workers working for longer hours, by paying them lesser wages than the minimum; thus, forcing them to put their spouses and children to work, by not providing them with facilities of transport to and from the factories.

Third, national income cannot be a reliable index of economic welfare, if per capita income is not borne in mind. It is possible that with the increase in national income, the population may increase at the same pace and thus the per capita income may not increase at all. In such a situation, the increase in national income will not result in increase in economic welfare. But from this, it should not be concluded that the

increase in per capita income results in increase in economic welfare and vice versa.

Furthermore, it is possible that as a result of increase in national income, the per capita income might have risen. But if the national income has increased due to the production of capital goods and there is shortage of consumption goods on account of decrease in their output, the economic welfare will not increase even if the national income and per capita income rise. This is because the economic welfare of people depends not on capital goods but on consumption goods used by them. Similarly, when during war time the national income and the per capita income rise sharply, the economic welfare does not increase because during war days the entire production capacity of the country is engaged in producing war material and there is shortage of consumption goods. As a result, the standard of living of the people falls and the economic welfare decreases.

More so, even with the increase in national income and per capita income the economic welfare decreases. This is the case when as a result of the increase in national income, income of the richer sections of the society increases and the poor do not gain at all from it. In other words, the rich become richer and the poor become poorer. Thus, when the economic welfare of the rich increases, that of the poor decreases, because the poor are more than the rich, the total economic welfare decreases.

Last, the influence of increase in national income on economic welfare depends also on the method of spending adopted by the people. If with the increase in income, people spend on such necessities and facilities such as milk, eggs, garri, etc., which increase efficiency, the economic welfare will increase. But on the contrary, the expenditure on drinking, gambling, etc. will result in decrease in economic welfare as a result of increase in national income depend on changes in taste of people. If the change in fashions and tastes takes place in the direction of the consumption of better goods, the economic welfare increases, otherwise the consumption of bad goods decreases it.

So it is clear from the above analysis that though the national income and economic welfare are closely inter-related, yet it cannot be said with certainty that the economic welfare would increase with the increase in national income and per capita income. The increase or decrease in economic welfare as a result of increase in national income depend on a number of factors such as the rate of growth of population, the methods of earning income, the conditions of working, the method of spending, the fashions and tastes, etc.

(b) *The changes in the distribution of national income* take place in two ways. First, by transfer of wealth from the poor to the rich, and second, from the rich to the poor. When as a result of increase in national income, the transfer of wealth takes place in the former manner, the economic welfare decreases. This happens when the government gives more privileges to the richer sections and imposes regressive taxes on the poor.

However, the actual relationship between the distribution of national income and economic welfare concerns the latter form of transfer when wealth flows from the rich to the poor. The redistribution of wealth in favour of the poor is brought about by reducing the wealth of the rich and increasing the income of the poor. The income of the richer sections can be reduced by adopting a number of measures, e.g., by progressive taxation on income, property, etc., by imposing checks on monopoly, by nationalising social services, by levying duties on costly and foreign goods which are used by the rich and so on. On the other hand, the income of the poor can also be raised in a number of ways, e.g., by fixing a minimum wage rate, by increasing the production of goods used by the poor, and by fixing the prices of such goods, by granting financial assistance to the producers of these goods, by the distribution of goods through co-operative stores, and by providing free education, social security and low rent accommodation to the poor. When through these methods the distribution of income takes place in the favour of the poor, the economic welfare increases. According to Pigou "any cause which increases the absolute share of real income in the hands of the poor, provided that it does not lead to a contraction in the size of national dividend from any point of view will, in general, increase economic welfare".

But it is not essential that the equal distribution of national income would lead to increase in economic welfare. On the contrary, there is a greater possibility of the economic welfare decreasing if the policy towards the rich is not rational. Heavy taxation and progressive taxes at high rates affect adversely the productive capacity, investment and capital formation, thereby decreasing the national income. More so, when through the efforts of the Government the income of the poor increases but if they spend that income on bad goods like drinking, gambling, etc. or if their population increases, the economic welfare will decrease. But both these situations are not real and only express the fears, because the government, while imposing different kinds of progressive taxes on the rich, keeps particularly in view that taxation should not affect the production and investment adversely. On the other hand, when the income of a poor man increases he tries to provide better education to his children and to improve his standard of living. Therefore we can then conclude that as a result of the increase in

national income, the economic welfare will increase provided that the income of the poor increases instead of decreasing and they improve their standard of living and that the income of the rich decreases in such a way that their productive capacity, investment and capital accumulate do not decline.

SELF-ASSESSMENT EXERCISE

List and explain the effect of national income on economic welfare.

4.0 CONCLUSION

In this unit, we learnt about economic welfare and national income. We should know that national income can be used to measure economic welfare and we got to know that GNP is not a satisfactory measure of economic welfare because the estimate of national income does not include certain services and production activities.

5.0 SUMMARY

In this unit we have learnt the meaning of welfare economics and how national income can be used to measure welfare economics. We also learnt other factors that can measure welfare other than GNP estimate and those factors that are better to be used than the GNP.

6.0 TUTOR-MARKED ASSIGNMENT

1. Critically explain how do changes in the size of national income and in the system of distribution affect economic welfare.
2. Define economic welfare as relates to national income.
3. Explain in detail the effects of changes in the distribution of national dividend on economic welfare in the interest of the poor.
4. Do you think national income is a satisfactory measure of economic welfare? Discuss.

7.0 REFERENCE/FURTHER READING

Jhingan, M. L. (2004). *Macroeconomic Theory* (11th ed.). Delhi: Vrinda Publications Limited.

MODULE 3

Unit 1 Origins of Money
Unit 2 Financial Institution
Unit 3 Central Banking

UNIT 1 ORIGIN OF MONEY

CONTENTS

1.0 INTRODUCTION

In this unit we will explain what money is and why money is necessary and important in the economy. You may be thinking that what is money? Some people might say that money is what we spend every day, which is a lay man definition. Therefore we can say that money is historically an emergent market phenomenon establishing a commodity money, but nearly all contemporary money systems are based on fiat money. Fiat money, like any cheque or note of debt, is without intrinsic use value as a physical commodity. It derives its value by being declared by a government to be legal tender; that is, it must be accepted as a form of payment within the boundaries of the country, for all debts, public and private. Such laws in practice cause fiat money to acquire the value of any of the goods and services that it may be traded for within the nation that issues it.

2.0 OBJECTIVES

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

- define money and describe the history of money
- state the characteristics, functions and types of money
- describe the Keynesian motive of holding money.

3.0 MAIN CONTENT

3.1 What is Money?

At first sight the answer to this question seems obvious; the man or woman in the street would agree on coins and banknotes, but would they accept them from any country? What about cheques? They would probably be less willing to accept them than their own country's coins and notes but bank money (i.e. anything for which you can write a cheque) actually accounts for by far the greatest proportion by value of the total supply of money. What about IOUs (I owe you), credit cards and gold? The gold standard belongs to history but even today many rich people in different parts of the world would rather keep some of their wealth in form of gold than in official, inflation-prone currencies. The attractiveness of gold, from an aesthetic point of view and its resistance to corrosion are two of the properties which led to its use for monetary transactions for thousands of years.

In primitive societies, goods and services were exchanged for other, a man who has tubers of yam but needs eggs must look for another who has eggs and also he who needs tubers of yam must look for another who has tubers of yam for exchange to take place. This system is known as the ‘barter system’ that is exchanging good for goods and services for services. Let us consider this advertisement - ‘Man with 20 tubers of yam needs a quarter bag of rice in exchange’. The difficulties in such an advert are obvious. These difficulties include:

(a) **Double coincidence of want:** There must be an agreement as to the type of products and quantity of product to be exchange. The man in the advert must not only look for another who has rice (first coincidence), but for one who has rice and also needs to exchange his rice (a quarter bag) for tubers of yam (second coincidence).

(b) **Divisibility:** The goods offered in barter faces the problem of divisibility. How will a shepherd, who needs small quantities of yam, eggs, tomatoes, divide his sheep or goat as exchange?

(c) Storability: The absence of storage facilities makes barter system unattractive as most goods used in exchange for each other are perishable ones. How do you store the fresh portion of meats for further transactions?

(d) Cumbersomeness: The goods used in barter system could not be carried from one place to another for exchange. Goods such as cow, camels, sheep, yam, etc. are too cumbersome to be carried from one place to another.

In modern economy, barter or direct-exchange is comparatively rare. A high degree of specialisation now operates in the world today. Exchange must take place smoothly and quickly. Money serves to eliminate the problems of barter as significantly make smooth exchange possible in modern economy.

SELF-ASSESSMENT EXERCISE

Do you think trade by barter system brought about the emergence of money? To which extend do you agree with the statement?

3.2 History of Money

The use of barter-like methods may date back to at least 100,000 years ago, though there is no evidence of a society or economy that relied primarily on barter. Instead, non-monetary societies operated largely along the principles of gift economics and debt. When barter did in fact occur, it was usually between either complete strangers or potential enemies.

Many cultures around the world eventually developed the use of commodity money. The shekel was originally a unit of weight, and referred to a specific weight of barley, which was used as currency. The first usage of the term came from Mesopotamia circa 3000 BC. Societies in the America, Asia, Africa and Australia used shell money often, the shells of the money cowry. According to Herodotus, the Lydians were the first people to introduce the use of gold and silver coins. It is thought by modern scholars that these first stamped coins were minted around 650–600 BC.

The system of commodity money eventually evolved into a system of representative money. This occurred because gold and silver merchants or banks would issue receipts to their depositors – redeemable for the commodity money deposited. Eventually, these receipts became generally accepted as a means of payment and were used as money. Paper money or banknotes were first used in China during the Song

Dynasty. These banknotes, known as "jiaozi", evolved from promissory notes that had been used since the 7th century. However, they did not displace commodity money, and were used alongside coins. In the 13th century, paper money became known in Europe through the accounts of travelers, such as Marco Polo and William of Rubruck. The gold standard, a monetary system where the medium of exchange are paper notes that are convertible into pre-set, fixed quantities of gold, replaced the use of gold coins as currency in the 17th-19th centuries in Europe. The use of barter-like methods may date back to at least 100,000 years ago, though there is no evidence of a society or economy that relied primarily on barter. Instead, non-monetary societies operated largely along the principles of gift economics and debt. When barter did in fact occur, it was usually between either complete strangers or potential enemies.

After World War II, at the Bretton Woods Conference, most countries adopted fiat currencies that were fixed to the US dollar. The US dollar was in turn fixed to gold. In 1971 the US government suspended the convertibility of the US dollar to gold. After this, many countries de-pegged their currencies from the US dollar, and most of the world's currencies became unbacked by anything except the governments' fiat of legal tender and the ability to convert the money into goods via payment.

SELF-ASSESSMENT EXERCISE

Without happening there is no history, and without history there is no happening, critically discuss the emergence of money in the world.

3.3 Characteristics of Money

Anything which serves as money must possess some characteristics, these include:

1. **Acceptability:** This is the most important characteristics of money. It must be accepted immediately and without question in exchange for goods and services. It must have full legal backing and citizens must accept them for exchange.

2. **Homogeneity:** The commodity that is acceptable within a community or areas as money must be the same. There should not be any variations in size, shape or colour. It must be capable of being identified immediately it is tendered for exchange.

3. **Stable in value:** Money must be relatively stable overtime to command respect and acceptability, to serve as a means of deferred payment and store of value. If money depreciates overtime or is devalued overtime, it creates loss of confidence in it. If it persists, it loses its value and people tend to look for other commodity for exchange.

4. **Divisibility:** Money must be divisible into convenient units as transactions can be of varying sizes that is either in smaller quantities or bigger quantities. However, divisibility must be possible without any damage, to the money material.

5. **Portability:** The more the ease with which money can be carried about the better. As transactions take place daily, the material used as money must be light enough to be carried around for transactions.

6. **Relative scarcity:** The substance or commodity used as money must be relatively scarce so as to retain its value. Hence, governments all over the world regulate the supply of money in circulation.

SELF-ASSESSMENT EXERCISE

List and explain the characteristics of money.

3.4 Functions of Money

1. **Medium of exchange:** This is the most important functions of money. Modern economy aged on specialisation and money serves as the oil which allows the machinery of exchange that is buying and selling to run smoothly. Money therefore renders obsolete the practice of double coincidence of wants. The cassava farmer who needs clothes do not need to look for a cloth seller who needs cassava before he can make exchange, all he needs is money.

Money removes this problem created by barter as it is acceptable on its own merit unquestionably for buying and selling of goods and services. The use of money therefore has increased tremendously the volume of trade in the world.

2. **Store of value:** Money serves as the most convenient way of keeping surplus incomes and wealth of the person. In a stable economy where prices are relatively stable, money could be stored over time without the fear of risk of loss of value. It is the

only asset which can be turned into other goods immediately and without incurring any cost. This liquidity is what Keynes considered to be money's most distinctive function because it has both asset and exchange functions.

3. **Unit of account:** Money makes possible the operation of the price system. It is used to measure the prices of goods and services and provides the basis for keeping accounts, expressing the performance of businesses in terms of calculating of profit and loss and balance sheets, etc. It also assists international economy in expressing the currency of one country in terms of another.

4. **Standard of deferred payments:** Money makes it possible for lending and borrowing of money to take place. Goods and services can be bought now and paid for in the future. Loans could be obtained now and paid for later, future contracts can be entered into. Money makes dealing in debts possible and such institutions like banks, building societies, insurance companies, etc.

SELF-ASSESSMENT EXERCISE

Money performs various functions in the economy, briefly discuss these functions.

3.5 Types of Money

1. **Legal tender:** A country legislates on a commodity and gives it full legal backing. This commodity becomes money which is generally acceptable to the inhabitants in transactions and in payment of debt. This is conferring acceptability by law, but people must have confidence in it.

2. **Notes and coins:** This possesses the essential characteristics of money that is general acceptability. They are the currency we make use of everyday for transactions (naira and kobo).

3. **Demand deposits:** These are deposits in a current account lodged in a bank. It operates with the use of a cheque which is redeemed on presentation to the bank. It serves as a means of payment together with notes and coins, they constitute the money supply.

4. **Commodity money:** This has a commodity value in addition to its own value as money. Precious metals such as gold, silver, diamond, etc., fall under commodity money.

5. **Token money:** This type of money derives its value from being used as money. It has no commodity value that is a note has no commodity value; hence it is worthless unless used as money.

3.6 Motive of Holding Money

Motive of holding money is classified into three ways:

1. Transactionary motive
2. Precautionary motive
3. Speculative motive.

3.6.1 Transactionary Motive

Day–to-day transactions are done by individuals as well as firms. An individual person has to buy so many things during a day. For this purpose people want to keep some cash money with them. This type of demand for liquidity is for carrying on day to day transactions is called demand for liquidity for transaction motive. So we can say that money needed by consumers, businessmen and others in order to complete economic transactions is known as the demand for money for transactions motive.

3.6.2 Precautionary Motive

Every man wants to save something or wants to keep some liquid money with him to meet some unforeseen emergencies, contingencies and accidents. Similarly business firms also want to keep some cash money with them to safeguard their future. This type of demand for liquidity is called demand for precautionary motive.

3.6.3 Speculative Motive

People want to keep cash with them to take advantage of the changes in the prices of bond and securities. In advanced countries, people like to hold cash for the purchase of bond and securities when they think it profitable. If the prices of the bond and securities are expected to rise speculators will like to purchase them. In this situation they will not like to keep cash with them. On the other hand if prices of the bonds and securities are expected to fall people will like to keep cash with them. They will buy the bonds and securities with the cash only when their prices would fall.

SELF-ASSESSMENT EXERCISE

Of what use is money to the economy?

4.0 CONCLUSION

In this unit, we have seen that money has a lot to do with our day-to-day activities and we conclude that money is any good that is widely used and accepted in transactions involving the transfer of goods and services from one person to another.

5.0 SUMMARY

Finally, we submit in this unit that money is any object or record that is generally accepted as payment for goods and services and repayment of debts in a given socio-economic context or country.

6.0 TUTOR-MARKED ASSIGNMENT

1. Money according to economists is anything that is generally accepted as the medium of exchange and settlement of debt. Critically review this statement and make your own assertion.
2. Because of double coincidence of want, there was the need for something that will serve as means of exchange which is called money. Critically discuss your own view.
3. The Keynesian school of thought discuss three motives of holding money, list and explain them briefly.
4. List and explain all the function of money, with detailed examples.

7.0 REFERENCES/FURTHER READING

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UNIT 2 FINANCIAL INSTITUTIONS

CONTENTS

1.0 INTRODUCTION

In this unit, we shall discuss what a financial institution is and their operations. But in your mind you may be thinking that financial institution means banking industry. However, it can be banking industry and at the same time banking subsidiaries. Now, let us define financial institution. A financial institution is a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly by loaning or indirectly through capital markets. A bank is the connection between customers that have capital deficits and customers with capital surpluses.

2.0 OBJECTIVES

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

- trace the history of Nigeria banking system
- explain the meaning of commercial bank and its functions
- discuss the growth and development of commercial banks in Nigeria
- explain merchant banking in Nigeria.

3.0 MAIN CONTENT

3.1 The History of the Nigeria Banking System

In 1892 Nigeria's first bank, the African Banking Corporation, was established. No banking legislation existed until 1952, at which point Nigeria had three foreign banks (the Bank of British West Africa, Barclays Bank, and the British and French Bank) and two indigenous banks (the National Bank of Nigeria and the African Continental Bank) with a collective total of forty branches. A 1952 ordinance set standards, required reserve funds, established bank examinations. Yet for decades after 1952, the growth of demand deposits was slowed because Nigerians to prefer cash to cheque for debt settlements.

British colonial officials established the West African Currency Board in 1912 to help finance the export trade of foreign firms in West Africa and to issue a West African currency convertible to British pounds sterling. But colonial policies barred local investment of reserves, discouraged deposit expansion, precluded discretion for monetary management, and did nothing to train Africans in developing indigenous financial institutions.

In 1952 several Nigerian members of the Federal House of Assembly called for the establishment of a central bank to facilitate economic development. Although the motion was defeated, the colonial administration appointed a Bank of England official to study the issue. He advised against a central bank, questioning such a bank's effectiveness in an undeveloped capital market. In 1957 the Colonial Office sponsored another study that resulted in the establishment of a Nigerian central bank and the introduction of a Nigerian currency. The Nigerian pound was on a par with the pound sterling until the British currency's devaluation in 1967, was converted in 1973 to a decimal currency, the naira (₦), equivalent to two old Nigerian pounds.

However, the smallest unit of the new currency was the kobo, 100 of which equaled 1 naira. The naira, which exchanged for US$1.52 in January 1973 and again in March 1982 (or ₦0.67 = US$1), despite the floating exchange rate, depreciated relative to the United States dollar in the 1980s. The average exchange rate in 1990 was ₦8.004 = US$1. Depreciation accelerated after the creation of a second-tier foreign exchange market under World Bank structural adjustment in September 1986.

The Central Bank of Nigeria, which was statutorily independent of the federal government until 1968, began operations on July 1, 1959. Following a decade of struggle over the relationship between the

government and the central bank, a 1968 military decree granted authority over banking and monetary policy to the Federal Executive Council. The role of the central bank, similar to that of central banks in North America and Western Europe, was to establish the Nigerian currency, control and regulate the banking system, serve as banker to other banks in Nigeria, and carry out the government's economic policy in the monetary field. This policy included control of bank credit growth, credit distribution by sector, cash reserve requirements for commercial banks, discount rates, interest rates, the central bank charged, commercial and merchant banks, and the ratio of banks' long-term assets to deposits. Changes in central bank restrictions on credit and monetary expansion affected total demand and income. For example, in 1988, as inflation accelerated, the central bank tried to restrain monetary growth.

During the civil war, the government limited and later suspended repatriation of dividends and profits, reduced foreign travel allowances for Nigerian citizens, limited the size of allowances to overseas public offices, required official permission for all foreign payments, and, in January 1968, issued new currency notes to replace those in circulation. Although in 1970 the central bank advised against dismantling of import and financial constraints too soon after the war, the oil boom soon permitted Nigeria to relax restrictions.

The three largest commercial banks held about one-third of total bank deposits. In 1973 the federal government undertook to acquire a 40 per cent equity ownership of the three largest foreign banks. In 1976, under the second Nigerian Enterprises Promotion Decree requiring 60 per cent indigenous holdings, the federal government acquired an additional 20 per cent holding in the three largest foreign banks and 60 per cent ownership in the other foreign banks. Yet, indigenisation did not change the management, control, and lending orientation toward international trade, particularly of foreign companies and their Nigerian subsidiaries of foreign banks.

At the end of 1988, the banking system consisted of the Central Bank of Nigeria, 42 commercial banks, and 24 merchant banks, a substantial increase since 1986. Merchant banks were allowed to open checking accounts for corporations only and could not accept deposits below ₦50,000. Commercial and merchant banks together had 1,500 branches in 1988, up from 1,000 in 1984. In 1988 commercial banks had assets of ₦52.2 billion compared to ₦12.6 billion for merchant banks in early 1988. In 1990 the government put ₦503 million into establishing community banks to encourage community development associations, cooperative societies, farmers' groups, patriotic unions, trade groups, and other local organisations, especially in rural areas.

Other financial institutions included government-owned specialised development banks: the Nigerian Industrial Development Bank, the Nigerian Bank for Commerce and Industry, and the Nigerian Agricultural Bank, as well as the Federal Savings Banks and the Federal Mortgage Bank. Also active in Nigeria were numerous insurance companies, pension funds, and finance and leasing companies. Nigeria also had a stock exchange (established in Lagos in 1961) and a number of stockbrokerage firms. The Securities and Exchange Commission (SEC) Decree of 1988 gave the Nigerian SEC powers to regulate and supervise the capital market. These powers included the right to revoke stockbroker registrations and approve or disapprove any new stock exchange. Established in 1988, the Nigerian Deposit Insurance Corporation increased confidence in the banks by protecting depositors against bank failures in licensed banks up to ₦50,000 in return for an annual bank premium of nearly one per cent of total deposit liabilities.

Finance and insurance services represented more than three per cent of Nigeria's GDP in 1988. Economists agree that services, consisting disproportionately of nonessential items, tend to expand as a share of national income as a national economy grows. However, Nigeria, lacked comparable statistics over an extended period, preventing generalisations about the service sector. Statistics indicate, nevertheless, that services went from 28.9 per cent of GDP in 1981 to 31.1 per cent in 1988, a period of no economic growth. In 1988 services comprised the following percentages of GDP: wholesale and retail trade, 17.1 per cent; hotels and restaurants, less than one per cent; housing, two per cent; government services, six per cent; real estate and business services, less than one per cent; and other services, less than one per cent.

SELF-ASSESSMENT EXERCISE

The Nigerian banking system has undergone radical changes over the years; critically discuss the evolution of banking system in Nigeria.

3.2 Commercial Bank and its Functions

An institution which accepts deposits, makes business loans, and offers related services. Commercial banks also allow for a variety of deposit accounts, such as checking, savings, and time deposit. These institutions are run to make a profit and owned by a group of individuals, yet some may be members of the Federal Reserve System. While commercial banks offer services to individuals, they are primarily concerned with receiving deposits and lending to businesses.

A banking company is one which transacts the business of banking for the purpose of lending all investments, deposits of money from the

public, repayable on demand or otherwise and withdraw able by cheque, draft or otherwise. There are two essential functions that a financial institution must perform to become a bank. These are accepting deposit and leading to the public. These functions are:

1. It accepts deposits from the public. These deposits can be withdrawn by cheque and are repayable on demand.
2. A commercial bank uses the deposited money for lending and for investment in securities.
3. It is a commercial institution, whose aim is to earn profit.
4. It is a unique financial institution that creates demand deposits which serves as the medium of exchange.
5. Money created by commercial banks is known as deposit money.

3.2.1 Functions of Commercial Banks

Various functions of commercial banks can be divided into three main groups:

i. Primary Functions
ii Agency Functions
iii. General Utility Functions.

i. Primary Functions - There are two main primary functions of the commercial banks which are discussed below:

1. Accepting deposits

The primary function of commercial bank is to accept deposits from every class and from every source. To attract savings the bank accepts mainly three types of deposits. They are namely demand deposits, saving deposits, fixed deposit.

(a) Demand deposit

Demand deposit is also known as current deposit and those deposits which can be withdrawn by the depositor at any time by means of cheque. No interest is paid on such deposits. Rather, the depositor has to pay something to the bank for the services rendered by the businessmen and industrialists. It is also called current account.

(b) Saving deposits

These are those deposits on the withdrawal of which bank places certain restrictions. Cheque facility is provided to the depositors. Saving deposits accounts are generally held by households who have idle or surplus money for short period.

(c) Fixed deposits

These are those deposits which can be withdrawn only after the expiry of the certain fixed time period. These deposits carry high rate of interest. The longer the period, higher will be the rate of interest.

Differences between demand deposit and fixed deposit

- Demand deposit can be withdrawn by the depositor at anytime without notice while fixed deposits can be withdrawn only after the expiry of the certain fixed time period.
- They are chequable i.e., demand deposits are withdraw through cheques while fixed deposits are not chequable.
- No interest is paid on demand deposits. Rather depositors have to pay something to the bank for its services while fixed deposits carry high rate of interest.

2. Advancing of loans

Commercial banks give loans and advances to businessmen, farmers, consumers and employers against approved securities. Approved securities refer to gold, silver, bullion, government securities, easily savable stock and shares and marketable goods. The bank advances types of loans are as follows:

(a) Cash credit – Under this the borrower is allowed to withdraw up to a certain amount on a given security which comprise mainly stocks of goods, but interest is charged on the amount actually withdrawn.

(b) Overdraft – It is a most common way of lending. Under it, the borrower is allowed to overdraw his current account balance. Overdraft is a temporary facility.

(c) Short term loans – Under it loans of a fixed amount are sanctioned. The sanctioned amount is credited in the debtors account. Bank charges interest on the whole amount from the day it was sanctioned.

The difference between a loan and an overdraft is that, while in case of loan, the borrower pays us interest on the amount outstanding against his account. But in the case of an overdraft, the customer pays interest on the deal balance standing against his account further. Loans are given against security, while overdraft made without securities. From the borrowers' point of view, overdraft is preferable to a loan because, in

case of loan, he will have to pay interest on the full amount of loan sanctioned whether he uses it fully or not. But in the case of overdraft, he has the facility of borrowing only as much as he requires.

3. Discounting of the bill of exchange

This is another popular type of lending by the commercial banks. Through this method, the holder of the bills of exchange (written during trade transactions) can get it discounted by the banks. The banks after demanding the commission pays the value of the bills to the holder. When the bills of exchange mature, the bank gets its payment from the party which had accepted the bill.

4. Money at call

Such loans are very short period loans and can be called back by the bank at a very short notice of say one day to14 days. These loans are generally made by one bank to another bank or financial institutions.

SELF-ASSESSMENT EXERCISE

List and explain all the functions of commercial bank.

3.3 The Growth and Development of Commercial Bank in Nigeria

The banking system in Nigeria has been since independence undergone radical changes. Banking in Nigeria developed from an industry, which at the time of independence in 1960 was essentially dominated by a small number of foreign banks into one in which the public sector ownership of banks predominated in the 1970s and 1980s; and in which the Nigeria private investors have played an increasingly important role since the mid 1980s. The banking industry also went through phases of regulation and deregulation. In the 1960s, extensive government intervention characterised financial sector. This was intensified in the 1970s.

The objective was to influence the efficiency of resource allocation and promote indigenisation. Since the adoption of Structural Adjustment Program (SAP) in 1986, the financial sector has been liberalised and measures have been put in place to enhance prudential guidelines and tackle bank distress.

The different licensed banks in Nigeria fall into different generations. These "generations" of banks fall into four phases of banking licensing.

1. **First generation bank:** These were banks that were licensed before Nigeria's independence in 1960.
2. **Second generation:** These were banks licensed between 1960 and 1980.
3. **Third generation bank:** These were banks licensed between 1980 and 1991.
4. **Fourth generation:** These were banks licensed from 1998 to the present time.

SELF-ASSESSMENT EXERCISE

Briefly explain the stages of generation of bank in Nigeria since 1960.

3.4 Merchant Bank

Merchant banks are set up primarily to cater for the needs of corporate and institutional customers. They collect large amounts as deposits from their customers; hence they are referred to as wholesale banker. The first merchant banks in Nigeria are Phillip Hill (Nigeria) Limited and the Nigeria Acceptances Limited (NAL) in 1960. They however, merged in 1969. It becomes the sole merchant bank till 1973 before other banks came. Their role principally in the economy is to provide medium to long term finance, therefore engage in activities such as loan syndication, equipment leasing, debt factoring, project financing, etc.

The merchant banks perform the major role of financial intermediation in the economy and facilitate the payment system of the modern exchange economy. They were governed under the 1952 Banking Ordinances, Banking Act 1969 (as amended) and now under the Banks and Other Financial Institution Decree (BOFID) No. 25 of 1991.

3.4.1 Functions of Merchant Banks

1. They provide medium and long term finance to corporate bodies and institutions.
2. They advise companies on new shares and place these firms, shares for subscription.
3. They float government loan stocks.
4. They engage in equipment leasing and project financing.

SELF-ASSESSMENT EXERCISE

Critically discuss in detail the importance of merchant bank on Nigerian economy.

4.0 CONCLUSION

In this unit we have vividly looked at the issue of financial institutions and its activities in the economy. However, the unit concludes that financial institution is an establishment that focuses on dealing with financial transactions, such as investments, loans and deposits.

5.0 SUMMARY

In summary, conventionally, financial institutions are composed of organisations such as banks, trust companies, insurance companies and investment dealers. Almost everyone has dealt with a financial institution on a regular basis. Everything from depositing money to taking out loans and exchange currencies must be done through financial institutions.

6.0 TUTOR-MARKED ASSIGNMENT

1. Do you think the programme organised by the federal government of Nigeria on alleviating poverty through loan from the bank is a good programme at the right direction?
2. Highlight at least 10 importance of banks in nation's development.
3. Briefly discuss the emergence of commercial banks in Nigeria.

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UNIT 3 CENTRAL BANKING

CONTENTS

1.0 INTRODUCTION

In this unit, we will learn about how central banking works in an economy. If we bring our mind back to unit 2 of module 3, we will see how comprehensively the financial institutions work is and knowing that there would be a body that will regulate the activities of the financial institutions in the economy. Therefore, it is necessary for us to look at central banking in the world in general and Nigeria in particular.

2.0 OBJECTIVES

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

- trace the evolution of central bank in Nigeria and the world at large
- explain the Functions of central bank
- state the relationship between central bank and the government.

3.0 MAIN CONTENT

3.1 Evolution of Central Bank in the World

The history of central banks dates back to the time the Bank of England was established. It is known to be one of the oldest central banks in the world. The birth of central banking in the modern sense began with the creation of the Central Bank of England. However, it took mainly the complex financial problems that wars and economic crises produced to accord it distinctive roles that should be given to it both in practice and theory of finance (Ajayi, 1995). The various economic, political and

social changes, which occurred between the two world wars, gave it the principles and operations, which brought it into the center stage.

The older central banks (including those of England), Sweden and France had their origin as a role in their ability to serve their respective governments financially. When the Bank of England was incorporated in 1694, it granted a loan of 1.2 million pounds, the amount of the bank's entire capital, to the government of William III to finance the war of the Grand Alliance against France (1689-1697). In exchange for the generous offer, government permitted the Bank of England to carry on general banking business including the right to buy and sell coin and bullion, to deal in bills of exchange, to issue its own notes and to make loans. Thus, the bank of England has from the beginning served as the government's banker. Commercial banks soon found it convenient to keep deposits with the Bank of England since the later was the principal issuer of notes. Supplies of notes by these commercial banks and joint stock companies could be obtained in times of need by drawing on their deposits.

By the middle of the nineteen century, the bank of England had become a banker's bank. The legislation passed in 1833 granted its notes legal power while that prerogative was denied to other banks. The Bank Act 1844 (Peel's Act) provided that no new bank in the United Kingdom could issue notes and placed restrictions on existing note-issuing bank in England and Wales.

During the nineteenth century, however, the bank was beset by one crisis after another. Excessive lending by the banks brought on the crisis 1825 and 1837, when many banks failed. It was not until 1837, that the Bank of England started to show concern by acting as a lender of last resort to banks. The banking crisis led to a demand for parliamentary intervention to regulate banking and more particularly to control the issue of notes. The crisis generated a debate amongst two popular schools of thought (that is the currency vs the banking schools). The Currency school viewed that the only way to prevent an over-issue of notes was to insist that the note issue be fully backed by gold, or at least by fiduciary issue. The Banking School, however, believed that the note issue should be rigidly restricted, but that it should be made variable to suit the particular needs of business. The Currency school tended to overemphasise the dangers attendant on an excessive issue of notes, while the opposing school was inclined to minimise them.

In the later part of the nineteenth century the Bank of England began to develop as a true central bank and it was during this period that it learnt how to use the bank rate as an instrument of monetary policy. The Bank of England fully accepted the responsibilities of a central bank and became used to exercising its powers of control over the commercial banks.

SELF-ASSESSMENT EXERCISE

Critically discuss the emergence of Central bank in the world.

3.2 Functions of Central Bank

Traditionally, a central bank performs three main functions: managing the nation's monetary system, serving as a banker to commercial banks, and acting as a financial agent for the national government. To these must be added the unorthodox role of a central bank as an engine of economic growth. This last function is a development of the 1930s and it is usually associated with central banking in developing countries.

The most important function of a central bank is its control over the monetary system. In pursuance of this objective, the central bank regulates the supply, cost and availability of credit. The ability of the central bank to control the monetary system is enhanced by the central bank's ability to create and destroy monetary reserves by its lending and investigating activities. The central bank is the ultimate source of cash and its ability is the base on which the commercial banks erect their credit-creating policy. Thus, the controlling function of the central bank is the control of its own liability.

A central bank acts as banker to commercial banks by providing services to the banking system similar to those which the commercial banking system performs for individuals and business enterprise. Some of the services rendered by the central bank lend support to its role as the manager of the monetary system. Such services include the holding of legal reserves and acting as a lender of the last resort. It also provides services that promote the smooth working of the monetary system. Among such services may be the clearing and collection of cheques, distribution of coins and paper currency to commercial banks and supervising and regulating the activities of commercial banks.

In its role as the financial agent, the central bank acts as the banker to the government. It receives, holds, transfers and disburses the fund of the government. It provides technical services related to the public debt and financial advice to government.

To these must be added the new function of the central bank development. The central bankers schooled in the bank of England tradition, a central bank has no role to play in the development process. It should serve the purpose that a steering wheel serves in a car, the smooth movement of the economic machine. It is not supposed to play the role of the accelerator. The development function is a recent phenomenon, which is usually associated with developing countries. In

these countries commercial banks are few, and those which exist are mostly expatriate banks. In addition, money markets and institutions are either absent or rudimentary. Given these features of the financial system, the central bank cannot adequately perform its traditional role of stabilisation. The only meaningful role that can be assigned to the central bank in such an environment is developmental. It can be called upon to develop the financial structure necessary for it to perform its traditional roles in the future.

SELF-ASSESSMENT EXERCISE

List and explain the functions of Central bank.

3.3 Central Bank Relationship with the Government

The working relations between the central bank and the government vary widely among different countries and this variability reflects the different conditions under which central banks develop. In some countries (e.g. Britain), central banking started as a private institution; and as the central banking function increased, governments in some cases either took them over completely or enacted legislation that regulate their activities. The bank of England, for example, was nationalised in 1946. In countries such as Nigeria, government control is exercised by government subscription the entire capital of the central bank.

The relationship between the government and the central bank can take one of three possible forms. One extreme kind of relationship is the case of complete and full independence of the central bank. Under this arrangement, the bank pursues any kind of monetary policy that it deems without interference from the central bank is just arm of the government. In the case of lack of autonomy, the central bank takes directives from the government (usually through the Ministry of Finance) and it rarely initiates a policy of its own. Neither of the two extremes is effective for the execution and implementation of monetary policy.

Full independence is not advisable, because monetary policy is part and parcel of overall economic policy. A responsible government would want to be seen as being in full control of its economic policy and would not want to relinquish monetary policy to an institution that is not responsible to the people. As an elected representative of the people, the government would want to be responsible for its action, be they good or bad. The other extreme case is equally inadvisable. A central bank that was no more than another department of government could not initiate and execute monetary policy effectively, as it would inevitably be subject to civil service procedures and red tape. Moreover, the central

bank is not only an organ of government but also part of the financial system. It must therefore not be identified with politics if it is to have prestige and command the confidence necessary to deal with the financial community both at home and abroad.

Today, most observers recognise that the middle ground between the two extreme discussed above is in fact the preferable one. Most subscribe to the idea of a central bank that is relatively independent "which" government, with the latter holding ultimate responsibility for economic policy. It may be put this way: the central bank has independence responsibility for regulating money and credit and for advising government, but as last resort it must conform to government's overall economic policy. Most central banks the world over have tended to occupy this middle ground.

One should also mention, in conclusion, that, apart from laws and regulations governing the relationship between the central bank and government, the personality (or stature) of the governor of the bank relative to that of the minister of finance can also influence the autonomy (or lack of it) of the central bank.

Where, for example, the governor is a highly respected individual with a reputable track record of professionalism, his views on economic problems will be both widely accepted and respected and he will most probably maintain and sustain the independent nature of the central bank.

SELF-ASSESSMENT EXERCISE

Do you think the central bank differs from the federal government in a country? Discuss.

3.4 The Birth of the Central Bank of Nigeria

As far back as 1948 (before the banking boom in Nigeria), Mr. J. Mars drew attention to the desirability of having a central bank in Nigeria (Mar, 1948). Following the failure of banks in the 1950s, support for the establishment of the Central Bank of Nigeria grew. Many nationalists advocated the establishment of central bank to put in place regulations for the operation of banks and perform other functions related to central banking and the development of the economy. The urge to set up a central bank was resisted for quite some time by the colonial administrators on the ground that there was no developed and highly organised money market. In 1952 the government of Nigeria requested Mr. J. l. Fisher, an advisor to the Bank of England, to report on the "desirability and practicability of establishing a central bank in Nigeria

as an instrument of economic development". His report, which was published in 1953, contained the following:

1. An elaborate description of central banking as it had developed in England.
2. A review of Nigeria's financial system as it then existed.
3. The possibility of making use of the orthodox principles of central banking as contained in (1).

The main feature of the report was that it would be inadvisable to contemplate the establishment of a central bank at that time.

Besides, he found it hard to see how a central bank could be used to promote economic development. Instead Fisher proposed:

1. The transfer of the West African Currency Board to Nigeria
2. The establishment of a Nigerian Currency Board
3. The establishment of a Nigerian Bank of Issue, which would gradually evolve into a bank.

The Fisher's Report can be criticised on several grounds (Olakunpo, 1965). First it erred too much on the side of conservatism by not recognising the developmental role of a central bank.

Secondly, there was no time prefix attached to the commendation that a new bank of issue could gradually evolve into a central bank. Besides, it is not sure that the slow but sluggish conversion of a bank of issue into a central bank would meet the country's monetary requirements.

Thirdly, in his orthodox approach to monetary problems, Fisher argued that it was better to build the financial structure from the base upwards rather than to build it from the top downwards. The question was "how developed must a financial structure be before establishment of a central bank? Fisher did not have an answer to this. He did not recognise that a central bank could aid and nurture the development of the financial structure.
In 1953, the World Bank Mission visited Nigeria, the mission came out in support of Fisher's views, but it felt that in view of the impending attainment of independence a state bank with limited functions should be established. The functions of such a bank could gradually be broadened to enable it to perform the functions of a central bank.

In 1954, soon after the Fisher's report, Newlyn and Rowan's views were published. Their verdict was a qualified "yes" for the establishment of a central bank, for reasons opposite to Fisher's. They concluded that there was little that a central bank of a developing country could do by way of

stabilisation. The only role for the central bank in such a situation was purely developmental.

Another adviser to the Bank of England, Mr Loynes in 1957 favoured the idea of establishing a Central Bank in Nigeria. It was his views and recommendations that formed the basis of the draft legislation for the establishment of the central bank in Nigeria which was presented to the House of Representatives in March 1958. The Central Bank of Nigeria (hereafter referred to a CBN) came into being on July 1st, 1959 with an initial capital of seventeen million pounds.

The core mandate of the CBN, as spelt out in the Central Bank Act (1958), and amendments (1991, 1998) include:

1. Issuance of legal tender currency notes and coins in Nigeria.
2. Maintenance of Nigeria external reserve to safeguard the international values of the legal currency.
3. Promotion and Maintenance of monetary stability and a sound and efficient financial system in Nigeria.
4. Acting as banker and financial adviser to the federal government.
5. Acting as lender of last resort.

   Given this mandate, the CBN is also charged with responsibility for administering the Banks and other Financial institutions (BOF) Act (1991) as amended (1997 and 1998), with the sole aim of ensuring high standard of making practice and financial stability through its surveillance activities as well as the promotion of efficient payments and clearing system.

SELF-ASSESSMENT EXERCISE

Do you think the birth of Central Bank in Nigeria has brought better banking performance and supervision?

4.0 CONCLUSION

Base on what we have discussed in this unit, we have come to the conclusion that the central bank of a country is regarded as the apex regulatory institution of the financial system of the country. Accordingly, “a central bank is an institution charged with the responsibility of regulating the supply, availability and the cost of money in the interest of social welfare”, (Ajayi, 1995). It has authority over all other financial institutions in promoting financial stability and a sound financial system.

5.0 SUMMARY

In summary, central banking in the world and in Nigeria has a lot to do in controlling the activities of the commercial banks. Moreover, all over the world, governments have taken necessary measures to ensure the integration of central banking more closely into the machinery for carrying out macroeconomic policy and for many countries; a central bank plays a key role in a country's growth and development process.

6.0 TUTOR-MARKED ASSIGNMENT

1. List and explain the functions of the Central Bank of Nigeria.
2. List and explain the reforms of the central bank since its inception of supervising the commercial bank in Nigeria.
3. Briefly explain how central bank controls commercial banks.

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MODULE 4

UNIT 1 PERSONAL CONSUMPTION EXPENDITURE

CONTENTS

1.0 INTRODUCTION

Personal consumption expenditure is a component of the monthly Personal income report. The PCE measures inflation by tracking changes in prices. Unlike the consumer price index, which uses a fixed basket of goods and services, the PCE changes along with consumer spending habits. The PCE is released by the Bureau of Economic Analysis near the first business day of each month for a period ending two months prior. Compare to consumer price index.

2.0 OBJECTIVES

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

- explain the concept of personal consumption expenditure
- describe gross private domestic investment and net exports
- discuss the concept of government consumption and gross investment.

3.0 MAIN CONTENT

3.1 Meaning of Personal Consumption Expenditure

Personal consumption is the largest part of GDP and it is the spending of households on goods and services such as food, clothing, entertainment, etc. Consumption is usually denoted by '*C*'.

However, there are three main types of consumption expenditure: expenditures on durable goods, non durable goods and services.

a. *Consumer durable goods*: these are goods that last for a relatively long period of time. They include automobiles, furniture, household appliances, etc. It should be noted that new houses are not treated as consumer durables, but as part of investment.
b. *Consumer nondurable goods*: these are goods of shorter-lives. They include goods such as food, clothing, etc. They are usually used up fairly quickly.
c. *Services*: these are things that are bought by consumers but do not involve the production of physical items. Examples include the services of lawyers, doctors, financial and educational services, haircut, hairdo, etc.

Moreover, personal consumption expenditure is a measure of price changes in consumer goods and services. Personal consumption expenditures consist of the actual and imputed expenditures of households; the measure includes data pertaining to durables, non-durables and services. It is essentially a measure of goods and services targeted toward individuals and consumed by individuals.

3.1.1 Household Final Consumption Expenditure

Household Final Consumption Expenditure (HFCE) is a transaction of the national account's use of income account representing consumer spending. It consists of the expenditure incurred by resident households on individual consumption goods and services, including those sold at prices that are not economically significant. It also includes various kinds of imputed expenditure of which the imputed rent for services of owner-occupied housing (imputed rents) is generally the most important one. The household sector covers not only those living in traditional households, but also those people living in communal establishments, such as retirement homes, boarding houses and prisons.

More so, the definition of household final consumption expenditure includes expenditure by resident households on the domestic territory and expenditure by resident households abroad (outbound tourists), but

excludes any non-resident households expenditure on the domestic territory (inbound tourists). From this national definition, consumption expenditure may be distinguished from the household final consumption expenditure according to the domestic concept which includes household expenditure made on the domestic territory by residents and inbound tourists, but excludes residents' expenditure made abroad.

HFCE is measured at purchasers' prices which is the price the purchaser actually pays at the time of the purchase. It includes non-deductible value added tax and other taxes on products, transport and marketing costs and tips paid over and above stated prices.

SELF-ASSESSMENT EXERCISE

Critically discuss the concept of personal consumption expenditure.

4.0 CONCLUSION

We can conclude that personal consumption expenditure is the expenditure of households on goods and services. Finally, the personal consumption expenditure can be seen as an expenditure that measures inflation by tracking changes in prices but unlike the consumer price index, which uses a fixed basket of goods and services, the personal consumption expenditure changes along with consumer spending habits.

5.0 SUMMARY

In this unit, you have learnt that personal consumption expenditure is the expenditure of household on various goods and services and we have also learned the concept of household final consumption expenditure. Therefore, as household spend on their need we can invariably infer that personal consumption expenditure has been attained.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define personal consumption expenditure and discuss the concept in detailed.
2. Make a clear distinction between personal consumption expenditure and household final consumption expenditure.
3. Personal consumption expenditure is expenditure of household on goods and services. Do you agree with the statement? Discuss.

7.0 REFERENCE/FURTHER READING

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UNIT 2 GROSS PRIVATE DOMESTIC INVESTMENT AND NET EXPORTS

CONTENTS

1.0 INTRODUCTION

Before we go into the discussion of this unit, let us first of all define the term investment. Investment in economics refers to the purchase of new capitals which can be housing, plants and equipment, machinery and inventories. It is the spending by firms on final goods and services, primarily capital goods and housing. It is usually denoted by '*I*'.

However, the use of the term investment in economics is different from its common use in daily life activities, in which case, investment is referred to as the purchases of stocks, bonds or mutual funds. Although, a person who buys a share of a company's stocks acquires partial ownership of the existing physical and financial assets controlled by the company, a stock purchased does not usually correspond to the creation of new physical capital and so, it is not investment in the actual sense.

Gross private domestic investment is therefore the total investment in capital by the private sector.

More so, net exports can also be seen as positive or negative. It is positive if exports are greater than imports and this is *termed trade surplus*. It is negative if imports are greater than exports. This is known as *trade deficit*.

One may wonder why net export is included in the component of GDP. The reason for the inclusion of net exports in the definition of GDP is as follows: Consumption, investment and government spending are only expenditure on goods produced both domestically and by foreigners, so, they overstate domestic production because they contain expenditure on foreign produced goods (i.e. imports) which have to be subtracted from GDP to obtain a correct figure. In the same vein, consumption, investment and government also understates domestic production because some of the goods and services produced are sold abroad, and are therefore not included in the calculation of consumption, investment or government expenditure and thus, exports have to be added. For example, if Nigeria produces cassava and sells it in France, the cassava is part of Nigeria's production and should be counted as part of Nigeria's GDP.

2.0 OBJECTIVES

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

- explain the concept of gross private domestic investment
- define net export
- state how to measure gross private domestic investment and net exports.

3.0 MAIN CONTENT

3.1 Meaning of Gross Private Domestic Investment

Gross private domestic investment measures the investment used to calculate GDP in economic measurement of nation. It is an important component of GDP because it provides an indicator of the future productive capacity of the economy. However, it includes replacement purchases plus net additions to capital assets plus investments in inventories. We can also define gross private domestic investment as the expenditures on capital goods to be used for productive activities in the domestic economy that are undertaken by the business sector during a given time period.

Based on the definition above, gross private domestic investment includes three types of investment which we will look at briefly by defining them.

1. **Non Residential Investment**: This is expenditures made by firms on capital such as tools, machinery, and factories.

2. **Residential Investment**: This is expenditures on residential structures and residential equipment that is owned by landlords and rented to tenants.
3. **Change in Inventories**: This is the change of firm inventories in a given period, and inventory is the goods that are produced by firms but kept to be sold later.

3.1.1 Specific Measure of Gross Private Domestic Investment

Gross private domestic investment is a relatively specific measure of investment, it is a gross (versus net) measure of private (versus public) domestic (versus foreign) investment.

1. **Gross**: The gross private domestic investment includes the production of all capital goods, including those used to replace depreciated capital. Subtracting capital depreciation (officially known as the capital consumption adjustment) from gross private domestic investment results in net private domestic investment.

2. **Private**: However, gross private domestic investment measures investment expenditures made by the private sector. Any capital goods purchased by the public, or government, is included in government consumption expenditures and gross investment.

3. **Domestic**: Finally, gross private domestic investment is expenditures on capital goods used in the domestic economy. The alternative is investment expenditures on capital goods used by the foreign sector.

3.1.2 Calculation of Gross Private Domestic Investment

The calculation of gross private domestic investment can be a little tricky on its surface. Gross private domestic investment, or GDP, equals consumer spending plus investment plus government spending plus exports minus imports. However, this formula is the government standard for determining GDP. It is used by the federal bureau of statistics and many other organisations in order to determine consistent estimates. It is also useful to business analysts and other professionals.

Steps on how to calculate the gross private domestic investment

Step 1:
Now let us look at the first step on how to calculate the gross private Domestic Investment. The first thing is to calculate the amount by which businesses in the country have increased or decreased the value of their inventory compared to the previous year. Moreover, inventory refers to the stock of goods you have to sell. For example, the inventory of a food

manufacturer would be the finished, packaged food products ready for sale. Depending on economic conditions, this figure may be positive or negative.

Step 2:

Since we have known the techniques on how calculate the first step, we will proceed to the second step of calculating gross private domestic investment. We will then determine the value of new real estate construction in the country. However, this includes all types of buildings, such as single-family homes, multi-family apartments and office buildings.

Step 3:

In this step, we will need to add up the value of all the capital items businesses purchase to generate value. These items include office equipment, manufacturing machinery, software and tools.

Step 4:

Step 4 is the final step where we will find the total of the three figures that represent all the new capital in which businesses invest throughout the year. The resulting figure is the country's gross private domestic investment.

SELF-ASSESSMENT EXERCISE

What is the meaning of gross private domestic investment? Discuss the steps in calculating the gross private domestic investment.

3.2 Meaning of Net Export

Net exports equals exports minus imports. The value of net exports gives the difference between exports and imports.

a. Exports (X): exports are domestically produced final goods and services that are sold abroad. In other words, it is the sale of domestically produced goods and services to foreigners.
b. Imports (M): imports are purchases by domestic buyers of goods and services that were produced abroad. For instance**,** Nigeria's purchases of goods and services from abroad.

The difference between imports and exports (net exports) gives the net amount of spending on domestically produced goods and services. Net exports reflect the net demand by the rest of the world for a country's goods and services.

Net exports can be defined as the value of a country's total exports minus the value of its total imports. It is used to calculate a country's aggregate expenditures, or GDP, in an open economy. We can also define it as the difference between a country's total value of exports and

total value of imports. Depending on whether a country imports more goods or exports more goods, net exports can be a positive or negative value.
In other words, net exports is the amount by which foreign spending on a home country's goods and services exceeds the home country's spending on foreign goods and services. For example, if foreigners buy ₦300 billion worth of Nigerian exports and Nigeria buy ₦250 billion worth of foreign imports in a given year, net exports would be positive ₦50 billion. Factors affecting net exports include prosperity abroad, tariffs and exchange rates.

3.2.1 Measurement of Net Exports

Net exports are measured by comparing the value of the goods imported over a specific time period to the value of similar goods exported during that period. The formula for net exports is:

Net Exports = Value of Exports - Value of Imports

For example, let's suppose Nigeria purchased ₦3 billion of gasoline from other countries last year, but it also sold ₦7 billion of gasoline to other countries last year. Using the formula above, Nigeria's net gasoline exports are:

Net Exports = ₦7 billion - ₦3 billion = ₦4 billion
Net exports are an important variable used in the calculation of a country's GDP. When the value of goods exported is higher than the value of goods imported, the country is said to have a positive balance of trade for the period. When taken as a whole, this in turn can be an indicator of a country's savings rate, future exchange rates, and to some degree its self-sufficiency, although some economists constantly debate the idea.

Finally, net exports are negative when there is a decrease in the equilibrium GDP. This means that a country is importing more than what the country exports. There is no balance of trade in this situation.

SELF-ASSESSMENT EXERCISE

Define net export? Discuss the term “measurement of net exports”.

4.0 CONCLUSION

In this unit, we can conclude that gross private domestic investment is the official item in the national income and product accounts maintained by the Bureau of Economic Analysis measuring capital investment

expenditures. Gross private domestic investment is expenditures on capital goods to be used for productive activities in the domestic economy that are undertaken by the business sector during a given time period. These expenditures tend to be the least stable of the four expenditures, averaging between 12-18 per cent of gross domestic product.

However, net exports account for the balance or about 13 per cent of the GDP and are equal to the difference between exports and imports of goods and services.

5.0 SUMMARY

The unit has vividly takes a look at gross private domestic investment to net exports but gross private domestic investment is the official government measure of investment expenditures undertaken by the business sector. It seeks to quantify that portion of gross domestic product that is purchased by the business sector and which is used, in theory at least, for investment and the acquisition of capital goods while the net exports are also defined as the trade balance of the country and imports deduct from GDP and exports also add to the figure.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss how gross private domestic investment is calculated in an economy.
2. Distinguish between gross private domestic investment and net exports.
3. What is the difference between positive net exports and negative net exports?

7.0 REFERENCES/FURTHER READING

Ajayi, I. (2005). *Paper Presentation on Component of Goss Domestic Product*. Lagos: Mainframe Publication.

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UNIT 3 GOVERNMENT CONSUMPTION AND GROSS INVESTMENT

CONTENTS

1.0 INTRODUCTION

Government consumption includes expenditures by federal, state and local governments for final goods (such as school buildings, fighter aircrafts) and services (such as military salaries, school teachers' salaries, congressional salaries, etc.). Some of these expenditures are counted as government consumption and some are counted as government gross investment.

Government purchases do not include transfer payments, which are payments made by the government for which no current goods or services are produced. Examples of transfer payments are social security benefits, disability benefits, scholarships, bursaries, and so on. These are not included in government consumption because they are not purchases of anything that is currently produced and the payments are not made in exchange for any goods or services.

Interests paid on government debt are also counted as transfers, and are excluded from government purchases because they are not payments for current goods or services.

2.0 OBJECTIVES

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

- explain the concept of government consumption
- discuss national accounts measurement of government
- explain the concept of gross investment.

3.0 MAIN CONTENT

3.1 Meaning of Government Consumption Expenditure

Government Consumption Expenditure (GCE) is a transaction of the national account's use of income account representing government expenditure on goods and services that are used for the direct satisfaction of individual needs (individual consumption) or collective needs of members of the community (collective consumption).

It consists of the value of the goods and services produced by the government itself other than own-account capital formation and sales and of purchases by the government of goods and services produced by market producers that are supplied to households - without any transformation - as social transfers in kind.

SELF-ASSESSMENT EXERCISE

Discuss the term government consumption expenditure.

3.2 National Accounts Measurement of Government Spending

1. Government consumption expenditures and gross investment

This is a measure of government spending on goods and services that are included in GDP. Consumption expenditures include what government spends on its workforce and for goods and services, such as fuel for military jets and rent for government buildings and other structures. Gross investment includes what government spends on structures, equipment and software, such as new highways, schools and computers.

2. Government current expenditures

Total spending by government is much larger than the spending included in GDP. Current expenditures measures all spending by government on current-period activities, and consists not only of government consumption expenditures, but also current transfer payments, interest payments, and subsidies (and removes wage accruals less disbursements). Payments such as transfer payments and interest payments are excluded from the calculation of GDP because these payments do not represent purchases of goods and services, though income from transfer and interest payments may fund consumption expenditures or investment in other sectors of the economy.

3. Total government expenditures

In addition to the transactions that are included in current expenditures, this measure includes gross investment and other capital-type expenditures that affect future-period activities, such as capital transfer payments and net purchases of non produced assets (for example, land). Total expenditures exclude Consumption of Fixed Capital (CFC), which is a noncash charge.

SELF-ASSESSMENT EXERCISE

Discuss with detailed example the measurement of government spending.

3.3 Gross Investment

Gross investment is the value of investment in buildings, machinery, etc. before taking away depreciation (the fall in value of something over time). It can also be the amount a company invests in business assets that does not account for any depreciation. The gross figure more accurately reflects the company's actual financial commitment to an asset from which it can derive a return on investment.

Investment has different meanings in finance and economics. In economics, investment is the accumulation of newly produced physical entities, such as factories, machinery, houses, and goods inventories. In finance, investment is putting money into an asset with the expectation of capital appreciation, dividends, and/or interest earnings. This may or may not be backed by research and analysis. Most or all forms of investment involve some form of risk, such as investment in equities, property, and even fixed interest securities which are subject, among other things, to inflation risk. It is indispensable for project investors to identify and manage the risks related to the investment.

SELF-ASSESSMENT EXERCISE

What do you understand by the term “gross investment”?

4.0 CONCLUSION

Government consumption expenditures and gross investment measures the portion of gross domestic product, or final expenditures, that is accounted for by the government sector. Government consumption expenditures consist of spending by government to produce and provide services to the public, such as public school education. Gross investment consists of spending by government for fixed assets that directly benefit the public, such as highway construction, or that assist government agencies in their production activities, such as purchases of military hardware.

5.0 SUMMARY

Government activity at the federal, state, and local levels affects the economy in many ways. As noted earlier, governments contribute to economic output when they provide services to the public and when they invest in capital. They also provide social benefits, such as social security and medicare, to households. Governments also affect the economy through taxes and by providing incentives for various business activities. In addition, governments affect the economy through their collective saving, the difference between their revenue and spending.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define the concept of government consumption expenditure.
2. What do you understand by the word "gross investment"?
3. Do you think there are differences between government consumption expenditure and gross investment? Discuss.

7.0 REFERENCES/FURTHER READING

Akinsanya, T. (2011). *Macroeconomics Theory* (2nd ed.). Makinon Publication Limited.

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MODULE 5

Unit 1 Meaning and Nature of Aggregate Demand Curve
Unit 2 Meaning and Nature of Aggregate Supply Curve
Unit 3 Short-run and Long-run Aggregate Demand and Supply

UNIT 1 MEANING AND NATURE OF AGGREGATE DEMAND CURVE

CONTENTS

1.0 INTRODUCTION

One of the most important issues in macroeconomics and to the government is the determination of the overall price level which in turn is determined by the interaction of aggregate demand and aggregate supply. Thus, it is important to study the behaviour of aggregate demand and aggregate supply. This lecture examines concepts of aggregate demand and supply.

The total amount of goods and services demanded in the economy at a given overall price level and in a given time period is represented by the aggregate-demand curve, which describes the relationship between price levels and the quantity of output that firms are willing to provide.

However, the total supply of goods and services produced within an economy at a given overall price level in a given time period is represented by the aggregate-supply curve, which describes the relationship between price levels and the quantity of output that firms are willing to provide.

2.0 OBJECTIVES

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

- explain the nature of aggregate demand
- sketch and explain the nature of aggregate demand curve
- differentiate between short-run and long-run aggregate demand and supply.

3.0 MAIN CONTENT

3.1 Meaning of Aggregate Demand

In this unit we shall define what is aggregate demand and aggregate demand curve. So let us start by defining aggregate demand. Aggregate demand is the total demand for goods and services in the economy. Aggregate demand is usually equal to planned expenditure. Aggregate demand is national income denoted as Y and planned expenditure is the addition of consumption expenditure (C), investment (I) and government consumption expenditure (G). Y = C + I + G.

3.1.1 Aggregate Demand Curve

Having defined aggregate demand, let us see how the aggregate demand curve looks like. The aggregate demand curve shows the relationship between short-run equilibrium output, 'Y', (which equals planned aggregate spending) and price level, 'P' or inflation. However, it should be noted that the relationship is a negative one, implying that an increase in price level will lead to a decrease in aggregate output and vice versa.

More so, we can conclude that the name of the curve reflects the fact that short-run equilibrium output is determined by total planned spending or demand in the economy. We can then get the relationship between the short-run equilibrium output and price level shown in figure 1 but the overall price level is on the vertical axis and the aggregate output is on the horizontal axis.

Let us take a look at the graph of aggregate demand curve from figure 1. We can see that the aggregate demand (AD) curve is downward-slopping; depicting a negative relationship between output and price level (or inflation). Therefore we can say that an increase in the price level will reduce short-run equilibrium output. But it should be noted that the AD curve can either be straight or curving.

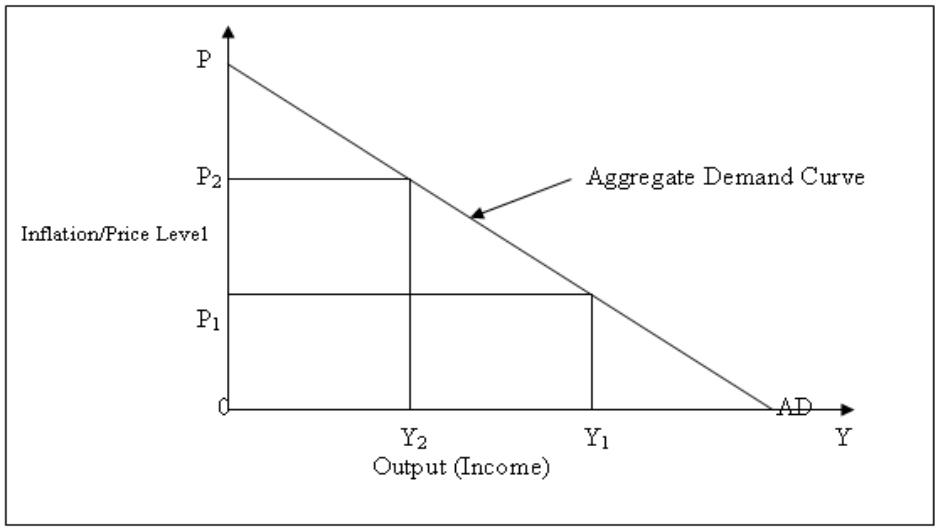

Fig. 1: Diagram Showing the Aggregate Demand Curve

Note that the AD curve is not the sum of all the market demand in the economy. It is not a market demand curve. It is different from an ordinary demand curve in the sense that the logic behind the ordinary demand curve is that when price of a commodity changes, ceteris paribus, the prices of all other commodities will not change. However, in the case of aggregate demand curve this logic does not follow, because when the general price level changes every other prices like wages (price of labour), commodity prices and interest rates will change. Given this, the logic that explains why a simple demand curve slopes downward fails to explain why the AD curve also has a negative slope. Note that the AD curve shows a negative relationship between a short-run equilibrium output and price level (inflation). Economists sometimes define the AD curve as the relationship between aggregate demand and the price level rather than inflation.

SELF-ASSESSMENT EXERCISE

With the aid of diagram, discuss the aggregate demand curve.

3.2 Reasons for the Downward Sloping of the Aggregate Demand Curve

a. Monetary authority response: Let us consider the situation when inflation is high, the monetary authority (Central Bank of Nigeria (CBN), in the case of Nigeria) responds by raising the interest rate. The increase in interest rate reduces consumption and investment spending (autonomous expenditure). The reduction in consumption and investment spending in turn reduces short-run equilibrium output. The higher inflation which led to a reduction in output makes aggregate demand curve to be downward slopping.

b. Effectiveness of Money Supply and Demand on Interest Rate: Aggregate demand falls when the price level increases because the higher price level causes the demand for money (M^d) to rise. With money supply constant, the interest rate will rise to re-establish equilibrium in the money market. It is the higher interest rate that causes aggregate output to fall. Thus, in the end, the increase in the price level will lead to a fall in aggregate output, which gives a negative relationship between the two.

c. Consumption expenditure: Consumption expenditure tends to rise when interest rate falls and fall when interest rate rises, just as planned investment does. The consumption link is another reason for the downward slopping shape of AD curve. An increase in general price level increases the demand for money, which in turn leads to an increase in the interest rate. A rise in interest rate causes a decrease in consumption as well as planned investment, which consequently leads to a decrease in output or income.

d. Analysis of real wealth effect: Consumption depends on wealth (that is, holding of money, shares, housing, stocks, etc.). Other things being equal, the more wealth households have, the more they consume. If household wealth decreases, the result will be less consumption now and in the future. The price level has an effect on some kinds of wealth. For example, an increase in the price level leads to decrease in purchasing power and lowers the real value of some types of wealth such as stocks, housing, etc. however, the effect of a rise in general price level on wealth depends on what happens to stock prices and housing prices when the overall price level rises. If these two prices rise by the same percentage as the overall price level. The real value of stocks and housing will remain unchanged and this will lead to a decrease in consumption, which leads to a decrease in aggregate output. Thus, there is a negative relationship between the price level and output through this real balance effect.

e. The uncertainty in the economy: During period of inflation, aggregate demand falls because in uncertain economic environment both households and firms may become more cautious and reduce their spending.

f. Foreign price of domestic goods: A final link between the price level and total spending operates through the prices of domestic goods and services sold abroad. The foreign price of domestic goods depends in part on the rate at which the domestic currency exchanges for foreign currencies. However, for constant exchange rate between currencies, a rise in domestic inflation causes the prices of domestic goods in foreign markets to rise more quickly. As domestic goods become relatively more expensive to prospective foreign purchasers, export sales decline.

Since net exports are part of aggregate expenditure, so we find that increased inflation tends to reduce spending and cause the AD curve to slope downward.

SELF-ASSESSMENT EXERCISE

Discuss the reasons for the downward sloppy of aggregate demand curve.

4.0 CONCLUSION

We can conclude from this unit that aggregate demand is the total demand for goods and services produced in the economy over a period of time while aggregate demand curve shows the relationship between short-run equilibrium outputs, which is equal to planned aggregate spending and price level or inflation.

5.0 SUMMARY

In this unit, you have been learnt the meaning of aggregate demand and aggregate demand curve. You also learnt that aggregate demand represents the total demand for goods and services in an economy. By defining aggregate demand in terms of the price level and output or income, it is possible to analyse the effects of other variables, like the interest rate, on aggregate demand through an aggregate demand equation.

6.0 TUTOR-MARKED ASSIGNMENT

1. Aggregate demand is the total demand for goods and services produced in the economy over a period of time. Do you agree with the statement? Discuss.
2. With the aid of diagram, explain the analysis of aggregate demand curve.
3. Describe the impact of aggregate demand in the economy.

7.0 REFERENCES/FURTHER READING

Folawewo, A. (2009). "Introductory Economics." *Ibadan Distance learning Series.* University Press Ibadan.

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UNIT 2 MEANING AND NATURE OF AGGREGATE SUPPLY CURVE

CONTENTS

1.0 INTRODUCTION

In this unit we are looking at the meaning of aggregate supply, so we can say that 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. It is represented by the aggregate-supply curve, which describes the relationship between price levels and the quantity of output that firms are willing to provide. Normally, there is a positive relationship between aggregate supply and the price level. Rising prices are usually signals for businesses to expand production to meet a higher level of aggregate demand and also known as total output.

2.0 OBJECTIVES

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

- describe the nature of aggregate supply
- sketch and explain the nature of aggregate supply curve.

3.0 MAIN CONTENT

3.1 Meaning of Aggregate Supply

Based on the above analysis of aggregate demand, we can then take a look at the meaning of aggregate supply. So we can start by defining aggregate supply as the total supply of goods and services in an economy. Although economists have little disagreement about the logic

behind the aggregate demand curve, there is a great deal of disagreement about the logic behind the aggregate supply curve and its shape. However, in economics, aggregate supply can also be seen as the total supply of goods and services that firm in a national economy plan to sell during a specific time period. It is the total amount of goods and services that firms are willing to sell at a given price level in an economy.

SELF-ASSESSMENT EXERCISE

Define the term aggregate supply.

3.2 Aggregate Supply Curve

Now let us consider the aggregate supply curve, the way we have done for aggregate demand. The aggregate supply (AS) curve shows the relationship between the aggregate quantity of output supplied by all firms in an economy and the overall price level. The short-run aggregated supply curve usually gives a positive relationship between aggregate supply and the overall price level. This implies that an increase in price level will lead to an increase in aggregate supply and vice versa.

However, the aggregate supply curve is not a market supply curve, and it is not the simple sum of all the individual supply curves in the economy. One of the reasons for this is that most firms do not simply respond to prices determined in the market but instead, they actually set prices (it is only in perfectly competitive markets that firms simply react to prices determined by market forces). In contrast, firms in imperfect competitive industries make both output and price decisions based on their perceptions of demand and costs. Price setting firms (imperfect competitive firms) do not have individual supply curves and this is because these firms are choosing both output and price at the same time and if supply curves do not exist for these imperfect markets, we certainly cannot add them together to get an aggregate supply curve.

Based on the aforementioned, we can look at the aggregate supply curve as a "price-output response" curve, that is, a curve that traces out the price and output decisions of all the markets and firms in the economy under a given set of circumstances.

SELF-ASSESSMENT EXERCISE

Explain the term "aggregate supply curve".

3.3 Aggregate Supply in the Short-Run

Although it is generally opined that the AS curve has a positive slope, the shape of the short-run AS curve is a source of much controversy in macroeconomics. It is often argued that at very low levels of aggregate output (for example, when the economy is in a recession, the aggregate supply curve is fairly flat, and at high levels of output (for example, when the economy is experiencing a boom); the curve is vertical or nearly vertical. Thus, we have the AS curve sloping upward and becoming vertical when the economy reaches its capacity or maximum output. Such a curve is shown in figure 1.

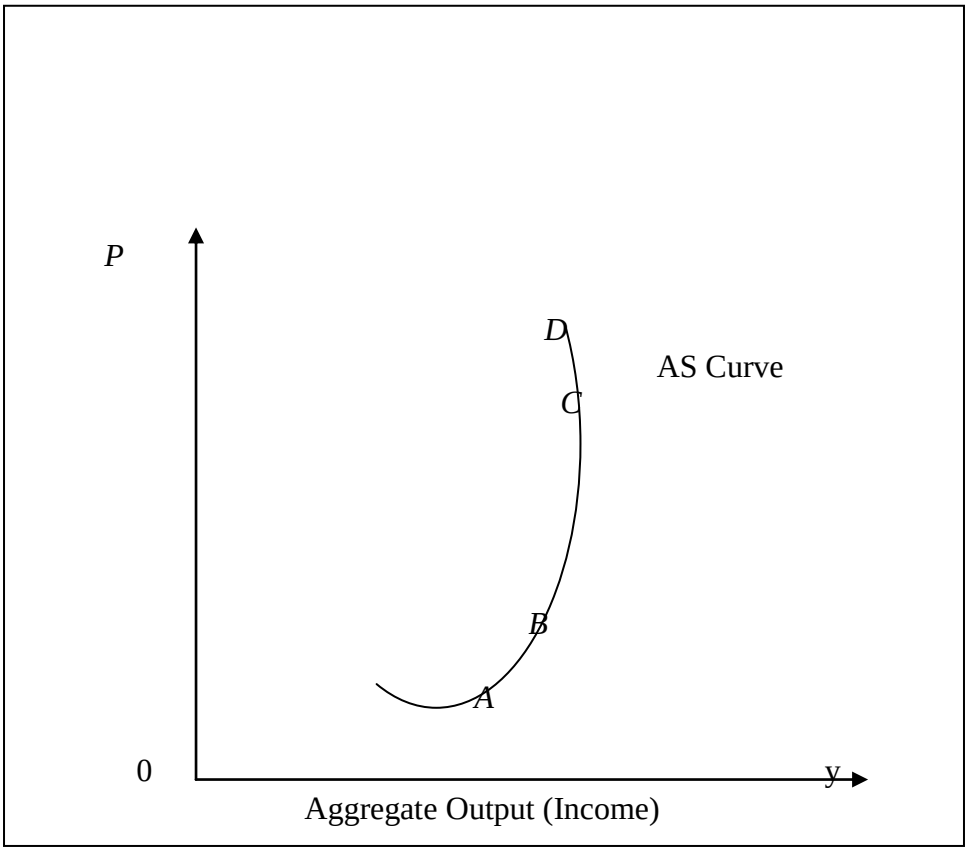

Fig. 1: The Short Run Aggregate Supply Curve

In figure 2.1, aggregate output is considerably higher at point *B* than at point *A* but the price level at point *B* is only slightly higher than it is at point *A*. Along these points, aggregate output is low and the resulting aggregate supply curve is fairly flat. Between points *C* and *D*, there is no increase in aggregate output because the economy is already in full capacity (that is utilising all its available resources and producing at its maximum level of output), but there is a large increase in the price level. Thus, point *C* is the point where the economy begins to operate at full capacity. As the economy approaches full capacity (point *C*), the curve becomes nearly vertical but between points *C* and *D* when the economy

is at full capacity, the curve becomes vertical. In the short-run, the aggregate supply curve has a positive slope. At low levels of aggregate output, the curve is fairly flat, but as the economy approaches full capacity, the curve becomes nearly vertical. At full capacity, the curve is vertical.

SELF-ASSESSMENT EXERCISE

With the aid of diagram explain the aggregate supply curve in the short-run.

3.4 Reasons for the Shape of the Short-Run Aggregate Supply Curve

Several reasons accounted for the shape of the short-run AS curve. Some of the reasons associated with the shape of the AS curve are as follows:

i. The fairly flat shape

At low levels of output in the economy, firms are likely to be producing at levels of output which are below their existing capacity constraints. That is, they are likely to be holding excess capital and labour, and it is also likely that there will be cyclical unemployment in the economy as a whole in periods of low output.

Suppose now that there is an increase in aggregate demand when the economy is operating at low levels of output. The firms will respond to this increase in aggregate demand by increasing output (much more than they increase price) with little or no increase in the overall price level. This is because firms are already operating below capacity, so, the extra cost of producing more output is likely to be small. This is because firms can hire more labour from the ranks of the unemployed workers without much, if any, increase in wage rates. This makes the aggregate supply curve to be fairly flat at low levels of aggregate output.

In figure 1, if the economy operation is at a low level of output such as at point *A* that is below full capacity, then, suppose now that there is an increase in aggregate demand from point *A* to *B*, one can see from the curve that the movement from point *A* to *B* makes the curve to become fairly flat as the increase in aggregate demand results in an increase in output with a small increase in overall price level.

Thus, the aggregate supply curve is likely to be fairly flat at low levels of aggregate output.

ii. The Nearly Vertical/Vertical Shape

If aggregate output continues to expand, the firms and the economy as a whole will begin to move closer and closer to full capacity. Firm's response to the increase in aggregate output is likely to change from mainly increasing output to increasing prices. This is so because as firms continue to increase their output, they will begin to bump into their short-run capacity constraint. In addition, unemployment will be falling as firms hire more workers to produce the increased output so the economy will be approaching its full capacity.

As aggregate output rises, the prices of labour and capital will begin to rise more rapidly, leading firms to increase their output prices. But at full capacity (when all sectors in the economy are fully utilising their existing factories and equipment and factors of production, where there is little or no cyclical unemployment) when it is virtually impossible for firms to expand any further, firms will respond to any further increase in demand only by raising prices, since they are unable to expand output any further. At full capacity and with output remaining unchanged, the aggregate supply curve becomes vertical.

In figure 1, moving from points *C* to *D* results in no increase in aggregate output but a large increase in the price level, so, the economy is at full capacity at point *C*. It can be seen that a little below point *C*, as the economy approaches point *C* or as the economy approaches full capacity, the aggregate supply curve becomes nearly vertical but at full capacity which is at point *C*, the curve assume a vertical shape.

SELF-ASSESSMENT EXERCISE

Give and explain one reason for the shape of the short-run average supply curve.

3.5 The Long-Run Aggregate Supply Curve

It is interesting to know that whether or not the economy is producing at a level of output close to full capacity, there must be a time lag between changes in input prices and changes in output prices for the aggregate supply curve to slope upward. Therefore, if input prices change at exactly the same rate as output prices, the AS curve will be vertical. For example, all output and input prices increase by 10 per cent, no firm will find it advantageous to change its level of output because the output level that maximised profits before the 10 per cent increase will be the same as the level that maximises profits after the 10 per cent increase. Thus, if input prices adjusted immediately to output prices, the aggregate supply curve would be vertical.

It is precisely the above that leads to an important distinction between the AS curve in the short-run and the AS curve in the long-run. As noted earlier, for the AS curve to be vertical, input prices must change at exactly the same rate as output prices and for the AS curve not to be vertical, some costs must lag behind increases in the overall price level. If all prices (both input and output prices) change at the same rate, the level of aggregate output will not change.

In the short-run (a period when at least one input varies and the others are fixed), at least changes in some costs lag behind changes in price level. This is because the short-run is a period too short for input price to quickly adjust to overall macroeconomic changes. Thus, in the short-run, wage rates (price of labour) tend to adjust slowly to overall macroeconomic changes and the AS curve cannot be vertical. In the short-run, the wage rate may increase at exactly the same rate as the overall price level if increase in the price level is fully anticipated. However, most employees do not usually receive automatic pay rises as the overall price level rises, and sometimes, increases in the price level are unanticipated. Therefore, in the short-run, changes in costs lag behind price level changes, but ultimately move with the overall price level.

In the long-run, however, which is a time sufficient for adjustments to be made such that costs and price level change at the same rate, the AS curve is best modeled as a vertical curve. In other words, in the short-run, if the wage rates and other costs adjust fully to changes in prices, and if all prices (both input and output prices) change at the same rate and the level of aggregate output does not change, thus, the long-run AS curve is vertical. The long-run AS curve is shown in figure 2.

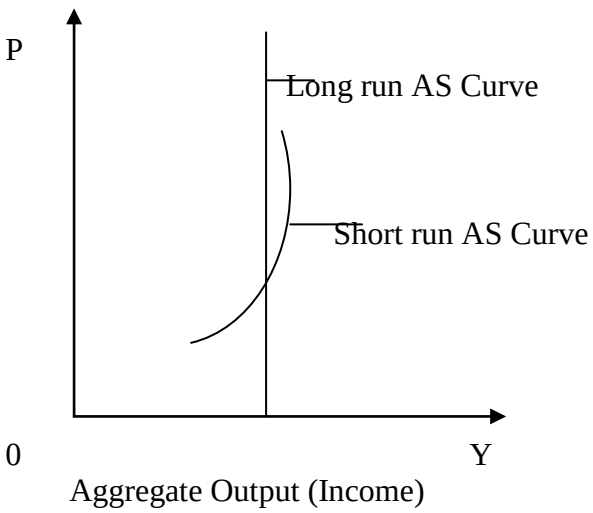

Fig. 2: The Long-Run Aggregate Supply Curve

SELF-ASSESSMENT EXERCISE

Differentiate between the short-run and long-run aggregate supply curve.

4.0 CONCLUSION

It should be noted that at this juncture, aggregate supply has been seen as the total supply of goods and services that firm in a national economy plan on selling during a specific time period. It is also the total amount of goods and services that firms are willing to sell at a given price level in an economy. However, aggregate supply curve shows the quantity of real GDP that is supplied by the economy at different price levels.

5.0 SUMMARY

In this unit, you have learnt the meaning of aggregate supply and aggregate supply curve. You also learnt that 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 while aggregate supply curve is the relationship between the price level and the quantity of real GDP supplied, holding all other determinants of quantity supplied constant. This is called the economy's aggregate supply curve.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define aggregate supply and aggregate demand curve.
2. Using diagram, explain in detail, the analysis of aggregate demand curve.
3. Critically analyse the effect of aggregate supply curve on Nigerian labour market.

7.0 REFERENCES/FURTHER READING

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UNIT 3 AGGREGATE SUPPLY-AGGREGATE DEMAND MODEL

CONTENTS

1.0 INTRODUCTION

In this unit we are looking at the meaning of aggregate supply and aggregate demand model and how it is applied in an economy both in the short and long run. However, the shifts in aggregate demand in the aggregate supply to aggregate demand in the contractionary fiscal policy shift and positive supply shock will also be examined.

2.0 OBJECTIVES

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

- explain the aggregate supply-aggregate demand model
- analyse shifts in aggregate demand-aggregate supply in aggregate supply-aggregate demand model.

3.0 MAIN CONTENT

3.1 Aggregate Supply-Aggregate Demand Model

The aggregate supply curve does not usually shift independently on its own unlike the aggregate demand curve and this is because aggregate supply does not contain the term that are indirectly related to the price level or output. The only thing that aggregate supply contains is derived from the aggregate supply and aggregate demand model.

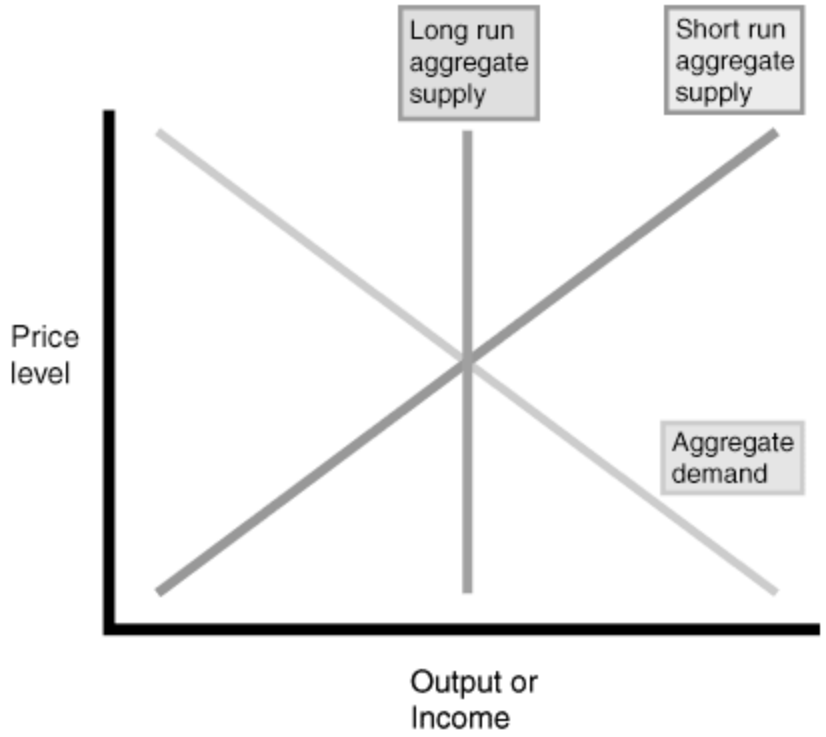

Fig. 1: Graph of the Aggregate Supply-Aggregate Demand Model

The graph in figure 1 shows aggregate supply and aggregate demand model. However, the graph shows the aggregate demand curve, short-run aggregate supply curve and long-run aggregate supply curve. The vertical axis is the price level while the horizontal axis is the output or income. However, the three curves cut one another at point P which is the equilibrium.

SELF-ASSESSMENT EXERCISE

Explain the effect of increase in price level on short-run and long-run aggregate supply curve.

3.2 Shifts in Aggregate Demand in the Aggregate Supply-Aggregate Demand Model

The primary cause of shifts in the economy is aggregate demand. But it should be noted that aggregate demand can be affected one way or the other by consumers both domestic foreign, and the government. It should be noted that any expansionary policy will shift the aggregate demand curve to the right, while contractionary policy will shift the aggregate demand curve to the left. Moreover, in the long-run, as we should note that long-term aggregate supply will be fixed by the factors of production, short-term aggregate supply shifts to the left so that the only effect of a change in aggregate demand is a change in the price level.

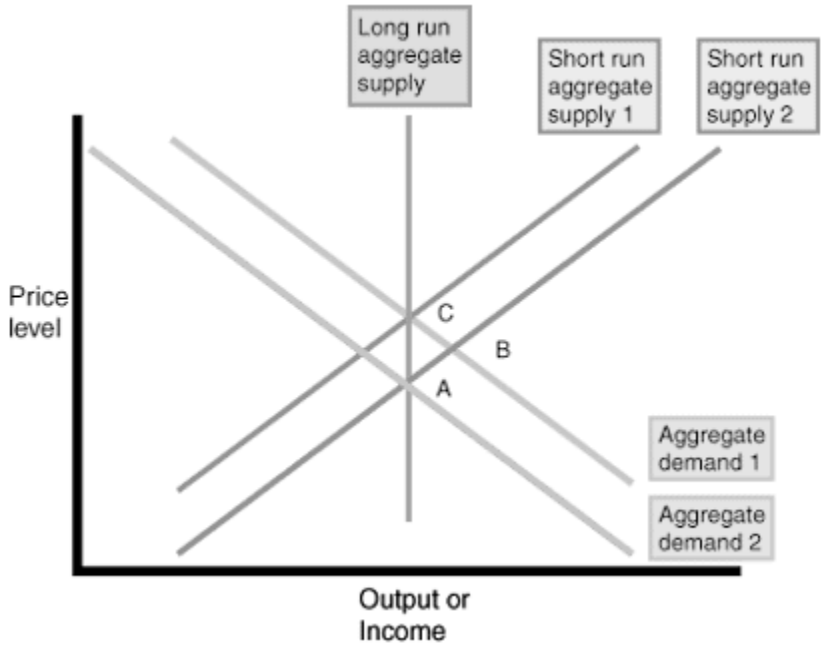

Fig. 2: Graph of an expansionary shift in the Aggregate Supply-Aggregate Demand Model

From the graph in figure 2, at point A where short-run aggregate supply curves 1 meets the long-run aggregate supply curve and aggregate demand curve 1. The short-run equilibrium is where the short-run aggregate supply curve and the aggregate demand curve meet and the long-run equilibrium is the point where the long-run aggregate supply curve and the aggregate demand curve meet.

Let assume that during expansionary monetary policy, the aggregate demand curve shifts to the right from aggregate demand curve 1 to aggregate demand curve 2. But the intersection of short-run aggregate supply curve 1 and aggregate demand curve 2 will then shift to the upper right from point A to point B because at this point, both the output and the price level have increased and this gives rise to a new short-run equilibrium.

But, as we move to the long-run, the expected price level comes into line with the actual price level as firms, producers and workers adjust their expectations. When this occurs, the short-run aggregate supply curve shifts along the aggregate demand curve until the long-run aggregate supply curve, the short-run aggregate supply curve, and the aggregate demand curve all intersect. This is represented by point C and is the new equilibrium where short-run aggregate supply curve 2 equals the long-run aggregate supply curve and aggregate demand curve 2. Thus, expansionary policy causes output and the price level to increase in the short-run, but only the price level to increase in the long-run.

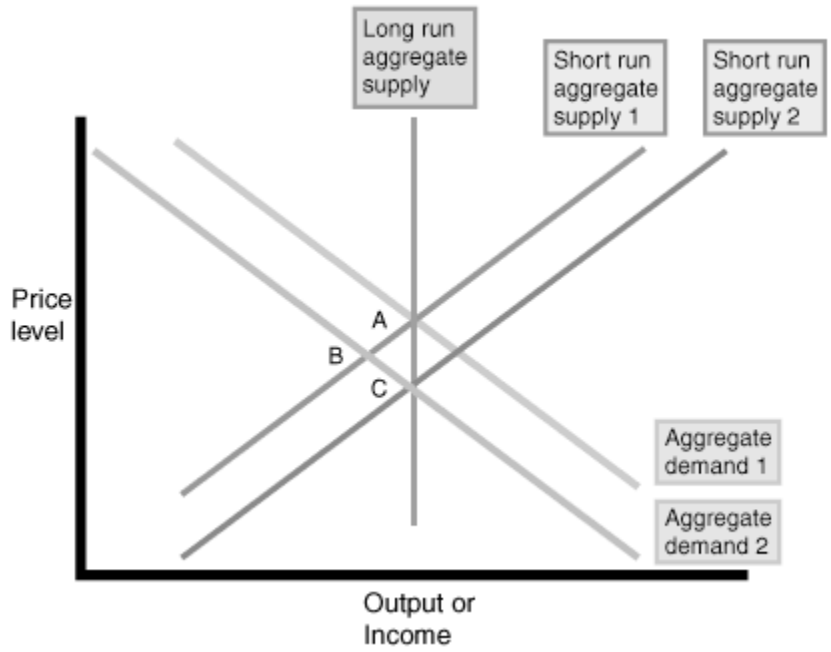

Fig. 3: Graph of a Contractionary Shift in the Aggregate Supply-Aggregate Demand Model

The opposite case exists when the aggregate demand curve shifts to the left. For example, say the government pursues contractionary monetary policy. Let begin again at point A where short-run aggregate supply curve 1 meets the long-run aggregate supply curve and aggregate demand curve 1. We are in long-run equilibrium to begin.

However, if the government pursues contractionary monetary policy, the aggregate demand curve shifts to the left from aggregate demand curve 1 to aggregate demand curve 2. It should be noted that at this juncture the intersection of short-run aggregate supply curve 1 and the aggregate demand curve will then shift to the lower left from point A to point B. At point B, both output and the price level have decreased, and this gives rise to new short-run equilibrium.

Let us consider the long-run analysis, we can see from the graph that as we move to the long-run, the expected price level comes into line with the actual price level as firms, producers and workers adjust their expectations. When this occurs, the short-run aggregate supply curve shifts down along the aggregate demand curve until the long-run aggregate supply curve, the short-run aggregate supply curve, and the aggregate demand curve all intersect. This is represented by point C and is the new equilibrium where short-run aggregate supply curve 2 meets the long-run aggregate supply curve and aggregate demand curve 2. Therefore, we can conclude that contractionary policy causes output and the price level to decrease in the short-run, but only the price level to decrease in the long-run.

Furthermore, this is the logic that is applied to all shifts in aggregate demand. The long-run equilibrium is always dictated by the intersection of the vertical long-run aggregate supply curve and the aggregate demand curve. The short-run equilibrium is always dictated by the intersection of the short-run aggregate supply curve and the aggregate demand curve. When the aggregate demand curve shifts, the economy always shifts from the long-run equilibrium to the short-run equilibrium and then back to a new long-run equilibrium. By keeping these rules and the examples above in mind it is possible to interpret the effects of any aggregate demand shift in both the short-run and in the long-run.

SELF-ASSESSMENT EXERCISE

With the aid of diagram differentiate between the expansionary and contractionary shift in aggregate demand in aggregate supply-aggregate demand model.

3.3 Shifts in Aggregate Supply in the Aggregate Supply-Aggregate Demand Model

The Shifts in the short-run aggregate supply curve are much rarer than shifts in the aggregate demand curve. Usually, the short-run aggregate supply curve only shifts in response to the aggregate demand curve. But, when a supply shock occurs, the short-run aggregate supply curve shifts without prompting from the aggregate demand curve. Fortunately, the correction process is exactly the same for a shift in the short-run aggregate supply curve as it is for a shift in the aggregate demand curve. That is, when the short-run aggregate supply curve shifts, a short-run equilibrium exists where the short-run aggregate supply curve intersects the aggregate demand curve. Then the aggregate demand curve shifts along the short-run aggregate supply curve until the aggregate demand curve intersects both the short-run and the long-run aggregate supply curves. Once the economy reaches this new long-run equilibrium, the price level is changed but output is not.

More so, let me remind you that there are two types of supply shocks. Adverse supply shocks include things like increases in oil prices, a drought that destroys crops, and aggressive union actions. In general, adverse supply shocks cause the price level for a given amount of output to increase. This is represented by a shift of the short-run aggregate supply curve to the left. Positive supply shocks include things like decreases in oil prices or an unexpected great crop season. In general, positive supply shocks cause the price level for a given amount of output to decrease. This is represented by a shift of the short-run aggregate supply curve to the right.

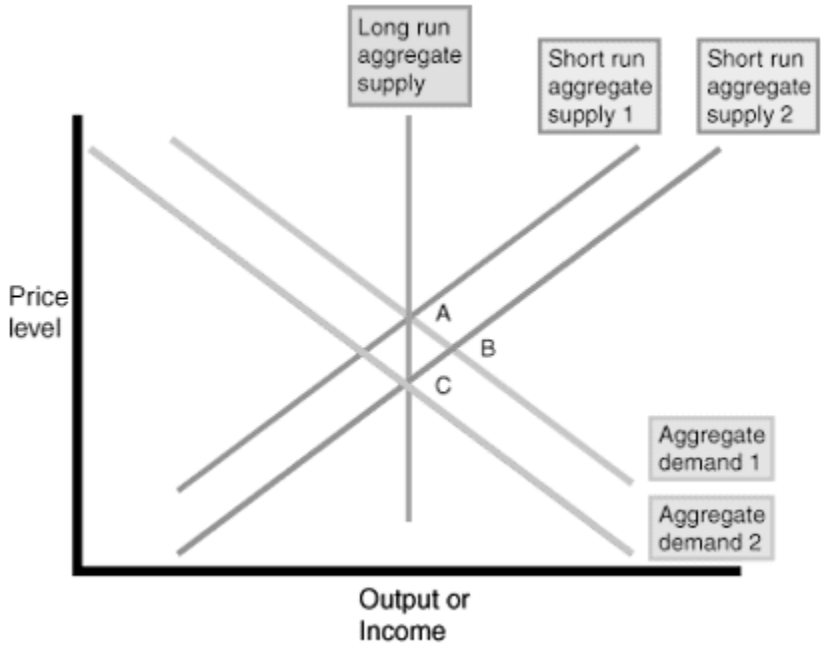

Fig. 4: Graph of a Positive Supply Shock in the Aggregate Supply-Aggregate Demand Model

Let us begin at point A in figure 4 where short-run aggregate supply curve 1 meets the long-run aggregate supply curve and aggregate demand curve 1, at this juncture, we are in the long-run equilibrium.

Let us assume that a positive supply shock occurs, which is a reduction in the price of oil. In this situation, the short-run aggregate supply curve shifts to the right from short-run aggregate supply curve 1 to short-run aggregate supply curve 2. The intersection of short-run aggregate supply curve 2 and aggregate demand curve 1 has now shifted to the lower right from point A to point B. At point B, output has increased and the price level has decreased and this gives rise to a new short-run equilibrium.

However, as we move to the long-run, aggregate demand adjusts to the new price level and output level. When this occurs, the aggregate demand curve shifts along the short-run aggregate supply curve until the long-run aggregate supply curve, the short-run aggregate supply curve, and the aggregate demand curve all intersect. This is represented by point C and is the new equilibrium where short-run aggregate supply curve 2 equals the long-run aggregate supply curve and aggregate demand curve 2. Thus, a positive supply shock causes output to increase and the price level to decrease in the short-run, but only the price level to decrease in the long-run.

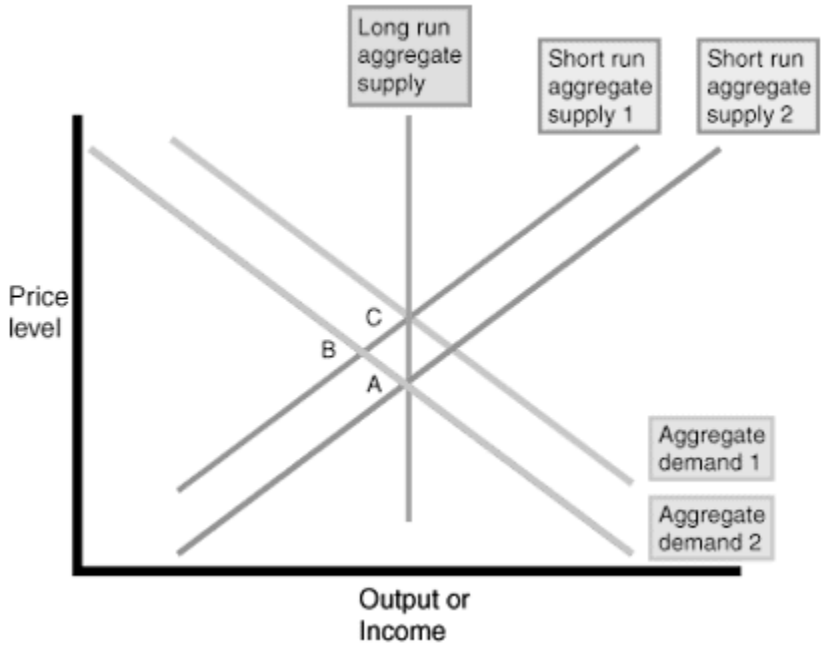

Fig. 5: Graph of an Adverse Supply Shock in the Aggregate Supply-Aggregate Demand Model

We will start at this juncture at point A where short-run aggregate supply curve 1 meets the long-run aggregate supply curve and aggregate demand curve, but we should note that we are in long-run equilibrium.

Let us assume that if an adverse supply shock occurs which is a terrifying increase in the price of oil. In this case, the short-run aggregate supply curve shifts to the left from short-run aggregate supply curve 1 to short-run aggregate supply curve 2. The intersection of short-run aggregate supply curve 2 and aggregate demand curve 1 has now shifted to the upper left from point A to point B. At point B, output has decreased and the price level has increased. This condition is called stagflation. This is also the new short-run equilibrium.

However, as we move to the long-run, aggregate demand adjusts to the new price level and output level. When this occurs, the aggregate demand curve shifts along the short-run aggregate supply curve until the long-run aggregate supply curve, the short-run aggregate supply curve, and the aggregate demand curve all intersect. This is represented by point C and is the new equilibrium where short-run aggregate supply curve 2 equals the long-run aggregate supply curve and aggregate demand curve 2. Thus, an adverse supply shock causes output to decrease and the price level to increase in the short-run, but only the price level to increase in the long-run.

This is the logic that is applied to all shifts in short-run aggregate supply. The long-run equilibrium is always dictated by the intersection

of the vertical long-run aggregate supply curve and the aggregate demand curve. The short-run equilibrium is always dictated by the intersection of the short-run aggregate supply curve and the aggregate demand curve. When the short-run aggregate supply curve shifts, the economy always shifts from the long-run equilibrium to the short-run equilibrium and then back to a new long-run equilibrium. By keeping these rules and the examples above in mind, it is possible to interpret the effects of any short-run aggregate supply shift, or supply shock, in both the short-run and in the long-run.

SELF-ASSESSMENT EXERCISE

With the aid of diagram differentiate between positive supply shocks from adverse supply shocks in aggregate supply-aggregate demand model.

4.0 CONCLUSION

In this unit you must have learnt a lot of analysis about aggregate demand and aggregate supply. First, we covered how and why the short-run aggregate supply curve shifts. Second, we reviewed how and why the aggregate demand curve shifts. Third, we introduced the mechanism that moves the economy from the long-run to the short-run and back to the long-run when there is a change in either aggregate supply or aggregate demand. At this stage, you have the ability to use the highly realistic model of the macro economy provided by the aggregate supply-aggregate demand diagrams to analyse the effects of macroeconomic policies.

5.0 SUMMARY

In this unit, you have learnt that aggregate demand is the aggregate of all the demand in the economy. It includes consumption by households, investment by firms, government spending and consumption by foreigners on exports. Consumption by Nigerian households on foreign imports must be subtracted because it is included in the measure called 'consumption by households'. An aggregate demand curve shows the total demand in the whole economy at any given price level. However, aggregate supply is the aggregate of all the supply in the economy.

Effectively, it is the sum of all the industry supply curves in an economy. An aggregate supply curve shows the amount supplied (or the level of real output) in the whole economy at any given price.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss in detailed, the aggregate supply-aggregate demand model.
2. With the aid of diagram, show the shift in the aggregate supply model and shift in aggregate supply in the aggregate supply-aggregate demand.
3. Briefly explain the expansionary policy shift in the aggregate supply-aggregate demand analysis.
4. Discuss the contractionary policy shift of aggregate supply-aggregate demand analysis.

7.0 REFERENCES/FURTHER READING

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MODULE 6

Unit 1 Meaning of Government Spending
Unit 2 Meaning of Government Revenue
Unit 3 Budget Analysis

UNIT 1 MEANING AND NATURE OF AGGREGATE DEMAND CURVE

CONTENTS

1.0 INTRODUCTION

A government is supposed to guide and direct the pace of its country's economic activities. It is also supposed to ensure that growth is steady, employment is at high levels, and that there is price stability. Additionally, a government should adjust tax rates and spending.

2.0 OBJECTIVES

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

- give the meaning of government spending
- state reasons for increase in government spending
- explain how government spending is financed.

3.0 MAIN CONTENT

3.1 Meaning of Government Spending

Government spending is the spending activities carried out by the government of a country. There are essential services that government provides. These include national defence, provision of education, health, public roads, policing, internal and external securities, and possibly provision of social security, unemployment benefits, pension schemes and so on.

Government spending also means government expenditure and is a term used to describe money that a government spends. Spending occurs at every level of government, from local city councils to federal organisations. There are several different types of government spending, including the purchase and provision of goods and services, investments, and money transfers.

In a free market economy, not all basic needs are generally met by the private sector. Some goods or services may not be produced at all, while others may be produced in enough quantity or at an affordable rate for citizens. Much of government spending is involved in the creation and implementations of these goods and services. This type of government spending is referred to as government final consumption.

Some examples of government final consumption include the creation and maintenance of the military, police, emergency and firefighting organisations. These are funded by federal and regional governments, in order to provide for both the safety of the country from attack, and the safety of citizens from crime and disasters. Others examples include programmes such as health care, food stamps, and housing assistance for disabled or severely low-income citizens. Public education and public transportation infrastructure are other main categories of this form of government spending.

Since the beginning of the 70's, every category of Nigerian government spending has increased more rapidly than envisaged. This, primarily, can be attributed to the discovery of crude oil and the upsurge in the prices of crude petroleum that brought in more revenue to the government that it has ever generated.

SELF-ASSESSMENT EXERCISE

"Government expenditure also means government spending". Do you agree with the statement above? Explain your opinion.

3.2 Reasons for Increase in Government Spending

The following reasons are the factors that lead to increase in government spending overtime.

(a) **Defence:** Over the years, expenditures on defense have been on the increase in most African countries. The need for a strong and well-armed force necessitates the building of additional barracks, purchase of military armaments and other military equipment. Wars and frictions in most African countries have, made such governments to increase expenditures on defense.

(b) Population: Population in most African countries has been increasing. Nigeria's population was 63 million in the 1963 census, but the 1991 census put the country at 88.5 million, while latest estimate put the country at over a 160 million people as population increases more amenities would have to be provided, more schools have to be built, hospitals, etc.

(c) Development projects: After independence, most countries in West Africa embarked on development projects. They began building airports, refineries, hospitals, etc. These involved huge cost and consequently increase government expenditure.

(d) Depreciation and devaluation of currency: Over the years most West African countries have either devalued their currencies or allowed it to depreciate. This act only results in high prices of goods and services which in turn increases the expenditure of the government.

(e) Interest on debt: The public debts of most West African countries have been on the increase over the years. Likewise the servicing of the debt has also been on the increase and has gone to increase government expenditure.

SELF-ASSESSMENT EXERCISE

Discuss at least five reasons that could lead to increase in government spending.

3.3 How Government Spending is Financed

Government generates income through various means to finance its spending. Some of the means are as follows: Rents, royalties and profits. These include revenue from mining rights, rent from the use of government properties, profits from all government businesses, etc.

(I) Taxation: Government gets to finance its spending through various taxes levied on its citizens and corporate organisation.

(II) Fines, fees and special charges: These include fines on defaulters, traffic offences, etc., income derived from fees such as motor vehicle licenses, water rate, toll gate, etc.

(III) Loans: This takes the form of:

a. Short-term loans: These are obtained through the sale of treasury bills and certificate to members of the public.

b. Medium and long-term loans: These include long term stocks sold also to the public.

c. Foreign loans: These are loans obtained from International Monetary Fund, World Bank, Paris Club, etc.

SELF-ASSESSMENT EXERCISE

Do you think government spending in Nigeria has improved the economy? Discuss.

4.0 CONCLUTION

In this unit we have critically appraised the meaning of government spending and we can then conclude that government spending or expenditure is spending made by the government of a country on collective needs and wants such as pension, provision, infrastructure, etc. However, until the 19th century, public spending was limited as laissez faire philosophies believed that money left in private hands could bring better returns. Moreover in the 20th century, John Maynard Keynes argued the role of public spending in determining levels of income and distribution in the economy. Since then government spending has shown an increasing trend.

5.0 SUMMARY

In this unit we analyse that government spending (or government expenditure) includes all government consumption and investment but excludes transfer payments. Government acquisition of goods and services for current use to directly satisfy individual or collective needs of the members of the community is classed as government final consumption expenditure. Government acquisition of goods and services intended to create future benefits, such as infrastructure investment or research spending, is classed as government investment (gross fixed capital formation). Finally, the first two types of government spending, final consumption expenditure and gross capital formation, together constitute one of the major components of gross domestic product.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define the term ‘government spending’.
2. Critically discuss the reasons for increase in government expenditure.
3. Discuss how government expenditure is financed.

7.0 REFERENCES/FURTHER READING

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UNIT 2 MEANING OF GOVERNMENT REVENUE

CONTENTS

1.0 INTRODUCTION

Government revenue is the income available to fund the activities of a government. Running a country can be very expensive, and governments have a wide range of responsibilities, such as operating the various departments, maintaining armed forces, investing in development, and the alleviation of poverty. Many governments tax citizens directly, based on each household's individual income. In addition to direct taxes, there are also numerous indirect taxes on government services, financial transactions, and commercial activities that also generate revenue.

From the early days of civilisation, those in power have always relied on taxation as a method of generating income. In areas ruled by a monarch or dictators, most of the income was used at the discretion of the sole ruler. Today, however, government revenue is spent on the operation of the government and for development of the nation. Some governments, particularly those that have high-valued deposits, such as mineral resources, rely primarily on natural resources and monopolise the extraction of these resources to generate income. Others generate revenue by directly taxing citizens on items such as income, everyday purchases, and business profits.

2.0 OBJECTIVES

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

- explain the term ‘government revenue’
- list different types of taxation as a source of government revenue
- state the attributes or principles of taxation.

3.0 MAIN CONTENT

3.1 Meaning of Government Revenue

Government revenue is money received by a government. It is an important tool of the fiscal policy of the government and is the opposite factor of government spending. Revenues earned by the government are received from sources such as taxes levied on the incomes and wealth accumulation of individuals and corporations and on the goods and services produced, exported and imported from the country, non-taxable sources such as government-owned corporations' incomes, central bank revenue and capital receipts in the form of external loans and debts from international financial institutions.

SELF-ASSESSMENT EXERCISE

Differentiate between government revenue and government spending.

3.2 Taxation

A tax is a compulsory levy imposed by the government on individuals and business firms as it relates to the incomes, consumption, and production of goods and services. Such levies are made on personal income, this consist of salaries (Pay-As You Earn), business profits interest income on dividends, royalties; and also on company profits, petroleum profits, capital gains, etc. However, the resultant benefit from such levies does not necessarily correspond in magnitude to the amount of tax paid by the various sectors. It should be noted however that:

i. The payment of tax is a compulsory obligation which is enforced by law by the government who ensures penalty is given to defaulters.
ii. The government alone can levy tax which it does through such agencies like Customs and Exercise Department, Internal Revenue Department, Inland Revenue Division, etc.

3.2.1 Why Government Levy Taxes

1. **Revenue Generation:** This is one of the main sources of government revenue Government imposes taxes to raise money to finance its expenditure. Raising taxes is an unpopular decision and government must be able to mould and feel the pulse of the citizenry or they may express their displeasure at the next general election.

2. **Re-distribute Income:** Taxes are levied to achieve greater equality in the distribution of wealth and income. Where there are great disparities of income, aggregate demand falls; hence, government can introduce a progressive tax system which will take more money from the rich than poor. The revenue generated will be used to further invest in projects that will be beneficial to both the poor and rich alike.

3. **Exercise Control of the Economy:** Taxation can be used to regulate inflation and deflation in an economy. A higher tax will reduce disposable income, hence aggregate demand; a lower tax will increase disposable income thereby stimulating aggregate demand. It is used also to achieve the objective of full employment.

4. **Modifying the Influence of the Price System:** By protecting infant industries developing vital industries, increasing trade with regional trading partners like ECOWA, etc. and improving the terms of trade.

5. **To Discourage 'Certain' Consumption:** There are some goods which are socially undesirable as a result of the danger to health, such as alcohol and cigarettes, danger to environment, such as, pollution emitting cars, etc. Government can impose heavy taxes on sales and high import duties on such cars to discourage their consumption. If the goods are fairly elastic, quantity demanded will fall. To promote expert deduction in tax on exported goods (i.e. reducing export duty) will serves as incentives to exporter to export more goods.

6. **Promote Economic Growth and Development:** Such as granting tax holidays, tax concessions to some companies over a period of time. Taxed profits could be reinvested at lower rate and generous investment allowance should be given. To promote balance of payment by imposing duties to restrict imports.

SELF-ASSESSMENT EXERCISE

1. Define taxation.
2. What are the reasons Nigerian government levy taxes on the citizen and corporate organisations?

3.3 Types of Taxes

There are two types of taxes direct and indirect.

3.3.1 Direct taxes

This is a tax levied directly on the incomes or individuals and business firms. The incidence of tax fall directly on the payer since it is not possible for the person who pays the tax to .shift the burden to someone else, hence, each individual or business 'firm's liability is assessed separately.

Under direct taxes, we have:

a. **Income tax:** This is a tax levied on individual's incomes usually at a standard rate. Personal allowances on family and other responsibilities are allowed before the tax is levied on the remainder called taxable income. The incidence of taxation is certain as the individual cannot shift the burden of taxation. It is based on the Pay As You Earn (PAYE) system.

b. **Corporation or company tax:** This is a tax levied on the profit of the company after all expenses have been deducted. The incidence of tax is uncertain because it is possible for a company to shift the tax burden to the consumers. The ability to shift or not depends on the elasticity of the products of the company.

c. **Property tax:** This is a tax levied on the property of the individual. Such taxes include tenement rates, etc.

d. **Capital gains tax:** This is a tax levied on capital gains (or appreciated value) realised on all assets usually at a flat rate. Owner occupied houses, cars, goods and chattels sold for excess of their original value (i.e. appreciated value) are taxed.

e. **Poll tax:** This is a flat rate levied on every individual in a country. This type of tax ensures everybody pays tax in the country.

f. **Estate duty:** This is a tax payable on the estate of a deceased person. Rate charged are progressive depending on the value of the building.

g. **Other taxes:** This includes motor vehicle duties, stamp duties, land tax and mineral-rights duties, Petroleum income tax, capital transfer tax, etc.

Forms of Direct Taxes

i. **Progressive tax**: This is a situation where tax rate increases as the size of income increases, that is, the higher the tax base (taxable income). These types of tax reduce income inequality and increases aggregate demand. It is non-inflationary and yield more revenue to the government. A major disadvantage is that it becomes a disincentive to work as the payer pays more as he earns more income. Graphically, the tax behaves in this form.

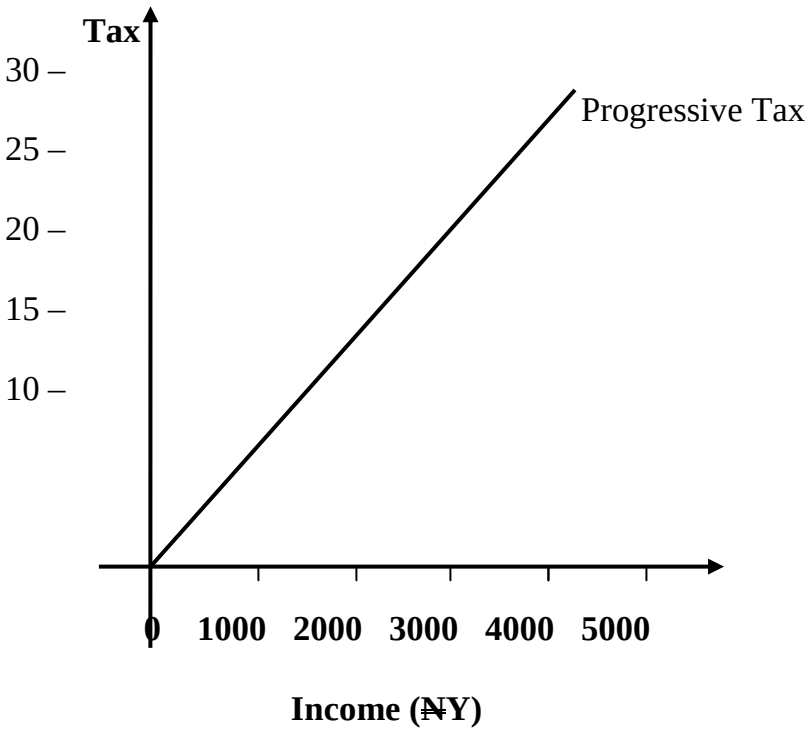

Fig. 1: Graph Showing the Progressive Taxation

ii. **Regressive tax:** This is a situation where tax rate reduces as the size of income increases. It is hardly used in real life as it tends to widen the inequality of income between the rich and the poor (which is not good for development) and it results in a fall in aggregate demand and lower yield of revenue to the government. Though it has the advantage of creating incentive to work as the more you earn, the lower will be the tax deducted from your income. Diagrammatically, it is represented in figure 2.

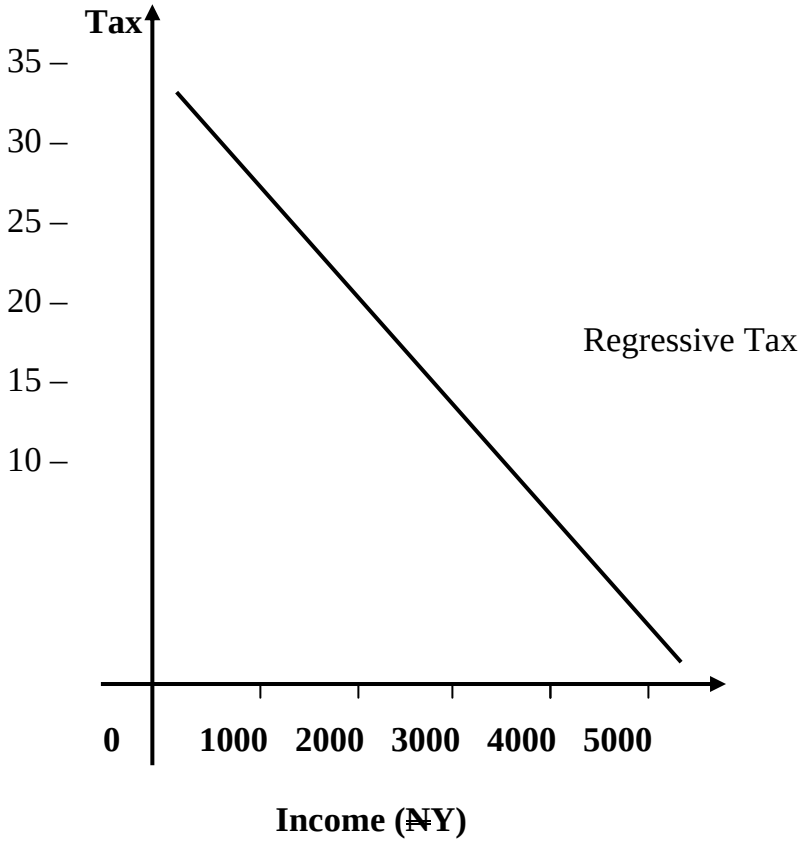

Fig. 2: A Graph Showing the Regressive Taxation

iii. Proportional (neutral) tax: This has a constant rate. The tax levied is proportional to the tax base or income of the individual. It does not take into account the economic situation of the tax payer either he is rich or poor. This tax is impartial but it is insensitive to the economic situations of the payer. Proportional tax is represented in figure 3.

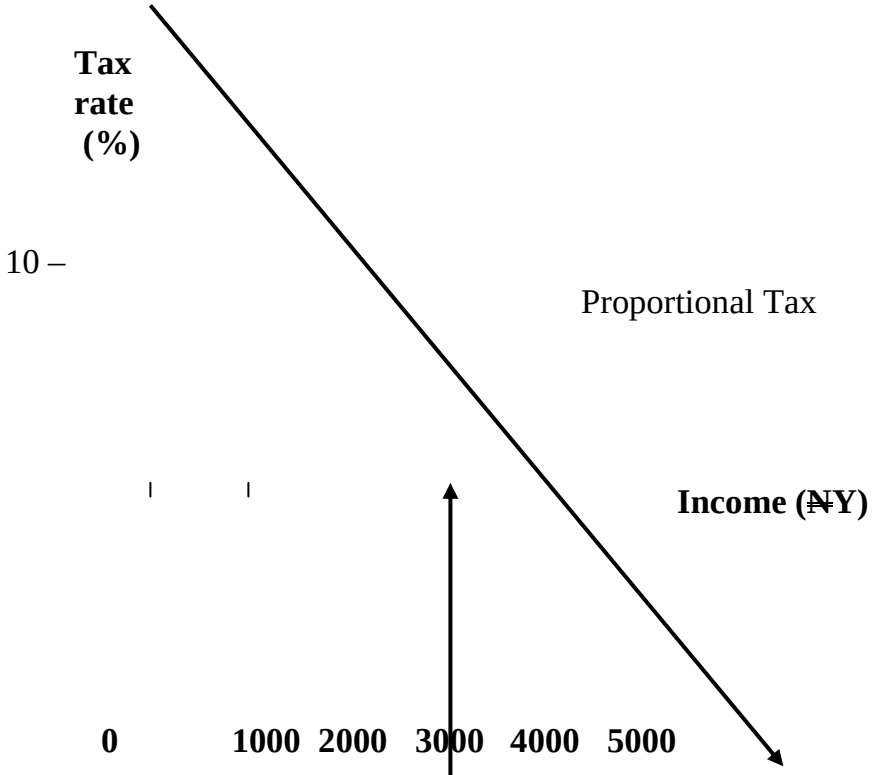

Fig. 3: A Graph Showing the Proportional Taxation

3.3.1.1 Advantages of Direct Taxes

1. **High yield:** A direct tax has the advantage of high yields at a low cost of collection. Employers are required to deduct the tax each week or month from their salary. All increase in tax guarantees higher revenue to the government.

2. **Convenience:** Tax deducted under the PAYE system enable the burden of tax to be spread over the year instead of being paid lump-sum. The tax payer would have conditioned his mind to giving out a determined amount each month rather than pay in lump-slim at the end of the year which can become burdensome for him.

3. **Certainty:** The tax payer knows for certain how much will be deducted from his income as tax and when he is to be paid. It enables him to plan on his income even before he receives it. Moreover, it is difficult to evade direct tax as it is deducted from source, that is PAYE (pay has you earn), dividends.

4. **Equity:** Direct taxes ensure that both the rich and the poor are made to pay according to their earnings. Allowances are usually given for family and other responsibilities which are deducted

from gross income to arrive at taxable income or tax base. Furthermore, a progressive tax is added when income reaches a certain level.

5. **Redistribution of Income:** Direct taxes help redistribute income and wealth more equally. The progressive nature of the tax enables the government to generate more revenue from the rich which it can be used to finance investment beneficial to both the rich and the poor.

3.3.1.2 Disadvantages of Direct Taxes

1. **Act as disincentive to work:** High tax rate can cause disincentive to work. People may prefer to go for leisure (which is not taxed) rather than go for work (which is taxed) they feel that they are not getting enough from the extra work they are putting in as it is heavily tax. Though this is not always the general view, while some might not want to put in extra efforts because of the interest they have on the job.

2. **It encourages tax avoidance:** Though PAYE system ensures that every employee pay taxes, tax payer might be forced to falsify their family and other responsibility allowances to get lower tax base when tax is high.

3. **It encourages efficiency:** Individuals that have business firm tends to become less efficient where there is high tax rate to be paid by them. A situation where firm pay 45 per cent of profit as tax and workers pay more in tax will result in the unwillingness of the firms to take further role to expand and for the workers to perform effectively.

4. **It repels foreign capital:** Investors come to invest in countries where they hope to enjoy higher returns from capital. Consequently, any increase in tax payable on their return which persists will discourage them and they might move their investment to a higher yield, lower tax countries.

5. **Reduce plough back profits:** Most firms plough back certain percentage of their profits in other to expand and venture into new areas. Where tax rate imposed on the firm is high, it reduces the funds in the hands of the companies and ultimately hinders the firms' desired growth.

6. **Reduce savings:** High tax rate may sometime reduce savings. Small companies or sole proprietors and workers rely on a fat salary or profit to enable them save part of it for future use. But where high tax rate is applied, there will be little or nothing to save after other expenses have been taken care of.

3.3.2 Indirect Taxes

These are taxes levied on goods and services indirectly by the government which is collected through the importers, manufacturers or other intermediary. The incidence of tax is, as far as possible shifted on to the consumer by including the duty in the final selling price of the good. When an importer pays tax (import tax) or a manufacturer pays tax (excise duty) on goods imported or produced locally, depending on the elasticity of the good, the importer or manufacturer adds the tax to the cost of the goods which it passes to the consumer who ultimately pays the tax.

However, it is possible to avoid indirect taxes because it is payable only if a consumer buys the good on which tax is levied. There are two types of indirect tax. They are:

a. **Specific:** This is a fixed sum irrespective of the value of the good. For example, if a sum of ₦20.00 is fixed on a shirt, then the fixed tax of ₦20.00 is the specific tax.

b. **Ad valorem:** This is a given percentage of the value of the good. For example, if a machine tool is ₦1,000.00 and an ad valorem tax of 7 per cent is imposed, then tax paid is ₦70.00.

Under indirect tax we have:

1. **Custom duties:** This refers to export and import duties.

   Export duties: these are taxes imposed on all exports from the country. They constitute a source of revenue of most African countries that rely much on income from their primary products exported. They are easy to collect.

   Import duties: These are taxes levied on all import into the country. They are usually levied at the point of entry of the goods and constitute a source of revenue in most less developed countries. The government uses it sometimes to discourage consumption of certain products or to promote domestic production.

2. **Excise duties:** These are taxes on home-produced goods such as petrol, cigarettes, beer and whisky, milo, etc. Higher tax rate on locally manufactured goods discourages domestic production which may make the domestic goods costlier than imported goods.

3. **Purchase tax:** This is an ad valorem tax imposed on goods at various percentages and which is generally collected at the wholesale point. It is imposed on a wide range of products that is, confectionery, clothing, household equipment, etc.

3.3.2.1 Advantages of Indirect Taxes

1. **Convenience:** The consumer is able to spread the payment of the tax burden as and when he actually make purchases since the tax is payable only at the wholesale stage. Most buyers of the goods are not aware that they are even paying taxes on goods purchased. This helps to reduce the resentment they may have on the tax.

2. **Reduces imposition of high direct taxes:** Since taxes are one of the main sources of government revenue, the high yields of indirect taxes have made the government not to excessively increase direct taxes to source for funds.

3. **Certain and immediate yield:** Yields from indirect taxes especially on fairly demand are certain since the consumer has little alternative to the product. Any increase in tax produces extra income with little time-lag as far as the elasticity of the product remains inelastic.

4. **It does not disturb initiative and enterprise:** Unlike direct tax which is deducted from his earnings directly, indirect taxes on the other hand fall on spending. It will not lead to disincentive to work. In fact, it may lead to incentive to work as the worker may work more hours to enable him maintain his lifestyle being eroded by increase in price.

5. **It can be used to discourage consumption:** If the governments want to discourage consumption of certain goods, or to help promote home made goods, this is done by imposing high tax rate on the products to make it expensive. This will reduce the purchase of these good by the consumers.

6. **It serves as automatic stabiliser of the economy:** The government can heavily tax home-made goods and imported luxuries with high income elasticity, such that as income increases, the yield from indirect taxes also increases. The increase in revenue from this tax helps to stabilise the economy in periods of inflation.

3.3.2.2 Disadvantages of Indirect Taxes

1. **Double taxation:** To an individual, he is made to pay income tax known rates and he also pays indirect taxes through purchases he made at rates unknown to him likewise, producers pay income tax as individuals and also pay company tax and as applicable import or export duties. This double taxation may discourage production. It is regressive. If the rich and the poor buy the same goods, then they are liable to pay the same amount of tax levied on goods. This is regressive and it does some of the redistributive effects of direct taxation. However, imposing ad valorem tax instead of specific tax may lessen the effect on the poor.

2. **Discourages domestic production:** High excise duties make domestic manufactured goods more expensive than imported goods. Moreover, when import duties on such goods are low, it will encourage importation of such goods rather than promote growth in domestic production.

3. **It can create inefficient industries:** Import duties and subsides are intended to give special assistance to an industry. But if prolonged over a period of time, government may be protecting inefficient industry. Moreover, the government might find strong opposition if it wants to remove the protection, e.g. the fertiliser subsidy in Nigeria.

4. **It may have inflationary influence:** When indirect taxes are imposed, it is reflected in high prices on the goods. Where this increase is general on all goods, a strong labour might agitate for higher wages which may put the government into difficulties of controlling inflation.

SELF-ASSESSMENT EXERCISE

Discuss the type of taxes that gives government more revenue in the economy.

3.4 Differences between Direct and Indirect Taxes

i. Some direct taxes, that is, on petty traders, self-employed, professionals, etc. are difficult to compute and collect because it is difficult to know their income, but indirect taxes are paid once you consume the goods.
ii. The incidence of tax can be shifted more readily under an indirect tax, hence, people are more willing to pay, but it cannot be shifted in a direct tax which makes the payer wants to dodge paying taxes. Thus, it is common to see people evade and avoid taxes under direct tax than indirect tax.
iii. People are more sensitive to increases in direct taxes as they are to indirect taxes. Direct tax has direct effects on their disposable income which reduces their purchasing power. But they rarely notice the increase in indirect tax except when the prices of goods are very high.
iv. As a fiscal tool, indirect taxes are more effective than direct taxes. However, objective being pursued by the government and the responsiveness of quantity demanded to price changes also play an important role.
v. Indirect taxes involve little administrative costs than direct fees.

SELF-ASSESSMENT EXERCISE

Do you think direct tax is better than indirect tax? Discuss.

3.5 Attributes or Principles of a Good Tax System

1. **Economic principle:** A good tax system must ensure it does not make the economic situation of the tax payer worse off. The government must see the payer as an investor, consumer and saver and should ensure it does not adversely affect the payers' contributions.

2. **Production of revenue**: The cost of collection should at least be less than the yield from the tax. It is unwise and uneconomical to spend too much for collection of tax.

3. **Certainty:** The tax must be certain and the payer must know exactly when and where he has to pay his tax. He should find it difficult to evade payment.

4. **Equity:** Tax implementation must not be arbitrary or vindictive. Persons of the same tax base should be made to pay the same amount as tax. For example if Mr. OIusanya and Mr. Adedeji earn the same income, the same family size and other things equal, then they must pay the same amount as tax.

5. **Convenience:** Tax payment should relate to how people receive and spend their incomes. It will be out of place to ask for tax from a farmer whose produce is yet to be harvested. But a PAYE system is convenient to salary earner while import duties imposed at the port is convenient to the payer.

6. **Neutral:** A good tax system should not dislocate or distort the relative prices in an economy.

7. **Adjustable or flexible:** It should be flexible enough as an economic tool of control, to change in policy. Import duties aimed to protect infant industry always becomes difficult to remove or lower when the infant becomes dependent on of the protection.

8. **It should not be harmful to enterprise and initiative:** When tax rate is high up to a point, it becomes less exciting to work. This can induce the tax payer seek for leisure instead of striving harder for promotion or overtime.

9. **It must be consistent with government policy:** Individual taxes must be constantly reviewed to see how they could be used to promote government policy or to prevent their working out of harmony with it.

10. **Acceptability:** In a democracy, people respond to bad government policies through general elections, government must ensure that its tax system is politically acceptable to the people who will pay it or they might respond unfavourably to it at the next general elections.

SELF-ASSESSMENT EXERCISE

List at least five attributes or principles of a good taxation.

3.6 Terms in Taxation

1. Tax evasion

This is a deliberate attempt by a tax payer not to pay tax. It is a criminal act, such people are petty traders, self-employed, etc. who always try to evade payment of tax.

2. Tax avoidance

This is an intentional or deliberate act of exploiting the loopholes in the tax regulations to manipulate his economic situation in other to pay lower tax. Example is when a tax payer claims he has children or aged parents to get tax relief when actually he has none.

3. Tax incidence

This refers to the bearer of the burden of the tax. As disclosed above, there are two types of taxes - direct and indirect taxes. Direct taxes, as said, are progressive. They fall heavily on the rich than on the poor, while indirect taxes are regressive as the poor pays more tax than the rich. But this is only the formal incidence of tax. The economist is concerned with the effective incidence, that is, how the real burden of a tax is distributed between be producers and the ultimate consumers; and to show the non effects of such taxation on output and price.

The regressive nature of indirect taxes is based on the decreasing marginal propensity to consume as income rises. Second, "consumption tax (or commodity tax) does not reduce the rate of return on savings and therefore avoids the substitution effect of the income tax, which is averse to saving." That is why it is generally suggested that the developing countries should adopt commodity taxation for mobilising resources for rapid economic growth.

SELF-ASSESSMENT EXERCISE

Explain in detail the role of taxation in national development of an underdeveloped country.

4.0 CONCLUSION

Government revenue is revenue received by a government. It is an important tool of the fiscal policy of the government and is the opposite factor of government spending. Revenues earned by the government are received from sources such as tax levied on the incomes and wealth accumulation of individuals and corporations and on the goods and services produced, exported and imported from the country.

5.0 SUMMARY

The unit looks at the meaning of government revenue such as, tax which can be direct or indirect tax. However, a good attribute of taxation was also examined and the reasons government levied taxes on its citizens was also discussed.

6.0 TUTOR-MARKED ASSIGNMENT

1. Differentiate between government revenue and government spending.
2. Do you think direct tax is better than indirect tax in an economy? Discuss.
3. List and explain the attributes or principles of taxation.
4. List at least five differences between regressive and proportional tax.
5. Taxation is good revenue for the government. Do you agree with the assertion? Discuss.

7.0 REFERENCES/FURTHER READING

Abdullah, H. A. (2000). *The Relationship between Government Expenditure and Economic Development.* DDT Publication Limited.

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UNIT 3 BUDGET ANALYSIS

CONTENTS

1.0 INTRODUTION

Budget is a document that explicitly describe the spending decision of the government vis-à-vis the projected revenue and the source. Budget balance is the difference between total government expenditure, that is, taxes minus government expenditure. If government expenditure is denoted by *G* and government revenue by *T*, then budget balance can be written as:

$T = G$ or $T - G = 0$

2.0 OBJECTIVES

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

- describe government budget
- give reasons for increase in government expenditure
- explain how government expenditure if financed.

3.0 MAIN CONTENT

3.1 The Budget

This is a financial statement of the sources and uses (i.e. Revenue and Expenditure) of the government. It is "a financial plan of the projected expenditures and revenues of a unit of government to ensure fiscal period". It is "basically a tool for selecting a particular mix of public and private goods and services".

Budget is needed to perform some allocative function just as the price mechanism performs in the private sector management use budget as a tool direction and control of work programme. In Nigeria, the budget is initiated by the executive through the Ministry of Finance. It is presented to the Senate and House of Representatives for debate and adoption.

There are four characteristics of budget. They are:

i. **Equilibrium:** There must be a balance between the revenue and expenditures.
ii. **Comprehensiveness:** It must take care of all facets of the economy.
iii. **Unity:** All fiscal operations are spelt out in the budget.
iv. **Periodicity:** The Nigerian budget is usually read at the beginning of every year.

The budget is an important economic document of a country. It reveals the state of the economy and what future trends the country will follow.

The budget is always presented like a balance sheet in a tentative form after all ministries have submitted their inputs. It is then sent to the congress, that is, Senate and House of Representatives to be adopted as a final budget. The legislative body will scrutinise, adjust or delete or ask the executive to modify some portion of the budget. Once the budget is passed by the house it becomes operational. In a democracy, no government can spend money without the approval of the parliament.

Hence, the executive can only make use of the budget after it has been adopted by the house. The executive can either operate a surplus budget, that is, when the revenue to be generated is forecasted to be greater than expenditure, or it can operate a deficit budget where expenditure is greater than revenue. A balanced budget is where the government intends to spend the actual money it received. That is, the revenue equals expenditure. At the end of the accounting year, the executive including its various ministries and parastatals must account to the whole country how money was realised and spent.

SELF-ASSESSMENT EXERCISE

Define the term “budget”.

3.2 Budget Concepts

1. **Recurrent expenditure:** These are costs known as running cost, which the government undertakes in its day-to-day activities. These costs include wages and salaries, national debt interest, etc.

2. **Recurrent revenue:** These are receipts of monies from fines, taxes, fees, etc. by the government.

3. **Capital expenditure:** These are expenditures on capital projects. Such projects include, provision of hospitals, roads, defence, social and community services, etc.

4. **Capital receipts:** These are loans, aids, grants, etc. made to the government by foreign governments or international organisations. Other arms of government can extend such facilities.

SELF-ASSESSMENT EXERCISE

Differentiate between recurrent expenditure and revenue.

3.3 Types of Budget

3.3.1 Budget Surplus

Budget surplus is a situation in which income exceeds expenditures. The term "budget surplus" is most commonly used to refer to the financial situations of governments; individuals speak of "savings" rather than a "budget surplus." A surplus is considered a sign that government is being run efficiently. A budget surplus might be used to pay off debt, save for the future, or to make a desired purchase that has been delayed. A city government that had a surplus might use the money to make improvements to a run-down park, for example.

When spending exceeds income, the result is a budget deficit, which must be financed by borrowing money and paying interest on the borrowed funds, much like an individual spending more than it can afford and carrying a balance on a credit card. A balanced budget occurs when spending equals income.

3.3.2 Budget Deficit

Budget deficit is a status of financial health in which expenditures exceed revenue. The term "budget deficit" is most commonly used to refer to government spending rather than business or individual

spending. When referring to accrued federal government deficits, the term "national debt" is used.

In the early 20th century, few industrialised countries had large fiscal deficits. This changed during the First World War, a time in which governments borrowed heavily and depleted financial reserves. Industrialised countries reduced these deficits until the 1960s and 1970s despite years of steady economic growth.

Budget deficits as a percentage of GDP may decrease in times of economic prosperity, as increased tax revenue, lower unemployment and economic growth reduce the need for government programmes such as unemployment insurance. If investors expect higher inflation rates, which would reduce the real value of debt, they are likely to require higher interest rates on future loans to governments.

Countries can counter budget deficits by promoting economic growth, reducing government spending and increasing taxes. By reducing onerous regulations and simplifying tax regimes, a country can improve business confidence, thereby prompting improved economic conditions while increasing treasury inflows from taxes. Reducing government expenditures, including on social programmes and defense, and reforming entitlement programmes, such as state pensions, can result in less borrowing.

3.3.3 Balanced Budget

This is a situation in financial planning or the budgeting process where total revenues are equal to or greater than total expenses. A budget can be considered balanced in hindsight, after a full year's worth of revenues and expenses have been incurred and recorded; a company's operating budget for an upcoming year can also be called balanced based on predictions or estimates.

It is commonly used in reference to official government budgets. For example, governments may issue a press release stating that they have a balanced budget for the upcoming fiscal year, or politicians may campaign on a promise to balance the budget once in office.

It is important to understand that the phrase "balanced budget" can refer to either a situation where revenues equal expenses or where revenues exceed expenses, but not where expenses exceed revenues.

SELF-ASSESSMENT EXERCISE

Differentiate between budget surplus and balanced budget.

5.0 CONCLUSION

A budget is a financial document used to project future income and expenses. The budgeting process may be carried out by individuals or by companies to estimate whether the person/company can continue to operate with its projected income and expenses.

5.0 SUMMARY

In this unit we have learnt what a budget is, and its concepts. However, we can finally say that a budget comprises the deficit, surplus and balance budget and a surplus budget was discuss in this unit as an anticipated profit, while a balanced budget is that revenues that are expected to equal expenses. More so, a deficit budget is when expenses exceed revenues. Budgets are usually compiled and re-evaluated on a periodic basis. Adjustments are made to budgets based on the goals of the budgeting organisation.

6.0 TUTOR-MARKED ASSIGNMENT

1. Write short note on the following

   (a) Balanced budget
   (b) Surplus budget
   (c) Deficit budget.

2. List and explain the importance of a good budget in a country.
3. Is there any difference between recurrent expenditure and recurrent revenue?
4. Balance budget is the best budget a good country should embrace yearly. Do you agree with this assertion? Discuss.

7.0 REFERENCES/FURTHER READING

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MODULE 7

UNIT 1 ANALYSIS OF INTERNATIONAL TRADE

CONTENTS

1.0 INTRODUCTION

Let us start this unit by defining what an open economy is. An open economy is an economy in which there are economic activities between domestic community and outside, e.g. people, including businesses, can trade in goods and services with other people and businesses in the international community, and flow of funds as investment across the border. Trade can be in the form of managerial exchange, technology transfers, all kinds of goods and services. Although, there are certain exceptions that cannot be exchanged, like, railway services of a country cannot be traded with another to avail this service, a country has to produce its own. This contrasts with a closed economy in which international trade and finance cannot take place.

The act of selling goods or services to a foreign country is called exporting. The act of buying goods or services from a foreign country is called importing. Together exporting and importing are collectively called international trade.

2.0 OBJECTIVES

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

- explain international trade
- state reasons for international trade
- describe the basis or theory of international trade.

3.0 MAIN CONTENT

3.1 Meaning of International Trade

As a starting point, we can conceive of international economics as being partly microeconomics and partly macroeconomics. It is partly microeconomics because it addresses how the basic question of which products will be produced; by which methods; and with which technology; and how the products will be shared among people. All these questions are resolved and influenced in every nation of the world. It is also partly macroeconomic issue because in determining total spending in an economic system such components as consumption expenditure, investment expenditures, government expenditures, as well as foreign spending are added.

Spending by foreigners therefore is a component of total spending because if foreigners spend more for our goods and services, total spending gross up and that leads to economic growth. Therefore, international economics is concerns with economic relationships within and among nations.

SELF-ASSESSMENT EXERCISE

Discuss the impact of international trade on the performance of an economy.

3.2 Reasons for International Trade

International trade could therefore be safely defined as trade relation between a country and the rest of the world.

The reasons for trade between countries are not in any way different from reasons individuals trade within a country. What we call international trade is not more than trade relation between individuals who live in different countries. International trade is important as it is a channel of meeting the wants of individuals who are residents in different countries of the world. The importance of international trade is as follows:

a. **Imports Serve Domestic Industry:** Domestic industries would have pretty difficult time if basic raw materials, machinery and other needs are not met.

b. **Imports Serve Domestic Consumers:** International trade enlarges the range of consumers' choices of goods and services, without international trade consumers will have fewer choices.

c. **Exports are Vital to Many Domestic Producers:** The market for nation's export is very important. For example, without international trade the market for the Nigerian crude oil, columbine, cocoa, rubber, etc. would have been limited to domestic economy.

d. **Exports Serve as a Foreign Exchange Earner:** Exports of goods and services act as foreign exchange earner to the domestic economy. Foreign exchange availability is an essential requirement for the survival of any national economy.

e. **Exports Act as Agent of Growth:** Other countries' demands for goods and services produced within a domestic economy act as a catalyst to the growth of the total spending and hence growth in the gross national product of such an economy.

SELF-ASSESSMENT EXERCISE

Discuss the reasons for international trade.

3.3 The Theory of International Trade

a. **The Theory of Absolute Advantage**

The classical economist Adam Smith said that the basis of international trade falls along the divide of absolute advantage which may be defined as the good or service in which a country is more efficient or can produce more than the other country or can produce the same amount with other country using fewer resources.

b. **The Theory of Comparative Cost Advantage**

David Ricardo was the proponent of the theory of comparative advantage. He propounded that the basis of international trade should be premised on the concept of comparative advantage. His reasoning emanated from a rational economic consideration in which a country that is capable of producing a good or a service may carefully elect to buy it from elsewhere where opportunity cost of production is lower. Comparative advantage theory states that a country should specialise in the production of a commodity or service in which it has a lower opportunity-cost comparative disadvantage on the other hand is that situation where a country has higher opportunity cost of-producing the good or service. For example suppose that you are the most highly paid petroleum consultant in town and charge a consultancy fee of Income (₦Y) ₦15, 000.00 per hour. Suppose further that you are the world's best computer operator earning ₦4, 000.00 per hour. Should you

do your typing by yourself, if you have enough consultancy work to keep you busy full time. This is so because every hour you spend typing incurs an opportunity cost of ₦15, 000.00 in forgone consultancy fees. This makes typing very costly. The rational thing you might do is employ eight 50-words-per-minute operators and perhaps pay them each ₦500.00 per hour. This amount pays ₦4, 000.00 per hour to type 400 words per hour.

The opportunity cost of consultancy (and earning ₦I5, 000.00 per hour) is programming (earning ₦4, 000.00 per hour) the best and most rational thing to do is spend your time to do what you do at the lower opportunity cost.

The consultant who can do everything more efficiently than every other person is synonymous with the country that can produce everything more efficiently than any other country in the world.

But because resources are not infinitely abundant; resources should be of used to produce and export goods and services (consultancy) that can be produced at the lower opportunity cost. Goods or services that incur higher opportunity cost of production (typing) should be imported.

It is on the basis of the above that David Ricardo illustrated the principles of comparative advantage by the famous example of England and Portugal each capable of producing both wine and cloth, the only difference lies on the labour cost of producing each good for each country.

Table 1: Comparative Advantage Matrix

	Wine per man hour	**Cloth per man hour**
England	2 units	6 units
Portugal	4 units	8 units

Table 1 indicates that amount of wine (W) and cloth (C) that can be produced with one man hour in Portugal and England respectively. It should be noted that more wine and cloth could be produced per man hour in Portugal than in England as one man would work for one hour to produce 6 units of wine 4 units and 8 units of cloth in Portugal compared to a man working for one hour to produce 2 units of wine and 4 units of cloth in England respectively. This shows that Portugal has absolute disadvantage in production of the two.

One could be tempted to think that Portugal should not trade since she has absolute advantage in the production of the two goods. This should not be the case as it is comparative advantage rather than absolute advantage that forms basis of trade as propounded by David Ricardo. Countries should produce and export those goods in which they have comparative advantage, i.e. where their opportunity cost is lower while they should import those goods in which they have comparative disadvantage i.e. where their opportunity cost is higher.

However, comparative advantage is obtained by computing the relative opportunity cost of production, as given in table 1 each hour of labour can produce 6 units of wine and 8 units of cloth in Portugal. This can be summarised as follows:

In Portugal 6w=8c

If we are interested in relating one unit of wine to cloth, or 1 of cloth to wine; we divide both sides by 6 and 8 respectively, i.e.
1 unit of wine relative to doth
6w:8c
6/6w = 8/6c
1w = 1.33c
Or
1 unit of cloth relative to wine
6w = 8c
:. 6/8w = 8/8c
1c = 0.75w

Therefore in Portugal
1w = 1.33c or lc = 0.75w

Where, w = wine
c = cloth
The above indicates that the opportunity cost of unit of wine is 1.33c in Portugal. Similarly, the opportunity cost of producing unit of cloth is 0.75 unit of wine.

While in England, the opportunity cost of production is not the same with Portugal for the following obvious reasons:

2w = 4c and,
The relative opportunity cost of production can be obtained also from table 1 by getting one unit of wine in relative to cloth and one unit of cloth relative to wine respectively. This is done by dividing both sides by 4 if we are to get one unit of cloth relative to cloth in the following manner:
In England

1 unit of cloth relative to wine
2w = 4c
2w/2w = 4/2c
1w = 2c
Or
1 unit of cloth relative to wine
2w/4 = 4/4c
0.5w = 1c

This follows that the opportunity cost of 1 unit of wine is 2 units of cloth in England while the opportunity cost of unit of cloth is 0.5 unit of wine.

From the forgoing, it can be seen that the opportunity cost of producing wine in Portugal is 1.33 units of cloth which is lower than it is in England i.e. 2 units. While in England, the opportunity cost of producing a unit of cloth is 0.5 unit of wine which is lower than it, is in Portugal i.e. -0.75 unit of wine. It can therefore be concluded that Portugal has relative comparative advantage in the production of cloth; whereas England has relative advantage in the production of cloth while it has relative comparative disadvantage in the production of wine.

It is apparent therefore that Portugal should specialise in the production and export of wine, while England should specialise in the production and export of cloth in exchange for Portugal wine, at the opportunity cost ratio 0.5, 1.33.

SELF-ASSESSMENT EXERCISE

Differentiate between theory of absolute advantage and comparative cost advantage.

4.0 CONCLUSION

In this unit we have examine the theory of international trade such as absolute advantage and comparative advantage. However, international trade can be defined as the exchange of capital, goods, and services across international borders or territories. In most countries, such trade represents a significant share of gross domestic product (GDP).

5.0 SUMMARY

International trade is the exchange of goods and services between countries. This type of trade gives rise to a world economy, in which prices, or supply and demand, affect and are affected by global events. Political change in Asia, for example, could result in an increase in the cost of labour, thereby increasing the manufacturing costs for an

American sneaker company based in Malaysia, which would then result in an increase in the price that you have to pay to buy the tennis shoes at your local mall. A decrease in the cost of labour, on the other hand, would result in you having to pay less for your new shoes. More so, if you walk into a supermarket and are able to buy South American bananas, Brazilian coffee and a bottle of South African wine, you are experiencing the effects of international trade.

Finally, international trade allows us to expand our markets for both goods and services that otherwise may not have been available to us. It is why you can pick between a Japanese, German or American car. As a result of international trade, the market contains greater competition and therefore more competitive prices, which brings a cheaper product home to the consumer.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the analysis of international trade in detail.
2. Do you think the reason for international trade is to create good relationship with the outside world? Discuss.
3. Critically discuss the absolute advantage and comparative cost advantage.

7.0 REFERENCE/FURTHER READING

Fasano, U. & Wang, Q. (2002). *Testing the Relationship between Government Spending and Revenue: Evidence from GCC Countries*. IMF Working Paper WP/02/201.

UNIT 2 GAIN FROM TRADE

CONTENTS

1.0 INTRODUCTION

Gains from trade are the net benefits to agents from allowing an increase in voluntary trading with each other. In technical terms, it is the increase of consumer surplus plus producer surplus from lower tariffs or otherwise liberalising trade.

However, we can also say that gains from trade are commonly described as resulting from specialisation in production from division of labour, economies of scale, scope, and agglomeration and relative availability of factor resources in types of output by farms, businesses, location and economies, a resulting increase in total output possibilities, trade through markets from sale of one type of output for other, more highly valued goods.

2.0 OBJECTIVES

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

- describe the analysis of gain from trade
- explain the basis of terms of trade

3.0 MAIN CONTENT

3.1 Gain from Trade Analysis

Arising from the law of comparative advantage as stated earlier, countries will benefit from trade with a rise in world output without additional factor inputs when countries specialise in the production of those goods in which their opportunity cost is lower.

For example, let us assume that:

a. England and Portugal are the only two countries in the world
b. Wine and cloth are also the only two goods in the world
c. Transport cost is nonexistent
d. Each of England and Portugal has equal workers of say 100 each
e. Survival need deserves that each worker has two units of cloth.

From the foregoing, it means that England must commit 50 workers to cloth production i.e. 50x4 = 200 and Portugal 25 workers i.e. 25x8 = 200

By extension 50 workers will be left for the production of wine in England i.e. 50x2 = 100 and in Portugal 75 workers will be left also for the production of wine i.e. 75x6 = 450. This is given in table 1.

Table 1

	Cloth	**Wine**
England	50 x 4 = 200	50 x 2 = 100
Portugal	25 x 8 = 200	75 x 6 = 450
World	400	550

If we again assume that each country should now specialise, England on cloth and Portugal on wine; world output will increase as in shown in table 2.

Table 2

	Cloth	**Wine**
England	100 x 4 = 400	0 = 0
Portugal	0 = 0	100 x 6 = 600
World	400	600

Therefore the following benefits will follow specialisation.

(a) Increase in the world output of wine from 550 to 600 though output of cloth still remains at 400.
(b) Increase in specialisation and skills.

SELF-ASSESSMENT EXERCISE

With detailed examples, discuss the gain from trade analysis.

3.2 The Terms of Trade

Though the gains from international trade bring about increase output except of course Portugal is able to trade some wine for cloth. Workers in Portugal will not get much work done, the same applies to England.

Without trade, workers in England will not get much work done. But how much cloth must, England give in exchange for Portugal wine is a question that is very much decided by countries terms of trade. In other words terms of trade is basically expressed as a relationship between a unit price of a country's export to a unit price of the country's import. In the case of England and Portugal, terms of trade is how much unit of cloth England must give in exchange for each unit of wine and vice versa.

Before trade, each unit of wine has an opportunity cost of 1.33 units of cloth in Portugal and 2.00 units of cloth in England. This means that Portugal will be willing to import cloth by having more than 1.33 units of cloth per unit of wine, and England will be willing to export cloth by giving less than 2.00 units per cloth per unit of wine. This incidentally gives an associated terms of trade inequality to be $1.33 < 1.0w < 2.0c$. This means that terms of trade inequality = $l.33c < 1.0w < 2.0c$. The terms of trade will therefore lie within the inequality bracket as may be agreed upon by the two countries.

SELF-ASSESSMENT EXERCISE

a. Nigeria and USA are the only two countries in the world.
b. Crude oil and motor car are also the only two goods in the world.
c. Transport cost is nonexistent.
d. Each of Nigeria and USA has equal workers of say 250 each.
e. Survival need deserves that each worker has two units of motor car.

How many workers do you think Nigeria and USA will need to work on crude oil and motor car?

4.0 CONCLUSION

Gains from trade arise because buyers are typically willing and able to pay a higher price to purchase a good than what they end up paying and because sellers are typically willing and able to accept a lower price to sell a good than what they end up receiving. Both sides of the market exchange are thus better off, have a net gain in welfare, by making the trade. While all types of market exchanges generate gains from trade,

this topic is perhaps most important for an understanding of international trade.

5.0 SUMMARY

Finally, gains from trade refer to the benefits to a group of people from exchanging goods and services with other groups of people. Usually, we think of gains from trade from countries trading with each other, but it could be districts, villages, or even households. It does not mean everyone in the group gains, it means that benefits > losses.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define international trade and how can international trade exist between two countries.
2. Discuss why Nigeria government always goes into international trade with different countries.
3. Comparative advantage theory is better than absolute advantage theory. Discuss.

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UNIT 3 NET EXPORT FUNCTION IN THE OPEN ECONOMY

CONTENTS

1.0 INTRODUCTION

Gains from trade are the net benefits to agents from allowing an increase in voluntary trading with each other. In technical terms, it is the increase of consumer surplus plus producer surplus from lower tariffs or otherwise liberalising trade.

However, we can also say that gains from trade are commonly described as resulting from specialisation in production from division of labour, economies of scale, scope, and agglomeration and relative availability of factor resources in types of output by farms, businesses, location and economies, a resulting increase in total output possibilities, trade through markets from sale of one type of output for other, more highly valued goods.

2.0 OBJECTIVES

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

- state reasons for international trade
- describe the concept of net export
- determine the prices for international transaction
- explain equilibrium in an open economy.

3.0 MAIN CONTENT

3.1 Export

Exports depend on spending decisions made by foreign consumers or overseas firms that purchase domestic goods and services. The spending decisions are guided by the level of income, price level, taste and fashion of the foreign consumers. We will therefore assume that exports are determined by factors outside the control of the home economy. This allows us to treat it as an exogenous variable.

Imports on one hand depend on the spending decisions of domestic consumers and on the other hand domestic firms using foreign raw materials, capital goods and intermediate goods. The latter is treated to be exogenous because in most cases firms know the amount of intermediate goods or capital goods they will need for their production.

In fact, we can say that this set of goods is basic for production to take place. We will then assume that this aspect of import is also exogenous.

Another aspect of import demand is the one that changes as income changes. When income rises, this aspect of import demand rises as well and when income falls, it falls. Therefore, we have two components of import demand, the one that is fixed, and the one that varies with income.

Because export is exogenous while a part of import is an increasing function of income, net exports are negatively related to national income/national output. Let X_0 represent planned export demand, M_o represents imported basic investment good, while M_1 represents an aspect of import that changes with income, that is, marginal propensity to import. Finally, let M represent total import demand so that M equals M_0 plus M_1Y, where Y is national income. Therefore, net export function can be written algebraically as follows:

$$X_0 - M$$
$$X_0 - (M_0 + M_1Y)$$
$$X_0 - M_0 - M_1Y$$

Consider a set of income level say Y = 1000, 1500, 2000, 2500 and 3000. Let planned export demand equals 800 and let marginal propensity to import equals 0.2. Finally, let exogenous import equals 250. We can construct net export table as follows:

Table 1: Net Export Schedule

GDP (Y)	Export (X_0)	M_0 = 250	M_1 = 0.2Y	M = M_0 + M_1	Net Export
1000	800	250	200	450	350
1500	800	250	300	550	250
2000	800	250	400	650	150
2500	800	250	500	750	50
3000	800	250	600	850	-50

The table shows that export demand was higher than import demand (net export being positive) up to the point when income was 2500. If we graph import function, you will find out that import is an increasing function of income. As income rises, import demand also rises. Lastly, note that as income is increasing, with fixed export demand, net export is falling. This implies that net export is inversely related to income.

SELF-ASSESSMENT EXERCISE

Analyse the statement "export depends on spending decision".

3.2 Prices for International Transaction

Exports and imports are both affected by international prices. When imported goods and services are purchased from abroad, though we pay in local currency in the local market, importers actually purchase those imported goods with the currency of the foreign country from which such goods are purchased.

For simplicity, let us assume that a unit of good worth $2 is to be imported to Nigeria from the United States. Importer will need to pay the US producers in dollars before such goods could be purchased. This means that some naira has to be exchanged for dollars. The rate at which the naira is exchanged for the dollar is called *exchange rate*. In particular, exchange rate is the quantity of domestic currency that can be exchanged for a unit of foreign currency in order to allow international transactions to take place. Let the unit price of Nigeria currency be ₦ (naira), while that of the US is $, then exchange rate of naira to dollar will be:

ER = naira/dollar or ₦ /$

To compute the amount of naira needed when we want to buy $10 worth of US products given that ER is ₦50, we proceed thus:

ER = naira/dollar
50 = ₦ /10
₦ = 50 x 10
₦ = 500

After simplifying, we see that the amount of naira needed is ₦500.00. Let us assume that exchange rate now falls to 25, and then the amount needed to purchase a $10 US product is ₦250.00.

What this implies is that as exchange rate falls, import demand becomes cheaper and as it rises, import demand becomes more expensive. A fall in exchange rate (when domestic currency falls relative to foreign currency) is called *exchange rate appreciation*. A rise in exchange rate (when domestic currency rises relative to foreign currency), is called *exchange rate depreciation*.

What is the implication of exchange rate on export demand? Consider a US consumer that intends to buy Nigeria products worth ₦1,000.00, how much dollars does he need for the transaction? Given that exchange rate is 50, we proceed thus:

50 = 1000/$
$ = 1000/50
$ = 20

This means that the consumer needs $20. Now let the exchange rate be 25

25 = 1000/$ = $40

That is, the foreign consumer need $40 (an extra $20) to purchase the same basket of good. What this implies is that all other things being equal, appreciation of domestic currency relative to foreign currency makes export expensive and makes import cheaper. Conversely, if other things remain the same, depreciation makes export cheaper and makes import expensive. Hence, any factor that changes exchange rate will cause net export to change. If exchange rate appreciates, export falls, import rises and net export function shifts downwards and to the left, such that aggregate demand falls. If exchange rate depreciates, export rises, import falls and net export function shifts upwards and to the right such that aggregate demand rises.

Another factor that can affect trade flows is the changes in domestic price level relative to foreign price level. Consider first a rise in domestic price. On the one hand, foreigners will now see domestic-produced goods as more expensive relative to both goods produced in their country and to goods imported from other countries. On the other hand, domestic residents will see imports from foreign countries become cheaper relative to the prices of home-produced goods. As a result, they will buy more foreign goods, and imports will rise. Both of these responses will cause the net export function to shift downwards. As it

shifts downward, aggregate demand falls. Thus, increase in domestic price will cause net export to fall.

Consider a situation whereby domestic price level falls relative to foreign price level. Domestic good exported will look cheaper in foreign country relatively to home-produced goods, and to goods imported from say other countries. As a result, home country exports will rise. On the other hand, the same change in relative prices – home-made goods become cheaper relative to foreign-made goods – will cause domestic country's import to fall. Thus, the net export function will shift upwards in exactly the opposite way to the previous situation.

Thus far, we have established the fact that changes in foreign GDP, changes in exchange rate, and international differences in inflation rates cause net export function to shift. What is the implication of these factors on the equilibrium aggregate output/aggregate income? This is the question we provide answer to in the next section.

SELF-ASSESSMENT EXERCISE

Do you agree that export and import are both affected by international prices? Discuss.

3.3 Equilibrium in the Open Economy

The aggregate demand will now include net export (X-M) component. However, equilibrium output is still the level of output at which desired aggregate demand equals national output/income.

To establish equilibrium in an open economy, let us rewrite our aggregate demand function and incorporate net export component. To put the matter very simple, let us assume that planned aggregate demand is given by:

$$AD = C + I + G + NX$$

Let $C = 610 + 0.8Y$; $I = 220$; and $G = 300$; $NX = 10$ and $T = 250$
Note that planned private consumption has fallen by 10-unit but this has been taken care of by NX which is 10. Equilibrium output can be achieved as follows:

$$\begin{aligned} AD &= 610 + 0.8\,(Y - 250) + 220 + 300 + 10 \\ &= 610 + 0.8Y - 200 + 220 + 300 + 10 \\ &= 940 + 0.8Y \end{aligned}$$

at equilibrium, $AD = Y$
hence, $Y = 940/0.2 = 4700$.

This implies that the equilibrium has been restored but in this case through net export surplus.

From this simple example above, it is clear that positive net export (current account surplus) can be used to recover the economy from recession, while negative net export (current account deficit) can also plunge the economy into recession. In particular, exchange rate policy, domestic inflation and foreign inflation have implication on the output performance of the domestic economy. A rise in domestic inflation can plunge the economy into recession through a fall in net export. While a fall in domestic inflation will help economy recover from recession through increase in net export. Specifically, this analysis implies that an economy that is in recession can recover by reducing import demand and increasing export supply which can be achieved through exchange rate manipulation or reduction in domestic price level.

SELF-ASSESSMENT EXERCISE

Do you think aggregate demand can restore equilibrium in the open economy? Discuss.

4.0 CONCLUSION

In this unit we have been taught that export depend on spending decisions that are made by foreign consumers or firms that are located in oversea that deals mainly on domestic goods. However, we also learnt that prices of international transaction varies in nature and finally we got to know that equilibrium exist in the open economy for different economy in the world ranges from one country currency to the other.

5.0 SUMMARY

Finally, in this unit we have vividly look at export in a small dimension and we have discussed about the prices of international transaction and what happen in the equilibrium in the open economy.

6.0 TUTOR-MARKED ASSIGNMENT

1. Critical evaluate this statement and discuss in detail “Exchange rate Depreciation of a currency inflationary rate is better that exchange rate appreciation during boom period”.
2. Explain the term “international trade transaction”.
3. Make a clear distinction between current account surplus and current account deficit.
4. Given AD = C + I + G + NX

Assume that C = 400 + 0.4Y; T = 140, G = 122, NX = 16; T = 102. Calculate equilibrium in the open economy.

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