NATIONAL OPEN UNIVERSITY OF NIGERIA

ADVANCED MONETARY ECONOMICS
ECO 717

FACULTY OF SOCIAL SCIENCES

COURSE GUIDE

Course Developers:
Dr Amaka G. Metu
and
Dr Chris U. Kalu
Economics Department, Faculty of Social Sciences,
Nnamdi Azikiwe University Awka, Nigeria

Course Editor:
Prof Ndubuisi Marcellinus Nwaru
Economics Department, Faculty of Social Sciences,
Imo State University, Owerri, Imo State Nigeria

National Open University of Nigeria,

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INTRODUCTION

Welcome to ECO 717: ADVANCED MONETARY ECONOMICS

ECO 717: Advanced Monetary Economics is a two credit and one semester postgraduate Diploma (PGD) course for Economics students. This course is made up of twelve units spread across fifteen lecture weeks. This course gives you the foundational insight and overview of Monetary Economics in a much wider perspective. It also guides you on how to apply the pedagogical approach to Monetary Economics analysis. It equally educates you on the course materials and the requirements for success and how to navigate meaningfully the materials. It also offers some standard guidelines on the study unit durations for achieving the objectives optimally. The tutor marked assignments (TMAs) with answers within the material are essentially added.

Course Content

This course is essentially on Advanced Monetary Economics. The monetary sector is a major policy analytic sector of the economy; therefore, a study of Advanced Monetary Economics offers you the avenue to contribute to the analysis of the monetary sector as a trained and skillful economist. The course arms you with the monetary economics analytic apparatus. Basically, the topics are as follows: The nature and role of money; the demand and supply of money under equilibrium condition and monetary policy analysis. As an addendum, balance of payments (BoPs) and financial institutions are equally included for complete and overall discussion on Advanced Monetary Economics. This will better equip you in understanding issues concerning the monetary sector.

Course Aims

The aim of this course, Advanced Monetary Economics is to give you an in-depth understanding of the monetary economics as regards:

- Scope of Monetary Economics
- Meaning and nature of money
- The different functions of money

- Money demand and determinants
- The Quantity Theory of Money
- Money supply and monetary equilibrium.
- Measurement of money
- Monetary policy analysis
- Structure of balance of payment account
- Role of monetary policy in LDCs
- Financial Institutions
- International financial institutions.

Course Objectives

To achieve the aims of this course, there are different specific objectives in each unit which the course is set to achieve after each teaching. After each unit, you are expected to refer back to the stated objectives and assess yourself to be sure you have understood what is expected after each unit. By the end of the course period, you are expected to be able to:

- Discuss the scope and importance of Monetary Economics
- Define money
- Explain the functions of money
- Define the concept of money value
- Explain the motives for holding demand
- Illustrate the determinants of money demand
- Enumerate the theories of money demand
- Enumerate Fisher's quantity theory of money
- Discuss Cambridge cash balance approach to quantity theory of money
- Highlight the superiority of cash balance version over Fisher's quantity theory of money
- Explain the meaning of monetary policy
- Identify the objectives of monetary policy
- Discuss the instruments of monetary policy

- Illustrate the determinants of money demand.
- Discuss the meaning and measurements of money supply.
- Illustrate the determinants of money supply.
- Enumerate monetary equilibrium
- Discuss the role of monetary policy in LDCs
- Identify the limitations of monetary policy in LDCs.
- Explain the concept financial system
- Identify the components of a financial system
- Explain the functions of a central bank
- Enumerate the functions of a deposit money bank
- Describe the process of credit creation by banks
- Identify the roles of banks in economic development
- Highlight the role of NBFIs in economic development
- Enumerate the problems of NBFIs
- Identify the functions of the World Bank
- Explain the role of the International Monetary Fund
- Discuss the key functions of African Development Bank (AfDB)
- Explain the scope of International Financial Market

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 called Student Assessment Exercises (SAE). 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. You have to work through all the study units in the course. There are three modules and twelve study units in all.

Course Material

The major components of the course material include:

1. Course Guide
2. Study Units
3. Textbooks
4. Assignment File
5. Presentations Schedule

Study Unit

There are 12 units in this course, which should be carefully studied

MODULE 1: THE NATURE, DEMAND AND SUPPLY OF MONEY

Unit 1: Scope of Monetary Economics and Nature of Money

Unit 2: Money Demand and Determinants

Unit 3: The Quantity Theory of Money

Unit 4: Money Supply and Monetary Equilibrium

MODULE 2: MONETARY POLICY ANALYSIS

Unit 1: Objectives and Instruments of Monetary Policy

Unit 2: Monetary Policy Targets

Unit 3: Balance of Payment Accounts

Unit 4: Monetary Policy and Economic Stabilisation

MODULE 3: FINANCIAL INSTITUTIONS AND ECONOMIC DEVELOPMENT

Unit 1: Financial System

Unit 2: Bank Financial Institutions

Unit 3: Non-Bank Financial Institutions

Unit 4: International Financial Institutions

Each study unit requires at least two hours of teaching and it include the objectives, main content, self-assessment exercise, conclusion, summary and references and the tutor-

marked assessment (TMA) questions. The self-assessment exercises may require group discussions among the students.

Textbooks and other resources are also listed in the reference section for further reading. These materials are meant to be consulted for adequate understanding of the course. The self-assessment exercise and tutor-marked assignment (TMA) questions are also provided for an in-depth understanding of the course. All these will aid the achievement of the stated objectives of the course.

Textbooks and References

The under-listed text for the Course are recommended:

Acha, I. A. (2012). Non-bank financial institutions and economic development. *International Journal of Finance and Accounting, 1*(2), 14-22 www.doi:10.5923/j.ijfa.20120102.03

Afiemo, O. O. (2013). The Nigerian money market. *Understanding Monetary Policy Series No 27.* Abuja: CBN

Agene, I. (1998). *Financial exchange and international trade*. Lagos: Gene Publications.

Akpan I., (1998). Financial dualism and the efficacy of monetary policy in Nigeria. Nigeria *Journal of Management and Social Sciences, 2*(1), 29-34.

Anyanwu, J. C. (1993). *Monetary economics: Theory, policy and institution*. Onitsha: Hybrid Publishers.

Central Bank of Nigeria, (2004). Financial markets in Nigeria. Abuja: Central Bank of Nigeria Publication.

Central Bank of Nigeria (2006). *Monetary policy series*. *CBN/MPD/Series/01/2006*. Central Bank of Nigeria

Central Bank of Nigeria (2011). *Understanding monetary policy series 1: What is monetary policy? CBN/MPD/Series/01/2011*. Central Bank of Nigeria

Central Bank of Nigeria (2015). *Monetary sector model for Nigeria* https://www.cbn.gov.ng/out/2015/rsd/monetary%20sector%20model%20for%20nigeria.pdf

Central Bank of Nigeria (2016). Monetary policy. *Education in Economics Series* https://www.cbn.gov.ng/out/2017/rsd/cbn%20education%20in%20economics%20series%20no.%202%monetary%20policy.pdf

Crockett, A. (1979). *Monetary theory: Policy and institutions*. Thomas Nelson & Sons.

Crockett, A. (2011). *What financial system for the 21st Century?* Basel: Per Jacobson.

Cuthbertson, K. (1985). The Supply and Demand for Money. Basil Blackwell.

Dennis, G. (1981) *Monetary economic*. UK: Longman.

Dornbusch, R., Fisher, S. & Kearney, C. (1996). *Macroeconomics*. Sydney: The McGraw-Hill Companies, Inc.

Eze, A. E. (2017). International economic institutions**.** In U. R. Ezenekwe, K. O. Obi, M. C. Uzonwanne & C. U. Kalu (Eds). *Principles of economics II.* (179-196). Nigeria: Djompol Printers & Publishers

Ghatak, S. (1995) *Monetary Economics in Developing Countries*. Macmillan Press

Hendrickson, J. R. (2012). *Monetary equilibrium. The Review of Austrian Economics, 28,* 53-73. https://doi.org/10.1007/s1138-012-0190-8

Hicks, J. (1967). *Critical essay in monetary theory*. Oxford University Press http://www.ww.uni-magdeburg.de/fwwdeka/student/arbeiten/009.pdf Hybrid Publishers

Jhingan, M. L. (2011). *Money, banking international trade and public finance, 8th ed.* Delhi: Vrinda publications

König, S. (2001). The evolution of money: From commodity money to e-Money. UNICERT IV Program July 6th.

Metu, A. G. (2018). *Money and Banking Lecture Mimeograph*. Department of Economics, Nnamdi Azikiwe University, Awka

Nigam, S. (2011). Financial institutions and services www.DMGT512_FINANCIAL_INSTITUTIONS_AND_SERVICES%20(1).pdf

Nzeribe, G. E. (2017). Nigerian financial sector: Policies and reforms. In U.R. Ezenekwe, A. G. Metu, E. S. Nwokoye & O. L. Maduka (eds.), *Structure and problems of the Nigerian Economy* (279 - 313). Awka: Fab Anieh Nig Ltd.

Ojo, O. M. (2000). *Principles and practice of monetary management in Nigeria*. Abuja: Central Bank of Nigeria Publication.

Olofin, S. A. (2014). *An introduction to macroeconomics, 2nd edition*. Ibadan: Evans Brothers

Onoh, J. K. (12004). *Dynamics of money, banking and finance in Nigeria – An emerging market.* Aba: Astra Meridian Publishers.

Owusu, E. L. & Odhiambo, N. M. (2014). Financial liberalization and economic growth in Nigeria: An ARDL bounds testing approach. *Journal of Economic Policy Reform, 17*(2), 164-177.

Pierce, D.G. & Tysome, P. J. (1985). *Monetary economics: Theory, evidence and policy*. London: Butterworth and Company

Securities and Exchange Commission (2019). *Instruments traded in the capital markets*. SEC, Nigeria

Umana, k. (2018). *Seven non-bank financial institutions operating in Nigeria*. Research Cyber www.researchcyber.com

Uzonwanne, M. C. (2017). Money and banking**.** In U. R. Ezenekwe, K. O. Obi, M. C. Uzonwanne & C. U. Kalu (Eds). *Principles of economics II.* (164 - 178). Nigeria: Djompol Printers & Publishers**.**

Assignment File

The assignment files 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. Additional information on assignments will be found in the assignment file and later in this Course Guide in the section on assessment.

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

Assignment 1 - All TMAs' question in Units 1 – 4 (Module 1)

Assignment 2 - All TMAs' question in Units 5 – 8 (Module 2)

Assignment 3 - All TMAs' question in Units 9 – 12 (Module 3)

Presentation Schedule

The presentation schedule included in the course materials gives the important dates for the completion of tutor-marking assignments and attending tutorials. You are required to submit all assignments before or on the due date. Kindly guide against falling behind in your work as this may affect your overall result.

Assessment

The course will be assessed using two formats: The tutor-marked assignments as well as a written examination. The assignments submitted to your tutor for assessment will count for 30% of your total course mark while the final written examination of three hours duration will count for the remaining 70% of your total course mark.

Tutor-Marked Assignments (TMAs)

There are three tutor-marked assignments according to each unit 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 broad 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.

Final Examination and Grading

The final examination is of three hours duration and has a grade score of 70% of the total course grade. The examination will consist of questions which reflect the types of self-assessment practice exercises and tutor-marked problems you have previously encountered.

Revise the entire course material using the time between finishing the last unit in the module and that of 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. Please note that all areas of the course will be assessed.

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, Advanced Monetary Economics (ECO 717)

Units	**Title of Work**	**Week's Activities**	**Assessment (end of unit)**
	Course Guide		

MODULE 1: THE NATURE, DEMAND AND SUPPLY OF MONEY			
1	Monetary Economics and Nature of Money	Week 1	Assignment 1
2	Money Demand and Determinants	Week 2	Assignment 1
3	The Quantity Theory of Money	Week 3	Assignment 1
4	Money Supply and Monetary Equilibrium	Week 4	Assignment 1
MODULE 2: MONETARY POLICY ANALYSIS			
1	Objectives & Instruments of Monetary Policy	Week 5	Assignment 2
2	Nigerian Monetary Policy Targets	Week 6	Assignment 2
3	Balance of Payment Accounts	Week 7	Assignment 2
4	Monetary Policy and Economic Stabilisation	Week 8	Assignment 2
MODULE 3: FINANCIAL INSTITUTIONS AND ECONOMIC DEVELOPMENT			
1	Financial System	Week 9	Assignment 3
2	Bank Financial Institutions	Week 10	Assignment 3
3	Non-Bank Financial Institutions	Week 11	Assignment 3
4	International Financial Institutions	Week 12	Assignment 3

How to Get the Most In 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.

In the same way that a lecturer might send you some readings to do, the study units guides you on when to read your books or other materials. Think of it as reading the lecture instead of listening to a lecturer and embark on discussions with your colleagues. Similarly, 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. Hence, use these objectives as a guide. 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 improve your chances of passing the course and getting the best grades.

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 reading 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, and answers are given at the end of 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. Organize 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 through each unit.

3. Once you have created your own study schedule, do everything you can to stick to it. The major reason that 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 to 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 in the `Overview' 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 try to 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-hours 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

• You have difficulty with the self-assessment exercises

• You 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 question list before attending them. You will learn a lot from participating in discussions actively.

Summary

This course Advanced Monetary Economics (ECO 717) will expose you to the nature and role of money in the economy. It will also give pedagogical insights into the demand for and supply of money. Thereafter, you will learn the rudiments and the dynamics of monetary policy and authorities, the financial system and the components. With recourse to the external and monetary linkages, you will be exposed to issues on balance of payments, especially as it relates to disequilibrium and probable correction approach. The exposure on the course will end with the international financial institutions.

On successful completion of the course, you will have developed critical thinking skills with the materials necessary for efficient discussions on the nature and role of money, the demand for and supply of money, monetary policy, structure and development of financial institutions, balance of payments and international financial institutions.

MODULE 1: NATURE, DEMAND AND SUPPLY OF MONEY

UNIT 1: MONETARY ECONOMICS AND NATURE OF MONEY

CONTENTS

1.0 INTRODUCTION

Monetary Economics is one of the branches of economic study, in the fold of Macroeconomics. Monetary economics studies how money and monetary institutions functions and affect broad economic aggregates such as prices, employment, output and

balance, just to mention few of them. This unit starts with discussion on the scope and importance of Monetary Economics. Due to the importance of money and monetary institutions in this modern economy, we lay a foundation for an understanding of one of the most important aspects of monetary economics; the nature and the functions of money.

2.0 OBJECTIVES

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

i. Discuss the scope and importance of Monetary Economics
ii. Define money
iii. Explain the functions of money

3.0 MAIN CONTENT

3.1 The Scope of Monetary Economics

Monetary Economics is that branch of economics dealing with money and monetary relationships in the economy. It studies the different competing theories of money (Metu, 2018). It provides a framework for monetary analysis and is linked to macroeconomics. Monetary economics examines the effect of monetary systems including regulations and associated financial institutions and international aspects. Anyanwu (1993) opine that it covers both domestic monetary relations and international monetary relations. Essentially, the domestic covers areas such as the origin, growth and evolution of money and its kinds: money supply; money demand; monetary institutions such as deposit money bank, investment, development and central banking; the effects of money on the working of the economy (such as prices, output, employment, balance of payments, etc), interest rates, capital markets, credit creation, monetary transmission mechanism, monetary theories; and monetary policy and its influence on economic activities.

International Monetary Economics relates to the role of money in international transactions and exchange of goods and services. It primarily focuses on monetary standards,

international financial markets, international financial institutions foreign exchange rate, reserves and international liquidity.

3.1.2 The Importance of Monetary Economics

i). Monetary Economics examines the role of money in the economy's administration and use of scarce resources. It permits an understanding of how the monetary sector affects the overall allocation of resources and the aggregate performance of the economy. Such aggregate performance entails the determination of total levels of output, income, employment, and prices in the economy (Marshall & Swanson, 1974).

ii). They knowledge of the monetary process has some degree of relevance to the economic position of the decision maker. It imparts knowledge to improve the effectiveness of the monetary process in the economy. Since the entire functioning of the economy is initially affected by the stock and flow of money, we have to understand the nature, scope and implications of such effects. A proper knowledge of the interaction between monetary and real variables is required to help in formulating an appropriate monetary policy planning and instrument for our economy and device ways to upgrade its operational efficiency. It helps us to learn about the effectiveness or otherwise of monetary measures (active or passive) in the attainment of macroeconomic goals as well as effects on the performance of the private sector of the economy.

iii). It could also be a source of making a living for professionals of Monetary Economics through employment in social, political and economic institutions especially financial institutions like banks and the stock market. In effect, the study of Monetary Economics is quite relevant to public policy formulation and implementation

SELF-ASSESSMENT EXERCISE

i. Discuss the scope and importance of Monetary Economics

3.2 Nature and Definitions of Money

Money as we all know today is as a result of a long process. Initially people engaged in barter because there was no money. Barter is the exchange in merchandise for merchandise (Metu, 2018). This means that trade was done on the basis of direct exchange of goods and services. For instance, a cow may be exchanged for a goat or horse. In this type of system, the consumer needs to find someone who not only possess what they want but is willing to exchange them. A barter economy is simple and moneyless economy because people produce for consumption or for exchange for the goods they want. In ancient civilization, cowries served as a medium of exchange.

There has been controversy over the meaning of money. According to Scitovsky (1969 as cited in Jhingan, 2011:7), 'Money is difficult concept to define, partly because it fulfills not one but three functions, (i) a unit of account, (ii) a medium of exchange, and (iii) a store of value' This point out to the difficulty in defining money due to its liquidity.

Definitions of Money

Prof Johnson (1962 as cited in Metu 2018) identified the definitions of money by four main schools of thought and they are discussed below:

i). Traditional definition of money: - According to the traditional view, money is defined as currency and demand deposits, with its most important function to act as medium as of exchange. Economists such as Keynes and Hicks follow the traditional view and define money as a unit of account (or measured value), as a means of payment and as a store of value. The Banking School criticised the traditional views of money as an arbitrary because there are other assets which are equally accepted as a medium of exchange. Such asset includes time deposits of Deposit Money Banks, commercial bills of recharge, etc.

ii). Friedman's Definition of Money: - Friedman and other monetarists define money as literally the number of dollars people are carrying around in their pockets, the quantity of dollars in their banks in form of demand deposits and commercial bank's time deposit. This definition was critised as being narrow because cash and deposit money were not comparable over long periods. Friedman later gave a broader definition of money to

include bank deposits, non-bank deposits and any other assets through which monetary authorities influence future income, employment, prices and other macro variable.

iii). The Radcliff definition of money: - The Radcliff Committee defined money as note plus bank deposits. By this definition, only assets commonly used as media of exchange were included as money. Assets refers to liquid assets by which it means the monetary quantity influencing total effective demand for goods and services (Jhingan, 2011). This is interpreted to include credit. But spending decision does not depend only on cash or money in the bank, it is also based on money people think they can get by selling an asset or by borrowing or by receipts from sales.

iv). The Gurley-Show definition: - Gurley and Shaw formulated a wider definition of money based upon liquidity which includes bonds, savings and loans, insurance reserves, and pension fund. By this definition, they regard a substantial volume of liquid assets held by financial intermediaries and the liabilities of non-bank intermediaries as close substitutes for money. They believe in the velocity of the money stock that is influenced by non-bank intermediaries.

From the above, we have seen that scholars define money as a means of valuation and of payment, as both unit of account and generally acceptable medium of exchange. This definition is wide because it captures money to include gold, cheques, bank drafts, currency notes and coins. Scholars such as Hicks, (1967 as cited in Metu, 2018) defined money based on the functions it performs by defining money as what money does. Scholars define money based on legal term as anything which the state declares as money. This means that money is generally acceptable and has the power to be accepted in exchange for debt. Though some people may accept some things not legally defined as money in exchange for debt. But may not accept legal money by refusing to sell goods and services against the payment of legal tender money. Examples of such thing are cheques and notes issued by Deposit Money Banks. Aside legality, there are other determinants of what constitute money.

We will adopt CBN (2016) definition of money as anything of value that is accepted by the general public for the purpose of making transactions and settlement of debts. This definition shows that money is used primarily as a means of exchange and plays an important role in the settlement of financial obligations. Most times people regard money as currency (coins and notes) because it is easily used in making payment. However money is more than currency because it includes other things that are used for currency[1]

3.3 Functions of Money

The following are the major functions of money can be classified into primary and secondary functions (Jhingan, 2011). The functions as discussed below:

A) Primary functions of money

i). Money is used as a Medium of Exchange: - This is the primary function of money because it facilitates the exchange of goods and services and removes the problem of double coincidence of want. By acting as a medium of exchange shows the general acceptability of money. Money facilitates exchange by acting as intermediary and makes it possible for people to exchange goods or services through trade.

ii). A Unit of Account or a Measure of Value: The second primary function of money is to act as a unit of value. Money serves as a common unit used in measuring the relative value of goods and services just as kilometer is used to measure distance. Money is the common denominator which determines the rate of exchange between goods and services. Money is used to express the value of commodity in terms of prices. According to Culbertson (1972 as cited in Metu, 2018 prices quoted in terms of money becomes the focus of people's behaviour, plans, expectations and contract focus on money prices.

B) Secondary functions of money

Money performs three secondary functions as discussed below:

[1] The components of money is discussed in Unit 4.

i). A Store of Value: Money makes it possible to save now for later use. For instance, perishable goods from farmers cannot be stored, a person who renders services cannot save what he produces, therefore, by selling their services for money, and the value received can be stored for future use. Money as a store of value is meant for unforeseen emergencies and for payment of debts (Jhingan, 2011). According to Keynes, to hold money is to keep it as a reserve of liquid assets which can be converted into real goods. But the store of value function of money also suffers from changes in the value of money.

ii). As a Standard of Deferred Payment: Deferred payment means settlement of debts at a later date. All debts are taken in money. Money facilitates borrowing from banks and other non-banks financial institutions. It also facilitates future contracts for the supply of goods for an agreed payment of money. By acting as standard of deferred payments, money helps in capital formation both by businesses and the government. This help in the development of capital markets and facilitates economic growth. But the danger in using money for future payment is the change in the value of money. If the value of money falls over time creditors loose while debtors gain. If the value of money increases over time, creditors gain while debtors loose.

iii). Money as a Transfer of Value. As money is generally acceptable as means of payment and acts as a store of value, it keeps on transferring value from one person to another and from place to place. Someone holding money in cash or assets can transfer same to some other person. The person may even decide to sell the assets in one location and relocate to another location and buy another asset in the new location. The function of money facilitates the transfer of value between persons and places.

C. Other Functions of Money

Money performs other functions such as:

- Money is the basis of the credit system
- Helps in decision making
- Money serves as a basis for adjustment

- Distribution and measurement of national income

SELF-ASSESSMENT EXERCISE

i. Discuss the primary functions of money

ii. Identify the secondary functions of money

4.0 CONCLUSION

Monetary economics is one of the specialized branches of economics. It provides a framework for analyzing money and the regulation of the monetary system. The scope of monetary economics cuts across the spectrum of domestic monetary relations and international monetary relations. The study of monetary economics is essential as it has some degree of relevance to the economic position of the policy/decision makers. Money in today's economies play the role of a medium of exchange, store of value and the basis for a credit system

5.0 SUMMARY

This unit exposes you to the rationale of studying monetary economics as a specialized branch of economics. The definition and functions of money were also examined.

6.0 TUTOR-MARKED ASSIGNMENTS

i. Discuss the scope of monetary economics

ii. Why is the study of monetary economics important?

iii. Enumerate the nature and function of money.

iv. Discuss the empirical and theoretical definitions of money

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UNIT 2: MONEY DEMAND AND DETERMINANTS

1.0 INTRODUCTION

The generalized demand and supply framework is fundamental to the study of economic theory and analysis. The demand for money arises from its function as a medium of exchange and as a store of value. Hence individuals, households and firms wish to hold money partly in cash and partly in the form of fixed asset. In this unit, we discuss the

meaning of money demand, the motives for holding money as well as the determinants of money demand. The theories of money demand are also illustrated in this unit.

2.0 OBJECTIVES

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

i. Explain the motives for holding demand
ii. Discuss Friedman's theory of demand for money
iii. Illustrate the determinants of money demand

3.0 MAIN CONTENT

3.1 The theory of Money Demand

In monetary economics, demand for money refers to the desired holding of financial assets in the form of money, that is, bank deposits or cash rather investments (Metu, 2018). This means total amount of money balances that people want hold for certain purposes. Demand for money is narrowly defined as M_1 (spendable holdings) or broad money M_2 or M_3. M_1 is necessary for transaction, that is, it provides liquidity. M1 can be divided into transaction motive and precautionary motive. M_2 is broad money that bears a non-trivial interest rate based on the asset demand. Nominal money balance ($M^D{}_O$) are measured in monetary units while real money balances ($\frac{M^{DO}}{P_O}$) are measured in terms of purchasing power of the quality of money demanded (Anyanwu & Oaikhenan, 1995). However, the demand for money arises from two important functions of money. The first is that money acts as a medium of exchange and the second is that it is a store of value. Thus individuals and businesses wish to hold money partly in cash and partly in the form of assets.

There are two views to the changes in the demand for money. The first is the scale view which is related to its impact on the income. In this case money is directly related to the level of income. The second is the substitution view which is related to the relative attractiveness of assets that can be substituted for money. For instance, when interest rate on alternative assets such as securities and bonds rises, it makes the assets more attractive

and people will prefer to invest in them instead of keeping their assets in cash. This leads to a decrease in the demand for money. But when the interest falls, these assets become less attractive and people will hold their assets in cash leading to increase in the demand for money. The scale and substitution views are used to explain the demand for money which Kynes split into transactions, precautionary and the speculative demand for money.

SELF-ASSESSMENT EXERCISE

i. What is demand for money?

3.2 Keynes' Liquidity Preference Approach

Demand for money is determined by the behavior of economic agents, especially by households and firms. Keynes in his General Theory used a new term 'liquidity preference' for the demand for money. Keynes (1936) as cited CBN, (2015) highlighted three motives for the demand for money namely; transactionary, precautionary and speculative motives

(i). The Transactions Demand for Money – As a medium of exchange, money is held for the regular payment for goods and services. This means that money is held in cash for immediate transactions of business and personal exchanges. It is held because of the non-synchronization of periods of income receipts and their disbursements which is determined directly by the level of income. Money demand is further divided into income and business motives (Jhingan, 2011). The income motive is meant for the interval between income receipts and disbursement. While the business motive is to bridge the gap between incurring business costs and receipts from business proceeds. If the gap between receipt of income and incurring expenses is much, people will hold more cash for current transactions and vice versa. Transactions demand for money depends upon the level of income, business turnover, interest rate and period between receipts and disbursement of income. Hence transactions demand for income is directly related to income and is expressed as:

$$L_1 = KY \qquad (1.1)$$

Where L_1 is the transactions demand for money, K is the proportion of income kept for transactions purpose and Y is income.

(ii). The Precautionary Demand for Money – This is the provisions to cater for emergencies and contingencies or to provide for unexpected expedition. Individuals reserve cash for unexpected needs such as illnesses, accidents and other unforeseen circumstances. Businesses also keep cash in reserve to take care of unfavourable conditions or to gain from unexpected deals. According to Keynes, the precautionary demand for money is a function of income level. Although post-Keynesians argue that it is inversely related to high interest rate. Precautionary demand for money depends upon the level of income, business activities, availability of cash, the cost of assets and opportunities for unexpected profitable deals (Metu, 2018). Precautionary demand for money is expressed as:

$$LT = f(Y, r) \tag{1.2}$$

(iii). The Speculative Demand for Money - Money held for speculative purposes is a liquid store of value for investment in an interest-bearing securities or bonds. After keeping funds for both transactions and precautionary purposes, individuals and businesses keep fund for investing in bonds so as to make speculative gain when opportunities rises. Speculative demand for money is inversely related to interest rate. The higher the rate of interest, the lower money will be demanded for speculative purposes and vice versa.

According to Keynes, money demanded for transactions and precautionary purposes is primarily a function of the level of income $Lr = f(Y)$ and the speculative demand for money is a function of interest rate, $Ls = f(r)$. Therefore, total demand for money is a function of both income and the interest rate:

$$Lr + Ls = f(Y) + f(r) \tag{1.3}$$

$$L = f(Y, r) \tag{1.4}$$

Where L represents the total demand for money

Keynes identifies the determinants of demand for money as the level of income, interest rate, price level, return on bonds and equities.

SELF-ASSESSMENT EXERCISE

i. Discuss the motives for holding money
ii. How is speculative demand for money different from transactions demand for money?

3.3 Friedman's Theory of Demand for Money

Milton Friedman improved on Keynes liquidity preference theory by treating money like any other asset. He posits that individuals hold money for the services it provides to them in form of general purchasing power so that it can be conveniently used for buying goods and services. Friedman considers the demand for money merely as an application of a general theory of demand for capital assets in contrast to transactions and speculative demand for money. Friedman's theory is based on the premises that demand for money is affected by same factors as demand for any other asset. That individuals can hold their wealth in form of money, bonds, equity and real assets (e.g. cars, housing, land, etc.). That money yields return and provides services just like other capital assets. The various factors that determine the demand for money was used to derive the demand for money function. Equity (Shares) is another form of asset in which wealth can be held. The yield from equity is determined by the dividend rate, expected capital gain or loss and expected changes in the price level. Bonds are another type of asset in which people can hold their wealth. Bonds are securities which yield a stream of interest income fixed in nominal terms. Yield on bond is the coupon rate of interest and also anticipated capital gain or loss due to expected changes in the market rate of interest (Jhingan, 2011).

The fourth form in which people can hold their wealth is the stock of producer and durable consumer commodities. Although, these commodities yield streams of income in kind rather than in money. Thus, the basic yield from commodities is implicit one. However,

Friedman also considers an explicit yield from commodities in the form of expected rate of change in their price per unit of time

Friedman‘s nominal demand function (*Md*) for money can be expressed as

$$Md = f(\text{W}, h, rm, rb, re, P, \Delta P/P, U) \quad (1.5)$$

Where *Md* stands for nominal demand for money; *W* stands for wealth of the individuals, *h* for the proportion of human wealth to the total wealth held by the individuals, *rm* is the rate of return or interest on money, *rb* stands for rate of interest on bonds, *re* is rate of return on equities, *P* is the price level, $\Delta P/P$ is the change in price level {i.e. rate of inflation), and *U* is the institutional factors

Friedman concludes that economic agents want to hold a certain quantity of real, as opposed to nominal, money balances. Real money balances is nominal money divided by the price level. Hence demand for real money balances can be expressed as

$$Md/P = f(W, h, rm, rb, re, P, \Delta P/P, U) \quad (1.6)$$

Where *Md/P* is demand for real money balances and other variables are as initially explained. The non-existence of reliable data about the value of wealth (*W*) makes it difficult to estimate the demand for money using Friedman‘s demand for money function. To overcome this difficulty Friedman suggested that since the present value of wealth or $W = YP/r$ (where *Yp* is the permanent income and *r* is the rate of interest on money.); permanent income *Yp* can be used as a proxy variable for wealth. Incorporating this in Friedman’s demand for money function, it becomes:

$$Md = (Yp,h,rm,rb,re\ \Delta P/P,U) \quad (1.7)$$

If, we assume that no price change is anticipated and institutional factors such as *h* and *U* remain fixed in the short run and also all the three rates of interest return are clubbed into one, Friedman‘s demand for money function is simplified as:

$$Md = f(Ypr) \quad (1.8)$$

Friedman's main insight (unlike Keynes) is that interest rates should have little effect on money demand and that correlation between interest rates and money demand is weak, since relative incentive to hold money does not change very much (Telyukova, 2008)

3.4 Determinants of Demand for Money

Among the most important variables that can shift the demand for money are the level of income and real GDP, the price level, expectations, transfer costs, and preferences.

(i). Real GDP affects the demand for money: - The demand for money in the economy is likely to increase when real GDP is high. An increase in real GDP increases incomes in the economy. For instance, a household with an income of ₦100,000 per month is likely to demand a larger quantity of money than a household with an income of ₦50,000 per month. This shows that money is a normal good, that as income increases, people demand more money at each interest rate, and as income falls, they demand less.

(ii). The price level: - The higher the price level, the more money is required to purchase a given level of goods and services. The higher the price level the greater the demand for money other things being equal.

(iii). Expectations: - The speculative demand for money is based on expectations about prices of securities and bonds. This expectation that bond prices are about to change actually causes bond prices to change. For instance, when people expect bond prices to fall, they will sell their bonds in exchange for money. But, when they expect the prices to rise, they will reduce their demand for money. The importance of expectations in moving markets can lead to what Keynes called self-fulfilling prophecy (Metu, 2018).

Similarly, expectations about future price levels also affect the demand for money. The expectation of a higher price level means that people expect the money they are holding to fall in value. Given that expectation, they are likely to hold less of it in anticipation of a jump in prices.

(iv). Transfer cost: - For a given level of expenditures, reducing the quantity of money demanded requires more frequent transfers between non-money and money deposits. As the cost of such transfers rises, some consumers will choose to make fewer of them. They will therefore increase the quantity of money they demand. In general, the demand for money will increase as it becomes more expensive to transfer between money and non-money accounts. The demand for money will fall if transfer costs decline.

(v). Preferences: - Preferences also play a role in determining the demand for money. Some people place a high value on having a considerable amount of money on hand. Household attitudes toward risk are another aspect of preferences that affect money demand. As noticed, bonds pay higher interest rates than money deposits, but holding bonds entails a risk that bond prices might fall. There is also a chance that the issuer of a bond will not pay the amount specified on the bond to bondholders; indeed, bond issuers may end up paying nothing at all. A money deposit, such as a savings deposit, might earn a lower yield, but it is a safe yield. People's attitudes about the trade-off between risk and yields affect the degree to which they hold their wealth as money. Heightened concerns about risk in the 2008 global financial crisis led many households to increase their demand for money.

SELF-ASSESSMENT EXERCISE

i) List and explain the determinants of money demand.

4.0 CONCLUSION

An exposition to the demand for money attempts to explain why economic agents demand money and the factors that influence the amount of money they demand. The factors identified by Keynes theory are the level of income, interest rate, price level, return on bonds and equities. Tastes and preferences of the wealth holder as well as expectations of future rice in prices also affect money demand.

5.0 SUMMARY

This unit contains the meaning and motives for holding demand. Money demand arises because of two main functions of money that is as a medium of exchange and as a store of value. Changes in the demand for money could result due to scale and substitution views which is divided into transactions motive, precautionary motive and speculative motives for holding money. Keynes theory identified the determinants of money demand to include income, interest rate and price level. We also discussed Friedman's theory of money demand which is dependent mostly on wealth. He treats money as an asset or capital good capable of serving as a temporary abode for purchasing power.

6.0 TUTOR-MARKED ASSIGNMENTS

i. Explain the concept of money demand
ii. What are the motives for holding cash balances according to Keynes?
iii. Explain Friedman's theory of money demand
iv. Discuss the role of price level in determining the demand for money

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UNIT 3: THE QUANTITY THEORY OF MONEY

CONTENTS

1.0 INTRODUCTION

In the seventeenth century, it was discovered that there was a connection between quantity of money and price level. This connection led to the formulation of the Quantity Theory of Money. The price level or value of money shows the purchasing power of the people. This unit discusses the Quantity Theory of Money in other to understand the how the general price level is determined. The traditional Quantity Theory of Money is explored in this unit.

2.0 OBJECTIVES

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

i. Enumerate Fisher's quantity theory of money

ii. Discuss Cambridge cash balance approach to quantity theory of money

iii. Highlight the superiority of cash balance version over Fisher's quantity theory of money

3.0 MAIN CONTENT

3.1 The Quantity Theory of Money

The Classical or pre-Keynesian economists used the quantity theory of money to explain how the general price level is determined (Metu, 2018). The quantity theory of money seeks to explain the value of money in terms of changes in its quantity. In its simplest form, the quantity theory of money states that the level of prices is directly dependent on money supply (M); P = f(M). This means that price level varies directly and proportionately to money supply. For instance, if M is increases (decreases), P will increase (reduce) by the same proportion. The classical theory of money is based on two major assumptions: (i) First is the Say's law of market which states that supply creates its own demand, that is, the sum of values of goods produced is the equal to the sum of values of goods consumed. (ii) Second is the assumption of full employment. The theory was first stated in 1586, but was popularised by Irving Fisher in 1911.

3.1.1 Fisher's Quantity Theory of Money

The Irving Fisher's Quantity Theory of Money (QTM) hypothesis states that any change in the quantity of money produces an exactly direct and proportionate change in the price level and the value of money decreases and vice versa. For instance, if the quantity of money is reduces by one half, the price will reduce by one half while the value of money will double. Similarly, if the quantity of money is doubled, the price level will also double and the value of money will be one half. This means that the value of money is determined by the supply of and the demand for money. Fisher attached emphasis on the use of money as a medium of exchange. In other words, money is demanded for transaction purposes. Fisher's equation is represented as:

$$MV = PT \tag{1.9}$$

Where M stands for the stock of money; V for the velocity of circulation of money (the number of times a unit of money changes hand); P stands for the general price level or index of prices; while T is the volume of transactions which take place within the given period. Equation (1) is an identity that explains the total stock of money used for transactions as equal to the value of goods sold in the economy.

The link between M and PT is velocity of money (*V)* and is defined as total spending *PT* divided by the quantity of money (M), that is:

$$V = (PT)/M \tag{1.10}$$

By multiplying both sides of the equation by *M*, the exchange equation relates nominal income to the quantity of money and velocity. If both *V* and *T* are constant, then changes in *M* must cause changes in *P* to preserve the equality between *MV* and *PT*.

$$MV = PT \quad \text{or} \quad P = (V/T)*M \tag{1.11}$$

The stock of money determines the price level. Irving Fisher used the equation of exchange to develop the classical quantity theory of money to show the causal relationship between the money supply and the price level (Tsoulfids, 2008). The transactions approach to the quantity theory of money maintains that, there exists a direct and proportional relation between *M* and *P*. If the quantity of money is doubled, the price level will also be doubled. And if the quantity of money is halved, the price level will also be halved.

Fisher's cash transaction version further extends the equation of exchange to include demand (bank) deposit (M') and their velocity V' in the total supply of money. The equation of exchange becomes:

$$MV + M'V' = PT \quad \textbf{or} \quad P = \frac{MV + M'V'}{T} \tag{1.12}$$

Assuming V, V', T and the ratio of *M* and M' constant, an increase in *M* and M' will lead to an increase in *P* by the same percentage. According to Fisher, the level of general prices (*P*) depends on the following factors: The volume of money in circulation (M); its velocity of circulation (*V*); the volume of bank deposits (M'); its velocity of circulation (V'); and the volume of trade (*T*). However, it is not easier to measure the number of transactions T. If T is replaced by Y, PY is the output or nominal income while Y is the total income, hence, MV = PY; which is known as the 'income version' of quantity theory of money.

The link between the quantity of money, price level and the value of money is represented in Figure 1

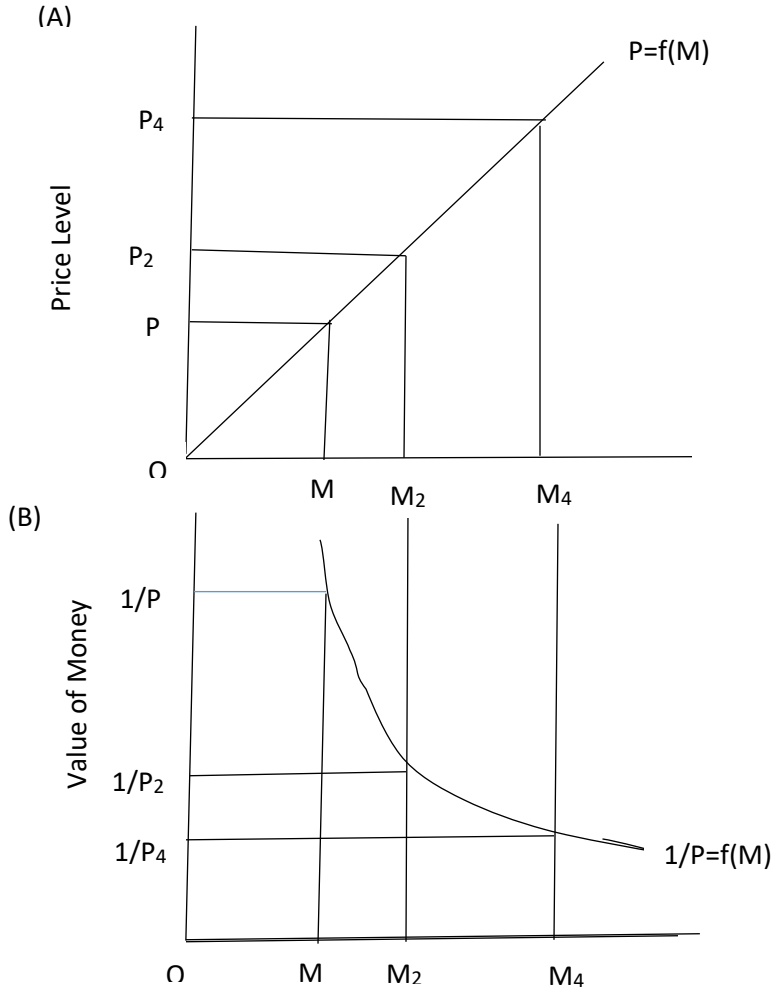

Figure 1: Quantity theory of money

Source: Jhingan, (2011)

Figure 1 (panel A) shows the effect of changes in the quantity of money on the price level. The symbol *M* represents the quantity of money while the symbol *P* is the price level. When the quantity of money is doubled to M_2, the price level is also doubled to P_2. And when the quantity of money increases four times its size to M_4, the price level also increased by four times to P_4. This relationship is expressed by the curve $P = f(M)$ from the origin at 45^0.

Panel B shows the inverse relationship between the value of money and the quantity of money. The inverse relationship is depicted by the downward sloping curse 1/P =f(M) such that when the quantity of money is M_1, the value of money is $1/P$. As the quantity of money doubled to M_2, the value of money is one-half of what it was before, $1/P_2$. Then when the money supply increase to M_4, the value of money reduced by $1/P_4$.

SELF-ASSESSMENT EXERCISES

i. Explain the Quantity theory of money

ii. Explain the statement that a doubling of money supply would lead to a doubling of general price level.

3.1.2 Assumptions of Fisher's Theory of Exchange

- Fisher assumes that price is a passive factor because price is affected by other factors in the equation but does not affect or cause changes in those factors. The relation between P and other factors in the equation is one-sided in as much as P is determined by other elements in the equation, but it does not determine them. According to Fisher, the price level is normally the one absolutely passive element in the equation of exchange. It is controlled solely by other elements but exerts no control over them.
- Secondly, the theory assumes that V is constant and is not affected by the changes in the quantity of money (M) or the price level (P). Velocity of money (V) depends upon population, trade activities, habits of the people, interest rate, facilities for investment, etc. It is assumed that these factors have nothing to do with the changes in the value of money. The quantity theorists ignored the velocity of money because they were concerned with what Keynes calls transaction and precautionary motives for holding money. And as long as money is held for these purposes, the amount of money held may remain stable; but once money is held for speculative motives there is the possibility of a change in the velocity of money.

- Further, the theory is based on the assumption that the volume of goods and services (T) remains constant. It depends on factors such as natural resources, climatic conditions, techniques of production, productivity of labour, transportation, etc.; and are assumed to have nothing to do with the changes in the quantity of money. The assumption that total volume of goods and services (T) remains constant is based on another assumption that there exists full employment; it means that idle resources are not available to expand production of goods and services to be exchanged for money.
- Fisher assumes a long period of time and considers V and T to be constant over a long period. In the short period of transition, there can be a change in other variables like T or V. But, when this short period or the period of transition is over, other variables will become constant so that a change in M or V will be followed by a proportionate change in P. Fisher was careful to qualify the proportional relationship suggested by the equation of exchange between changes in the quantity of money and change in the price level.
- The quantity of money is assumed to be autonomous of the real forces which determine the volume of transactions or national output because quantity of money depends upon monetary system and policy of the central bank and government (Ahuja, 1980)
- Fisher accepts that given a rise in the money supply, other changes taking place simultaneously might affect V or T and thus break the proportional relationship between changes in M and changes in P. However, the impact of M by itself on P holding everything else constant is strictly proportional.

SELF-ASSESSMENT EXERCISE

i. Highlight the assumptions of Fisher's exchange theory.

3.1.3 Criticisms of Fisher's Equation of Exchange

The following are the criticism leveled against the Quantity Theory of Money

- According to Keynes, Fisher's equation of exchange is a simple truism because it states that the total quantity of money ($MV+M'V'$) paid for goods and services must equal their value (PT). But in today's real life situation, it cannot be accepted that a certain percentage change in the quantity of money leads to the same percentage change in the price level.
- The direct and proportionate relation between quantity of money and price level in Fisher's equation is based on the assumption of "all things remain unchanged". But in real life, V, V' and T are not constant. Moreover, they are not independent of M, M' and P. Rather, all elements in Fisher's equation are interrelated and interdependent. For instance, a change in M may cause a change in V. Consequently, the price level may change more in proportion to a change in the quantity of money. Rise in the price level may necessitate the issue of more money. Similarly, when prices rise or fall, the volume of business transactions also rises or falls. Further, M and M' are not independent of T, an increase in the volume of business transactions requires an increase in the supply of money (M andM').
- Fails to Measure Value of Money: - Fisher's equation does not measure the purchasing power of money but only cash transactions, that is, the volume of business transactions of all kinds or what Fisher calls the volume of trade in the community during a year. But the purchasing power of money (or value of money) relates to transactions for the purchase of goods and services for consumption. Thus the quantity theory fails to measure the value of money.
- One of the main weaknesses of Fisher's quantity theory of money is that it neglects the role of the rate of interest as one of the causative factors between money and prices. Fisher's equation of exchange is related to an equilibrium situation in which rate of interest is independent of the quantity of money.
- The quantity theory cannot explain 'why' there are fluctuations in the price level in the short run. Secondly, it gives undue importance to the price level as if changes in prices were the most critical phenomenon of the economic system. Third, it places

a misleading emphasis on the quantity of money as the principal cause of changes in the price level during the trade cycle. Prices may not rise despite increase in the quantity of money during depression; and they may not decline with reduction in the quantity of money during boom. Further, low prices during depression are not caused by shortage of quantity of money, and high prices during prosperity are not caused by abundance of quantity of money. Thus, the quantity theory is at best an imperfect guide to the causes of the trade cycle in the short period (Jhingan, 2011).

- Keynes in his General Theory criticised the Fisher's Quantity Theory of Money for unrealistic assumptions. First, the quantity theory of money is unrealistic in analysing the relationship between *M* and *P* in the long run and neglects the short run factors which influence this relationship. Second, Fisher's equation holds under the assumption of full employment. The general situation is one of the under-employment equilibrium. Third, Keynes does not believe that the price level and quantity of money have direct relationship. Rather, they have an indirect relationship through the rate of interest and the level of output. Also, according to Keynes, output and employment will change in the same proportion as the quantity of money so long as there is unemployment. But, when there is full employment, prices will change in the same proportion as the quantity of money. Thus Keynes integrated the theory of output with value theory and monetary theory.
- Another weakness is that the quantity theory of money neglects the store-of-value function of money and considers only the medium-of-exchange function of money.

SELF-ASSESSMENT EXERCISE

i. Critically examine Fisher's theory of exchange

3.2 The Quantity Theory of Money: Cambridge Cash Balance Approach

Cambridge economists such as Alfred Marshall and A. C. Pigou presented an alternative to Irving Fisher's theory of exchange. Cambridge economists explained the quantity theory of money as a theory of demand for money (or liquidity preference). The transactions

approach by Fisher stresses money in its medium of exchange function whereas the cash balance approach by the Cambridge economists emphasizes the store of value aspect of money. According to the cash balance approach people likes to hold a proportion of nominal income in the form of money (i.e., cash balances). Let us call this proportion of nominal income that people want to hold in money as k. Then cash balance approach is represented as:

$$M^d = kPY \tag{1.13}$$

Where M^d is the amount of money which the public want to hold; Y is the real national income (i.e., aggregate output); P is the price level such that PY is nominal national income and k is the proportion of nominal income that people want to hold in money.

To achieve money-market equilibrium, demand for money must equal the supply of money denoted by M. Note that the supply of money M is exogenously determined by the monetary policies of the central bank of a country. Thus equilibrium in the money market is thus

$$M = M^d \quad \text{or} \quad M = kPY \tag{1.14}$$

It is worth mentioning that k in the Equations (1.13) and (1.14) is related to velocity of circulation of money V in Fisher's transactions approach. Thus, when a greater proportion of nominal income is held in the form of money (i.e., when k is higher), V falls. On the other hand, when less proportion of nominal income is held in money, K rises. Crowther posit that the higher the proportion of their real incomes that people decide to keep in money, the lower will be the velocity of circulation, and vice versa (Metu, 2018). Hence, $k = 1/V$. Now, rearranging equation (1.14) we have cash balance approach in which P appears as dependent variable. Therefore:

$$P = (1/k) *(M/Y) \tag{1.15}$$

So if k and Y remain constant, P is directly proportional to the initial quantity of money (M).

3.2.2 Criticisms of the Cambridge Cash Balance Version

(i) Cambridge approach to the quantity theory of money ignored some motives for holding money such as the speculative demand for money which is one of the most important

determinants for holding money. This meant that the linkage between the theories of the rate of interest and the level of income through the demand for money was not complete. The role of the rate of interest cannot be ignored in a realistic theory of prices.

(ii) The theory is assuming the elasticity of demand for money to be unity by assuming that an increased desire for holding cash balance leads to a proportionate fall in the price level. The unitary elasticity of demand for money is true only when the stock of money and the volume of goods and services remain constant. The volume of goods and services which money buys is bound to change with variations in the money supply. Hence, the elasticity of demand for money cannot be assumed to its unity except in a stationary state.

(iii) The theory cannot explain the phenomenon of trade cycle, i.e., why prosperity follows depression and vice versa. Moreover, the theory deals with the purchasing power of money in terms of consumption goods only.

(iv) The cash balance theory explains that changes in the demand for money may bring about changes in the value of money, but it does not explain clearly the factors which cause change in the demand for money, which in turn, are very many particularly in a complex active economy. The approach ignores important variables such as income, saving and investment; that may account for the price level.

(v) The Cambridge approach also assumes K and T as given, thus, it becomes subject to those criticisms, which were leveled against Fisher's approach.

SELF-ASSESSMENT EXERCISES

i. Discuss the Cambridge cash balance theory of exchange
ii. Highlight the criticism against the Cambridge cash balance approach

3.3 The Superiority of Cambridge Cash Balance Version over Fisher's Theory of Exchange

Cambridge cash balance version of the quantity theory of money is superior to Fisher's version of the quantity theory of money on the following grounds:

(i) The concept of velocity in Fisher's equation is highly mechanical and in contrast to cash balance version does not stress on the subjective valuations and human motives which are the basis of all economic activities.

(ii) The Cambridge version of the theory instead of being concerned with transactions explains the level of income, changes therein and in its velocity. The level of income in turn, determines the level of economic development, employment and price level. Moreover, the velocity of circulation of money due to changes in income matters more than the velocity of money as explained in Fisher's equation.

(iii) By explaining the value to money in terms of the demand for and supply of money, the cash balances approach links itself with the general theory of value. The equation $P = M/KT$ is a more useful device than the transaction equation $P = MV/T$, because it is easier to know how large cash-balances individuals hold than to know how much they spent on various types of transactions.

(iv) The cash balances approach has given rise to the famous liquidity preference theory, which has become an integral part of the theory of income, output and employment.

(v) Cash balances approach brings out the importance of *k* which reflects the desire for liquidity. The factors accountable for variations in k offered scope for the study of many important problems (such as expectation, uncertainty and interest rate), which are not considered in the transactions approach.

SELF-ASSESSMENT EXERCISE

i. Discuss the superiority of Cambridge cash balance theory over Fisher's theory of exchange.

4.0 CONCLUSION

The purchasing power of money is what determines the value. This means that the value of money is the utility derived from every purchase or every sum of money spent in buying goods and services. The value of money is also known as price level. The quantity theory

of money states that the quantity of money is the main determinant of the value of money. The link between the value of money and the quantity of money is explained in Irving Fisher's equation of exchange $PT = MV + M'V'$ which equates the demand for money (PT) to the supply of money ($MV + M'V'$). Fisher's theory, among others, assumes that demand for money is proportional to the value of transactions and that supply of money is exogenously determined. Fisher's theory of money was critised by some scholars such as Keynes on the ground that his theory is based on unrealistic assumptions. Keynes and his associates does not believe that the relationship between the price level and the quantity of money is direct, rather that they have an indirect relationship through interest rate. Keynes postulated an alternative to fisher's theory known as the cash balance approach which considers money not as a medium of exchange but as a store of value.

5.0 SUMMARY

The value of a commodity means what it can be exchanged for or what it can buy. It means the purchasing power in terms of goods and services in general. Irvin Fisher captures the relationship between value of money and quantity of money in the Quantity Theory Money. The quantity of money says that the level of prices varies directly with the quantity of money. The assumptions of Fisher's theory of exchange is that the transactions velocity of circulation (v) and proportion of money are constant; that P is passive factor in the equation which is affected by the other factors. Despite the relevance of Fisher's equation of exchange, the theory was critised for neglecting the role played by interest rate as a causative factor between money and prices. Moreover, Fisher's theory is static in nature because of its unrealistic assumptions as long-run, full employment, etc., which is not applicable to a modern dynamic economy.

6.0 TUTOR-MARKED ASSIGNMENTS

i. Explain the Fisher's approach to the relationship between price level and the quantity of money.

ii. Critically examine Fisher's theory of exchange

iii. Fisher's equation of exchange is criticized as having unrealistic assumptions that are not applicable to a modern dynamic economy. Discuss

iv. Explain the Cambridge cash balance form of the quantity theory of money.

v. Briefly discuss the statement that the Cambridge approach to the quantity theory of money ignored the speculative motive for money.

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UNIT 4: MONEY SUPPLY AND MONETARY EQUILIBRIUM

1.0 INTRODUCTION

The problem of defining money supply is still associated with a considerable degree of controversy. Generally money supply is taken as the amount of money such as currency and demand deposits in circulation in an economy at any given time. Money supply represents assets for immediate purchasing power. This unit discusses the meaning of money supply, the various components of money supply as well as the determinants of money supply. Equilibrium of money demand and supply is also discussed in this unit.

2.0 OBJECTIVES

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

i. Explain the meaning and components of money supply
ii. Illustrate the determinants of money supply.
iii. Describe high-powered money as a determinant of money supply
iv. Enumerate monetary equilibrium

3.0 MAIN CONTENT

3.1 Meaning and Components of Money Supply

3.1.1 What is Money Supply?

Money supply is widely taken as the total amount of money such as currency and demand deposits in circulation in an economy (Metu, 2018). This means that money supply is the total amount of money in a country at any point. There are three alternative views regarding the definition or measures of money supply. The most common is by the Keynesians which defines money as currency with the public and demand deposits with Deposit Money Banks, hence stressing the medium of exchange functions of money. The demand deposits as well as currency with the public is denoted by M_1 and is referred to as the narrow definition of money supply.

The second definition of money supply is associated with the modern quantity theorists such as Friedman. They defined money supply as the number of dollars with the public, the number of dollars deposited with banks and Deposit Money Banks time deposits (Jhingan, 2011). Time deposits refers to fixed deposits in a Deposit Money Banks which earn fixed interest rates and possess liquidity. Friedman's definition of money supply includes both M_1 plus time deposits of Deposit Money Banks. This is characteristics as M_2. But in Britain broad money is represented by M_3. Broad money stresses the store of value function of money and Friedman refers to as temporary abode of purchasing power.

The third definition of money supply is broadest and is associated with Gurley and Shaw (1965) as cited in Jhingan (2011). They include in the supply of money M_2 plus deposits of other credit and financial institutions.

Each of the three definitions of money supply has its shortcoming. For instance, the first definition explains money as a medium of exchange but M_1 is an inferior store of value because it is earned by time deposit. It does not earn rate of interest. If only demand deposit is included in money supply, the central bank will only have narrower control over it. The

third definition explains money supply are highly liquid store of value but the deposits of non-bank financial institution are beyond the control of the central bank.

The second definition is more satisfactory definition of money supply from the point of view of monetary authorities because the central bank can exercise control over a wider area that includes both demand and time deposits held by the Deposit Money Banks.

Central Bank of Nigeria (2006; 2011) defines money supply as comprising narrow and broad money. While Olofin and Salisu (2014) explained money supply as referring to M_1, which includes currency in circulation plus demand deposits; or M_2, which includes M_1 and time deposits; or possibly M_3, which further embraces deposits of non-bank institutions or financial intermediaries.

3.1.2 Components of Money Supply

The constituent of money has evolved over times through the conduct of transactions in the economy. In modern times money is made up of cash (notes and coins), demand deposits (DD) and other deposit balances (CBN, 2011) quite different from precious metals (gold and silver) that were initially used as means of exchange or for payment. The cash components consist of balances held in vaults of deposit money banks (DMBs) and the notes and coins in circulation with the public. The demand deposits consist of current/cheque accounts held in deposit money banks that can be withdrawn on demand. Other deposit balances consist of time, savings and foreign currency. These components constitute money supply in a country at any point in time depending on the level of development and of financial infrastructure and its deployment.

Different countries have different measures of money supply depending on how developed their financial system is. This measure of money supply is very important in monetary management because it is a measure used by central banks to control money supply. For instance, in Nigeria, the different measures of money supply known as monetary aggregates include: narrow money, broad money and monetary base (CBN, 2016).

Narrow money (M_1) is defined to include all currencies in circulation (C) and demand deposits (DD) of belonging to different households and businesses with Deposit Money Banks. In other words, M_1 is the sum of all paper notes and coins in circulation and balances in current accounts used for effecting payments. It is expressed in a simple equation as:

$$M_I = C + DD \quad (1.16)$$

Broad money (M_2) on the other hand consists of the components of narrow money, time deposits (TD) and savings deposits (SD) with DMBs. It is expressed as:

$$M_2 = C + DD + TD + SD \quad (1.17)$$

Or $$M_2 = M_1 + TD + SD \quad (1.18)$$

Savings and time deposits are also called near or quasi-money (CBN, 2016)

The monetary base, also known as the base money, high-powered money or reserve money, is the sum of currency outside banks, currency in the vault of DMBs and cash reserves of DMBs with the central bank (R). The sum of the currency outside banks and currency in vault of DMBs is called currency in circulation (C). The monetary base is the most liquid measure of money supply and the lowest classification of money, often denoted as M_0. The monetary base is expressed as;

$$M_0 = R + C \quad (1.19)$$

For example, assuming ₦20 billion is deposits from DMBs in the central bank and ₦600 million is circulation in public, then the monetary base for Nigeria will be ₦20.6 billion. The central bank can control the monetary base because some of its components (bank reserves) are directly under the central bank's control.

In some countries, money supply goes beyond the M_2, for instance in the United States of America and Canada, there is M_3, which includes M_2 plus large time deposits, shares in money market, large denomination term repurchase agreements, mutual funds owned by institutional investors and some Eurodollar deposits (CBN, 2016). For the United

Kingdom, there is M4 which include currency plus sterling deposits at the central bank, other banks and building societies held by UK residents (Handa, 2009).

Nominal and Real Money Supply

Nominal money supply is measured in monetary units and it is assumed that the monetary authorities control only the nominal amount of money which is made available to the public. Real money supply is a country's nominal money supply adjusted for inflation. It explains the real purchasing power of the existing stock. Real money supply is calculated by deflating the nominal money supply by price index. For example if the nominal money supply in a country was ₦10,000m in 1990 and it increased to ₦12,000m in 1998 and the retail price index for 1998 ₦240 (1990 = 100 0r base year); then the real money supply in 1998 is

$$\frac{Nominal\ Money\ supply}{Retail\ price\ index}\ X\ 100 \qquad (1.20)$$

$$= ₦12,\ 000/₦240 = ₦5,\ 000$$

Therefore the real money supply is ₦5, 000 even though nominal money supply increased by ₦2, 000m.

SELF-ASSESSMENT EXERCISES

i. What is money supply?
ii. Explain the various components of money supply
iii. What are the components of broad money

3.2 Determinants of Money Supply

Money supply is determined exogenously by the central bank and endogenously by changes in the economic activities that affects people's desire to hold money rather than depositing them with DMBs. Money supply is influenced by the following factors:

(i). The Required Reserve Ratio: - This is the minimum cash reserve ratio or reserve deposit ratio. The RR, is the ratio of cash to current and time deposit liabilities determined by law. Every commercial bank is required by law to keep a certain percentage of this liabilities in the form of deposits with the central bank. An increase (decrease) in the required reserve ratio reduces (increases) the supply of money. Notes and cash held by Deposit Money Banks are not included in the minimum required reserve ratio.

(ii). The Level of Bank Reserves: - Commercial bank reserves consist of reserves on deposits with the central bank and currency in their vaults. The central bank requires all Deposit Money Banks to hold reserves equal to a fixed percentage of both time and demand deposits, which is called required or legal minimum reserves. Required reserves (RR) are determined by required reserve ratio (RRr) and the level of deposits (D) of a DMB. Assuming deposits amount to ₦8 million and required reserve ratio is 20%, then the required reserves will be 20% * 80 = ₦1.6million. If the reserve ratio is reduced or increased, the required reserve will also reduce or increase as the case may be. Hence the lower the reserve ratio, the lower the required reserves to be kept by a bank, and vice versa. Although, it is the excess reserves (ER) of DMBs that influence the size of its deposit liabilities. The central banks influences DMBs reserves using open market operations and discount rate policy which are expected to supplement each other for effective money supply.

(a). Open market operation is the purchase and sale of government securities and other types of assets such as bonds, bills, etc., in the open market (Jhingan, 2011). When the central bank buys or sells securities in the open market, the level of bank reserves expands or contracts. The purchase of securities by the central bank is paid for with cheques, and when the cheques are deposited with Deposit Money Banks, it increase the level of bank reserves. The opposite is the case when government sells securities to the bank, the bank reserves reduces because depositors withdraw fund to pay for the securities.

(b). Discount rate affect money supply by influencing the cost and supply of bank credit to Deposit Money Banks. Bank rate (interest rate or discount rate) is the rate at which Deposit Money Banks borrow from the central bank. A high discount rate means that Deposit Money Banks will get less amount from the central bank. The Deposit Money Banks then raise their own rate of lending to the public thereby making advances dearer for them. This will reduce the level of bank reserves caused by high interest rate. The opposite is the case when bank rate is lowered. It expands credit and increase bank reserves.

(iii). P**ublic's desire to hold currency and deposits:** – Peoples' desire to hold currency instead of depositing it with DMBs also determines the level of money supply in an economy. Money supply will increase when people decide to keep deposits with DMBs than when they keep cash. This is because deposit with banks helps them to create more money. But if people decide to hold their money in cash it will reduce bank's ability to create money and money supply will be low.

(iv). High Powered money: - High powered money is the sum of DMBs reserves and currency (notes and coins) held by public (Jhingan, 2011). The supply of money varies directly with changes in the monetary base and inversely with the currency and reserve ratios. High powered money is the base for the expansion of bank deposits and creation of money supply.

(v). Money supply is also determined by income, interest rates and other factors which changes the proportion of money balances that the public holds as cash. Changes in business activity can change the behaviour of banks and the public which in turn affect money supply. Therefore, money supply is controlled both exogenously and endogenously.

SELF-ASSESSMENT EXERCISES

i. Identify the determinants of money supply.

ii. Describe how the level of reserve requirement can be used to influence money supply

3.3 High-Powered Money and Money Multiplier

It has become a common practice to explain the determinants of the money supply in terms of high-powered money or monetary base. High -powered money is defined as the sum of DMBs reserves and currency (notes and coins) held by the public and is the base for the expansion of bank deposits as well as creation of the money supply (McCallum, 1989). The supply of money varies directly with changes in the monetary base, and inversely with the currency and reserve ratios. Thus high-powered money is expressed as:

$$H= C + RR + ER \tag{1.21}$$

Where, *C* represents currency, *RR* the required reserves and *ER* the excess reserves.

Deposit money bank's required reserves depend upon its deposits, although banks usually hold reserves in excess of their required reserves. Banks always maintain excess reserves in order to meet unexpected cash withdrawals or adverse clearing balances. Money supply is thus determined by the required reserve ratio and the excess reserve ratio of DMBs. The required reserve ratio (*RRr*) is the ratio of required reserves to deposits (*RR/D*), and the excess reserve ratio (*ERr*) is the ratio or excess reserves to deposits (*ER/D*).

Another component of high-powered money is currency held by the public and the ratio is expressed as a proportion of bank deposits C/-(C/D), where C is the currency and D deposits.

The money supply (*M*) consists of deposits of Deposit Money Banks (*D*) and currency (*C*) held by the public. Thus, the supply of money is expressed as:

$$M = D + C \tag{1.22}$$

High-power money (*H*) (or monetary base) consists of currency held by the public (*C*) plus required reserves (*RR*) and excess reserves of Deposit Money Banks. Thus, high-powered money is:

$$H = C + RR + ER \tag{1.23}$$

The relation between M and H can be expressed as the ratio of M to H. So divide equation (1.22) by (1.243:

$$\frac{M}{H} = \frac{D+C}{C+RR+ER} \tag{1.24}$$

Divide the numerator and denominator of the right of Equation (1.24) by D

$$\frac{M}{H} = \frac{\frac{D}{D}+\frac{C}{D}}{\frac{C}{D}+\frac{RR}{D}+\frac{ER}{D}} \quad \text{or} \quad \frac{M}{H} = \frac{1+\frac{C}{D}}{\frac{C}{D}+\frac{RR}{D}+\frac{ER}{D}} \tag{1.25}$$

Substitute *Cr* for $\frac{C}{D}$, *RRr* for $\frac{RR}{D}$ and *ERr* for $\frac{ER}{D}$, Equation (1.25) becomes:

$$\frac{M}{H} = \frac{1+Cr}{Cr+RRr+ERr} \tag{1.26}$$

High-powered money is represented as: $H = \frac{Cr+RRr+ERr}{1+Cr}\ x\ M$ (1.27)

While money supply is: $M = \frac{1+Cr}{Cr+RRr+ERr}\ x\ H$ (1.28)

Equation (1.28) expresses money supply in terms of four determinants: *H*, *Cr*, *RRr* and *ERr*. According to the equation, the higher the supply of high-powered money, the higher the money supply. Also, the higher the currency ratio (*Cr*), the reserve ratio (*RRr*) and excess reserve ratio (*ERr*), the lower the money supply, and vice versa.

The quotient of Equation (1.28) is the money multiplier *m*. The money multiplier refers to how an initial deposit can lead to a greater final increase in the total money supply. It represents the largest degree to which money supply is influenced by changes in the quantity of deposits. Therefore:

$$m = \frac{1+Cr}{Cr+RRr+ERr} \tag{1.29}$$

This means that the size of the money multiplier is determined by currency ratio (*Cr*) of the public, the required reserve ratio (*RRr*) at the central bank and excess reserve ratio (*ERr*) of DMBs. The money multiplier and money supply are negatively related to the currency ratio (Cr), the required reserve ratio (RRr) and excess reserve ratio (ERr). As

these ratios rise, money supply falls. But, money supply increases as the multiplier rises and monetary base increases with money supply (McCallum, 1989).

The high-powered money is the ultimate base of a nation's money supply and is directly controllable by the central bank. The money multiplier times the high-powered money always equals the money supply, i.e. M=mH. This explains how much new money that will be created by the banking system for a given increase in the high-powered money. The monetary authority (central bank) through its policy affects excess reserves and the high-powered money identically. For instance, the high-powered money rises in the form of excess reserves of banks if the central bank makes open market purchases. Therefore, an increase in money supply results from the banking system and creates new money on the basis of its newly acquired excess reserves. Thus, explains that the monetary authorities can control the money supply through changing the high-powered money or the money multiplier.

SELF-ASSESSMENT EXERCISE

i. Highlight the theory of money supply and high powered money**.**

3.4 Monetary Equilibrium

Monetary equilibrium describes a condition under which actual money balances are equal to desired money balances. The central foundation of monetary equilibrium is the role of money as a medium of exchange. Hendrickson (2012) suggest that money's unique role as a medium of exchange means that changes in the demand for money will reverberate throughout all markets. Hence, increases in the demand for money will cause reductions in spending across markets. And it is the position of monetary equilibrium theory that these reductions in spending are welfare-reducing and that corresponding changes in the money supply can improve welfare. The equilibrium at the money market is reached when the quantity of money demanded and supplied becomes equal to the rate of interest (CBN, 2015). That is, when Md = Ms. The equilibrium corresponds to the point E in the figure below where there is an interaction of Md and Ms Curves.

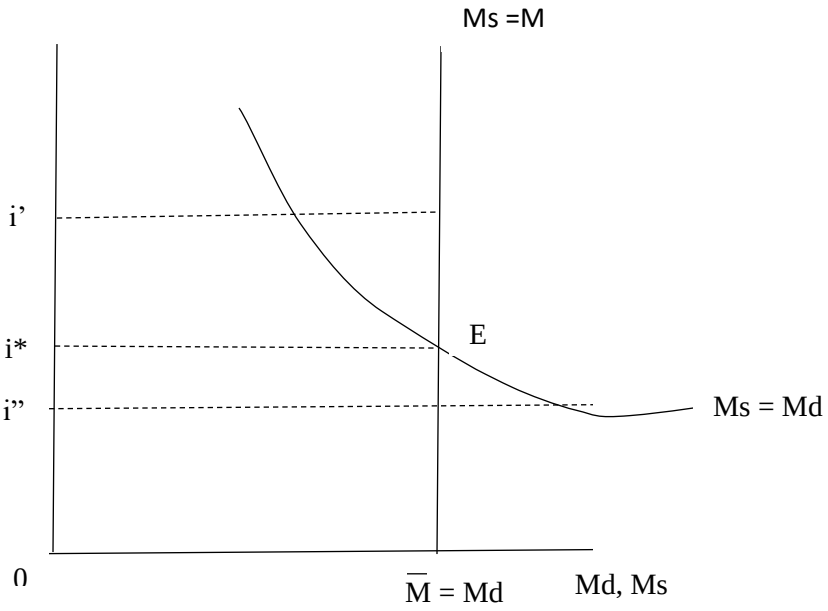

Figure 2: Equilibrium in the Money Market

Source: Olofin and Salisu (2014)

Figure 2 shows the equilibrium market rate of interest (i*) which is sustainable in the money market given demand and supply of money. Any other rate can be temporary sustained while the demand for money adjust to return the rate of interest back to the equilibrium rate **i***. For instance, when interest rate falls to **i"**, there will be excess demand for money. People will want to hold more cash as they expect that rise in interest rate will lead to fall in the price of bonds or value of interest yielding assets. As people sell their bonds in preference for cash holdings, the prices of bonds and interest rate rises until equilibrium is restored at interest rate **i***. Likewise, at a high interest rate **i'**, there is excess supply of money. If the price of bonds are lower than the market can sustain. Hence people would expect that the rate of interest would fall, the price of bonds would rise. It would be profitable to want to purchase bonds instead of holding cash. As the demand for bonds increases, the price rises and the rate of interest falls. This will continue till the rate of interest is restored back to equilibrium at point i*.

SELF-ASSESSMENT EXERCISE

i. Use a graph to illustrate monetary equilibrium

4.0 CONCLUSION

Money supply is the total amount of money in circulation in a given economy at a given time. Money supply and credit are inversely related to each other. Total money supply in Nigeria consists of narrow money and broad money. When money supply increases, a part of it is saved in banks depending upon the depositor's propensity to save. The savings becomes deposits of Deposit Money Banks who in turn lend out after meeting the required reserve stipulated by law. They rate of money supply in an economy are determined by the monetary authorities, DMBs and behaviour of the public. They common practice to explain the determinants of money supply in terms of high-powered money or monetary base.

5.0 SUMMARY

In this unit, we discussed the meaning, components and determinants of money supply in an economy. Money supply in Nigeria is explained as both narrow money (M_1) and broad money (M_2). The components of narrow money are currency outside banks and demand deposits. The components of broad money are M_1 plus quasi money. The determinants of money supply include; income, interest rate, the level of bank reserve and required reserve ratios. The main determinant on money supply is high-powered which is defined as the sum of DMBs reserves and currency (notes and coins) held by the public. It is the base for the expansion of bank deposits as well as creation of the money supply in an economy. Monetary equilibrium is achieved at the point of interest rate where demand for money is equal to supply of money, that is Ms =Md.

6.0. TUTOR-MARKED ASSIGNMENTS

i. Discuss the meaning and components of money supply.

ii. Discuss the theory of high-powered money as a determinant of money supply

iii. Explain the various measures of money supply adopted by the CBN

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MODULE 2: MONETARY POLICY ANALYSIS

Unit 1: Monetary and Fiscal Policies

Unit 2: Nigerian Monetary Policy Targets

Unit 3: Balance of Payments Account

Unit 4: Monetary Policy and Economic Stabilisation

UNIT 1: MONETARY AND FISCAL POLICIES

CONTENTS

1.0 INTRODUCTION

Government policy is expressed through its borrowing and expenditures. In this unit we discuss two major types of government policy that can affect the financial sector of an economy and be used to regulate the economy. The main goal of both monetary and fiscal policy is normally the creation of an economic environment that will lead to stable growth, hence the need for coordination of both policies.

2.0 OBJECTIVES

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

i. Explain the meaning and objectives of monetary policy

ii. Identify the instruments of monetary policy
iii. Discuss the meaning and objectives of fiscal policy
iv. Enumerate the need for monetary and fiscal policy coordination

3.0 MAIN CONTENT

3.1 Meaning, Objectives and Instruments of Monetary Policy

3.1.1 Meaning of Monetary Policy

Monetary policy refers to the specific actions designed and implemented by the central bank to regulate and control the value, supply and cost of money and credit in an economy with a view to achieving government's macroeconomic objectives (CBN, 2006). In other words, it is a deliberate attempt by the central bank to control the money supply. Monetary policy which aims at controlling the growth of monetary aggregates is expected to assist the other policy tools to achieve these goals. The government through the monetary authority decides either to expand or contract the country's money-supply using three major tools: (a) buying or selling national debt, (b) changing credit restrictions, and (c) changing the interest rates by changing reserve requirements. Any of these three measures or a combination of them can be aimed at regulating the level of money supply. By so doing, monetary policy can be used to control aggregate demand and inflation in an economy. Ordinarily, an increase in money supply or amount of credit in the economy should have expansionary effects while a reduction in money supply or available credit should have a contraction effect, all things being equal.

Economists have not reached a consensus on the degree of effectiveness of monetary policy as a short-term stabilization mechanism, or even how monetary policy can be complemented with fiscal policy measures to achieve desired stabilization results. The controversy apart, the role or the degree of effectiveness that can be expected of monetary policy depends on a number of factors such as: (a) the role of central bank in a given economy, (b) the level of monetization of such economy and (c) the level of development of the country's financial sector and its institutions (Olofin & Salisu). This is because the

central bank of most developing countries were not independent monetary authorities. Prior to 1990's they were tied to the ministry of finance, quite different from what is obtained in developed countries. Furthermore, developing economies are dualistic in nature with large traditional sector that carries out its transactions with little recourse to money as a medium of exchange. Given the above scenario, monetary policy tools may be of less relevance in developing economies than in developed economies.

3.1.2 Goals or Objectives of Monetary Policy

The central bank uses the monetary policy for the purpose of achieving certain national goals or objectives. The objectives refer to the ultimate macroeconomic goals which can change from time to time depending on the economic development and fortunes of the country. These objectives are simply referred to as goals or as ultimate goals of monetary policy. Generally, such objectives include:

i). Maintenance of Relative Stability in Domestic Prices: This involves avoiding wide fluctuation of prices which are highly upsetting to the economy. Not only do such changes in price produce windfall profits and losses, but they also introduce uncertainties into the market that make it difficult for business to plan ahead (CBN, 2006). They, therefore, reduce the total level of economic activity. This objective of avoiding inflation and deflation is desirable since rising and falling prices are both bad, bringing unnecessary losses to some and undue advantages to others. Price stability is also necessary to maintain international competitiveness.

ii). Attainment of a High Rate of or Full Employment: This does not mean zero unemployment since there is always a certain amount of frictional, voluntary, or seasonal unemployment (Ackley, 1978). Thus, what most policy makers aim at is actually minimum unemployment and the percentage varies among countries.

iii). Achievement of High, Rapid and Sustainable Economic Growth: This means maximum sustainable high level of output, that is, the most possible output with all

resources employed to the greatest possible extent, given the general social and organizational structure of the society at any given time.

iv). Maintenance of Balance of Payments Equilibrium: This involves, keeping international payments and receipts in equilibrium but avoiding fundamental or persistent disequilibrium in the balance of payment position.

v). Exchange Rate Stability: This involves avoiding wide swings (undue and unnecessary fluctuations) in the currency exchange rate. This is meant to help in protecting and promoting foreign trade.

Of all the goals, price stability has become the most prominent in recent times. That is the central banks in most developing countries including Nigeria have as their core or primary mandate maintenance of price stability (CBN, 2016)

3.1.3 Instruments of Monetary Policy

The instruments of monetary policy are meant to regulate the overall level of credit in the economy. The instruments of monetary policy are quantitative (general or indirect) instrument and qualitative (selective) instrument.

A. Quantitative Tools/Instruments

These are impartial or impersonal tools which operate primarily by influencing the cost, volume, and availability of bank reserves. Under the quantitative or general method the monetary authority uses open market operations, bank rate variations and changing reserve requirements.

(i). Open Market Operations are the most important monetary policy tools because they are the primary determinants of changes in interest rates and the monetary base, the main source of fluctuations in the money supply. Open market operation refers to the purchase or sell of government securities, treasury bills, gold and foreign exchange by a central bank in the open market. Government borrows to finance its deficits. When the CBN purchases government securities from the public, money flows from government accounts towards the public, the public in turn deposit the amount in their respective accounts thereby

increasing banks deposits. Banks utilizing their powers of creation of credit increase the credit supply in the economy. Open market purchases expand the monetary base, thereby raising the money supply and lowering short-terms interest rates. Similarly, the CBN sells the governments securities in open market to the public. The cash with public and with banks decreases because they have to pay for these securities by writing cheques. The sale of government securities decreases the monetary base by lowering the money supply and raising short term interest rates.

(ii) Reserve Requirements was suggested by Keynes in his 'Treatise on money' and the USA was the first to adopt it as a monetary devices. Every bank is required by law to keep a certain percentage of its total deposits in the form of a reserve fund in its vaults and also a certain percentage with the central bank. Changes in reserve requirements affect the money supply by causing the money supply multiplier to change. A rise in reserve requirements reduces the amount of the deposits that can be supported by a given level of the monetary base and will lead to a contraction of the money supply. Conversely, a decline in reserve requirements leads to an expansion of the money supply because more multiple deposits creation can take place.

(iii) Bank Rate (Discount Rate) which involves changes in the discount rate and it affects the money supply through the volume of discount loans and the monetary base. Deposit money banks and other financial institutions can borrow from the central banks of a country at a discount rate. The important thing about the bank rate or discount rate is that it is lower than bank lending rate, therefore banks have an incentive to borrow from the central bank at discount rate and lend those funds at higher interest rates. The discount rate may be raised or lowered depending upon the requirement of credit and overall economic conditions prevailing in the country. A rise in discount loans adds to the monetary base and expands the money supply, while a fall in discount loans reduces the monetary base and shrinks the money supply. The effectiveness of the bank rate depends on the availability of funds with the banks, the availability credit instruments presented to central bank for rediscounting and the dependence of DMBs on the central bank for financial assistance.

B. Qualitative or Selective Control/Instruments

This confers on monetary authorities the power to regulate the terms on which credit is granted in specific sectors. The qualitative method looks at the manner of channeling of cash and credit in the economy. It is selective in nature as it restricts credit for certain sections and could expand credit for sections considered as 'priority sectors' depending on the prevailing situation. Qualitative instruments include:

(i). Credit Rationing - When there is shortage of institutional credit, the financially strong sectors or industries tend to capture the lion's share in the total institutional credit. As a result, the weaker sectors but essential industries are starved of necessary funds. In order to control the situation, the central bank may resort to credit rationing measures. Three measures mostly adopted are imposition of upper limits on the credit available to large industries and firms; charging a higher interest rate on bank loans beyond a certain limit; and providing credit to weaker sectors at lower internal rates.

(ii). Moral Suasion is a method of persuading and convincing the DMBs to advance credit in accordance with the central bank's directives for the interest of the economy. Here, the central bank meets with banks on money and credit matters with the aim of persuading them to act according to the instructions of the central bank. This method is adopted in addition to quantitative and other selective methods, especially when the effectiveness of the method is in doubt.

(iii). Direct Controls are adopted when other methods prove ineffective. The monetary authorities gives clear directive to the banks to carry out their lending activity in a specified manner. Although there are rare instances of direct control measures.

It is always difficult to say which of the two methods is more powerful the choice of method depends on the economic conditions prevailing in the economy. If the objective of the central bank is to achieve price stability or to remove the evil effects of inflation and deflation, then it should adopt quantitative credit control. On the other hand, if the

objectives are: economic development, increase in level of employment, and equal distribution of income, then it should enforce qualitative or selective credit control.

SELF-ASSESSMENT EXERCISES

i. What is monetary policy?
ii. Highlight the objectives of monetary policy.
iii. Differentiate between the qualitative and quantitative instruments of monetary policy.

3.2 Fiscal Policy

The most important instrument of government intervention in the economy today is that of fiscal or budgetary policy. Fiscal policy is concerned with the raising of government revenue and incurring of government expenditure. Metu (2018) opine that fiscal policy is an important instrument to stabilize the economy, that is, to control inflation and overcome recession in the economy. The government expenditure and taxation affects national income, employment, output and prices. An increase in public expenditure during a depression adds to aggregate demand for goods and services and leads to a large increase in income via the multiplier process. While a reduction in taxes raises the disposable income thereby increasing consumption and investment expenditures of the people. On the other hand, a reduction of public expenditure during inflation reduces aggregate demand, national income, employment, output and prices while an increase in taxes tends to reduce disposable income, and thereby reduces consumption and investment expenditures. Thus the government can control deflationary and inflationary pressures in the economy by a judicious combination of expenditure and taxation programmes (Shodhganga, 2009).

3.2.1 Objectives of Fiscal Policy

Fiscal policy is a powerful weapon in the hands of government by means of which it can achieve the objectives of development. The principle objectives of fiscal policy are:

(i). Mobilisation of resources for development purposes- The principal objective of fiscal policy is to ensure rapid economic growth and development. This objective of economic

growth and development can be achieved by mobilisation of financial resources through taxation and through public and private savings. Resources can also be mobilised through government borrowings in form of treasury bills, issue of government bonds, loans from domestic and foreign parties and by deficit financing.

(ii) Development of infrastructural facilities - The government makes efficient allocation of financial resources for development activities which includes expenditure on railways, infrastructure, etc. While the non-development activities includes expenditure on defence, interest payments, subsidies, etc. But generally, fiscal policy should ensure that the resources are allocated for generation of goods and services which are socially desirable in such a manner that encourages production of desirable goods and discourages production of socially undesirable goods.

(iii) Reduction in income inequalities - Fiscal policy aims at achieving equity or social justice by reducing income inequalities among different sections of the society. For instance, direct taxes such as income tax are charged more on the rich people as compared to lower income groups. Similarly, indirect taxes are imposed more on luxury items, mostly consumed by the upper middle class and the upper class. The government also invests its tax revenue in implementing poverty alleviation programmes to improve the conditions of poor people in society.

(iv) Price stability and control of inflation - One of the main objective of fiscal policy is to control inflation and stabilize price. The government always aims to control the rate of inflation by reducing fiscal deficits, introducing tax savings schemes, productive use of financial resources, etc.

(v) Employment generation - The government tries to increase employment through effective fiscal measure. Investment in infrastructure has resulted in direct and indirect employment opportunities. Also, lowering taxes on micro small and medium scale industries encourages more investment and consequently generates more employment.

(vi) Reducing balance of payment deficit - Fiscal policy attempts to encourage more exports by way of fiscal measures like exemption of income tax on export earnings, exemption of central excise duties and customs, exemption of sales tax, etc. The foreign

exchange is also conserved by providing fiscal benefits to import substitute industries, imposing customs duties on imports, etc. The foreign exchange earned by way of exports and saved by way of import substitutes helps to solve balance of payments problem. In this way adverse balance of payment can be corrected either by imposing duties on imports or by giving subsidies to export.

(vii) Capital formation - Fiscal policy helps to increase the rate of capital formation so as to accelerate the rate of economic growth. An underdeveloped country is trapped in vicious circle of poverty mainly on account of capital deficiency. In order to increase the rate of capital formation, the fiscal policy must be efficiently designed to encourage savings and discourage or reduce spending. By facilitating capital formation, fiscal policy increases GDP and national income of a nation.

3.2.2 Instruments of Fiscal Policy

(i). Taxes are levies and financial charges imposed on an individual or legal entity by the government such that failure to pay is punishable by law (Metu, 2018). Tax is enforced contribution imposed by the government without any "quid pro quo" linked to it. This means that the payer do not necessarily expect anything in return for paying tax. Revenue obtained from taxes are used by the government to produce public goods. Reduction in taxes raises disposable income thereby increasing private consumption and investment expenditure. Reduction in tax level could be an effective measure during recession/depression. On the other hand, an increase in taxes tends to reduce disposable income thereby, limiting consumption and investment expenditure (CBN, 2011).

(ii). Another instrument of fiscal policy is public expenditure which refers to the money spent by the government of a country within a period. Expenditure could be for acquisition of goods and services and for transfer payments. A decline in public expenditure during recession/depression reduces the aggregate demand for goods and services and leads to a reduction in income, while an increase in public expenditure, at a time of high inflation, increases aggregate demand and boost income.

(iii). Public debt as an instrument of fiscal policy is the borrowings by government to fund public expenditures not financed by current tax revenues. Governments usually borrow by issuing treasury securities such as certificates, bonds and bills. Government can also obtain credit facilities from other governments, bilateral and multilateral organisations such as the World Bank and the International Monetary Fund (IMF). Government debts are mainly classified into domestic and external debt. Domestic debts are owed to lenders within the country, while external debts are owed to foreign lenders.

3.3 Monetary and Fiscal Policy Coordination

Monetary and fiscal policies are two key policies generally used to achieve key macroeconomic objectives of balance of payment equilibrium, price stability, employment and economic growth. Monetary policy is used by the central bank to control the availability and cost of credit in the economy (Metu, 2018). This is achieved through: (a) open market operations, (b) changes in the discount rate (monetary policy rate in Nigeria), and (c) changes in the reserve ratio. A combination of these three or any one of them may affect the flow of credit in the economy and by so doing, the general economic level (Olofin & Salisu, 2014). For instance an increase in money supply or credit should have an expansionary effect, while a tight monetary policy will have contraction effect on the economy.

Fiscal policy, on the other hand is the use of government revenue (taxes) and government expenditures, to influence the aggregate level of economic activity in an economy. Central bank of Nigeria (2011) assert that a contraction fiscal policy through reduction in government expenditure or an increase in taxes will reduce the level of aggregate demand, while an expansionary fiscal policy will have opposite effect, all things being equal. The foregoing scenario can be extended further by a combination of both monetary and fiscal policy. The objectives and implications of policy measures taken by the two institutions often conflict with each other, hence, coordination of both monetary and fiscal policies in order to effectively achieve the overall macroeconomic policy objectives of the respective authorities. The monetary authorities may use interest rate and money stock as their own

policy instruments, while the fiscal authority may use tax rate or tax revenue as policy instrument.

The major objectives of monetary and fiscal policies coordination are:

- To set internally consistent and mutually agreed targets of fiscal and monetary policies with a view to achieving non-inflationary growth;
- To facilitate effective implementation of policy decisions to achieve the set targets of fiscal and monetary policies efficiently through mutually supportive information sharing and purposeful discussions; and
- To compel both central bank and government to adopt a sustainable policy.

It is important to emphasize that lack of coordination between the fiscal and monetary authorities will impact negatively on the overall economic performance. For example, sloppy fiscal policy will put pressure to tighten monetary policy, even if the latter cannot fully compensate for fiscal imbalance (CBN, 2011).

SELF-ASSESSMENT EXERCISE

i. Why is monetary and fiscal policy coordination necessary in an economy?

4.0 CONCLUSION

Monetary policy is central to macroeconomic management and is indeed aimed at supporting all other tools especially fiscal policy. Essentially, monetary policy is aimed at controlling some measures of monetary aggregates and the level and structure of interest rate. Macroeconomic/monetary policy aimed at achieving price stability, balance of payments, satisfactory growth rate and other desirable economy wide objectives. Monetary targets are the intermediate variables which the monetary authorities try to influence as they believe that these target variables have a close relationship with one or more of the policy goals. Monetary indicators are the intermediate variables that give the monetary authorities an early signal with regard to the monetary conditions of the economy and therefore, the direction and effectiveness of monetary policy. The monetary policy instruments are the direct means available to the monetary authorities for influencing the

intermediate variable to achieve the ultimate goals of policy. These includes open market operation (OMO), discount rate, reserve requirement, direct control and moral directives. The fiscal policy tools are taxes, government expenditure and public debt.

5.0 SUMMARY

The Central Bank of Nigeria (CBN) has the responsibility of monetary policy administration in Nigeria. The objectives of monetary policy such as exchange rate policy, interest rate policy and income policy, cannot be divorced from the overall macroeconomic objectives. Although, it is shorter in terms of its lag and effectives, it must be complimented by fiscal policy. But the effectiveness of using the conventional monetary policy and fiscal policy mix to achieve macroeconomic goals, in developing countries may be affected by the rudimentary nature of the capital and the limited role of money as only currency in circulation. Monetary and fiscal authorities adopt two major instruments to achieve macroeconomic goals.

6.0 TUTOR-MARKED ASSIGNEMNTS

i. Monetary policy may help in the attainment of sustained economic growth in the Nigeria economy. Discuss.
ii. Briefly discuss the goals of monetary policy.
iii. Highlight the major differences among the fiscal policy tools.

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UNIT 2: NIGERIAN MONETARY POLICY TARGETS

CONTENTS

1.0 INTRODUCTION

The CBN has adopted two frameworks exchange rate targeting and monetary targeting, for its monetary policy namely. Exchange rate targeting framework was used between 1959 and 1974, but due to the collapse of the Bretton Woods system of fixed exchange rates in 1972, CBN has been adopting monetary targeting since 1974 to date. In this unit, we discuss the various monetary policy targets adopted by central banks.

2.0 OBJECTIVES

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

i. Give an overview of the Nigerian monetary policy
ii. Explain different monetary policy targets in Nigeria
iii. Enumerate different monetary policy transmission mechanism

3.0 MAIN CONTENT

3.1 Overview of the Nigerian Monetary Policy

The Central Bank of Nigeria has the mandate to control monetary policy in Nigeria. The legal authority to conduct monetary policy by the CBN is derived from its Act of 1958 as amended in 1991 and the 2007 Acts. Part one, section one of CBN Decree No 24 of 1991 specifically stated that the principal objects of the bank shall be to issue legal tender currency in Nigeria, maintain external reserves to safeguard the international value of the legal tender currency; promote monetary stability and a sound financial system in Nigeria, and act as banker and financial adviser to the Federal Government (CBN, 2006). Over the years, the CBN has conducted its monetary policy towards achieving the maintenance of external reserves and promoting a sound financial system in Nigeria. More recently the Bank has refocused on achieving price stability while at the same time balancing it with other macroeconomic objectives of the government. The monetary policy framework practiced during the early years of the Bank was exchange rate targeting consistent with the paradigm at that time, such that the Nigerian currency was fixed at par; first with the British pound and subsequently, with a basket of 12 currencies (Nzeribe, 2017). This experiment led to a considerable measure of stability in the naira exchange rate and in monetary aggregates and prices, although there was credible evidence that the domestic currency was overvalued against the US Dollar. However, the collapse of the Bretton Woods system of the fixed exchange rate regime in 1972 led to the adoption of monetary targeting as a policy framework from 1974 to date (CBN, 2011).

SELF-ASSESSMENT EXERCISE

i. Give an overview of the Nigerian monetary policy

3.2 Nigeria's Monetary Policy Target

The Central Bank of Nigeria (2011) identified exchange rate targeting, interest rate targeting, inflation targeting as strategies in the conduct of monetary policy. These are discussed below:

(i) Monetary Targeting

Monetary targeting involves targeting one of the monetary aggregates such as money supply or any other measure of money stock as an operational target in order to affect inflation. This target involves a situation where the central bank announces a certain target for the annual rate of growth of the monetary aggregate of choice. In Nigeria, the central bank tries to control base money (as the operating variable) using the accelerator and multiplier principle. The base money as the liability of the central bank comprises of currency in circulation plus DMBs' reserves with the central bank. The advantage of using monetary targeting is that it is easy to implement under direct and market-based systems of monetary policy regimes despite having an under-developed financial markets. It also allows central banks to cope with domestic considerations such as inflation rate and/or output growth, in solving the monetary policy question. A major short-coming of monetary targeting is that its efficacy depends on a strong, predictable and reliable relationship between output/income and base money. If the relationship is weak, monetary targeting would not work. For instance, the assumed stable relationship between money supply and nominal GDP as measured by income velocity may not exist especially in the short-run in some countries, including developed economies (CBN, 2011).

(ii) Interest Rate Targeting

Interest Rate Targeting involves targeting the interbank rate which the central bank uses as the policy rate. Under the regime, the central bank stabilizes the rate with the use of repo and reverse repo operations. Hence, short term liquidity shortages which often lead to changes of the interbank rate are evened out with repo operations which restore the liquidity condition of the banks. The interbank rate works as an operating instrument and target. Changes in the operating target are expected to impact the intermediate target (broad money, bank reserves, etc.) through the interest rate channel, towards the desired direction. Such changes will ultimately affect inflation which is the ultimate target, in the desired direction.

(iii) Nominal Gross Domestic Product Targeting

Nominal Gross Domestic Product targeting involves setting of specific targets such as M_1, M_2 or long term interest rates that the monetary authorities can monitor. Targeting nominal

GDP as a monetary policy strategy is based on the assumption that the monetary base can be influenced to keep nominal GDP close to a path that is consistent with price stability. The advocates of this strategy believes that price stability is better achieved with the adoption of monetary policy rules. They argue that price stability will be maintained without inhibiting long term economic growth. The proponents of this strategy conclude that as long as the monetary authorities play by the rules, price stability would be achieved. The proponents of GDP targeting also recognizes the existence of an intermediate target, but maintain that as a goal, the monetary authorities only need the intermediate targets to get at the GDP objective. The implicit nominal anchor strategy bothers on how to maintain the long run growth of the economy as well as the growth in credit aggregates that is commensurate with the economy‘s potential to increase production, so as to promote high employment, stable prices and moderate interest rates. One notable problem of an implicit nominal anchor strategy as a monetary policy framework is its lack of transparency which keeps the market guessing on the thrust of monetary policy.

(iv)Exchange Rate Targeting

Exchange rate targeting also known as exchange rate peg refers to the fixing of the value of the domestic currency in respect of another low inflation currency. The choice of the foreign currency to which the domestic currency is anchored usually depends on the stability and rate of inflation of that country as well as the relative weight of its trade in the anchoring country‘s international trade with the anchored country‘s currency. Recently, exchange rate targeting involves the fixing of the value of a domestic currency to another called the anchor currency. According to CBN, (2011) a crawling target or peg may involve a country depreciating its currency at a steady rate as long as the rate of inflation is higher than the level in the anchor country.

Exchange rate targeting is embraced as a framework of monetary policy in both industrialized and emerging market economies for a number of reasons. First, its clarity and simplicity makes it easier to understand by stakeholders and the general public. Secondly, an exchange rate target has the capacity to keep inflation under control by

anchoring the inflation rate of traded goods to that in the anchor country. Also, the central bank no longer has the ability to print money and thereby cause inflation, while at the same time speculative attack on a country's currency is discouraged.

An exchange rate targeting framework also has some shortcomings. First, exchange rate targeting exposes a country's currency to speculative attack, thereby requiring substantial holding of foreign reserves by the anchoring country. Secondly, with capital mobility, an exchange rate targeting country loses its discretionary/independent monetary policy to respond to domestic random shocks that are not associated with those of the anchor country.

(v) Inflation Targeting

Inflation Targeting is when the central bank uses monetary policy to meet a publicly announced numerical inflation target within a particular time frame in order to achieve price stability. The inflation objective should be clearly stated and defined in terms of core or headline inflation. Inflation targeting requires increasing the transparency of the monetary policy process through communication with the market and the public about plans and objectives of monetary policy; and increasing the accountability of the central bank for achieving the inflation target (CBN, 2011).

(vi) Price Level Targeting

This is a monetary policy strategy that seeks to either keep the overall price level stable or meet a pre-determined price level. The price level is the consumer price index (CPI) or some similar broad measure of cost of inputs. In this strategy, the long-term objective is to achieve a specific CPI number quite unlike inflation targeting where the objective is to achieve a given rate of change in CPI. Nevertheless, price level targeting is similar to inflation targeting except that CPI in one year over or under the long-term price target is offset in subsequent years such that a target price level is reached over time.

(vii) Quantitative Easing

This type of strategy involves buying of financial assets from DMBs in order to raise the prices of assets and lower their yields as well as increase money supply (CBN, 2016). The signal for this kind of policy framework comes from persistent fall in short term interest

rate, particularly interbank interest rate. This policy option was largely deployed by most economies aftermath of the 2008 global financial crisis.

SELF-ASSESSMENT EXERCISES

i. Who do central banks use inflation targeting as a policy framework?

ii. Identify policy targets adopted by central banks

3.3 Monetary Policy Transmission Mechanism

The transmission mechanism is the process through which monetary policy decisions affect the price level and the economy in general. The ways through the decisions are channeled into actions to impact the economy is known as policy transmission channels. The monetary policy transmissions channels as identified CBN (2016) includes the following:

(i). Interest Rate Channel

This explains how changes in the bank rate affect the economy. The policy rate is the rate at which central banks lend money to DMBs. Changes in the central bank's rate is expected to affect other rates in the short end of the money market. For instance, if the CBN's monetary policy rate (MPR) is reviewed, it leads to an increase or decrease in short-term rates. Aside affecting the short-term market rates, a rise in the policy rate also pass through to long-term interest rates such as bond market rates. When nominal interest rate rises, the real interest rate will also rise leading to a decline in borrowing and spending in the economy. Therefore, rise in policy rate leads to reduction in aggregate demand and domestic production.

(ii). Exchange Rate Channel

The exchange rate channel explains the relationship between monetary policy actions and exchange rate in an economy. The major determinant of exchange rate is interest rate differentials between countries. Therefore, when domestic interest rates fall below foreign interest rates due to monetary policy actions, there will be exchange rate depreciation in order to restore market equilibrium. The depreciated exchange rate makes domestic goods cheaper than imported leading to expansion in the demand for domestic with possible rise in the general price level.

(iii). Asset Price Channel

According to economic theory, changes in the price of assets can affect investment decisions in an economy. Economic agents such as households and firms acquire assets in form of securities, foreign exchange and real estate. Banks, sometimes also use their excess reserves for acquiring assets and as their prices increases they generate more wealth. The asset price channel describes the effect of monetary policy actions on the prices of assets and the general economy. For instance, if the central bank adopts tight monetary policy by increasing the bank rate, investors would prefer to invest in debt securities than equities due to the attractive interest rate. Since investors prefer to invest in debt (bonds), the price of equities would fall. Hence, the financial wealth of equity holders would be reduced due to revaluation of their equity portfolio which would significantly affect their consumption decisions, output and prices.

(iv). Credit Channel

The credit channel is the process through which monetary policy decisions affects banks' ability to grant loans. This shows that change in central bank's monetary stance is a major determinant of changes in the availability and supply of credit in the economy. For instance, an expansionary monetary policy (reduction in the policy rate or cash reserve requirements) would allow banks to hold more deposits and expand their loanable funds. Then banks would be able to grant loans to more households and firms thereby improving aggregate demand and output. On the contrary, if policy rates or cash reserve ratio are increased, cost of fund will increase resulting in higher lending rates and a reduction in investment, aggregate demand and output.

SELF-ASSESSMENT EXERCISE

i. Discuss the different monetary policy transmission channels.

4.0 CONCLUSION

The formulation and implementation of monetary policy is what distinguishes a central bank from other financial institutions. This is based on the fact that they use monetary

policy to enhance the general macroeconomic environment and promote economic growth. Exchange rate targeting framework was used in Nigeria prior to 1972, but since 1974 the CBN has been adopting monetary targeting framework in the conduct of monetary policy. The monetary policy transmission channels includes interest rate channel, exchange rate channel. Credit channel and asset price channel.

5.0 SUMMARY

The Central Bank of any nation formulates and implements monetary policy and this is one unique function that distinguish it from other financial institutions. Monetary policy is a tool helps to nurture the evolution of an efficient and strategic financial system that would promote economic growth. Central Banks use different strategies in the conduct of monetary policy and these strategies affect the operating targets through different channels. Some of the identifies strategies are exchange rate targeting, monetary targeting, inflation targeting, interest rate targeting, and nominal gross domestic product or output targeting. The Central Bank of Nigeria has been adopting exchange rate targeting since inception until 1972 when it changed to monetary targeting as result of the collapse of the Bretton Wood fixed exchange system.

6.0 TUTOR-MARKET ASSIGNMENTS

i. Give an overview of the Nigerian monetary policy
ii. Explain the problems associated with exchange rate targeting in Nigeria.
iii. Differentiate exchange rate targeting from interest rate targeting
iv. An understanding of the various monetary policy transmission channels helps to know the link between the financial sector and the real sector. Discuss these channels

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UNIT 3: BALANCE OF PAYMENTS ACCOUNT

CONTENTS

1.0 INTRODUCTION

Money helps in international transaction by minimizing the cost of transactions and thereby optimize the potential gains from the transaction. There are three important aspects of such transactions. First, such transactions go through the process of international trade which results in the compilation of a country's balance of payments account. Second, such transactions are conducted through foreign exchange markets and at determined currency exchange rates. Third, the transactions are effected through a well-organized institutional structure.

2.0 OBJECTIVES

By the end of this unit, you will be able to:

i. Highlight the components of balance of payments
ii. Illustrate the structure of Nigeria's balance of payments
i. Discuss balance of payments disequilibrium

3.0 MAIN CONTENTS

3.1 Balance of Payment and Components

3.1.1 Meaning of Balance of Payments

A country's balance of payments refers to a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries during a given period of time, usually a year. An economic transaction as used here is an exchange of value, typically an act in which there is transfer of title to an economic good, the rendering services or transfer of title to assets from one country's residents to another.

Thus, the balance of payments is a statistical record which summarizes all transactions which take place between the residents of a country and the rest of the world.

3.1.2 Components of Balance of Payments

A more analytically convenient way to present a nation's balance of payments is to divide it into three components namely: current account, capital account and official financing.

i. **The Current Account:** The current account records all transactions in goods and services. That is it portrays the flow of goods and services in the form of exports (fob) and imports (cif) for a country during a giving year.
ii. **The Capital Account:** The capital account records transactions related to movement of long-term and short-term capital. It shows the volume of private foreign investment and public grants and loans from individual nations and multilateral donor agencies such as UNDP and the World Bank. It includes direct investment, portfolio investment, long-term and short-term capital. Capital account will be a deficit if payments exceed receipts but a surplus if receipts exceed payment.
iii. **Official Financing:** Official financing items or official settlements represent transactions involving the Central Bank of the country whose balance of payment is being recorded, and there are three ways in which credit items may occur on the official financing account.

- The central bank may borrow from instance from the IMF. This represent a capital inflow and hence a credit item on the balance of payment account. Then repayment of old IMF loans is recorded as a debit item.
- The central bank may borrow from another central bank through a network of arrangements. This will be recorded on the credit side of the BOP account.
- The Central Bank may run down its official reserves of gold and foreign exchange. This is recorded in as credit item since it gives rise to sale of foreign exchange and purchase of naira.

SELF-ASSESSMENT EXERCISES

i. Explain the concept of balance of payments

ii. Highlight the components of balance of payments.

3.2 Structure of Nigeria's Balance of Payments Account

The balance of payments for Nigeria for 2004 is selected and presented showing the three major subdivisions of the BOPs account. These are current account transactions involving the export and import of goods and services; the capital account transactions involving the flow of foreign investment; and the official settlement account involving monetary transactions by the monetary authorities to balance up the account since both sides of the account must always balance, that is total receipts must be equal to total payments as an accounting requirement.

Table 1: Nigeria's Balance of Payment for 2004

Category	Item	US$ Million
(A)	Exports (fob)	97,163.83
Current Account	Imports (fob)	-62,161.39
	Services (net)	-21,361.20
	Income (net)	-22,972.33
	Current Transfers (net)	21,988.71
	Sub-Total of (A)	**12,657.62**
(B)	Capital Transfer (net)	
Capital and Financial	Direct Investment (net)	8,914.89
Account	Portfolio Investment	5,192.80
	Other Investments	736.25

	Sub-Total of B	**14,843.94**
Balance on Current/ Financial Account	Sub-Total of (A + B)	**27,501.56**
Add: Balancing Item	Net Errors and Omissions	-7,208.93
	Overall Balance of (A + B)	**20, 292.63**
(C) Monetary Movement	Change in Fed. Monetary Institutions, Foreign Exchange	-20,292.63

Source: CBN, (2012) as cited in Olofin and Salisu, (2014).

Table 1 is an account aimed at showing Nigeria's net indebtedness position in relation to other countries in 2004. Foreign exchange earnings transactions such as export of goods and services are entered under receipts (positive items), while foreign exchange spending transactions such as imports of goods and services are entered as payments (negative items). The capital and financial account which is category B shows the country's position regarding the inflow and outflow of foreign investment. The term capital in this context refers to invisible funds which either swell a country's foreign exchange reserve if it is an inflow or deplete the reserve if it is an outflow. On the other hand, a Nigerian investor deciding to extend its operation to a neighbouring African country such as Cameroon or Ghana would require foreign exchange, which would be recorded in the capital account as a negative item because it is an outflow. These transactions can be private or official (involving government or international organisations). Combining the country's capital/financial account with current account, the overall BOP is US$ 27,501.56million. Then adding errors and omissions to A + B gives a surplus balance of US$20,292.63 million.

Since the account must balance, if there is a deficit, the amount has to be provided for. The accommodating transaction are reflected in category (C). Unlike in other sections of the account, a positive entry under (C) represents an outflow while a negative entry shows an inflow. For a positive entry, it involves a documentation of foreign exchange reserves, accumulated from previous periods to finance deficit. On the other hand, it may show an increase in foreign reserves as a negative entry assuming the country had an overall surplus

under capital and current account combined as in this example. Taking the three parts of the account together, the overall account balances as a principle for any given accounting period (Olofin & Salisu, 2014).

SELF-ASSESSMENT EXERCISES

i. Identify the items captured under the Nigerian BOPs current account subsection
ii. List the items captured in the Nigerian BOPs capital account subsection

3.3 Balance of Payments Disequilibrium

In an accounting sense, credit and debit side totals of the BOPs account must balance. Therefore disequilibrium or gap in the balance of payments generally refers to an inherent tendency of an absence of balance in the balance of payments. Unfavourable or deficit balance is considered more undesirable than a positive, favourable or surplus BOPs. In addition, apart from the existence of imbalance in the BOPs, one must take into consideration the size of the imbalance in relation to the nation's economic strength. Hence, a disequilibrium in the balance of payments should be sizeable and persistent or repetitive. Fundamental disequilibrium exists when there is an inherent tendency for the imbalance to be sizeable/large and persistent. Such a disequilibrium may be due to factors which causes an imbalance in the trade account and/or in capital account. The factors include:

- Persistent inflationary pressure at home
- Inflationary pressure in the trading partners
- Servicing of existing debts through fresh loan
- Political disturbances
- Economic calamities such as drought, flood, earthquake
- Lack of capacity to meet changing requirements

3.3.2 Correction of Balance of Payments Disequilibrium

Nations normally worry about persistent balance of payments indebtedness to foreigners or depleting their gold and foreign exchange reserves. Nations therefore, take measures to

correct balance of payment disequilibrium particularly deficits embodied in commercial and financial policy. The problem of international adjustment is that of reconciling the differences between the demand for and supply of a given foreign exchange at a given price. Generally, there are three systems of international adjustment namely: the gold standard, the paper standard and the exchange control, reflecting fixed exchange rate, fluctuating exchange rate, and exchange control itself respectively.

Temporary balance of payments can be financed (official financing) by running down foreign currency reserves and by borrowing. These cannot go on indefinitely since such financing cannot correct a persist balance of payment deficit. This calls for corrective policy on the part of the government. Government corrective action can be grouped into two broad categories: Expenditure reducing policies and expenditure switching policies.

Expenditure Reducing Policies: are those policies meant to achieve a deflation of aggregate demand in the economy such that the demand for imports will reduce. It must be noted that this policy can reduce domestic output and increase unemployment due to falling aggregate demand for domestic and imported goods and services. Expenditure reducing policy entails an adoption of both fiscal and monetary policies.

Expenditure Switching Policy: This are meant to switch expenditure away from imported goods towards domestically produced substitutes, as well as to stimulate the level of exports and hence export earnings. These policies can also be categorized into two:

(i)Trade policy including control of imports or direct controls, tariffs or import duties, quotas, exchange control, export scheme.

(ii) Exchange rate policy which involves devaluation of the domestic currency.

SELF-ASSESSMENT EXERCISES

i. What is expenditure switching policy?

ii. Discuss the policy framework that can be used in correcting BOP disequilibrium

4.0. CONCLUSION

The compilation of the balance of payments accounts results in the balance of payments identity which shows that the balance on current account is equal to the sum of the balance on capital account and net change in official reserves. Balance of trade is the balance on visible trade. It is the difference between the value of exports and imports of merchandise items. When exports exceed imports there is the surplus; but a deficit occurs when imports are greater than exports. Other balances in the balance of payments accounts are: balance on services and income, balances on good and services, balance on unrequited transfers, balance on current account, balance on capital account, overall balance and basic balances

5.0 SUMMARY

The balance of payments compilation involves a vertical classification into debit and credit entries which show that any transaction that requires a foreign payment is entered as a debit entry and any transaction that brings in foreign exchange is entered as a credit entry. Total debit must equal total entries since each transaction has two aspects, each of which is entered separately in the balance of payments, one a credit item and the other as a debit item.

6.0 TUTOR-MARKED ASSIGNMENTS

i. What is balance of trade? How is it related to balance of payments?

ii. Discuss the expenditure switching and expenditure reducing policies of BoP adjustment.

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UNIT 4: MONETARY POLICY AND ECONOMIC STABILISATION

CONTENTS

1.0. INTRODUCTION

Monetary policy is one of the major government policies which can be aimed at short-term regulation of the level of economic activities. Monetary policy plays key role in controlling price fluctuations and general economic activities. In this unit, we discuss the role of monetary policy in LDCs. The limitations of monetary policy in achieving these roles are also examined because it is observed that monetary authorities have not been able to achieve the goals of monetary policy.

2.0. OBJECTIVES

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

i. Explain the types of monetary policy
ii. Discuss the role of monetary policy in developing countries
iii. Identify the limitations of monetary policy in developing countries

3.0. MAIN CONTENT

Types of Monetary Policy

3.1.1 Expansionary Monetary Policy

An expansionary monetary policy also known as easy monetary policy is used to overcome a depression or a recession in an economy. When there is a fall in consumer demand for goods and services and in demand for investment goods, it results into a deflationary gap. The monetary authorities use an expansionary monetary policy that will lead to an upward shift in aggregate demand. The central bank buys government securities in the open market, lowers the reserve requirements of banks, lowers the rate of discounting bills of exchange and encourages credit through selective credit measures. By such measures, it decreases the cost and availability of credit in the money market so as to improve the economy. The expansionary monetary policy can be explained using Figure 3:

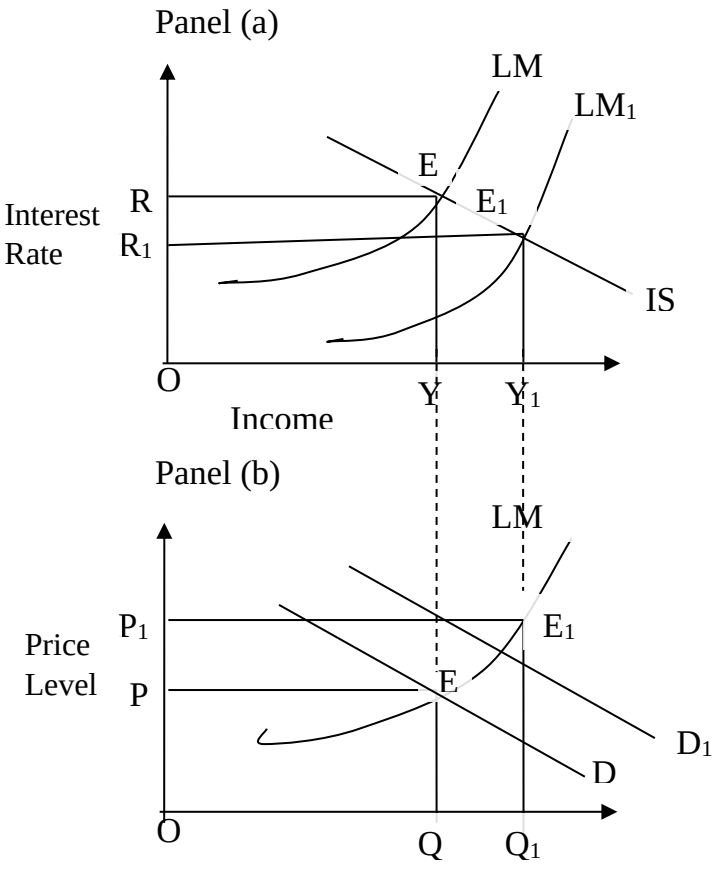

Figure 3: Expansionary monetary policy

At the interest rate R in panel (A), there is an excess supply of money in the economy. Assuming that the central bank credit policy leads to an increase in money supply in the economy. There will be a rightward shift of the LM curve to $LM_{1,}$ income will increase from OY to OY_1 with an expansion in aggregate demand from D to D_1 in panel (B). Output will increase from Q to Q_1 as a result of increase in demand for goods and services, and then price will rise from P to $P_{1.}$ If the expansionary monetary policy operates smoothly, the equilibrium E_1 can be at full employment level. But this may not be attained because during a depression, business may not be willing to borrow as business activities is already at a standstill rather, businesses may want to pay off their loans already drawn from banks. Moreover, individuals may not like to purchase any durable goods using bank loans. At this point what the banks can do is to make credit available but will not force consumers and businesses to borrow. This is not to say that an easy monetary policy in times of severe contraction of the economy has no effect, it helps a bad situation from getting worse.

3.1.2 Restrictive Monetary Policy

Restrictive monetary policy is designed to curtail aggregate demand in order to overcome inflationary gap. Inflationary pressure arises due to rise in consumers' demand for goods and services and boom in investment. The central bank uses a restrictive monetary policy in other to lower consumption and investment by increasing the cost and availability of bank credit. It might do so by selling government securities in the open market, by raising reserve requirements, by raising the discount rates and using selective credit control measures to regulate consumer and business credit. Using these measures, the central bank increases the cost and availability of credit in the money market, this will reduce the available fund and consequently control inflation.

The ability of monetary policy to control inflation is limited due to the following:

(i). Increase in the velocity of money held by the public- The public can make effective use of money held by them because the Central Bank can only control the supply of money and cost but cannot control the velocity of money. This makes restrictive monetary policy

ineffective. For instance, non-bank financial institutions may sell securities for advancing loans or as interest rate on security rises in a tight monetary policy, financial intermediaries may raise interest rates on deposit to attract savings. This will make savers to shift idle fund to these intermediaries thereby further increasing their lending power. This raises the velocity of money thereby limiting the ability of restrictive monetary policy ineffective. Secondly, restrictive monetary policies affect firms that depend on bank funding. Firms that depend on internal source of financing are not affected by a restrictive monetary policy. (ii). A tight monetary policy might alter the expectations of borrowers and lenders. A rise in interest rate may change expectations to the extent that the policy is abandoned and an expansionary policy is expected, lenders may be reluctant to make long-term loans in anticipation of rise in interest rates again on the other hand, borrowers may borrow long-term funds even if they do not need them immediately in anticipation of rise in interest rates in the future.

SELF-ASSESSMENT EXERCISES

i. With the aid of graph, explain the expansionary monetary policy
ii. Discuss the restrictive monetary policy.

3.2 The Role of Monetary Policy in Developing Countries.

(i). To control inflationary pressures: - Monetary policy can use both quantitative and qualitative methods of credit control to control inflationary pressures arising in the process of development. The use of open market operation as an instrument of monetary policy is not always successful in developing economy due to the underdeveloped capital market. The Deposit Money Banks are also reluctant in investing in government securities; they prefer to keep their reserves in foreign exchange, as gold and in cash (Jhingan, 2011). The bank rates policy is not effective in developing countries due to large informal sectors. Cash reserve ratio is a more effective method of controlling inflation than open market operations and bank rates policy. This is because Deposit Money Banks keep large cash reserve which cannot be reduced by an increase in bank rate or sale of securities by the

central bank. Raising the cash reserve ratio reduces liquidity with the banks. Moreover, the non-bank financial institutions do not keep deposits in central bank and so are not affected by it.

The qualitative methods are more effective in influencing credit control than the quantitative method. The selective credit control measures controls unproductive activities which may cause inflation in an economy. For instance, they curtail the demand for imports by making it compulsory for importers to deposit in advance an amount equal in the value of their foreign currency.

(ii). To achieve price stability: - Monetary policy can be used in achieving price stability because it brings proper adjustment between the supply of money and its demand. When there is an imbalance between the demand for and supply of money, it is reflected in the price level. As an economy grows and develops, the non-monetized sector becomes monetized due to increase in the demand for money. The increase in money demand will lead to increase in transactions and speculative motives. The monetary authority will have to raise money supply more than demand in other to avoid inflation.

(iii). To bridge balance of payment deficit: - The monetary authorities uses interest rate policy to bridge the BOP deficit. Underdeveloped countries create difficulties when trying to achieve planned development targets. In an effort to procure and establish infrastructure such as power, iron and steel, chemicals, transport, etc., import capital equipment thereby raising imports and making export stagnant. This creates an imbalance between exports and imports leading to disequilibrium in the BOP (Jhingan, 2011). High rate of interest attracts the inflow of foreign investments and bridge the BOPs gap.

(iii). Interest rate policy: - A high interest rate policy acts as an incentive to savings and speed up the monetisation of the economy for economic growth and capital formation. A high interest rate policy is anti-inflationary because it discourages borrowing and investment for speculative purposes. It also promotes the allocation of scare capital resources towards productive channels. Some scholars favour a low interest rate policy in

such countries because high interest rate discourages investment. But according to Jhingan (2011), investment is interest-inelastic in undeveloped countries because interest forms a very small proportion of the total cost of investment. It is advisable for the monetary authorities to follow a discriminatory interest rate policy that is, charging high interest rate for unproductive and non-essential uses and low interest rate for productive and essential uses.

(iv). To create banking and financial institutions: - One of the roles of monetary policy in developing countries is to create and develop financial institutions in order to encourage, mobilise and channel savings for capital formation. According to Metu (2018) creation of financial institutions especially in rural areas will help to monetise the informal sectors and encourage savings in an economy. Money and capital markets should be developed so as to encourage investments.

(v). Debt Management: - Debt management is an important function of the monetary policy in an under developed economy. It helps in proper timing and issuing of government bonds as well as minimizing the cost of servicing public debt. Public borrowing is aimed at financing development programmes and to control money supply, but the borrowing must be at a cheap rate so as to keep the burden of the debt low. Hence, debt management helps to create conditions in which public borrowing can increase from year to year. Thus an appropriate monetary policy helps in controlling inflation, bridging the BOPs gaps, encourage capital formation and promote economic growth.

SELF-ASSESSMENT EXERCISE

I. Discuss the roles of monetary policy in a developing economy
II. Evaluate the effectiveness of monetary policy in debt management

3.3 The Limitations of Monetary Policy in a Developing Economy

Monetary policy plays a limited role in under developed countries because of the following reasons:

(i). There is large informal sectors which affect the success of the monetary policy. A lot of people live in the rural areas and do not have access to financial institutions; hence they are not influenced by monetary policy. Bank money comprises a small portion of the total money supply. Hence, it affects credit control by the CBN.

(ii). Developing countries have large underdeveloped capitals and money markets. These markets lack in bills, stocks and shares which is a hindrance to the success of monetary policy.

(iii). Most Deposit Money Banks in developing countries possess high liquidity and is not influenced by the credit policy of the central bank. This also affects monetary policy and makes them less effective.

(iv). There is lack number of non-bank financial institutions in underdeveloped economics. These non-bank financial institutions are not under the control of central banks. Moreover, most rich individuals prefer to have their consumption in cash and buying of jewellery, real estate and in speculation. These activities encourage inflationary pressure and affects the effectiveness of the monetary policy.

Due to the identified limitations, economists advocate the use of monetary policy together with fiscal policy to stabilise the economy.

SELF-ASSESSMENT EXERCISE

i. What are the limitations of the principle instruments of monetary policy in a developing economy?

4.0. CONCLUSION

Government uses monetary policy to increase the growth rate in the economy by influencing the cost and availability of credit. Monetary policy is also aimed at controlling the inflation rate, stabilise the price level and induce increased financial savings, investment and employment. The roles of monetary policy in developing countries can be

summed as economic stabilization (growth, price stability and full employment) and external balance (BOPs balance and exchange rate stability).

5.0. SUMMARY

In this unit, we discussed the roles of monetary policy in developing countries. Monetary policy is used to stabilize the economy as well as in achieving external balance. The need to regulate the economy is based on the fact that if the economy is not regulated, it will result in undesirable effects such as high prices or inflation. The ability of monetary policy to stabilize the economy is limited by the presence of large informal sector, large underdeveloped money and capital markets, high liquidity as well as large non-bank financial institutions which are not under the direct control of central bank.

6.0. TUTOR-MARKED ASSIGNMENTS

i. Explain the principle instrument of monetary policy.

ii. Use a graph to critically discuss the effectiveness of monetary policy in controlling inflation.

iii. Distinguish between expansionary and restrictive monetary policy. Explain their relative effectiveness.

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MODULE 4: FINANCIAL INSTITUTIONS AND ECONOMIC DEVELOPMENT

Unit 1: Financial System

Unit 2: Bank Financial Institutions

Unit 3: Non-Bank Financial Institutions

Unit 4: Selected International Financial Institutions.

UNIT 1: FINANCIAL SYSTEM

CONTENTS

1.0 INTRODUCTION

A financial system is very important to any economy. The happenings in the financial system should matter greatly to us. To understand the system and how it works therefore, this unit discusses the meaning and components of a financial system. The structure of the Nigerian financial system is also examined in this unit.

2.0. OBJECTIVES

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

i. Explain the concept financial system
ii. Identify the components of a financial system
iii. Discuss the structure of the Nigerian financial system

3.0. MAIN CONTENT

3.1 Meaning of a Financial System

A financial system of any economy refers to a set of institutional and other arrangements that transfer savings from those who generate them to those who ultimately use them for investment or consumption (Metu, 2018). This involves providing a medium of exchange necessary for specialization and the mobilization of savings from surplus units to deficit units. This means the efficient transfer of savings from those who generate them to those who ultimately use them for investment or consumption. This process enhances productive activity for aggregate output and economic growth. Eleje (2009) argued that the financial system is the life wire of the contemporary economy without which no modern economy can thrive unruffled.

Central Bank of Nigeria (2017) refers to Nigerian financial system to a set of rules and regulations and the aggregation of financial arrangements, institutions, agents, that interact with each other and the rest of the world to foster economic growth and development of a nation. A national financial system is different from the global financial system. The global financial system is a financial system consisting of institutions and regulations that act on the international level, as opposed to those that act on a national or regional level. The global institutions include International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD). A well- functioning financial system is relevant for a healthy economy due to its contribution to growth and development.

SELF-ASSESSMENT EXERCISE

i. Define and explain the meaning of a financial system

3.2. Components of a Financial System

The financial system consists of the regulatory authorities, financial institutions, markets, instruments, a payment and settlement system, a legal framework and regulations. According to Crockett (2011) the financial system contains a number of separate, though interdependent components, all of which are essential to its effective working. First is the set of intermediaries such as banks, insurance companies and brokerage firms that act as principals in assuming liabilities and acquiring claims. Second component is the markets for equity and fixed interest securities, markets for foreign currencies, commodities and derivative contracts. The third component is the infrastructure necessary for the effective interaction of intermediaries and markets. Such infrastructure includes securities exchanges; payment and settlement systems; and the mechanisms that provide contractual certainty and generate information on which efficient financial intermediation rely upon. This includes credit ratings, accounting, auditing and financial analysis, and the supervisory and regulatory framework. These components of the financial system, intermediaries, markets and infrastructure, are inextricably interconnected. For instance, the intermediaries require infrastructures for exchange and to secure claims. They also need markets in which to hedge the risks arising from their intermediation activities. Moreover, strong financial institutions to provide liquidity and information helps the markets to function efficiently. Therefore, the various components of the financial system work together to improve the available information to guide the effective and efficient allocation of resources and thus strengthening growth potential in the economy (Eleje, 2016).

The components of a financial system are presented in Figure 4. It shows that the financial system is divided into three namely: (i) Financial assistants/instruments comprising of money market instruments, capital market instruments and hybrid instruments. (ii) Financial markets comprising of forex market, capital market, money market, and credit market. The capital market and money market gives rise to the primary market which in turn gives rise to the secondary market. (iii) Financial Intermediaries.

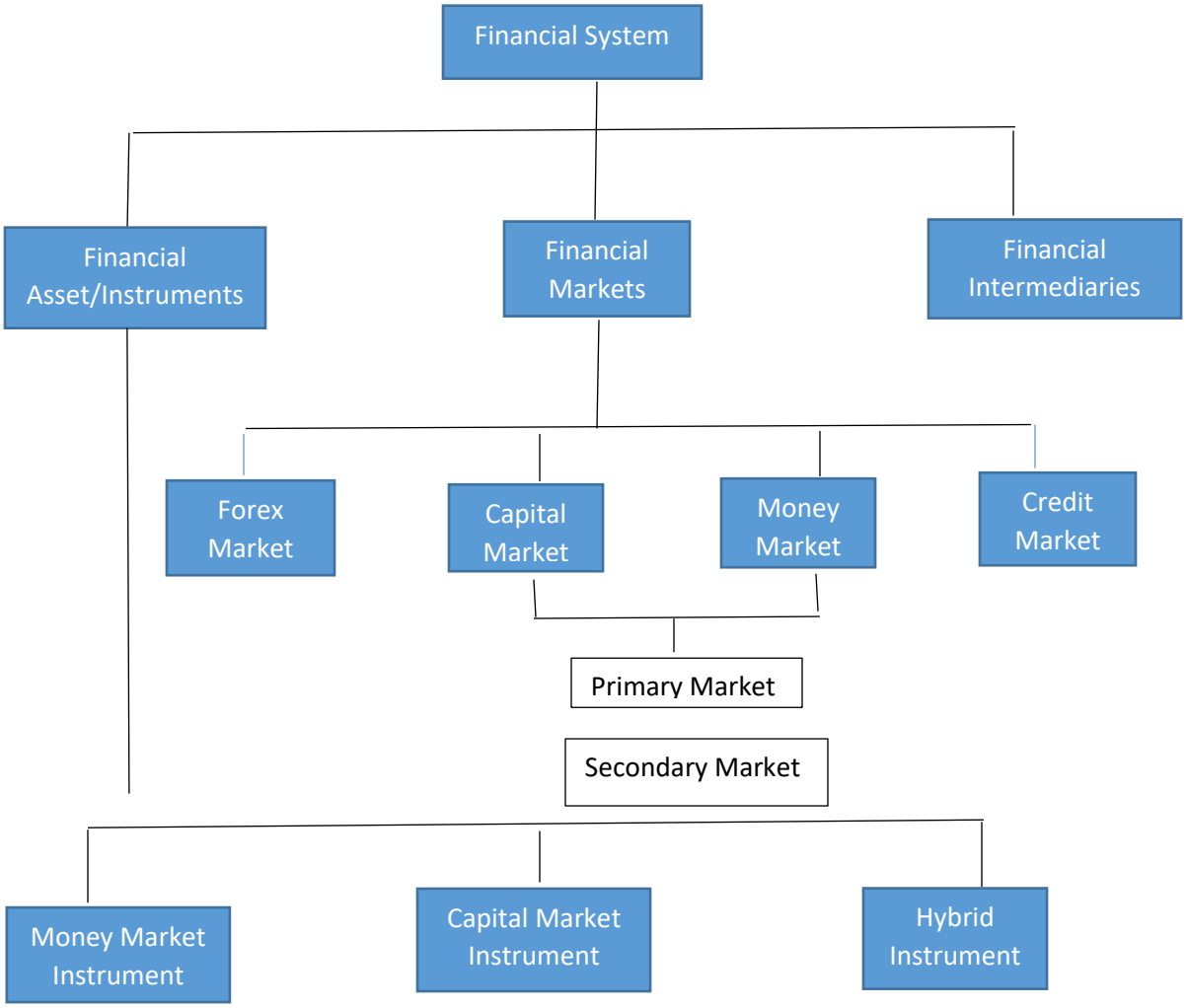

Figure 4: Structure of a financial system

Source: Central Bank of Nigeria (2017)

3.3 Structure of the Nigerian Financial System

The structure of the Nigerian Financial System has been through remarkable changes, ranging from their ownership structure, the length and breadth of financial instruments used to the number of institutions established, regulatory and supervisory frameworks as well as the overall macroeconomic environment within which they operate. The Nigerian

financial system also consists of interrelationships among the persons and the bodies that make up the economy. The Nigerian financial system include financial markets, financial institutions including the regulatory and supervisory authorities, finance institutions and financial instruments: We take a look at each of the components:

(A) The Regulatory Authorities

The main component of any financial system is the regulatory system (Kiyingi & Uwaifo, 2015). According to CBN (2017), the financial regulators in Nigeria are:

- The Federal Ministry of Finance is the apex regulator of the financial system in Nigeria. It advises the Federal Government on its fiscal operations including operations of both the money and the capital market in collaboration with the CBN. The responsibility for the supervision and licensing of banks was shared between the Federal Ministry of Finance and the CBN until 1991. Then in 1998, the CBN enabling laws was amended making the CBN report directly to the presidency and the ministry ceased to exercise control over the financial system.
- The Central Bank of Nigeria is the monetary authority that manages the currency and controls the money supply in Nigeria. The primary goal of many central banks is price stability. In some countries, central banks are also required by law to act in support of full employment.
- The Nigeria Deposit Insurance Corporation protects depositors and guarantee payment of insured funds in the event of failure of insured institutions. The establishment of NDIC and its commencement of operation in 1989 was the manifestation of a shift in banking regulation away from bank bailout and imposed management of failed or failing banks towards protecting depositors.
- Nigeria Security and Exchange Commission (SEC) The Nigeria Securities and Exchange Commission was established in 1962. Its main function was to process applications from companies seeking to raise capital from the capital market and recommend the timing of such issues to prevent issues clustering which could overstretch the market's capacity. The major tools employed by SEC to carry out its

regulatory functions include, rules, regulation, registration, investigation, enforcement and market development functions such as publications and public enlightenment programmes (CBN, 2006).

- Nigerian Pension Commission (PenCom) Pension Commission was established to regulate, supervise and ensure an effective administration of pension matters. The commission is mandated to ensure that payment and remittance of contributions are made and beneficiaries of retirement savings accounts (RSAs) are paid as and when due (Pension Commission, 2010).
- Nigerian Stock Exchange (NSE) The Nigerian Stock Exchange is a self-regulatory organization and supervises the operations of the formal capital market. As a market supervisor or regulator, it provides a mechanism for 31 mobilizing private and public savings and making them available for productive purposes (Ndi-Okereke, 2008). Clearing, settlement and delivery of transactions on the NSE are done electronically through the Central Securities Clearing System (CSCS), a subsidiary of the Exchange (CBN, 2004).
- National Insurance Commission (NAICOM) The National Insurance Commission (NAICOM) was incorporated to ensure the effective administration, supervision and regulation of insurance business in Nigeria as well as regulate transactions between insurers and reinsurers within and outside Nigeria.

(B). Financial Institutions

The financial system consists of many financial institutions. Financial institutions are organized way or system of managing money (Metu, 2018). Most of the financial institutions in Nigeria are regulated by the CBN, while some are managed indirectly. Nigerian financial institutions are: Deposit Money Banks, Development Finance Institutions (DFIs), Discount Houses, Finance Companies (FCs), Holding Company (HCs), microfinance banks (MFBs), Non-interest Banks, Primary Mortgage Banks, Bureaux-de-Change (BDCs), and Payment Service Banks (PSBs).

(C). Financial Markets

Financial markets are not source of finance but a link between savers and investors both individuals and institutions. The financial market is the marketplace where buyers and sellers engage in the trade of financial securities such as bonds, derivatives, currencies, equities and other fungible financial items (Afiemo, 2013). They offer investors access to different financial products, both foreign and domestic, at low costs and contribute to the efficiency of the financial system. These markets deal in both long and short term securities and debt instruments.

The Nigerian financial market comprises of the money market for dealings in short term finances, capital market for trading in corporate shares and stocks as well as government long term debt; the foreign exchange market for currency trades and a selection of specialized markets that trade in financial derivatives.

(i). Money Market: The money market deals in short-term credit instruments with original maturities of one year or less. The instruments are such that they are highly liquid and can be converted to cash at a relatively low cost with low risk premia (Afiemo, 2013), the money market also allocates credit to the government through credit policies. The money market is the market for short-term interest-bearing assets such as treasury bills; commercial paper; deposits; bills of exchange; banker's acceptance; certificates of deposit; federal funds; repurchased agreements; short-lived mortgages and asset-backed securities. The major task of the money market is to facilitate the liquidity management in the economy. The money market is further divided into two sub sectors: the primary and the secondary market. The primary market is for the issue of new debt instruments while secondary market is for trade of previously issued instruments. The existence of the secondary makes possible for the sale of securities before their maturity period.

(ii). Capital Market: Capital market is that segment of financial market that deals with the effective channeling of medium to long-term funds from the surplus to the deficit (SEC, 2019). It plays only an indirect role in industrial financing by providing liquidity for investments. The instruments traded in the capital markets are debt instruments (bonds, debenture, industrial loan or corporate bonds); equities or stocks), preference shares and derivatives. The main participants in the capital market are mutual funds, insurance

organizations, foreign institutional investors, corporates and individuals. The capital market also have two segments: Primary/new issue market (NIM) and secondary market/stock exchange market.

(D). Financial Assets/Instruments (Securities)

Financial instrument represent claims on a stream of income and/or assets of another economic unit and are held as a store of value and for the return that is expected. The financial assets fall into three broad categories: (i) Direct/primary; (ii) Indirect and (iii) Derivatives.

i. Direct/primary securities: Direct/primary securities are:

- Equity/Ordinary Shares: They are ownership securities and represent risk capital. The owners of such security bear the risk, are residual claimants on the income and assets and participate in management of the company.
- Debentures: A debenture is a creditor ship security. Their holders are entitled to a pre-specified interest rate and first claim on the assets of the entity. They have no right to vote in the meetings of the company. Debentures can be either bearer/ negotiable/ transferable by delivery or registered which are payable to the registered holders only. They can be secured or unsecured/naked. Debentures can be convertible and non-convertible into equity shares.
- Preference Shares: A preference share is hybrid security and partakes the features of both equity and debentures. It combines both ownership and creditor ship privileges. The holders of such security have preference over the equity holders in respect of fixed dividend as well as return of capital.
- Warrants: These are also referred to as sweeteners. A warrant is a security which entitles the holders to purchase a specified number of shares at a stated price before a stated date/period. They are issued with either debentures or equity shares.

ii. Indirect Securities/Financial Assets: Indirect securities are financial assets issued by financial intermediaries such as units of mutual funds, policies of insurance companies, deposits of banks and so on. The indirect financial assets are coined from the underlying primary security and bearing their own utilities (Khan, M.Y).

iii. Derivatives: A financial derivative is a financial instrument that is linked to another specific financial instrument, indicator or commodity and through which specific financial risks (such as interest rate risk, foreign exchange risk, equity and commodity price risk) can in their own right, be traded in financial markets. The value of a financial derivative comes from the price of an underlying item such as an asset or index. Financial derivatives can be used for risk management, hedging (protecting) against financial losses on commercial transactions and financial instruments and arbitrage between markets and speculation (Nigam, 2011). Financial derivatives are traded over-the-counter, in which case they are customised and can be purchased from financial institutions or are standardised products which are traded on organized exchanges.

SELF-ASSESSMENT EXERCISE

i. Identify the components of a financial system
ii. What is financial institution?
iii. Outline the financial instruments in Nigerian financial institution

4.0. CONCLUSION

The financial system is the system that allows the transfer of money between savers and borrowers. It is made up of closely interconnected financial institutions, markets, instruments, services, practices, and transactions. Nigeria's financial system is regulated by independent regulators depending on the sectors. For instance the banking sector is regulated by the CBN, insurance is regulated by NAICOM, and capital markets is regulated by SEC.

5.0. SUMMARY

Financial system includes a set of institutional and other arrangements that foster the mobilization of savings and transferring them to investors or consumers. The financial system consists of the regulatory authorities, financial institutions, markets, instruments and a payment and settlement system. The regulatory bodies of the Nigerian financial

markets are multi-dimensional. The major regulators in the financial market include the Federal Ministry of Finance, Central Bank of Nigeria, Securities and Exchange Commission and the Nigeria Stock Exchange. The CBN is the apex regulatory authority for both banking and nonbanking financial institutions. The Securities and Exchange Commission is the apex regulatory body of the Nigerian capital market. The Nigerian Stock Exchange is a self-regulatory organization and supervises the operations of the formal capital market.

6.0. TUTOR-MARKED ASSIGNMENT

i. Why was the SEC established?

ii. Examine the various components of the Nigerian financial system

iii. What is the difference between money market and capital market

iv. Is financial system synonymous to financial markets? If yes, elucidate upon the similarities. If no, discuss the difference

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UNIT 2: BANK FINANCIAL INSTITUTIONS

CONTENTS

1.0. INTRODUCTION

There are different bank financial institutions, which operate in any given economy to meet the financial requirements of different categories of people, engaged in different profession. Base on their functions, the banking institutions in most economies including Nigeria includes the central bank, Deposit Money Banks, development Banks, microfinance Banks and specialized Banks such as Nigeria Import Export Bank (NIXIM). This unit contains a discussion on central bank and its functions, Deposit Money Banks and their role in facilitating economic development in an economy.

2.0. OBJECTIVES

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

i. Explain the functions of a central bank
ii. Enumerate the functions of a commercial bank
iii. Discuss credit creation by banks

iv. Identify the roles of banks in economic development

3.0. MAIN CONTENT

Our discussion on bank financial institutions will start with the central bank because it is the apex bank of any economy.

3.1 Central Bank

The Central Bank is the apex regulator of the monetary system of any economy. The central bank is an institution that manages currency, money supply and interest rates of a country. It oversees and regulates the banking system of a country. Central banks do not deal with the public rather they are government's banker, they maintain deposit accounts of all other banks and advances money to other banks, when needed (Nzeribe, 2017). Central banks are non-market based, in most developed countries are institutional independent from political interference; although its privileges are established and protected by law (Metu, 2018). Each country has a central bank such as the Central Bank of Ghana, the Central Bank of Gambia, Central Bank of Nigeria, in US the central bank is Federal Reserve System known as FED and so on.

The Central Bank of Nigeria is the apex regulatory authority of the country's financial system. It was established by the CBN Act of 1958 and commenced operations on July 1958. The promulgation of the CBN decree 24 and Banks and other financial institutions (BOFI) Decree 25 in 1991 gave the bank more flexibility in regulation and supervision of the banking sector and licensing finance companies which hitherto operated outside the regulatory framework.

3.1.2 Functions of the Central Bank

The traditional functions of the central include acting as banker to other banks and financial institutions especially in the areas of clearing of cheques and being the lender of last resort. Then the regulatory functions include maintaining monetary and price stabilities in the economy as well as controlling Deposit Money Banks and other key players in the financial system.

(i). Issuance of Legal Tender Currency Notes and Coins: - In almost all the economies of the world, the central bank has the sole mandate to issue and distribute the country's currency. The currency notes printed and issued by the central bank become an unlimited legal tender throughout the country of domicile. The central bank ensures uniformity in the monetary system regarding issuing and circulation of notes. It guarantees better control over money supply in the country and boost public confidence in the monetary system of the country. Central bank's monopoly over currency enables them have effective control of credit creation by DMBs.

(ii). Banker and Financial Adviser to the Government: - Generally, the central bank of any economy is the banker to that government. That is to say, it handles all local and international finances of the government on its behalf thereby acting as its agent on monetary matters. Being an expert in financial matter the central bank have the responsibility of advising the government on all monetary activities. The central bank advises the government on all economic, financial and fiscal matters including deficit financing, devaluation, trade policy, foreign exchange policy, etc. It advises the government on the nature and size of debt instruments to be issued, and acts as issuing house for short, medium and long-term debt instruments. The central bank provides banking services to the government and may act as banker to institutions, funds or corporation set by the government (CBN, 2015). The central bank also finances government in period of temporary budget shortfalls subject to limits imposed by the law.

(iii). Bankers Bank: - The central bank acts as banker to other banks in the economy in three major capacities:

- As a lender of last resort to banks: - The central bank injects financial vitality to ailing banks in the economy by providing them with financial assistance in times of distress or at the verge of collapse. This helps to guarantee the safety of the banks and repose depositors' confidence in the banking sector.
- As custodian of cash reserve: - The central bank maintains the cash reserves of the other banks in the economy. It is legally mandatory for all Deposit Money Banks to keep a certain percentage of its cash balances as deposits with the central bank.

These cash reserves can be utilized by the owner banks in time of emergencies. Centralized cash reserves enables central bank to have control or influence over Deposit Money Banks credit creation abilities.

- As clearing agent: - The central bank acts as a clearinghouse to other banks. This helps to economize the use of cash by banks while settling their claims and counter claims and it helps the central bank to keep track of the liquidity position of Deposit Money Banks.

(iv). Maintenance of Monetary Stability and Efficient Financial System: - The effectiveness of any central bank in executing its functions lies on its ability to promote monetary stability. Price stability is necessary for money to perform the role of being a medium of exchange, store of value, unit of account and standard for deferred payments. The attainment of monetary stability lies on the ability of central bank to evolve effective monetary policy and to implement it effectively. The central bank uses primary tool of monetary management such as OMO, reserve requirements and discount window operations for effective liquidity management. The central bank through its surveillance activities over banks and non-bank financial institutions seeks to promote a sound and sufficient financial system in an economy.

(v). Maintenance of External Reserves

In order to safeguard the international value of the legal tender currency, the CBN is actively involved in the management of the country's debt and foreign exchange.

SELF-ASSESSMENT EXERCISE

i. Highlight the traditional roles of the central bank
ii. Outline the regulatory roles of the central bank.

3.2 Commercial Banking

Commercial banks are financial intermediaries that provide services, such as accepting deposits, granting of business loans, mortgage lending, and basic investment products like savings accounts and time deposits, etc. Based on these functions, commercial banks are

referred to as deposit money banks (DMBs). They act as financial intermediaries to firms and individuals who seek funding for their activities. In order words, they serve as the meeting point for lenders and borrowers of funds (Metu, 2017). Commercial banking in Nigeria started as far as 1892 with the formation of African Banking Corporation Ledger Depositor and Co., by a shipping company based in Liverpool. The bank was taken over by Standard Bank (First Bank of Nigeria) in 1984. This was followed by the establishment of Barclay's Bank and Company (Union Bank of Nigeria). The bank was set up to provide banking services to the colonial administration in West Africa and for the British commercial interest. The West African currency board (Gyasi Central Bank) was set up in 1912 with the Bank of British being the agent of the currency board (Nzeribe, 2017).

The establishment of commercial bank in Nigeria has encouraged savings and intermediary activities in the Nigerian financial system. The Nigerian banking system has undergone significant changes over the years. These changes were influenced largely by challenges posed by deregulation of the financial sector, technological innovations and adoption as well as globalization. Since after the 2006 banks consolidation reform, most banks who could not meet up of the capital base requirement were either shut down or merged with other banks. Presently (June 2019), there are 22 Deposit Money Banks in Nigeria including First Bank, Zenith Bank, Guaranty Trust Bank, Fidelity Bank, Access Bank, Union Bank, etc.

3.2.2 Functions of a Deposit Money Banks

The functions of DMBs can be divided into primary functions, secondary functions and ancillary functions (Metu, 2018).

(A) The primary functions of a DMBs include:

(i) The main function of a DMB is acceptance of deposits. Deposit money banks generally accept three types of deposits namely current, savings and fixed deposits.

(ii) Another primary function of a DMB is to make loans and advances to all types of persons, particularly to businesspersons and entrepreneurs.

(iii) A unique function of DMBs is to create credit. They supply money to traders and manufacturers. Commercial bank deposit is regarded as money because they can be used for the purchase of goods and services and in payment of debts. When a bank grants a loan to its customer, it does not pay cash. It simply credits the account of the borrower, which can be withdrawn using a cheque. In this case, bank has created a deposit without receiving cash.

(iv). Deposit money banks render an important service by providing to their customers a cheap medium of exchange like cheques. It is much more convenient to settle debts through cheques rather than with cash.

(v) The bank finances internal and foreign trade through discounting of exchange bills. Sometimes, the bank gives short-term loans to traders on the security of commercial papers. This discounting business greatly facilitates the movement of internal and external trade.

(v) Deposit money banks also provide facilities to remit funds from one place to another for their customers by issuing bank drafts, mail transfers or telegraphic transfers on nominal commission charges.

(B). Secondary Functions of a Deposit Money Bank

The secondary banking roles of DMBs are:

(i) They perform agency functions by collecting and paying various credit instruments like bills of exchange, promissory notes, cheques, etc., on behalf of their customers.

(ii) They purchase and sell various securities such as shares, stocks, bonds and debentures on behalf of their customers.

(iii) They collect dividends and interest on shares and debentures of their customers and credit them to their accounts.

(iv). They execute the standing instructions of their customers for making various periodic payments such as subscriptions, payment of rents, insurance premium etc.

(v) They preserve and execute their customers ‘Wills’.

(vi). They provide locker facility for their customers to keep their valuables.

(vii). They may act as referees with respect to the financial standing, business reputation and respectability of customers.

(C) Ancillary Functions of Deposit Money Banks

The ancillary functions of DMBs particularly in developing countries, includes rural development, employment generation, wealth creation, poverty eradication, etc. For instance, in Nigeria, DMBs under the Small and Medium Scale Equity Investment Scheme (SMEIS) are mandated to advance some percentage of their profit after tax (PAT) to small and medium scale enterprises per annum.

SELF-ASSESSMENT EXERCISE

i. Discuss the primary functions of DMBs
ii. What are the secondary functions of DMBs?

3.3 Credit Creation by Deposit Money Banks

One of the most important functions of DMBs is credit or deposit creation. They accept cash in demand deposits and advance loans to their customers and by so doing create credit. When deposits are made, banks keep some cash in reserve for their day-to-day transactions and advance loans on the basis of excess reserves (Jhingan, 2011). The customer requesting for a loan will open an account and withdraw the money by cheque which will be deposited by his creditors in this bank or another bank, where they have account. Settlement of such cheques are made in the clearing house. The banks are able to create credits or deposits by keeping a small cash in reserves and lending the remaining to customers that may need them. The bank can also create deposit by providing overdraft facility to its customer. The overdraft amount is entered in the existing customers account which allows them withdraw cheques for the overdraft.

A deposit money bank can create deposit by making investing in government securities and bonds, which they pay through a cheque to the central bank. For instance, if a bank buys bond from the stock exchange, if the seller has an account with that bank, the account of the seller is credit. Otherwise, the cheque will be deposited in another bank where the seller has an account. The cheque makes it possible for a deposit to be created in either in

this bank or some other bank. Assets and liabilities are increased in the whole banking system. By granting loans, DMBs are able to create credit or deposits.

Process of Credit Creation by Deposit Money Banks

The process of credit creation by banks is based on the following assumptions:

- There are many banks in the banking system, for instance, Bank A, B, C, etc.
- Each bank has to keep some percentage of its deposit in reserves, for instance 10% as the legal required ratio.
- The loan amount drawn from the first bank is deposited in full in the second bank, that of second bank into the third bank, and so on.

Given the above assumptions, suppose that Bank A receives a cash deposit of ₦10,000 which is its asset and liability. Assuming a reserve ratio of 10%, the bank will keep ₦1000 as reserve and lend out ₦9000 to one of its customers. The customer will in turn give a cheque of ₦9000 to someone who deposits it in Bank B. Then Bank B will start with a deposit of ₦9000, keeps 10% or ₦900 as cash in reserve and is left with ₦8100 as excess reserve which it lends thereby creating new deposits. The loan of ₦8100 from Bank B's customer is deposited into Bank C. Then Bank C with ₦8100 keeps 10% or ₦810 in cash reserve and is left with ₦7290 to lend as loan. This process continues to other banks. Each bank in the sequence gets excess reserves, lends and creates new demand deposits to the tune of ₦100,000 as shown in Table 1

Table 1: Multiple Credit Creation by DMBs

Bank	New Deposits (₦)	Required Reserves (₦)	New Loans (₦)
A	10,000	1,000	9,000
B	9,000	900	8,100
C	8,100	810	7,290
other banks	72,900	7,290	65,610
Banking system	**100,000**	**10,000**	**90,000**

Source: Modified from Jhingan, (2011)

From Table 1, it can be seen that a deposit of ₦10,000 leads to a credit creation of total deposit of ₦100,000 without cash involvement.

The multiple credit creation can also be worked out algebraically as follows:

Credit multiplier coefficient =1/r where r = cash reserve requirement or cash reserve ratio.

Credit multiplier coefficient = 1/10% = 1/(0.1) = 10

Total credit created = 10,000 * 10 = 100,000

If the cash reserve ratio (CRR) changes to 5% ;

Total credit creation = 10,000*1/(0.05) = 10,000*20 = 200,000

Hence, it can be inferred that higher the CRR, the lesser will be the credit creation; whereas, the lower the CRR, the higher will be the credit creation. Credit creation processes helps money to multiply in an economy.

Limitations of credit Creation by Deposit Money Banks

The following are the limitations on the power of the banking system as a whole to create credit:

(i) Amount of cash
(ii) Minimum legal reserve ratio
(iii) Excess reserve
(iv) Leakages
(v) Prevalent economic climate
(vi) Central bank's credit control policy
(vii) Availability of borrowers as well as security against which loans can be granted

SELF-ASSESSMENT EXERCISES

i. Describe the process of credit creation by DMBs
ii. Highlight the limitations on the ability of banks to create credit.

3.4 Deposit Money Banks and Economic Development

Deposit Money Banks are considered the backbone of the economy by contributing to economic development in the following ways:

(i). Acceleration of the rate of capital formation: The basic problem of a developing economy is slow rate of capital formation. Banks promote capital formation by mobilize idle resources for production purposes. Economic development depends upon the diversion of economic resources from consumption to capital formation. Banks help in this direction by encouraging saving and mobilizing them for productive uses.

(ii). Provision of finance and credit: Credit is a pillar of development and DMBs facilitate development by being an important source of finance and credit for industry and trade. Banks are instruments for developing internal as well as external trade.

(iii). Monetisation of the economy: An underdeveloped economy is characterized by the existence of a large informal sector, which is non-monetised. The existence of this non-monetised sector is a hindrance to economic development. The banks promote the process of monetisation (conversion of debt into money) in the economy by opening branches in the rural areas.

(iv). Innovations: Innovations are an essential prerequisite for economic development. Banks' credit facilities enable entrepreneurs to adopt new methods of production and increase productive capacity of the economy thereby promoting innovations.

(v). Development of agriculture and industries: Economic development in underdeveloped economies requires the development of agriculture and small-scale industries. Deposit Money Banks grant short term, medium-term and long-term loans to agriculture and small-scale industries in other to encourage agricultural production. Deposit Money Banks are also helping manufacturers to secure machinery and equipment from foreign countries under installment system by guaranteeing deferred payments.

(vi). Regional development: Banks can also play an important role in achieving balanced development in different regions of the country. They transfer surplus capital from the developed regions to the less developed regions, where it is scarce and most needed. This

reallocation of funds between regions helps to promote economic development of the country.

(vii). Promote socio-economic development: Deposit Money Banks, particularly in developing countries, have been called upon to help achieve certain socio-economic objectives laid down by the state. For example banks contributes in reducing inequalities in income and wealth, removal of poverty and elimination of unemployment in the country by accepting deposits from the public and extends loans to the households, firms and the government.

SELF-ASSESSMENT EXERCISE

iii. How will a commercial bank contribute to economic development

iv. Explain the role of commercial bank in capital formation.

4.0. CONCLUSION

Financial institutions are divided into bank financial institutions and non-bank financial according to their roles and functions. The central bank is the apex bank of any economy mandated to provide the currency of such economy. Commercial bank is a financial intermediary that flows idle surplus resources of households as loans to people who need them for investment or productive uses. They form the most important part of financial intermediaries and a significant part of the infrastructure essential for breaking vicious circle of poverty and promoting economic growth.

5.0. SUMMARY

In this unit, we discussed the functions of a central bank, which include banker to the government, issuance of the nation's currency and banker to other banks. The functions of DMBs are collection of savings and make them available for investment. They also create new demand deposits. The role played by the commercial bank in a developing country includes credit creation; mobilization of savings for capital formation; financing of industry for employment generation, financing of trade and agriculture production.

6.0. TUTOR-MARKED ASSIGNMENTS

i. Highlight the functions of the Central Bank of Nigeria

ii. Briefly, appraise the primary, secondary and ancillary functions of DMBs in an economy.

iii. Deposit money banks do not only mobilise deposits, they are also considered as agents of economic development. Discuss.

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UNIT 3: NON-BANK FINANCIAL INSTITUTIONS

CONTENTS

1.0. INTRODUCTION

Bank financial institutions are so conspicuous in the Nigerian economy that non-bank financial institutions (NBFIs) are hardly noticed despite the fact they complement the efforts of the banks in the financial intermediation process. In this unit we identify some NBFIs in Nigeria and their functions. Their roles in economic development are also examined. This unit also highlights the problems encountered by NBFIs in performing their developmental roles.

2.0. OBJECTIVES

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

i. Discuss the functions of NBFIs

ii. Highlight the role of NBFIs in economic development

iii. Enumerate the problems of NBFIs

3.0. MAIN CONTENT

3.1 Types of Non-Bank Financial Institutions

This section contains meaning and different types of NBFIs in Nigeria

3.1.1 Meaning of Non-Bank Financial Institutions.

Non-bank financial institutions also known as non-bank financial intermediaries are institutions such as savings and loan associations, pension funds, insurance companies, government lending agencies and mutual savings banks that pool funds from net savers and lend to borrowers (Jhingan, 2011). In other words, they purchase primary securities to lend to the borrowers who need them for investment. Primary securities include government securities, common stocks, and other short-term debts (Acha, 2012). The NBFIs buy different types of financial assets and sell others. For instance, mutual savings banks mainly buy mortgages and sell saving deposits. Finance companies buy loans and sell commercial paper, while insurance companies sell insurance policies and bonds mainly.

The Banks and Other Financial Institutions Act of 1991 defined NBFIs as any individual, body, association or group of persons; other than the banks, licensed as discount house, finance company and money brokerage and whose principal object include factoring, project financing, equipment leasing, debt administration, fund management, private ledger services, investment management, local purchase order financing, export finance, project consultancy and pension fund management (Acha, 2012). In any developing economy, banks will always outclass the NBFIs in volume of transactions, degree of market penetration and versatility of operations. This does not overlook the contributions of NFBIs as financial intermediaries which is similar to the roles of Deposit Money Banks. Aside complementing the banks, NBFIs possess potential advantages in fostering economic development. For instance, microfinance banks which are situated in the rural areas have the potentials of reaching a greater percentage of the population and mobilizing their savings.

3.1.2. Types of Non-Bank Financial Institutions in Nigeria

Non-bank financial institutions operating in Nigeria includes:

i. **Development Finance Institutions**: Development finance institutions (DFIs) popularly known as development banks are specialised institutions established to foster development in specified sectors of the economy. To improve the performance of these institutions government has re-organised them and brought them under the supervision of the CBN and merged some of them. They provide long term loans to encourage investment and also extend technical and managerial expertise to the loan beneficiaries (Akpan, 1999). The Nigerian Industrial Development Bank (NIDB), the Nigerian Bank for Commerce and Industry (NBCI) and Nigerian Economic Reconstruction Fund (NERFUND) were merged to form the Bank of Industry (BOI). Also, the Nigerian Agricultural and Cooperative Bank (NACB), the People's Bank and Family Economic Advancement Programme (FEAP) were brought together to form the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB).

ii. **Finance Companies**: Finance companies engage in short term non-bank money lending. They play active role in financing small and medium scale enterprises. They are not allowed to mobilise deposits rather they rely on owners' equity and borrowings to perform their intermediation role (Onoh, 2004). Other activities performed by finance companies are leasing, hire purchase, factoring, LPO financing, export financing, credit cards, electronic funds transfer and issue of vouchers and coupons. Finance companies for instance make available funds raised through owner's equity contribution and borrowings from other financial institutions, individuals and companies, to investors.

v. **Bureaux-De-Change:** These are parallel market operators who buy foreign exchange at very low prices and sell at very high prices in the black market. In was in a bid to control their activities, the government had to recognize them under the supervision of the Central Bank of Nigeria (CBN). Through their operations bureaux-de-change help to attract foreign currency into the country by offering prices better than the official rate and by availing Nigerians abroad

who remit monies home a channel to do so. Through this avenue, they boost the foreign exchange reserves of the country and improve the economy ultimately.

vi. **Discount Houses**: Discount houses mobilize funds for investment in securities by providing discount/rediscount facilities in government short-term securities. They act as intermediaries between the CBN, the licensed banks and other financial institutions. They facilitate the use of indirect monetary policy tools especially open market operations. Apart from improving the efficiency in monetary policy administration, discount houses have also positively impacted on banks' liquidity, by providing banks an investment outlet for their surplus funds (Agene, 1991).

vii. **Insurance Companies**: These are institutions that undertake to indemnify their customers from economic loss. They mobilize savings through the premium paid by the insured; from this pool of savings they are able to indemnify those that suffer loss. Insurance plays a very active role in development by providing long-term development funds (Acha, 2012). Insurance business consists of life, non-life as well as re-insurance. Despite insurance being the second most important financial institution the industry suffers from poor image and low patronage attributed to poor indemnification process and protracted legal tussle (Akpan, 1994). The recent recapitalization in the industry helped to strengthen and improve the management and image of insurance companies.

viii. **Microfinance Banks: -** Formerly known as community banks are self-sustaining financial institutions owned and managed by local communities. They are authorized to accept deposits and grant credit facilities to their customers, but they perform limited banking service in comparison to commercial (Umana, 2018). Microfinance banks do not participate in the foreign exchange market and in the bank clearing system. They play active role in rural development by mobilizing rural savings and financing investment at the grassroots (Metu, 2018). Microfinance banks are mostly owned by private individual, development associations, cooperative associations or town unions, etc.

SELF-ASSESSMENT EXERCISE

i. Explain what is meant by non-bank financial intermediary.

ii. Highlight some of the NBFIs in Nigeria.

3.2. Non-Bank Financial Institutions and Economic Development

- Non- bank financial institutions through their intermediation process assist in economic development. They mobilize funds and make same available for investment. Microfinance banks like DMBs, mobilize deposits from customers in form of savings, current and fixed deposits, insurance companies on the other hand aggregate the premiums paid by policy-holders. Apart from mobilizing their own funds, some NBFIs such as development finance institutions and primary mortgage institutions obtain grants and loans from the government and international financial institutions for onward lending (Onoh, 2004).
- Bureaux-de-Change encourages capital inflow by offering higher rates than the official rate of exchange thereby encouraging remittance inflow. Bureaux-de-change provides citizen resident abroad an avenue to bring foreign exchange without passing through official channels. The inflow of foreign currency improves the country's gross national product (GNP) and by extension general economic well-being (Aghoghovbia, 2006 as cited in Acha, 2012).
- Equipment financing and industrial infrastructural development is in the domain of development finance institutions. Grants obtained from governments or loans from international financial institutions are used by development finance institutions to fund long-term real investments. They further contribute to economic progress by providing advisory services, technical and managerial expertise for such projects.

- Another area where NBFIs have played vital developmental role is in the reduction of money stock outside the banking system. Akpan (1998) posit that monetary policy measures instituted by CBN are ineffective due to the existence of grossly under banked rural economy. The advent of community banks and their rural focus

has gone a long way in correcting this anomaly. According to Ojo (1994) monetary policy which is geared towards varying money supply to check inflation and enhance rapid economic development has through the instrumentality of these banks become more effective.

- Provision of a secondary market for trading in government securities by discount houses through their discount activities has also immensely contributed to the effectiveness of monetary policy especially. Increased activity has been recorded in the market since the advent of the discount houses in 1993; this has improved financial structures and further deepened the financial system (Acha, 2012).

- The NBFIs contributes to the reduction of unemployment in Nigeria. Apart from those directly employed to work for them; graduates, artisans, farmers, etc., have established businesses with credit made available by NBFIs. The funding of small and medium scale enterprises is a boost to the economy because the informal sector is the highest employer of labour in our economy (Metu, 2018).

SELF-ASSESSMENT EXERCISE

i. Discuss the role of discount houses as a financial intermediary.
ii. Highlight how insurance companies contribute to economic development.

3.3 Problems of NBFIs

Despite the efforts being made by NBFIs in fostering development, they are still faced with so many problems. Some of the problems include:

i. Some NBFIs such as development finance institutions are used to government subventions and international aids. When government subventions and international donors were no more available, these NBFIs became moribund.
ii. The financial distress of the 1990's thoroughly decimated the ranks of NBFIs such as community banks, finance companies, etc. Some became distressed and were subsequently liquidated. Acha (2012) opined that the distress may be due

to inadequate capitalization, illiquidity and poor management. The harsh economic environment also contributed immensely to the problems of NBFIs.

iii. The deregulation of the Nigerian economy in the mid 1980's had a tremendous upsurge in the number of banks and NBFIs operators in Nigeria. This led to massive competition for depositors' funds. Some microfinance banks with fewer branches could not compete effectively with the banks and they eventually shut down.

iv. Most those who benefited from the loans refused to pay back simply because the loans were given without collateral and this compounded the problems of NBFIs.

v. Most NBFIs were established with very little capital, while some that were adequately capitalised had their capital base eroded by bad debt. Inadequate capitalization made it impossible for these institutions to withstand economic shocks and losses.

4.0. CONCLUSION

Financial institution can be broadly classified into two: Banks and non-bank financial institutions. Banks and non-bank financial institutions play complementary roles in economic development. Nigeria being in need of development cannot overlook the potentials inherent in the development of NBFIs. NBFIs carry out similar roles with banks and complement the efforts of bank in the financial intermediation process. This is why they are also referred to as non-bank financial intermediaries.

5.0. SUMMARY

The bank and non-bank financial institutions perform major functions in the economy by lubricating the real sectors. Non-bank financial institutions are financial intermediaries that provide funds for financing expenditures. They obtain fund from savers and sell indirect securities such as time deposits, insurance policies, stocks, deposits, etc. There are many non-bank financial institutions in Nigeria and they include finance companies,

microfinance banks, discount houses, bureaux-de-change, insurance companies, development banks and primary mortgage institutions. These financial intermediaries have contributed in providing credit for small scale enterprises, provided job opportunities, provide investment outlets and also extend managerial expertise to loan beneficiaries.

6.0. TUTOR-MARKED ASSIGNMENTS

i. What has been the benefits and problems of regulating the Nigerian financial system since banking consolidation of 2005 to date?
ii. Examine the functions of non- bank financial intermediaries in the Nigerian economy.
iii. What are the factors limiting the development efforts of NBFIs

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UNIT 4: INTERNATIONAL FINANCIAL INSTITUTIONS

CONTENTS

1.0 INTRODUCTION

International Financial institutions such as World Bank, African Development Bank, Asian Development, etc., are created for so many reasons including regional developments and investments. Since the world is a global village, domestic economies depend on these institutions for development /loan support among other reasons. In this unit, we will explore the role and functions of some international financial institutions such as World Bank, international Monetary Fund, African Development Bank and International Financial Market.

2.0 OBJECTIVES

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

i. Identify the functions of the World Bank
ii. Explain the role of the International Monetary Fund

iii. Discuss the key functions of African Development Bank (AfDB)

iv. Explain the scope of International Financial Market

3.0 MAIN CONTENT

3.1 The World Bank

World Bank is an international organization dedicated to providing financing, advice, and research to developing nations to aid their economic advancement. The World Bank is a subset of the World Bank Group comprising of International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA). Other institutions in the World Bank Group are International Centre for the Settlement of Investment Disputes (ICSID), International Finance Coporation (IFC) and Multilateral Investment Guarantee Agency (Eze, 2017). The idea underlying the setting up of IDA was to have an international agency for financing the development of underdeveloped nations on exceptionally favourable terms. Given the infrastructural needs, poverty, low savings and high and growing population of these nations, there was need to obtain loans that can be repaid on easy terms. The International Finance Corporation is to further economic development by encouraging the growth of productive private enterprises in member nation, especially in the LDCs, thus supplementing the activities of the World Bank (anyanwu, 1999). The bank predominantly acts as an organization that attempts to fight poverty by offering developmental assistance to middle-and low-income countries.

Currently, the World Bank has two stated goals that it aims to achieve by 2030. The first is to end extreme poverty by funding projects that will help to reduce the number of people living on less than $1.90 a day, to below at least below 3% of the world population. The second is to increase overall property by increasing income growth in the bottom 40% of every country in the world.

3.1.1 Functions of the World Bank

Specifically, the functions of the World Bank are:

i. Reconstruction of the war-devastated economies and development of economically backward countries through investment and capital accumulation and through use of productive capacity for production of goods and services.
ii. Promotion of foreign private investment by means of guarantees or participation in loans and other investments made by private investors. When private capital is not available at reasonable terms to supplement private investment, they provide funding for productive purpose out of its own resources.
iii. To promote long-term balanced growth of international trade and maintenance of equilibrium in balance of payments by encouraging international investment for the development of productive resources of the members. This contributes in raising the standard of living.
iv. They use their regional offices and ensure the effectiveness of its development assistance and generate information about member countries; and to optimize project preparation, appraisal and implementation.
v. To assist in bring about a smooth transition from a war-time to a peace time economy
vi. To encourage that the more useful and urgent projects are death with first
vii. To underwrite loans to developing nations of the world.
viii. To renders technical assistance to less developed countries (LDCs).
ix. To comment on financial buoyancy and credit-worthiness of a borrowing nation through its expertise and understanding of financial matters

SELF-ASSESSMENT EXERCISE

i. Enumerate the functions of the World Bank

3.2 International Monetary Fund (IMF)

The IMF was formed in reaction to the unresolved financial problems instrumental in initiating and protracting the Great Depression of the 1930s. The agreement on the constitution and functions of the IMF to supervise and promote an open and stable monetary system was reached by the delegate of 44 countries and representative of

Denmark at the United Nations and financial conference held at Bretton Woods New Hampshire, USA on 1-22 July, 1944. Thus, IMF came into existence on 27 December, 1945 when 29 countries signed the Article of Agreement.

International Monetary Fund is the second Bretton Woods Institution with an intergovernmental pillar supporting the structure of the world's economic and financial order. As a voluntary and co-operative institution, it attracts nations that are prepared, in a spirit of enlightened self-interest, to relinquish some measure of national sovereignty by abjuring practices injurious to the economic well-being of their member nations. IMF has Special Drawing Rights (SDRs), otherwise known as paper gold, which are international units of account allocated to member countries in proportion to their fund quotas and used to settle balance of payments deficits between them (Jhingan 2012 as cited in Eze, 2017).

3.2.1 Objectives of International Monetary Fund

i. To promote international cooperation by providing the machinery for consultation and collaboration by members on international monetary issues.
ii. To facilitate the balanced growth of international trade and through this, contribute to high levels of employment and income and the development of productive capacity.
iii. To promote exchange stability and orderly exchange arrangements and facilitate the avoidance of competitive currency depreciation.
iv. To foster multilateral system of payments and seek the elimination of exchange rate restrictions.
v. To make financial resources available to members on a temporary basis and with adequate safeguards to permit them to correct payments imbalances without resorting to measures destructive of national and international prosperity.
vi. To seek reduction of both the duration and magnitude payments imbalances

3.3.2 Functions of International Monetary Fund

i. International Monetary Fund renders technical advice to members as regards monetary and fiscal policies, balance of payment issues. This is achieved through

publication of research outcomes and conducting short-course training for monetary, fiscal and balance of payment personnel from member nations.

ii. International Monetary Fund monitors member's compliance with their obligations in a fixed exchange system. That is, they plays a major role in supervising economic policies that influence their balance of payments in the presently legalized flexible exchange rate.

iii. It continues to provide short-and medium-term financial assistance to member nations that run into temporary balance of payments difficulties.

iv. The IMF regulates member countries to see that they abide by its regulations especially in areas of exchange arrangements and exchange restrictions.

SELF-ASSESSMENT EXERCISES

i. Discuss the objectives of International Monetary Fund

ii. What are the functions of International Monetary Fund

3.3 African Development Bank (AfDB)

The African Development Bank was established in Khartoum (Sudan) on August 4, 1963 but began operation in 1966 with its headquarters at Abidjan, Cote D'Ivoire. Its establishment was signed by the then 30 independent African Nations. Today, AfDB is an international partnership between 50 African countries and 26 non-regional states admitted as members of the bank in December, 1982. Their admission was the result of collective effort of the bank's directors, its management and African member-states to expand the bank's authorized capital. AfDB has become the development finance partner of independent African countries principally aimed at contributing to the economic and social progress of member countries jointly and severally (Anyanwu, 1993).

The resources of AfDB are made up of ordinary capital and special resources with Nigeria having the largest regional contribution to its capital stock (Eze, 2017). The ordinary operations of AfDB includes financing and co-financing of developmental projects with

maturities in excess of ten years, while the special operations include African Development Fund, Nigerian Trust Fund, Arab oil Fund and Special Relief Fund.

3.3.1 Functions of African Development Bank

ADB was established to contribute to the economic development and social progress of the members-individually and jointly. Specifically, AfDB functions are:

i. To use the resource at its disposal for the financing of investment projects and programmes relating to the economic and social development of its members giving priority to projects or programmes which by their nature or scope concern several members. Secondly, Projects or programmes designed to make the economies of its member increasingly complementary and to bring about an orderly expansion of their foreign trade.
ii. To undertake or participate in the selection, study, preparation of projects, enterprises, and activities contributing to such development.
iii. To mobilize and increase in Africa, and outside Africa, resources for the financing of such investment projects and programmes.
iv. Generally, to promote investment in Africa of public and private capital in projects or programmes designed to contribute to the economic development or social progress of the members.
v. To provide such technical assistance as may be needed in Africa for the study, preparation, financing and execution of development projects or programmes.
vi. To undertake such other activities and provide such other services as may advance it purpose.

3.3.2 Problems of African Development Bank

- African Development Bank faces the challenge of structural changes required for dynamic interaction with its public for operational effectiveness and efficiency in the world of globalization.

- African Development Bank is beset with problems of mounting past due obligations arising from areas of loan repayment outstanding against member countries.
- There is also the failure of members to pay their annual subscription in support of the Bank's operations.

SELF-ASSESSMENT EXERCISES

i. Illustrate the basic functions of African Development Bank
ii. Discuss the problems of African Development Bank

3.4 International Financial Markets

The International Capital Market (ICM) refers to a series of international markets made up of banks and individual investors for medium and long-term finance so as to provide channels for the transfer and savings from surplus to deficit countries. The ICM provides medium-and long-term finance in three main ways:

i. By the issue of Eurobonds sold internationally outside the jurisdiction of any single national authority.
ii. By the sale of foreign bonds on behalf of non-resident borrowers in national capital markets.
iii. By the granting of medium-term foreign currency credit (or Euro credits) by international syndicates of banks.

The Euro credits and Eurobonds make up the offshore sector of the ICM because they are arranged outside the jurisdiction of any single national authority on the other hand, foreign bonds are sold in domestic capital market on behalf of a non-resident borrower under the laws of the country in which they are issued.

Borrowers in ICM are governments, government agencies, international organization like the World Bank (which then re-lend the proceeds to their member countries) and private business companies.

SELF-ASSESSMENT EXERCISE

i. Discuss the roles of International Financial Markets

4.0. CONCLUSION

The World Bank and the International Monetary Fund are the two most powerful international financial institutions. They were established to take care of the long-term economic problems of member-nations, including promoting long-term balanced growth of international trade and maintenance of equilibrium in balance of payments. The AfDB is the development partner of African countries contributing to the economic and social progress of member countries.

5.0. SUMMARY

There are two affiliates of the World Bank Group namely International Development Association and International Finance Corporation. Its role is not limited to direct equity capital but extends into mobilization of finance from other sources. The World Bank encourages international investment for the development of productive resources to the member countries. African Development Bank a finance partner of African countries was established to perform the following functions: mobilization of funds for development, provision of technical assistance for members for the execution of development projects and for cooperation with development institutions outside Africa for the development of Africa. The failure of member countries to remit their annual subscription to AfDB is part of the bigger challenges facing the financial institution.

6.0. TUTOR-MARKED ASSIGNMENTS

i. Critically appraise the role of IMF in Nigeria.
ii. Explain the functions of African Development Bank
iii. Describe the roles of International Monetary Fund.
iv. Write short notes on the following:
    a) International Finance Corporation
    b) International Development Association

7.0 REFERENCES/ FURTHER READING

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