

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Over the years, the use of both fiscal and monetary policies has been inextricable in the pursuit for achieving macroeconomic stability and economic growth in Nigeria. The achievement of full-employment equilibrium, rapid industrial growth, price stability and external balance is anchored on the use of monetary policy. This is further supported by Sanusi (2012) when he explained that the primary goal of monetary policies in Nigeria has been the maintenance of domestic price and exchange rate stability since it is critical for the attainment of sustainable growth and external sector viability. This is why the Central Bank is charged with the task of implementing the monetary policies of the government. Since its establishment in 1958, the objectives of the Central Bank of Nigeria have remained broadly the same, but the strategies for achieving these objectives have only changed in consonance with the varying legal, institutional and macroeconomic environments.

The central bank has continually developed means using its monetary policy tools to reduce the unfavourable macroeconomic variables such as inflation so that the price level will be such that will not have any effect to add to the existing poverty level in the country. Furthermore, we can say that in Nigeria, governments formulate policies and guidelines with a view to achieve economic growth and development through reduction in the level of poverty while increasing industrial output and achieving price stability. In order to improve macroeconomic stability in the country over the years, efforts have been focused towards the management of excess liquidity; thus a number of measures have been introduced to reduce liquidity in the system (Adam, 2004). These include the reduction in the maximum ceiling on credit growth allowed for banks, the recall of the special deposits requirements against outstanding external payment arrears to CBN from banks, abolition of the use of foreign grantee/currency deposits as collaterals for Naira loans and the withdrawal of public sector deposits from banks to the CBN.

However, monetary policy has appeared to be more flexible in terms of formulation and implementation. It is relatively easy to alter and apply its policy tools. Hence, it has become a fashionable means (after the introduction of structural adjustment programme in 1986) for correcting short-term macroeconomic maladjustments in Nigeria. The Central Bank of

Nigeria (CBN) since its establishment in 1959 has been playing a traditional role expected of a central bank, which is the regulation of money in a way to regulate the social and economic welfare of the country. According to Nnana (2006), generally, macroeconomic policies in developing countries are designed to stabilize the economy, stimulate growth and reduce poverty. The main objectives of monetary policy remained achieving internal and external balances, and the promotion of non- inflationary growth in output. Specifically, monetary policy measures are designed to ensure stable prices, stimulate growth in the productive sectors and reduce pressure on the balance of payments in order to maintain a stable exchange and positive interest rates. However, the Nigeria government in collaboration with its monetary authority adopts monetary policy to regulate the economy. Thus adopting monetary policy in manipulating the fluctuations experienced so far in the economy, Central Bank of Nigeria (CBN) undertake either contractionary and expansionary measures. The reason for this action is because monetary policy has been successfully introduced and implemented in many developing economies. Therefore, it becomes necessary to examine how variations in monetary policy (money supply) can be used to influence output while keeping the level of poverty at its barest level.

Economists have long been interested in factors, which once reduced to its barest minimum, can cause different countries to grow at different rates and achieve different levels of wealth. One of such factors is the level of poverty. A concise and universally accepted definition of poverty is elusive largely because it affects many aspects of the human conditions, including physical, moral and psychological. Different criteria have, therefore, been used to conceptualize poverty. Most analyses follow the conventional view of poverty as a result of insufficient income for securing basic goods and services. A good example is the definition of poverty as the situation where "a person's resources (mainly their material resources) are not sufficient to meet minimum needs (including social participation)" (Joseph Rowntree Foundation, 2013). This definition is based on historic definitions such as those above, but also adopts elements from broader definitions of poverty by acknowledging the importance of the social life of the individual and not merely his or her purely material circumstances. Hence, it captures both the absolute and relative characteristics of poverty. Others view poverty, in part, as a function of education, health, life expectancy, child mortality etc. Blackwood and Lynch (1994) identify the poor, using the criteria of the levels of consumption and expenditure. Poverty can also be the outcome of inefficient use of common resources. This may result from weak policy environment, inadequate infrastructure, weak access to technology, credit etc.

However, Ravallion and Chen (2008) state that “a common method used to measure poverty is based on incomes or consumption levels. A person is considered poor if his or her consumption or income level falls below some minimum level necessary to meet basic needs. This minimum level is usually called the "poverty line"”. When estimating poverty worldwide, the same benchmark poverty line has to be used, and expressed in a common unit across countries. Therefore, for the purpose of global aggregation and comparison, the World Bank uses reference lines set at \$1.25 and \$2 per day (in 2005 Purchasing Power Parity terms). Such a simple monetary approach to measuring poverty is widely used, for example in tracking progress towards the fulfilment of the Millennium Development Goals. Such extremely low income levels are very rare in the UK, although in certain cases of extreme poverty (e.g., the homeless), such levels of income might be relevant.

1.2 Statement of Research Problem

Upon several government policies on the stability of Nigerian economy through both use of fiscal and monetary policies, there have been many challenges facing the reduction of the level of poverty in Nigeria as identified by researchers. These challenges include corruption and ineffective economic policies (Gbosi, 2007); inappropriate and ineffective policies (Anyanwu, 2007); lack of integration of macroeconomic plans and the absence of harmonization and coordination of fiscal policy (Onoh, 2007); gross mismanagement/misappropriations of public funds (Okemini and Uranta, 2008); and lack of economic potential for rapid economic growth and development (Ogbole, 2010). Despite the emphasis placed on both the monetary and fiscal policy in the reduction in the level of poverty, while increasing the growth of the manufacturing sector, Nigerian economy is yet to come on the path of real increase in income per capita and sound growth and development because of ineffectiveness in the fiscal and monetary policies of the government and the monetary authorities (Ekwe, Ogbonaya and Omodero, 2017).

There have been various regimes of monetary policy in Nigeria. Sometimes, monetary policy is tight and at other times is loose, mostly used to stabilize prices (Ekwe, Ogbonaya and Omodero, 2017). The economy has also witnessed times of expansion and contraction, but evidently, the reported growth has not been a sustainable one as there is evidence of growing poverty among the populace (Ucha, 2010). In addition, the economy had grave problems of import dependence, reliance on a single commodity (oil), weak industrial base, low level of agricultural production, a weak private sector, high external debt overhang, inefficient public

utilities, low quality of social services and an unacceptable rate of unemployment are all the undesirable conditions in the Nigerian economy (Anyanwu, 2007).

Many of the existing studies (Akpakpan (1994); Nwankwo (1999); Okoronkwo (1996); Adam (2005); Idoko, Rotimi and Seyi (2017); Ekwe, Ogbonaya and Omodero (2017); Ufoewze, Odimgbe, Ezeabalisi and Alejekwu (2018); Adewale (2018); Chimobi and Uche (2010); Olowa (2012); Anusionwu and Diejomoah (1981); Joshua (2017); Jolaosho (1996); Deji (2014)) focused mainly on the interactions among fiscal policy, monetary policy and economic growth, while very few of the literature (Philip and Miguel (2014); Okoye and Ndukwe (nd); Majid, Rahim and Hassan (2012); Olofin, Adejumo and Sanusi (2015) and Ucha (2010)) focused directly on poverty and its theories and indirectly on the interaction of monetary policy on poverty level and consequently on economic growth and Goshit and Longduut (2016) focused on the direct effect of indirect monetary policy on the level of poverty in Nigeria.

It is pertinent to know that this research study tries to look into the variables that determine poverty while linking them with monetary policy variables and checking their significant impact on the level of poverty in the country. This is necessary because very few of the previous studies (Philip and Miguel (2014); Okoye and Ndukwe (nd); Majid, Rahim and Hassan (2012); Olofin, Adejumo and Sanusi (2015) and Ucha (2010)) have tried to do this which is very important in determining which of the determinants and monetary policy variables have effect on the level of poverty in the country. This therefore serves as a research gap which this study intends to focus on.

1.3 Research Questions

- i. What is the level of poverty within the period of study?
- ii. To what extent has the monetary policy affected the level of poverty?

1.4 Objectives of the Study

The major objective of this study is to examine the effect of monetary policy on the level of poverty in Nigeria. Specifically, the objectives of the study are to:

- i. Determine the level of poverty within the period of study.
- ii. Study the extent to which monetary policy has affected the level of poverty.

1.5 Research Hypothesis

Research hypothesis is a statement of the relationship among variables. The formulation of hypothesis or questions helps to streamline the guide the researcher in his or her quest for answers to the problem being investigated. The hypothesis for this research work is stated as follows:

H₀: Monetary policy does not have an effect on the level of poverty in Nigeria.

H₁: Monetary policy has an effect on the level of poverty in Nigeria.

1.6 Significance of the Study

Many existing studies focused mainly on the interaction between monetary policy and economic growth. Recognizing the role of monetary policy on level of living of the people, this study shall empirically examine the relationship between monetary policy and poverty level in a multivariate framework.

This study will also contribute or add to existing knowledge of related topics. It shall also serve as reliable reference material for further related research works and recommendations from this study shall be useful to government to know how the monetary policy variables affect the level of poverty in Nigeria and also the appropriate measures to adopt that will minimize the adverse effects of too much of restrictive monetary policy on the economic conditions of the country.

1.7 Scope and Limitation of the Study

The researcher tends to find out the impact of monetary policy on the level of poverty. The study covers a general contribution of monetary policy in Nigeria towards reduction of the level of poverty. This study on the impact of the monetary policy on poverty level in Nigeria shall be restricted to the period between 1981- 2016. In addition, the official Central Bank of Nigeria (CBN) annual statistical bulletin begins from 1981. The validity and reliability of this research work will depend on the use of statistical data using the linear regression model, and the hypothesis setting that requires testing the validity of the analysis. The researcher made use of secondary data obtained from the publications of the Central Bank of Nigeria statistical bulletin, National Bureau of Statistics (NBS) and the annual report of accounts as well as resource materials from the library and the internet.

However, the result of this study could be limited by the quality of the data series available. This limitation arises from the problem of inconsistency of data as reported by different institutions.

1.8 Organization of the Study

This chapter introduces the subject matter by giving a background on what it is and how it has evolved in the Nigerian and world situation. The chapter also gives the details of the problem addressed in the study, and the specific objectives that guided the study, the research questions, significance of the study as well as the scope and limitation of the study.

The rest of this research work shall be structured and organized into 4 chapters as following:

Chapter 2 which is a review of all past knowledge of the study. It will consist of the introduction, conceptual review, theoretical review and empirical review, as well as the summary and gap detected from the literature.

Chapter 3 which is the research methodology will consist of the nature and sources of the data, model specification, estimation technique and the data analysis plan.

Chapter 4 will comprise presentation of data, analysis of data, interpretation and discussion of result.

Chapter 5 which is the final chapter will consist summary of findings, conclusion, recommendation, and suggestion for other study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Overview of Monetary Policy

The Central Bank of Nigeria (2011) defined monetary policy as the specific actions taken by the Central Bank (Monetary Authority) to regulate the value, supply and cost of money in the economy with a view to achieving predetermine macroeconomic goals.

Nwankwo (1999) defined it as measure or combinations of measures designed to influence or regulate the volume, price and direction of money and credit. He contended that monetary policy comprises six different policies dealing with the volume of money and credit, its price or the rate of interest and its allocation. Ezeugo (1987) shares the same view with Nwankwo (1999). He points out that monetary policy involves measures, which the government adopts using specific instruments to stimulate, structure or restructure of the economy so as to attain the desired objective which may include increased output in the industry, Agriculture or other sector of the economy, employment generation, control of Inflation, and adjust the balance of payment and mobilization of savings. Furthermore, Wrightsman (1976) opined that monetary policy entails those actions initiated by the central bank, which aim at influencing the cost and availability of credits.

However, Salvin (1991) defined monetary policy in relation to the use of open market operations, changes in discount rate, change in reserve requirement and other measures available to the monetary authorities to control the rate of growth of money supply. He further notes that the goals of monetary policy are price stability, relatively full employment and satisfactory rate of economic growth. Monetary policy has thus been known to be a vital instrument that a country can deploy for the maintenance of domestic price and exchange rate stability as a critical condition for the achievement of a sustainable economic growth and external viability (Adegbite & Alabi, 2013).

Therefore, monetary policy is the process by which the central bank or monetary authority controls money supply, availability of money and the cost of money or rate of interest. Monetary policy is use to attain set of objectives geared towards the growth and stability of the economy. These goals usually involve stable price and low unemployment. The government of each country embarks upon policies that increase or decrease the

supply of the economy by affecting the aggregate demand, money supply affects the level of consumption and the rate of economic growth, an increase or reduction in the cost of money, interest rate affects all the variables too.

2.1.2 Instruments of Monetary Policy in Nigeria

According to the CBN (2011), the instruments of monetary policy used by the central bank depend on the level of development of the economy, especially the financial sector. These instruments could be direct or indirect.

Direct Credit Control

The central bank can direct Deposit Money Banks on the maximum percentage or amount of loans (credit ceilings) to different economic sectors or activities, interest rate caps, liquid asset ratio and issue credit guarantee to preferred loans. In this way the available savings is allocated and investment directed in particular directions as desired by the authorities.

Indirect Instruments

Interest Rate

The Central Bank lends to financially sound Deposit Money Banks at a most favourable rate of interest, called the minimum rediscount rate (MRR). The MRR sets the floor for the interest rate regime in the money market (the nominal anchor rate) and thereby affects the supply of credit, the supply of savings (which affects the supply of reserves and monetary aggregate) and the supply of investment (which affects full employment and GDP).

Open market operation (OMO)

According to Adam (2005), the main instrument of monetary policy used by the Central Bank of Nigeria (CBN) is the Open Market Operations (OMO). OMO is the primary indirect monetary policy instrument for promoting non-inflationary economic growth and development and other policy goals. It is the buying and selling of Treasury securities agency obligations and bankers acceptances by the Central Bank in the financial market in order to influence the volume of liquidity and level of interest rates which ultimately will affect money supply in the economy.

Reserve requirement (reserve ratio)

Reserve requirement is one of the most powerful instruments of monetary control, if it changes; the requirement reserve ratio which is the ratio by which the banking system can expand deposit through the multiplier effect also changes. Monetary authorities to reduce the ability of commercial bank to make loans to the public by simply increasing the ratio and enhancing their leading position by reducing the rate can manipulate the reserve requirement otherwise known as the reserve ratio.

Discount rate

The discount rate is the rate of interest the monetary authorities or the central bank charge the commercial banks on loans extended to them. If the central bank wishes to increase liquidity and investment, it reduces the discount rate. This in turn, reduces the interest rate charged by commercial banks thus resulting in attractive borrowing or low cost of borrowing and hence expansion in liquidity and instrument and vice versa.

Other instruments of monetary policy used by the Central Bank of Nigeria are exchange rate controls so as to ensure the exchange rate is at an optimal level, prudential guidelines to DMBs to exercise particular care in their credit operations in order to achieve specified outcomes and the use of moral suasion by persuading banks to follow certain policies such as credit restraint or expansion, increase savings mobilization and promote exports through financial support, which otherwise they may not do, on the basis of their risk/return assessment.

2.1.3 Nigerian Monetary Policy Control Experience

Prior to 1986, the economic environment that guided monetary policy was characterized by the dominance of the oil sector, the expanding role of the public sector in the economy and over-dependence on the external sector. In order to maintain price stability and a healthy balance of payments position as a result of this characteristics, monetary management depended on the use of direct monetary instruments such as credit ceilings, selective credit controls, administered interest and exchange rates, as well as the prescription of cash reserve requirements and special deposits. The use of market-based instruments was not feasible at that point because of the underdeveloped nature of the financial markets and the deliberate restraint on interest rates (CBN Monetary Policy Department, 1986).

According to the CBN monetary policy Series in 1990, the focus of monetary policy control by the CBN from 1986 to 1990 was on moderating the level of inflation, stimulation of the private sector output, minimization of unemployment as well as reduction of pressure on the

external sector. The stance of monetary policy during the year remained moderately restrictive. The monetary and credit targets were set for M1 as 13.0 percent, Credit to government was set at 10.9 percent, and credit to private sector 15.8 percent (CBN, understanding Monetary policy series, Module 3).

The period between 1986 and 2001 was referred to as the short term monetary policy horizon by the CBN. During this period, Interest rate policy was deregulated through the proactive adjustment of the minimum rediscount rate (MRR) to signal policy direction consistent with liquidity conditions. Surveillance activities of the CBN focused mainly on ensuring sound management and maintenance of a healthy balance sheet position on the part of deposit money banks (DMBs). On the external front, the official and interbank exchange rates were unified in 1999. Other policy instruments employed during this period included the discount window operations, mandatory sales of special NTBs to banks and a requirement of 200 per cent treasury instruments to cover for banks' foreign exchange demand at the Autonomous Foreign Exchange Market (AFEM) (CBN Monetary Policy Department, 2011).

From 2002 till date, Attention has been focused on the need for a more competitive financial sector geared towards improving the payments system. The OMO has continued to be the primary tool of monetary policy, and is complemented by reserve requirements, discount window operations, foreign exchange market intervention and movement of public sector deposits in and out of the DMBs. The CBN has also continued to ensure banking soundness and financial sector stability, not only to ensure the effective transmission of monetary policy to the real sector but also to enhance the efficiency of the payments system (CBN, 2016).

2.1.4 Concept of Poverty

Poverty is a multidimensional phenomenon. The 2001 World Development Report summarizes the various dimensions of poverty as a lack of opportunity, lack of empowerment and a lack of security. The window of opportunity remains closed to the poor masses, and this makes them practically inactive in the society. Their lack of empowerment limits their choices in almost everything and their lack of security makes them vulnerable to diseases, violence and so on. Similarly, a United Nations statement says:

“Poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to; not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity,

powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation”(Ucha, 2010).

Oyebamiji and Adekola (2008) supported this definition by defining poverty as condition of deprivation and lack of basic needs of life or when the supply of such need is grossly inadequate. According to them those basic needs include food, water, clothing, housing, medical care, literacy and so on. Poverty means a man’s inability to afford decent food, shelter, clothing and recreation (Jolaosho, 1996).

Furthermore, poverty can be said to be ordinarily stands for a situation whereby one cannot meet average requirements (Okoronkwo, 1996). Poverty is caused by what may be called exogenous forces or forces outside an individual’s control such as over population, low standard of living, high cost of living, inadequate education, unemployment and environmental degradation; and is also caused by endogenous forces and forces that operate within the victims as exemplified by individual responsibility and welfare dependency, and are thus self-created (Adefolalu, 1992).

2.1.5 Determinants of Poverty

Recently, literatures (Gedal et al (2005); Apata et al (2010); Ibrahim & Umar (2011); Adeyemi et al (2011) suggest that the key micro level determinants of poverty generally include household size, education level, household composition and size, assets owned by households, access to basic social and economic services, sector of employment, number of income earners in a household, sex and ethnicity of household head, rural versus urban location, among others.

However, considering the macro analysis of poverty determinants, it has been noted that works on macroeconomic determinants of poverty are scarce (Agénor, 2005). This is despite the need to understand how microeconomic decisions on poverty alleviation can be contained within macroeconomic outcomes. Literature has also shown that there exists links between macroeconomic variables and poverty. First, is the transmission from economic growth to poverty. A common consensus now is that sustained economic growth is a pre-condition for sustainable poverty reduction (Kanbur, 2001). Growth can reduce poverty through employment generation, higher labour productivity and increased real wage. However, the observation that growth only is not sufficient for poverty reduction prompted the promotion of ‘pro-poor’ growth policies to eradicate poverty (Epaulard (2003); Agenor (2005); Akoum (2008); Azis (2008), and Tarabini (2010)). It is therefore expected that economic growth which is

characterized by lack of employment generation, high labour productivity, quality education at all levels, and manufactured export competitiveness, for instance, also have an impact on poverty reduction. This evidence is also supported by World Bank (1990).

Furthermore, Macroeconomic instability, which may be due to exogenous shocks (natural disasters, terms of trade shocks, reversals in capital flows etc) or monetary/fiscal policy failure, is another determinant of poverty. Such instability may be associated with stagnation or declining GDP, double digit inflation rate, high public debt, and huge current account deficit, among others. Macroeconomic shocks and policy failure explain poverty because they constrain the poor from using their greatest asset, labour. When low or negative output growth is its source, macroeconomic instability results in higher unemployment for the poor, hence increased poverty level (Olofin, Adejumo and Sanusi, 2015).

Therefore, based on the foregoing, the following are the determinants of poverty can be classified into microeconomic determinants and macroeconomic determinants and they are:

1. Household size, composition and asset owned by household.
2. Access to basic social and economic services.
3. Level of education, income and location of an individual.
4. Level of economic growth.
5. Macroeconomic instability caused by natural disaster such as flood, famine, etc.
6. Macroeconomic instability not caused by natural disaster such as terms of trade shocks and reversals in capital inflows.
7. Monetary and/or fiscal policy failure such as high public debt, high interest rates, double digit inflation, declining GDP, etc.

2.1.6 Overview of Poverty in Nigeria

In Nigeria, widespread and severe poverty is a reality. It is a reality that depicts a lack of food, clothes, education and other basic amenities. Severely poor people lack the most basic necessities of life to a degree that it can be wondered how they manage to survive. There are several effects and deficiencies associated with poverty in Nigeria (Ucha, 2010). One of the main effects of poverty is poor health, as is reflected in Nigeria's high infant mortality and low life expectancy (Adeyemi, Ijaya & Raheem, 2009). Poor people in Nigeria face several health issues as they lack basic health amenities and competent medical practitioners (Deji, 2018). Most children do not have the opportunity of being immunized and this leads to certain physical defects in some of the children (Ucha, 2010). Their health has become low priority

and as they have little or no choices, they live with whatever they are provided with, whether healthy or not (Ucha, 2010).

According to Olowa (2012), Nigeria's economy relies heavily on oil, which constitutes almost all its exports and budgetary revenues. In 1973, the first oil shock brought a dramatic positive impact on most economic indicators; real per capita income, private consumption and real wages rose sharply. At the same time, Anusionwu and Diejomoah (1981) explained that income inequalities increased sharply, particularly between urban and rural areas, and primarily as a result of oil booms and their spin-offs.

Between 1980 and 1985, economic conditions worsened, mainly because of the decrease in the international price of oil. The oil boom contributed to a large appreciation of the naira (with a negative impact on non-oil tradeables, especially agriculture, and harming employment and income for the immobile). In 1986, the government adopted a structural adjustment programme. The depreciation of the naira combined with the rising oil prices in 1990 boosted the economy; between 1986 and 1992, real GDP grew by an average of 5% per year, but economic growth slowed again between 1993 and 1995.

The NBS (2005) conducted five surveys which revealed that national poverty rates was 28.1percent (1980), 46.3 per cent (1985), 42.76 per cent (1992), 65.6 per cent (1996) and 54.4 per cent for 2004. Poverty incidence in the country recorded increases between the period 1980 and 1985 and between 1992 and 1996. The results also show appreciable decrease in poverty rates between 1985 and 1992 and between 1996 and 2004. Even with the drop in poverty rates, the population in poverty has maintained a steady increase from 17.7 million in 1980 to 68.7 million in 2004 (NBS, 2005).

Considering the period, 1980-2004, the proportion of the core poor increased from 6.2 per cent in 1980 to 29.3 per cent in 1996 and then came down to 21.8 per cent in 2004. For the moderately poor the picture is quite different as the proportion recorded increased between 1980 and 1985 from 21.0 per cent, 34.2 per cent, and 1992 and 1996 28.9 per cent to 36.5 per cent but decreased during the periods 1985 and 1992 from 34.2 per cent to 28.9 per cent and 1996-2004 from 36.3 per cent to 32.4 per cent.

2.2 Theoretical Framework

There are several theories backing the determinants of poverty ranging from the classical theories to the Keynesian framework, down to the neoclassical and Marxist theories and each of them have their interests in certain factors that leads to people living in poverty.

The Classical Theory of Poverty

The classicalists view poverty as a reflection of the kind of choices the people have decided to make. Therefore, they see poverty as a consequence of poor individual choices that affect productivity negatively, although it is also acknowledged that pure differences in underlying genetic abilities are also potential causes of poverty (Townsend, 1979). Beyond a minimum level to prevent destitution, state intervention is generally viewed adversely as a source of economic inefficiency; by generating incentives that are misaligned between poor individuals and society as a whole, welfare programs are perceived as a potential cause for or reinforcement of poverty (through welfare dependence). The government is, at most, justified to intervene whenever poor people need supportive activities or threats to correct for perverse economic incentives. A large majority of the policy prescriptions under this view focus on efforts to raise the productivity of deprived individuals in order for them to join the labour force as soon as possible (although it is acknowledged that some individuals – the young, the sick, the old - cannot participate and will need alternative support).

The Neo-Classical Theory of Poverty

Building on the classical tradition, neoclassical theory stresses the role of the unequal initial endowments of talents, skills and capital which determine productivity of an individual in generating poverty, within a market-based competitive economic system. Market failures such as externalities, moral hazard and adverse selection as well as incomplete information are also viewed as aggravators of poverty (Davis, 2007). Uncertainty may play a major role in causing poverty because the poor are more vulnerable to shocks to their well-being (e.g. recessions, sickness, family breakdown). As in the classical tradition, there is also scepticism about the role of government among neoclassical thinkers, although targeted policies to address market failures may be warranted in some cases.

The Keynesian Theory of Poverty

The Keynesian approach to poverty revolves around the idea that not only market distortions, but also broad underdevelopment in its multiple facets cause poverty. This was also supported by Townsend (2009) who was of the view that poverty is mainly explained by "the misfortune of certain minorities who fall out of work, cannot work or are not expected to", although they

wish to do so. It therefore follows that the state needs to act to “regulate, supplement and exhort, but not impose”. This theory therefore contends that poverty can be a reflection of market failures that under certain circumstances justify redistributive taxation in cash and kind. Meanwhile, Keynesians suggest growth can promote economic development and thus relieve poverty, hence further justifying government intervention at the macroeconomic level (via fiscal and monetary policy), mainly to tackle involuntary unemployment. According to Sachs (2005), in the Keynesian approach, the main signs of underdevelopment in a country or region include: poor levels of human capital (health, skills and education), business capital (machinery and buildings), infrastructure (transport, power and sanitation), natural capital (viable land), public institutional capital (rule of law and security) and knowledge capital (technical know-how needed to raise productivity). Although the role played by most of these deep-rooted structural factors was originally explained for developing nations, similar patterns are transferrable to regions or localities of the developed nations too in many respects. For example, this view involves a focus on the provision of capital goods, in the form of education (to increase human capital) and infrastructure (to increase productive capacity), flowing to the poor, as well as overall development of markets that may be applicable for example to the North-South divide in the UK.

The Marxist/Radical Theory of Poverty

Marxists contend that capitalism and related social and political factors based on class division cause poverty. Adherents to this school of thought advocate that "the market is inherently dysfunctional" (Blank, 2010). According to this view, capitalist societies keep the cost of labour unnaturally lower than its value added through the threat of unemployment (the “reserve army of unemployed”), and therefore poverty in a capitalist economy can only be alleviated via strict regulation of the market (e.g., in the form of minimum wages). A wider range of authors in the political economy field suggest that poverty is predominantly the result of structural factors, including stratified labour markets as well as prejudice and corruption. In both cases, the policy message is that anti-discrimination laws and labour market reforms are essential to overcome structural barriers that impede employment and cause poverty. Links of environment problems to poverty can also be analysed from a radical point of view.

Marx argued that the presence of unemployed workers, which is ultimately caused by the need of capitalists to have surplus labour, artificially lowers wages (by a simple labour supply argument). This was believed to be an inherent dysfunction of the labour market which only the state, when controlled by the working class, can regulate. One of the central elements of

Marxist theory is that the primary aim of this state regulation should be to enhance the working conditions of labourers and promote higher wages among them (Blank, 2010).

2.3 Empirical Framework

Olofin, Adejumo and Sanusi (2015) in their study on “Determinants of poverty level in Nigeria”, found out that although there exist links between macroeconomic variables and the level of poverty, works on macroeconomic determinants of poverty are scarce (Agenor, 2005). According to them, economic growth can impact on poverty through reduction in unemployment, increased labour productivity, quality education at all levels, and manufactured export competitiveness. Apart from these, monetary and fiscal policy failure as well as macroeconomic shocks (natural disaster, terms of trade shocks, etc) are another determinants of poverty. Such instability may be associated with double digit inflation rate, high public debt, and huge current account deficit among others.

Furthermore, Adeyemi, Ijaya and Raheem (2009) considered nations' population, the rate of inflation, external debt servicing, adult illiterates, the level of economic activities, the lack of access to safe water, and health care services, poor environmental situation, gender discrimination, ethnic/civil conflicts, as the determinants of poverty in Sub-Saharan Africa and suggested that measures such as debt forgiveness, use of family planning devices, stable macroeconomic variables like inflation and exchange rate volatility and good governance are possible solutions to poverty in Sub-Saharan Africa.

From the foregoing, it can be seen that the effect on macroeconomic variables and policies on poverty cannot be overemphasized and they affect the level of poverty as much as microeconomic variables affect the level of poverty. This proposition is further strengthened by Ajakaiye and Adeyeye (1999), who explained that poverty measurement is undertaken to determine a yardstick for measuring standard of living. Therefore, either the income per capital or the poverty rate can be used as good proxy to measure the level of poverty.

Kang, Chun, and Sohn (2013) analyzed the effect of monetary policy on individual welfare. By using Panel System GMM estimation for household and province-level data of Korea from 1997 to 2007, their study found out that macroeconomic policy has different impact on individuals according to their income and other characteristics. Accordingly, monetary policy changes the status of income distribution and poverty. Also, real interest rate and poverty are positively correlated while real interest rate does not have significant effects on income

distribution and inflation reduces poverty while inflation improves income distribution in the short-term but has no significant effects on income distribution in the long-term.

Ufoeze, Odingbe, Ezeabalisi and Alejekwu (2018) studied the impact of monetary policy on economic growth and made use of natural log of Gross Domestic Product (GDP) as the dependent variable while Monetary Policy Rate (MPR), money supply, exchange rate, lending rate and investment were used as proxy to measure monetary policy. They adopted the use of Ordinary Least Squares (OLS) and also conducted the unit root and co-integration tests. Furthermore, their study found out that a long run relationship exist among the variables and that MPR, interest rate and investment have insignificant positive effect on economic growth in Nigeria while money supply has significant positive effect and exchange rate has significant negative effect on GDP in Nigeria.

Amassoma, Nwosa and Olaiya (2011) have appraised monetary policy development in Nigeria and also have examined the effect of monetary policy on macroeconomic variables in Nigeria for the period 1986 to 2009. The study adopted a simplified Ordinary Least Squared technique and also conducted the unit root and co-integration tests. The findings of the study showed that monetary policy have witnessed the implementation of various policy initiatives and has therefore experienced sustained improvement over the years. The result also shows that monetary policy had a significant effect on exchange rate and money supply while monetary policy was observed to have an insignificant influence on price instability. The implication of this finding is that monetary policy has had a significant influence in maintaining price stability within the Nigeria economy. The study concluded that for monetary policy to achieve its other macroeconomic objective such as economy growth there is the need to reduce the excessive expenditure of the government and align fiscal policy along with monetary policy measure.

Adegbite and Alabi (2013) examined the impact of monetary policy on economic growth in Nigeria, using secondary data from central bank of Nigeria statistical bulletin covering the period of 1970 to 2010. Multiple regressions were employed to analyze data on such variable money supplies; inflation, exchange rate, interest rate and gross domestic product were all found to have significant effects on the Economics Growth with the Adjusted R2 of 58%. Following the outcome of this study, it is, therefore, concluded that exchange rate stability has played a key role in keeping inflation low for most of the transition period, and that the range of monetary policy instruments available to the authorities has widened in recent years and this

has been associated with more stable and predictable changes in money supply and the price level.

While examining the impact of monetary policy on economic growth in Nigeria open access, Deji (2018) proxied monetary policy instruments to include money supply, exchange rate, interest rate and liquidity ratio while economic growth was represented with GDP at constant prices. The result showed that interest rate and liquidity ratio have negative impact on economic growth while money supply and exchange rate have positive but fairly insignificant impact on economic growth. He made use of the unit root test, Error Correction model and Engel-Granger causality tests as his methods of analysis.

2.4 Summary and Gap Detected in the Literature

The literature review focused on the concept of monetary policy to serve as a foundation for understanding the nature and scope of monetary policy, the different variables of monetary policy according to the different empirical literature, the instruments of monetary policy, objectives of monetary policy, poverty in Nigeria and effect of monetary policy on economic growth as well as the theoretical and empirical review around the literature.

The reviewed include Adeyemi, Ijaiya and Raheem (2009), Fouda (2014); Olofin, Adejumo and Sanusi (2015); Jhingan (2002); Kang, Chun, and Sohn (2013); Wrightsman (1976); Akpakpan (1994); Nwankwo (1999); Okoronkwo (1996); Ajibola (2018), Uti, Lionel and Eyo ((2012); Jelilove and Isik (2016); Okoye and Ndukwe (nd); Adam(2005); Ucha (2010); Idoko, Rotimi and Seyi (2017); Ekwe, Ogbonaya and Omodero (2017); Ufoeze, Odimgbe, Ezeabalisi and Alejekwu (2018); Adewale (2018); Philip and Miguel (2014); Chimobi and Uche (2010); Olowa (2012); Anusionwu and Diejomoah (1981); Joshua (2017); Jolaosho (1996); Deji (2014); Majid, Rahim and Hassan (2012); and others.

Many of the existing studies (Akpakpan (1994); Nwankwo (1999); Okoronkwo (1996); Adam (2005); Idoko, Rotimi and Seyi (2017); Ekwe, Ogbonaya and Omodero (2017); Ufoewze, Odimgbe, Ezeabalisi and Alejekwu (2018); Adewale (2018); Chimobi and Uche (2010); Olowa (2012); Anusionwu and Diejomoah (1981); Joshua (2017); Jolaosho (1996); Deji (2014)) focused mainly on the interactions among fiscal policy, monetary policy and economic growth, while very few of the literature (Philip and Miguel (2014); Okoye and Ndukwe (nd); Majid, Rahim and Hassan (2012); Olofin, Adejumo and Sanusi (2015) and Ucha (2010)) focused directly on poverty and its theories and indirectly on the interaction of monetary policy on

poverty level and consequently on economic growth and Goshit and Longduut (2016) focused on the direct effect of indirect monetary policy on the level of poverty in Nigeria.

While Ufoeze, Odimgbe, Ezeabalisi and Alejekwu (2018); Ajibola (2018); Uti, Lionel and Eyo ((2012); Ekwe, Ogbonaya and Omodero (2017); Bakare and Osobase (2015); Anusionwu and Diejomoah (1981); Joshua (2017); Jolaosho (1996); Deji (2014); and Majid, Rahim and Hassan (2012) made use of the Augmented Dickey Fuller and Philip peron test for stationarity as well as the Johansen technique of co integration, Ewetan and Okudua (nd); Adewale (2018); Olowa (2012); and Idoko, Rotimi and Seyi (2017) made use of co integration test and Granger causality test within the framework of a VAR model in their method of analysis. Furthermore, Kang, Chun, and Sohn (2013); and Fouda (2014) based their analysis on Panel System GMM estimation for household and province-level data due to the panel nature of the data used in their respective studies.

Furthermore, the work of World Bank (1996) paper on taking action to reduce poverty in Sub Saharan Africa as well as Olofin, Adejumo and Sanusi (2015) are very useful for the current efforts of this study as they jointly address the issue of both the fiscal and monetary causes of poverty which this study aims to achieve by examining their joint relationship on the per capital income of the citizens of Nigeria. Therefore, due to the time series nature of this research work and because the model is not a system of equation model, the Augmented Dickey Fuller test for unit root, Engel-Granger test for Co integration and Fully Modified Ordinary Least Squares (FMOLS) Method of analysis will be used with moderation.

CHAPTER THREE

RESEARCH METHTHODOLOGY

3.0 Introduction

This chapter discusses the research methodology of this study. It outlines the model employed, data requirements, the nature and source of data method of estimation, as well as model evaluation criteria.

3.1 Theoretical Framework

The theoretical framework of this study is hinged on the classical and the neoclassical theories of poverty. According to the classical economists, poverty is a reflection of the kind of choices the people have decide to make. Therefore, they see poverty as a consequence of poor

individual choices that affect productivity negatively, although it is also acknowledged that pure differences in underlying genetic abilities are also potential causes of poverty.

For the neo-classicalists, they stress the role of the unequal initial endowments of talents, skills and capital which determine productivity of an individual in generating poverty, within a market-based competitive economic system. They also view market failures such as externalities, moral hazard and adverse selection as well as incomplete information as aggravators of poverty.

3.2 Model Specification

On the strength of the theoretical prepositions, the existing literature suggests that education, level of growth in economic activities, level of unemployment, access to potable water, and population growth are the major drivers of poverty. Therefore the model is adjusted to include monetary policy variables and it is specified as below:

Thus, $POVI = f(EDUC, UNEM, ACPW, POPG, MPR, INF)$

Therefore, $POVI_t = \beta_0 + \beta_1 LEDUC_t + \beta_2 UNEM_t + \beta_3 ACPW_t + \beta_4 POPG_t + \beta_5 INTR_t + \beta_6 INF_t + \mu_t$

Where $POVI$ = Percentage of people living below 1 dollar per day

$LEDUC$ = Log of Education

$UNEM$ = Unemployment Rate

$ACPW$ = Access to potable water

$POPG$ = Population growth

MRR = Minimum Re-discount Rate

INF = Inflation Rate

μ = Error term

t = Time trend

$\beta_1 - \beta_4$ = parameter

3.2.1 A-Priori Expectations

The *a-priori* expectation for this study is thus that:

$\beta_1 < 0$; $\beta_2 > 0$; $\beta_3 < 0$; $\beta_4 > 0$; $\beta_5 > 0$; $\beta_6 > 0$

According to the above, is expected that the higher the literacy rate in the economy, the lower the percentage of people living below the poverty line. Therefore, government expenditure on education has a negative relationship with the percentage of people living below the poverty

line of 1 dollar per day. Alongside the level of government expenditure on education, access to potable water is also expected to be negative related to the percentage of people living below the poverty line in an economy. However, unemployment, population growth, minimum rediscount rate and inflation rate are expected to have a positive relationship with the percentage of people below the poverty line. That is, the higher monetary policy rate, inflation rate, population growth and unemployment, the higher the percentage of people living below the poverty line.

3.3 Data Requirement

Variables in which data is required for this study are: percentage of people living below the poverty line of 1 dollar per day, government expenditure on education, Percentage of people with access to potable water, population growth, minimum rediscount rate and inflation rate. It covers time frame from 1981 to 2019.

3.4 Data Sources

This study will employ the use of secondary data sourced from different domestic and international institutions. Data for the percentage of people living below the poverty line of 1 dollar per day, and Population growth are all gotten from the data bank of World Bank (2017). However, the data for government expenditure on education, the rate of inflation and the minimum rediscount rate are sourced from the 2017 CBN statistical bulletin. Data on Percentage of people with access to potable water was obtained from the World Health Organization (WHO) and United Nations Children's Fund (UNICEF).

3.5 Data Measurement

The unit of measurement of the people living below the poverty line is in percentage, adopted and measured by from data gotten from World Bank (1996), and NBS (2017). The level of education is measured in billion naira using government expenditure on education as proxy from 1981 to 2017 while access to potable water is measured as a percentage of the population with access to potable water. Furthermore, the unemployment rate is measured in percentages as with minimum rediscount rate. Population growth, monetary policy rate and inflation are measured in percentages. In essence, all the variables included in the model are all measured in percentages with the exception of education which is measured in billion naira.

3.6 Preliminary Tests on Data Property

The Augmented Dickey Fuller (ADF) unit root test and the ARDL bound test were used to pre-test the variables so as to know their characteristics before embarking on the appropriate method of analysis which is the ARDL co-integrating form and long run form results. The Augmented Dickey Fuller (ADF) unit root test was used to test for the stationarity or otherwise of the variables used in the study. Since the variables consisted of both I(0) and I(1) series, then the researcher proceeded to using ARDL bound test which showed that there exist a long run relationship among the variables due to the fact that the F-statistics was greater than the I1 Bound.

3.7 Methods of Estimation

Based on the objectives of this study, a trend analysis will be carried out using charts to show the level of poverty in Nigeria within selected years of the periods of study. In order to determine the significant effect of monetary policy on the level of poverty, this research will firstly carry out pre-estimation statistical testing by using Augmented Dickey Fuller (ADF) to test for stationarity of the time series data. The reason for this is that a major characteristic of time series data is time trend which usually lead to problem of non-stationarity. If the result of the Augmented Dickey Fuller (ADF) unit root test shows that the series/variables are all stationary at level, then Ordinary Least Square Estimation (OLS) technique will be adopted to analyse the data. However, if the variables are not stationary at level, particularly if the series are all I (1) series (stationary at first difference) then the Engle Granger Cointegration test would be adopted to test if a long run relationship exist among the I (1) series. Based on the Engle Granger Cointegration test result, if result reveals that the series are not cointegrated then First Difference Autoregressive Distributive Lag (ARDL) regression analysis would be carried out, however if the series are cointegrated, short run Error Correction Model will be estimated.

However, if the ADF unit root test result shows a combination of I (0) and I (1) series, the ARDL bound testing procedure would be adopted to determine if a long run relationship exists among the variables. If the bound test result reveals that a long run relationship exist, then the ARDL cointegrating and long run form which is a short run Error Correction technique that combines the short run and long run characteristics of the series would be adopted, however if the bound test result reveals no long run relationship exist, then the I (1) series would enter the ARDL model at first difference while the I (0) series will enter the model at its level.

3.8 Method of Evaluation Procedure

Evaluation criteria is majorly divided into three; the economic or a-priori criteria, statistical criteria and econometric criteria. Therefore, Evaluation in this study will be done using the three major criteria which are:

3.8.1 Economic or A-Priori Criteria:

All the variables used in this research work are expected to be statistically significant in determining the level of poverty in Nigeria. That is, government expenditure on education is expected to be statistically significant in influencing the level of poverty in Nigeria. Also, unemployment rate, access to potable water, population growth rate, minimum rediscount rate, and inflation rate are expected to be statistically significant in influencing the level of poverty in Nigeria.

3.8.2 Statistics Criteria or First Order Tests

These would be used to determine whether estimates are statistically significant or not based on theory. Major first order test are T- test statistics, standard error test, F- test, R^2

etc. thus, the statistical tests to be used in this model are:

- i. T-test statistics: The 5% level of significance was used to determine the significance or otherwise of a variable. If the probability at which the calculated T-value(TCAL) is significant in the regression for any independent variable is less or equal to the 5% level of significant, the null hypothesis (H_0) is rejected, which shows that the independent variable is significant in the model.
- ii. F-test: The 5% level of significance was also used here. If the probability at which the calculated F-ratio (FCAL) is less than the critical or chosen level of significant, the null hypothesis (H_0) is rejected which shows that the variables are jointly significant.
- iii. R-squared (Coefficient of Multiple Determination: The value of R^2 lies between 0 and 1; thus, the higher the percentage variation of the dependent variable that is explained by the independent variable. That is, the closer the value 1, the better the fit, and the closer to zero, the worse the fit.

3.8.3 Econometric Criteria or Second Order Test

These criteria will be used to determine whether or not our model has violated the major econometric assumptions such as the absence of autocorrelation, multicollinearity and

heteroscedasticity. The tests employed in this regard include Durbin- Watson statistic, Unit Root test, and co-integration test.

- i. Durbin-Watson Test: Based on the results, if the Durbin Watson statistics is in between 1.6 and 2.4, then there is no serial correlation. However, if it is below 1.6, then the variables are serially correlated negatively. But if the Durbin Watson statistics is greater than 2.4, then the variables have positive serial correlation.
- ii. Unit Root Test: The unit root test is used to make the variables to have equal mean and variance, that is, to make them stationary. Based on the results, the Augmented Dickey fuller test was conducted and if the p-value is less than the 5% level of significant, then the variable is stationary at the order of integration. Otherwise, it is not.
- iii. ARDL Bounds Test: The ARDL bound test result will be interpreted by comparing the F-Statistics value with the critical values (lower and upper bound) and the decision will be based on the null hypothesis which states: No long-run relationships exist. If the F-Statistics value is less than the lower bound value (I0 bound) at 5% significance, then do not reject the null hypothesis and conclude that no long run relationship exist. However, if the F-Statistics value is greater than the upper bound value (I1 bound) at 5% significance level, then there exist a long run relationship. But if the F-Statistics falls in-between the lower bound and upper bound values at 5% significance level, then the result is inconclusive.

CHAPTER FOUR

PRESENTATION OF RESULTS AND ANALYSIS

4.0 Introduction

This chapter focuses on the presentation, analysis as well as interpretation of the results obtained from the regression and other tests carried out in this study. It begins with the trends in Percentage of people living below 1 dollar per day between 1981 and 2017. In addition, the chapter presents the Augmented Dickey-Fuller unit root test conducted to test for stationary in variables, ARDL Bound test to test for the long relationship among the variables and the regression result using E-view as well as the interpretations and evaluations of the result.

4.1 Trend in Percentage of people living below 1 dollar per day in Nigeria.

The table below shows the trend in Percentage of people living below 1 dollar per day in Nigeria for selected years from 1981 to 2017.

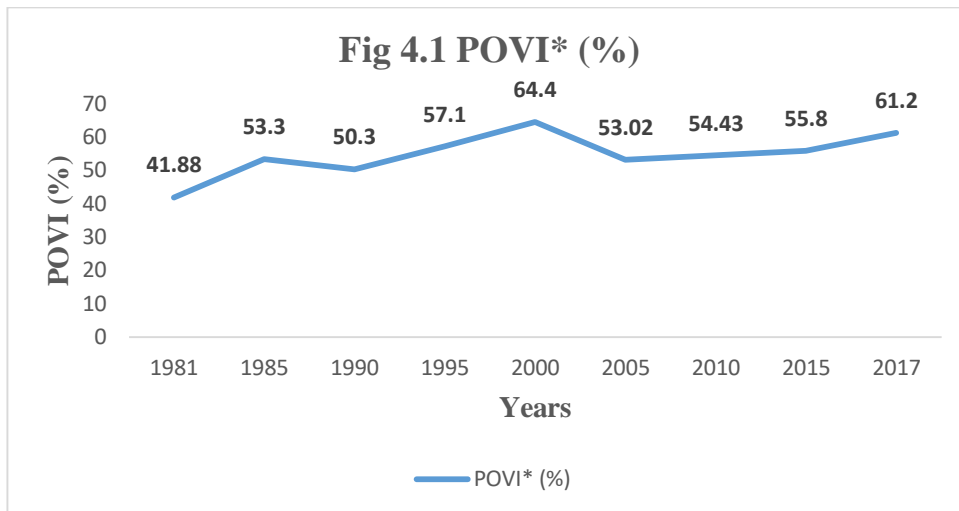
Table 1: Percentage of people living below 1 dollar per day in selected Years: 1981-2017”

YEARS	POVI* (%)
1981	41.88
1985	53.3
1990	50.3
1995	57.1
2000	64.4
2005	53.02
2010	54.43
2015	55.8
2017	61.2

Source: World Bank (1996), Nigeria Bureau of Statistics (2017)

* POVI means Percentage of people living below 1 dollar per day

The above table can be represented graphically as shown below:



Source: Plotted by Author from data obtained from World Bank (1996) and NBS (2017)

From the above graph, it can be seen that between the Percentage of people living below 1 dollar per day increased between 1981 and 1985. However, this figure reduced to 50.3 in 1990 from 53.3 it recorded in 1985. From 1990, it experienced an upward trend and in 2000, it reached its highest level of 64.4%. This shows that the Percentage of Nigerians living on less than 1 dollar per day overtime has an upward trend.

4.2 Regression Results and Interpretation

The results of unit root test, co-integration test and estimated model are summarized in this segment.

4.2.1 Unit root test

Unit root test is a pre-estimation test conducted to determine if a time series variable is stationary or not. It aids in ascertaining the order of integration of a variable which means how many times the variable has to be differenced to become stationary. This study adopts the Augmented Dickey Fuller test (ADF) to test for unit roots.

Table 2: Augmented Dickey Fuller (ADF) unit root test result.

VARIABLES	t-STATISTICS	P VALUE	STATIONARITY	REMARKS
POVI	-2.174385	0.4884	NS	
D(POVI)	-6.912390	0.0000	S	I(1)

EDUC	-1.295389	0.8731	NS	
D(EDUC)	-3.13733	0.1197	NS	
Ln(EDUC)	-3.208441	0.0988	S	I(0)
UNEM	-2.718364	0.2357	NS	
D(UNEM)	-5.661756	0.0002	S	I(1)
ACPW	3.419492	1.0000	NS	
D(ACPW)	-4.066130	0.0188	S	I(1)
POPG	-4.180215	0.0138	S	I(0)
MRR	-3.089661	0.1240	NS	
D(MRR)	-6.566683	0.0000	S	I(1)
INF	-3.892653	0.0230	S	I(0)

Source: Author's Computation using E-views 9.0 (2019)

NS means Not Stationary, S means Stationary.

I (0) means integrated at level and I (1) means integrated of order 1.

From the table above, the ADF unit root test result shows that POVI, UNEM, ACPW and MRR are all stationary at first difference as shown by their respective first difference p-values which are all less than 5% significance level. Therefore, POVI, UNEM, ACPW and MRR are I (1) series. However, both LnEDUC and INF are stationary at level as shown by their P-values of 0.0988 and 0.0230. This therefore makes them I (0) series.

Since the variables are combinations of I (0) and I (1) series, the ARDL bound test is therefore the most suitable for ascertaining whether or not a long run relationship exist among the variables.

4.2.2 Cointegration / long-run relationship test

The ARDL bound test will be carried out to ascertain whether a long run relationship really exists among the variables that have been observed to be stationary at level and first difference.

The ARDL bound test result will be interpreted by comparing the F-Statistics value with the critical values (lower and upper bound) and the decision will be based on the null hypothesis which states: No long-run relationships exist. If the F-Statistics value is less than the lower bound value (I0 bound) at 5% significance, then do not reject the null hypothesis and conclude that no long run relationship exist. However, if the F-Statistics value is greater than the upper bound value (I1 bound) at 5% significance level, then there exist a long run relationship. But if the F-Statistics falls in-between the lower bound and upper bound values at 5% significance level, then the result is inconclusive.

The ARDL bound test result is summarized below:

Table 3: ARDL Bounds Test

ARDL Bounds Test

Date: 07/10/19 Time: 10:24

Sample: 1992 2017

Included observations: 26

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	17.04790	6

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

Source: Author's computation using E-views 9.0 (2019)

From the results above, the F-Statistics value of 17.04790 exceeds the upper bound (I1 Bound) value of 3.61 at 5% significance level resulting to the rejection of the null hypothesis. The conclusion therefore is that there exists a long run relationship among the variables.

4.2.3 Presentation of the Estimated Model

Since the ARDL bound test result revealed that a long run relationship exists among the variables, the ARDL co-integrating and long run form which is a short run Error Correction technique will be carried out to ascertain the short run and long run model.

4.2.3.1 Estimated Short Run Model

Table 4: Summary of ARDL co-integrating form results

Dependent Variable: POVI

Co-integrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(POVI(-1))	-0.189280	0.133171	-1.421332	0.1889
D(LEDUC)	3.850607	0.658486	5.847665	0.0002
D(UNEM)	0.171381	0.119773	1.430890	0.1863
D(UNEM(-1))	-0.432807	0.140164	-3.087870	0.0130
D(ACPW)	-0.471279	0.781425	-0.603102	0.5613
D(ACPW(-1))	-0.766456	0.730679	-1.048964	0.3215
D(POPG)	-459.759697	56.376390	-8.155182	0.0000
D(MRR)	0.017557	0.213078	0.082399	0.9361
D(MRR(-1))	0.489769	0.138899	3.526076	0.0065
D(INF)	-0.052505	0.042366	-1.239339	0.2466
CointEq(-1)	-1.315689	0.182953	-7.191405	0.0001

$$\text{Cointeq} = \text{POVI} - (5.5484 * L + 0.6286 * \text{UNEM} - 1.3677 * \text{ACPW} - 51.4079 * \text{POPG} - 0.8438 * \text{INTR} - 0.0399 * \text{INF} + 258.3671)$$

R-squared	0.959156	Mean dependent var	0.380769
Adjusted R-squared	0.886544	S.D. dependent var	3.435561
S.E. of regression	1.157207	Akaike info criterion	3.376717
Sum squared resid	12.05216	Schwarz criterion	4.199319
Log likelihood	-26.89732	Hannan-Quinn criter.	3.613596
F-statistic	13.20937	Durbin-Watson stat	2.192474
Prob(F-statistic)	0.000230		

Source: Author's Computation using E-views 9.0 (2019)

Interpretation and Discussion of Results

From table 4 above, the result shows 4 of the regressors (EDUC, UNEM, POPG and MRR) to be statistically significant at 5% level of significance in the short run. The signs of the coefficient of UNEM, ACPW, and MRR conform to the a-priori expectation. The R squared value of 0.96 means that 96% of the variations in the dependent variable are explained by the independent variable and thus signifying that the model is a good fit. The prob (F-statistics) of 0.000230 shows that the independent variables are jointly significant as its less than 5% significance level. The Durbin-Watson statistic of 2.192474 shows the absence of serial correlation.

The coefficient of CointEq (-1) represents the Error Correction Model (ECM) term which must be negative and significant and this represents the speed of adjustment from short run equilibrium to long run equilibrium. The above CointEq (-1) coefficients signifies that approximately 132% error is corrected from short run to the long run for each time period.

The short run model result shows that the coefficient of D (LNEDUC) is about 3.85 which implies that a one percentage increase in government expenditure on education increases the percentage of people living below 1 dollar per day by 3.85 percent and this impact is statistically significant at 5% significance level.

The coefficient of D (UNEM) is 0.17 and this indicates that a one percentage increase in unemployment rate in the short run increases the percentage of people living below 1 dollar per day by 0.17 percent. D (UNEM (-1)) coefficient of -0.43 implies that a one percentage increase in unemployment rate with one-year lag reduces the percentage of people living below 1 dollar per day by 0.43 percent. However, while the effect of D (UNEM) is not statistically different from zero at 5% level of significance, D (UNEM (-1)) is significantly different from zero at 5% level of significance. This implies that a 1 percent increase in unemployment rate with one year lag will lead to reduction in the percentage of people living below the poverty level by 0.43%

Similarly, coefficient of D (ACPW) which is about -0.47 shows that that a one percentage increase in the percentage of people having access to potable water decreases the percentage of people living below 1 dollar per day by 0.47 percent and this effect at 5% significance level is not significantly different from zero in the short run. Also D (ACPW (-1)) coefficient shows

that a percent increase in the percentage of people having access to potable water with one year lag decreases the percentage of people living below 1 dollar per day by approximately 0.77 percent and this effect at 5% significance level is also not significantly different from zero in the short run.

The short run model result also shows that the coefficient of D (POPG) is about -469 which implies that a one percentage increase in population growth decreases the percentage of people living below 1 dollar per day by 469 percent and this impact is statistically significant at 5% significance level.

The coefficient of D (MRR) is about 0.08. This implies that a one percentage increase in Minimum Re-discount Rate increases the percentage of people living below 1 dollar per day by about 0.08 percent and its probability values shows that this impact is not statistically significant at 5%. Minimum Rediscount rate with a year lag D (MRR (-1)) has a coefficient of 0.49 which implies a one percentage increase in interest rate increases the percentage of people living below 1 dollar per day by about 0.49 percent and this impact is statistically significant at 5% level of significance. This means that with a 1 year lag, an increase in minimum rediscount rate by 1 percent increases the percentage of people living below 1 dollar per day by 0.49 percent

Lastly, the coefficient of D (INF) is -0.052 signifying that a one percent increase in inflation rate decreases the percentage of people living below 1 dollar per day by about 0.05 percent. The probability value shows that the impact of inflation rate on the percentage of people living below 1 dollar per day is not statistically significant at 5% level of significance as it shows a value of 0.2466.

4.2.3.2 Estimated Long Run Model

Table 4: Summary of ARDL Long Run Coefficient results

Dependent Variable: POVI

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN(EDUC)	5.548443	0.945556	5.867918	0.0002
UNEM	0.628645	0.143619	4.377178	0.0018
ACPW	-1.367713	0.278272	-4.915027	0.0008

POPG	-51.407905	12.678043	-4.054877	0.0029
MRR	-0.843827	0.272243	-3.099534	0.0127
INF	-0.039907	0.031794	-1.255173	0.2410
C	258.367114	24.686573	10.465896	0.0000

R-squared	0.959156	Mean dependent var	0.380769
Adjusted R-squared	0.886544	S.D. dependent var	3.435561
S.E. of regression	1.157207	Akaike info criterion	3.376717
Sum squared resid	12.05216	Schwarz criterion	4.199319
Log likelihood	-26.89732	Hannan-Quinn criter.	3.613596
F-statistic	13.20937	Durbin-Watson stat	2.192474
Prob(F-statistic)	0.000230		

Source: Author's Computation using E-views 9.0 (2019)

Where * means significant at 5%

The above ARDL long run form result shows that in the long run all variables except INF are statistically significant at 5% significance level. The R squared approximate value of 0.96 means that 96% of the variations in the dependent variable are explained by the independent variable and thus signifying that the model is a good fit. The prob (F-statistics) of 0.00023 shows that at 5% significance level the independent variables are jointly significant. The Durbin-Watson statistic of 2.192474 shows that there is no of serial correlation.

The above result reveals that government expenditure on education has a positive relationship with the percentage of people living below the poverty level of 1 dollar per day in the long run given its associated coefficient of about 5.548 which implies that a percentage increase in government expenditure on education increases the percentage of people living below 1 dollar per day by 5.548 percent. LNEDUC probability value of 0.0002 which is less than 5% further explains that in the long run, government expenditure on education has a significant impact on the percentage of people living below 1 dollar per day.

In the long run, UNEM has a coefficient of about 0.629 which implies that a percentage increase in the rate of unemployment increases the percentage of people living below 1 dollar per day by about 0.629 percent and its probability values of 0.0018 is less than 5% significance level, hence it is statistically significant.

However, ACPW has a negative relationship with the percentage of people living below 1 dollar per day as its coefficient of -1.368 implies that a percentage increase in the rate at which the people has access to potable water, reduces the percentage of people living below 1 dollar per day by 1.37 percent. Its probability value further explains that in the long run, access to potable water has a significant impact on the percentage of people living below 1 dollar per day.

Similarly, MRR has a negative relationship with the percentage of people living below 1 dollar per day given its coefficient of -0.843 signifying that a one percent increase in interest rate decreases the percentage of people living below 1 dollar per day by 0.843 percent. Its probability value of 0.0127 means that its impact is significantly different from zero at 5% level of significance.

INF has a coefficient of -0.039 which implies that a percentage increase in inflation rate decreases the percentage of people living below 1 dollar per day by 0.039 percent and its probability values of 0.2410 is however greater than 5% significance level, hence it is not statistically significant in the long run.

4.3 Residual Diagnostic Test

Various residual diagnostics tests were carried out to assess the validity of the model. These include: testing if the residuals are normally distributed, serially correlated, presence of heteroskedasticity and testing for specification errors. The result for these tests are presented in table 6 below.

Table 6: Residual Diagnostic Test Results

	Statistics	Probability
Jarque-Bera Normality Test	1.376836	0.50237
Breush-Godfrey serial Correlation LM Test	3.681582	0.0808
Heteroskedasticity Test: Breush Pagan Godfrey	20.06291	0.2174
Ramsey RESET	0.592208	0.5701

Source: Author's computation using E-view 9.0 (2019)

To test if the residuals are normally distributed or not the Jarque –Bera Normality Test was conducted and the result showed a P-value of 0.50237 which is greater than 5% level of significance thereby implying that the model is normally distributed. The Breush_Godfrey

Serial Correlation LM Test results has a P-value of 0.0808 which also is greater than 5% thereby signifying that the residuals are not serially correlated and likewise the Breush-Godfrey Hetereskodasticity reveals an absence of hetereskodasticity in the model given its associated p-value of 0.2174 which is greater than 5%. The Ramsey Test showed evidence that the functional form of the model is properly specified given an associated P-value of 0.5701 which is greater than 5% significance level.

In summary, the residual diagnostic tests result reveals that the residual is not serially correlated, absence of heteroskedasticity, absence of specification error and that the model is normally distributed. Since the error term is well-behaved, inferences made from the estimated model are therefore valid.

4.4 Policy Implication

The implication of these results is that monetary policy has a significant impact on the level of poverty in Nigeria both in the short run and long run. Access to potable water and inflation rate however showed an insignificant impact in the short run while minimum rediscount rate has a significant impact on the level of poverty in Nigeria. In the long run however, all the variables except inflation rate are significant determinants of the level of poverty in Nigeria. Therefore, government policies should be targeted at ensuring the people continue to have access to potable water while partnering with international development agencies towards achieving the Sustainable Development Goal (SDG) of providing safe and easy access to drinkable water to the people. Through the monetary authority, proper lending policies should also be formulated that would assist and improve the production, distribution and service sectors of the economy. Government policies should also be aimed at co-ordinating and stabilizing the monetary policy variables so as not to clash with the fiscal policies in lifting the people out of poverty.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

The main objective of this study was to examine the effect of monetary policy on the level of poverty in Nigeria from 1981 to 2017, that is, to evaluate monetary policy in Nigeria and its impact on the level of poverty. This was done using the data gotten from the 2017 CBN

statistical bulletin, 1996 World Bank Poverty data as well as 2017 data from the Nigerian Bureau of Statistics. The other objectives were to identify Nigeria's monetary stance within the period of study, determine the level of poverty within the period of study and identify major monetary tools during the period of study and their direction and intensity.

This was done with the use of both descriptive and inferential analysis. The descriptive analysis used involved the use of table and graph to check for the movement and trend in the level of poverty over the period under study. The inferential analysis used was the bounds test to check for long run and short run relationships among the variables while testing for stationary and long run relationship using augmented dickey fuller test for unit root and Engel granger co integration test respectively.

The study found out that there exist significant relationship between monetary policy and poverty in Nigeria although some of the variables do not conform to a-priori expectation while some are not significant. This could mean that the changes in monetary policies are not fully felt in the percentage of people living below the poverty level as it may take some time for this effect to materialize due to its combination with fiscal policies to affect and influence macroeconomic variables. It could also mean that the data do not provide strong evidence that the null hypothesis is false.

The study also revealed that access to potable water and unemployment have significant impact on the level of poverty in Nigeria. While unemployment increases the level of poverty, access to potable water reduces it. This means that unemployment and access to potable water are key variables that should be taken into consideration when trying to make policies to influence the level of poverty in the country.

The findings of this study also reveal that there is a positive relationship between population growth and the percentage of people living below 1 dollar per day in the long run. This therefore explains that population should be seen as a strength such that when utilized and developed efficiently through human capital development, it tends to reduce the poverty level as against the norm of increasing it.

5.2 CONCLUSION

Monetary policy will continue to play an important role in Nigeria, over the next few decades especially when combined with fiscal policies to raise the level of economic activities in the country in the areas of industrialization, diversification, employment creation, reduction of poverty, as well as the infrastructural and economic development of the Nigerian economy.

From the findings of this study, monetary policies, when in favourable conditions have a positive significant impact on the level of poverty both in the short run and the long run. This therefore shows that monetary policy has an important role to play in lifting millions of Nigerians out of poverty.

The study also found that in the short run interest rate and access to potable water impact on the percentage of people living below 1 dollar per day is not significantly different from zero while population growth is an important variable that can significantly increase the percentage of people living below the poverty level of 1 dollar per day. However, in the long run, interest rate and population growth rate play an important role in influencing the level of poverty in the country while inflation rate does not as population growth rate tend to reduce the level of poverty in Nigeria in the long run.

5.3 RECOMMENDATIONS

Based on the above findings and conclusions, the following are the suggested recommendations to lift the Nigerian citizens out of multidimensional poverty:

1. The Nigerian government should invest resources towards human capital development. This can be in the form of focusing on the catch up strategy by establishing a national innovation system which includes proper education, adequate healthcare and enhancing domestic absorptive capability, thereby increasing productivity (through the creation of goods and services in the long run) of the economy. This is to make effective use of the growing population while adopting the labour intensive methods of production to absorb the ever increasing labour force.
2. Government should also complement monetary policies with fiscal policies. The use of monetary policies alone in making decisions to reducing the level of poverty is not sufficient. As such, the use of government budget, reduction in the level of taxes and external debts are of paramount importance as monetary policies in effectively reducing the level of poverty in Nigeria.
3. Furthermore, the banking sector must be well developed in terms of the institution and instruments or financial assets and the transmission mechanism. This will make monetary instruments to be effective as a well developed and efficient monetary policy transmission mechanism enhances the transmission of changes in money supply to real sector of the economy which affects aggregate demand, prices, income, employment, and output and so on, and hence, poverty reduction.

4. Collaboration with international development organizations on achieving the 6th goal of the Sustainable Development Goals (SDGs) which is clean water and sanitation is crucial. Access to clean water is very crucial in lifting the citizens out of poverty as water is needed for every activities that the citizens partake in. Therefore, good health and access to clean and potable water will make life easy for the citizens.
5. Lastly, there is need for a radical reform in the areas of skill acquisition centers to engage the unemployed citizens to learning trades that would equip them to be self-employed and employers of labour. This would make them to be self-dependent as well as create jobs indirectly for other citizens, thereby alleviating rising poverty among the population.

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