

**The Effects of Monetary and Fiscal Policy Instruments on Economic Growth of Nigeria:  
1985-2016**

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**Being a Doctoral Dissertation Presented in Partial Fulfilment of the Requirements for  
the Award of Doctor of Philosophy (Ph.D) in Finance.**

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## DECLARATION

This is to declare that this research work was carried out by Okoye Uzoamaka Gloria, Reg. No. 2015417009F. to the best of my knowledge, this work is original and has not been previously submitted to this University or other institution.

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## APPROVAL

We certify that this work, “Effect of Fiscal and Monetary Policy Instruments on Economic Growth in Nigeria; (1985-2016).” was carried out by Okoye Uzoamaka Gloria (2015417009f) in partial fulfilment of the requirements for the award of Doctor of Philosophy in the School of Management Sciences in the Department of Banking and Finance of Nnamdi Azikiwe University Awka.

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## **DEDICATION**

This work is dedicated to God Almighty, my husband, my mum and my children.

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## ABSTRACT

*The study examined the effect of fiscal and monetary policy instruments on economic growth of Nigeria. The inconsistencies in results of previous studies regarding the effect of fiscal and monetary policy instruments on economic growth necessitated this study. Specifically, this study determined the effect of monetary policy rate, liquidity ratio, exchange rate, recurrent expenditure, capital expenditure and fiscal deficit on economic growth of Nigeria. An ex-post facto research design was the research design this study adopted. The study Auto-regressive Distributive Lag (ARDL) Model using secondary data from Central Bank of Nigeria and National Bureau of Statistics from 1985 to 2016. The result of the analysis revealed that monetary policy and liquidity ratio have no significant effect on economic growth, while exchange rate has significant effect on economic growth of Nigeria. The finding also depicted that capital expenditure and fiscal deficit have significant effect on the Nigeria's economic growth, whereas recurrent expenditure has no significant effect on economic growth in Nigeria. Government should allocate and effectively monitor funds sourced as a result of fiscal deficit to the provision of critical economic infrastructures such as electricity, access road, health, communication among others to reap the benefit associated with fiscal deficit. The Central Bank of Nigeria should make policies that will keep the exchange rate at a stable rate since exchange rate volatility is affecting the growth of Nigerian economy.*

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Macroeconomic policy instruments refer to macroeconomic quantities that can be directly controlled by an economic policy maker. Those Instruments can be divided into two subsets: Monetary policy instruments and Fiscal policy instruments (Klein, 2004). Central to the role of different economies of the world is the need to regulate and stabilize the system in order to achieve macroeconomic objectives. These objectives include economic development and growth, full employment of labour, price stability, equilibrium balance of payment, and equitable distribution of income, among others. A set of policy measures adopted invariably by the government to regulate the economy for the attainment of the macroeconomic objectives include: monetary and fiscal policies (Olanipekun & Flororunso, 2015).

The two leading schools of thought; the monetarist led by Milton Friedman and the Keynesian school of thought led by John Maynard Keynes argued on the stabilization policy of government using either policy. Monetary policy as a tool of economic stabilization was given by Milton Friedman who held that only money matters and as such, monetary policy is a more potent instrument of stabilization than fiscal policy element. Monetarists believe that fiscal policy practice of the government is capable of affecting real economic activities. Government influence economic and business activities by means of political and legal process in the society. Monetarists believe that expansionary fiscal policy can only lead to inflation (Friedman & Meiselman, 1963),

In the late 1960's the Keynesian view became increasingly challenged by monetarists. The debate between Keynesians and monetarists often focused on the effectiveness of policy

instruments, with monetarists arguing for the ineffectiveness of fiscal tools and Keynesians believing in the superiority of fiscal stabilization policy believing that discretionary monetary policy can only lead to recession or depression (Edward, 1971).

Muonago, (2012) states that monetary policy focuses on the control of availability, volume, flow, direction and cost of credits within the economy, fiscal policy rather concerns with the control of taxes and government expenditures. Invariably, the adoption of either monetary or fiscal policies may portend far-reaching implications on the overall attainment of the perceived macroeconomic objectives.

Hence, governments are often wary over whether to go for more of monetary policies or lean more on the fiscal policies as the necessary panacea for the attainment of overall economic growth in the economy (Onyeiwu, 2012).

The regulation and control of the volume and price of money is the discretionary control of money-discretionary in the sense that it is made at the instance of the money authorities. Monetary policy affects the non-bank publics' holding of real and financial assets in the system. It can thus sustain a divergence between the non-bank publics' desired portfolio holding (Ajaji, 2008).

Therefore, the combination of both fiscal and monetary policies can lead to the growth and development of an economy. The Structural Adjustment Programme (SAP) was adopted in July, 1986 against the crash in the international oil market and the resultant deteriorating economic conditions in the country. It was designed to achieve fiscal balance and balance of payments viability by altering and restructuring the production and consumption patterns of the economy, eliminating price distortions, reducing the heavy dependence on crude oil exports and consumer goods imports, enhancing the non-oil export base and achieving sustainable growth (Anyanwu, 2008).

Onyeiwu (2012) asserts that objectives of monetary policy since 1986 have remained the same as in the earlier period. In line with the general philosophy of economic management under SAP, monetary policy was aimed at inducing the emergence of a market – oriented financial system for effective mobilization of financial savings and efficient resource allocation. This is complemented by reserve requirements and discount window operations. The adoption of a market-based framework, such as OMO in an economy that had been under direct control for long, required substantial improvement in the macroeconomic, legal and regulatory environment (Onyeiwu, 2012).

In order to improve macroeconomic stability, a number of measures were introduced to reduce liquidity in the system. These included 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 guarantees/currency deposits as collaterals for naira loans and the withdrawal of public sector deposits from banks to the CBN. Also effective August, 1990, the use of stabilization securities for purposes of reducing the bulging size of excess liquidity in banks was re-introduced. Commercial banks' cash reserve requirements were increased in 1989, 1990, 1992, 1996 and 1999. The rising level of fiscal deficits was identified as a major source of macroeconomic instability (CBN 2010).

Consequently, government agreed not only to reduce the size of its deficits but also to synchronize fiscal and monetary policies. By way of inducing efficiency and encouraging a good measure of flexibility in banks' credit operations, the regulatory environment was improved. Consequently, the sector-specific credit allocation targets were compressed into four sectors in 1986 and to only two in 1987 (Olanipekun & Flororunso, 2015).

From October 1996, all mandatory credit allocation mechanisms were abolished. Areas of perceived disadvantages to Merchant Banks were harmonized in line with the need to create conducive environment for their operations. The liquidity effect of large deficits financed mainly by the Bank led to an acceleration of monetary and credit aggregate in 1998, relative to stipulated targets and the performance in the preceding year (CBN bulletin, 2010).

Outflow of funds through the CBN weekly foreign exchange transactions at the Autonomous Foreign Exchange Market (AFEM) and, to a lesser extent, at the Open Market Operation (OMO) exerted some moderating effect. The reintroduction of the (D.A.S) of foreign exchange management in July, 2002 engendered relative stability, and stemmed further depletion of reserves during the second half of 2002 (CBN, 2010).

However, the financial system was typically marked by rapid expansion in monetary aggregate, particularly during the second half of 2000, influenced by the monetization of enhanced oil receipts. Consequently, monetary growth accelerated significantly, exceeding policy targets by substantial margins, savings rate and the inter-bank call rates fell generally due to the liquidity surfeit in the banking system through the spread between deposit and lending rates remained wide (Okwo, 2013).

Specifically, the 2003 policy measures were designed to promote a stable macroeconomic environment to achieve a non-inflationary output growth rate of 5 percent. In pursuit of its development effort, the Bank, in collaboration with the Banker's Committee, established the Small and Medium Industries Equity Investment Scheme (SMIEIS).

In 2003, credit delivery to the real sector was encouraged through the SMIEIS and an incentive of lower Cash Reserve Requirement (CRR) regime was prescribed for those banks that increased their credit allocation to the real sector by 20 percent or more. Moreover, the

Bank provided guarantees for agricultural loans under the Agricultural Credit Guarantee Scheme (A.C.G.S).

In recognition of the fact that well-capitalized banks would strengthen public confidence in the financial system, monetary authority increased the minimum paid-up capital of Commercial and Merchant banks in February 1990 to N50 and N40 million from N20 and N12 million, respectively. Distressed banks whose capital fell below existing requirement were expected to comply by 31st March, 1997 or face liquidation (CBN, 2012).

Twenty-six of such banks comprising 13 each of Commercial and Merchant Banks were liquidated in January, 1998. Minimum paid up capital of Merchant and Commercial Banks was raised to a uniform level of N500 million with effect from 1st February, 1997, and by December 1998, all existing banks were to recapitalize. The C.B.N brought into force the risk-weighted measure of capital adequacy recommended by the Basic Committee of the Bank for International Settlements in 1990. Before then, capital adequacy was measured by the ratio of adjusted capital to total loans and advances outstanding.

In 2015 government introduced single treasury account (TSA) that mandates all federal revenue to be controlled by CBN, which does not give the banks authority to be lending out governments' funds and in turn leaving the banks with little money to be given out and thereby causing low productivity which later developed into recession (CBN, 2016).

## **1.2 Statement of the Problem**

Though several authors have examined the relative effects of monetary and fiscal policy on various macroeconomic aggregates and economic activities in both developed and developing countries and have not reached a consensus concerning the relative power of both policies in promoting economic growth. For instance, Andersen & Jordan (1968), Carlson (1978) did comparative analysis of both policies and their effect on growth in U.S and found that

monetary policy action is larger compared to fiscal policy action while, Poddler & Hunking (1971) and Artis & Nobay (1972) found that Fiscal policy rather than monetary policy performed better in Canada and UK.

In the case of developing countries, Chowdhury (1886) found both variables significant in all the regression equation in Pakistan and Bangladesh, but Shahid (2005) confirmed that monetary policy is a powerful tool than fiscal policy in South Asian countries.

In Nigeria, Munongo (2012) found that fiscal policy in Nigeria is stronger than monetary policy while Ezigbo (2012), Ajayi (1974), Ajisafe & Folorunso (2002), Adefaso and Mobolaji (2010) found that monetary policy plays important role on the growth of Nigerian economy than fiscal policy. Gertler & Gilchrist (1991), Chuku (2010), Onyeiwu (2012) studied monetary policy and growth while Philip (2011), Omitogun & Ayinla, Olajide & Adekoya (2012) studied only fiscal policy.

In this subject area, there are studies combining monetary and fiscal policy but most of them are concentrated in other countries of the world such as Kenya, Bangladesh, U.S, UK, South Asia, America and Spain among others. In Nigeria, based on internet search, the only study that have combined both monetary and fiscal policy was Olanipakun and Flororunso (2015) who studied fiscal and monetary policy instruments and growth sustainability in Nigeria from 1995-2013. In this regard, it becomes justifiable to carry out empirical investigation on effect of both monetary and fiscal policies on economic growth in Nigeria. This study takes a new dimension by using real gross domestic product as against gross domestic product utilized in the work of Olanipakun and Flororunso (2015). Secondly, government expenditure was broken down into its two components: recurrent and capital which was also lacking in the work of Olanipakun and Flororunso (2015). Thirdly, this study used up to date data spanning



from 1985 to 2016 as against Olanipakun and Flororunso (2015) whom stopped at 2013 and applying a superior ARDL econometric modelling.

#### **1.4 Objectives of the Study**

The broad objective of this study is to investigate the effect of fiscal and monetary policy instruments on economic growth of Nigeria from 1985-2016. However, the specific objectives of the study include:

1. To examine the effect of monetary policy rate on economic growth of Nigeria.
2. To ascertain the effect of liquidity ratio on economic growth of Nigeria.
3. To examine the effect of exchange rate on economic growth of Nigeria.
4. To investigate the effect of recurrent government expenditure on economic growth of Nigeria.
5. To examine the effect of capital government expenditure on economic growth of Nigeria.
6. Evaluate the effect of fiscal deficit on economic growth of Nigeria.

#### **1.4 Research Questions**

This study is designed and structured to answer the following questions

1. What is the effect of monetary policy rate on economic growth of Nigeria?
2. How does liquidity ratio affect economic growth of Nigeria?
3. To what extent has exchange rate affected the growth of Nigerian economy?
4. What is the effect of recurrent government expenditure on economic growth of Nigeria?
5. What is the effect of capital government expenditure on economic growth of Nigeria?
6. How significant is the effect of fiscal deficit on economic growth?

## **1.5 Statement of Hypotheses**

**H0<sub>1</sub>** – Monetary policy rate has no significant effect on economic growth of Nigeria.

**H0<sub>2</sub>** – Liquidity ratio has no significant effect on economic growth of Nigeria.

**H0<sub>3</sub>** – Exchange rate has no significant effect on economic growth of Nigeria.

**H0<sub>4</sub>**– Recurrent government expenditure has no significant effect on economic growth of Nigeria.

**H0<sub>5</sub>** – Capital government expenditure has no significant effect on economic growth of Nigeria.

**H0<sub>6</sub>** – Fiscal deficit has no significant effect on economic growth of Nigeria.

## **1.6 Significance of the Study**

The outcome of this study will be of immense importance to community of stakeholders in the financial sector, policy makers, governments and financial analysts in Nigeria.

### **Policy makers**

It will serve as a guide to monetary authorities to fixing monetary policy rate which will determine the prime lending of banks to reduce of fund from surplus to deficit units in the economy. It will go a long way in ensuring that monetary authorities choose appropriate combination of monetary and fiscal policy instruments that will promote economic growth in Nigeria.

### **Investors**

The study will also boost investors' confidence on the robustness of the financial sector in the mobilization of capital for investment in Nigeria. It will help investors have the knowledge of the cost of capital that will be optimal in the selection of their portfolio investment.

## **Government**

It will be an information source to the governments on economic stabilization, intervention and regulation. In other words, this study will reveal whether macroeconomic policies are effective in promoting economic growth of Nigeria.

## **Researchers**

The study will help to know the optimum mix of monetary and fiscal policy instruments to be used, which will be effective in achieving economic objectives of Nigeria.

The study will also be useful to anyone who wishes to understand the extent of association between macroeconomic policy measures and economic growth of Nigeria.

### **1.7 Scope of the Study**

The study covered 32 year period from 1985 to 2016. The choice of time from 1985 to 2016 is because the researcher tends to assess the long-term as well as the short-term effects of macroeconomic policy instruments on economic growth of Nigeria and also to capture the year structural adjustment programme (SAP) was introduced in Nigeria. The study employed five explanatory variables including broad money supply, interest rate, and exchange rate, as proxies for monetary policy and also government revenue and government expenditure as proxies for fiscal policy instrument, while the gross domestic product which is the dependent variable represents the economic growth. The scope of the study is limited to Nigeria only.

### **1.8 Limitations of the Study**

The Central Bank of Nigeria utilizes various monetary policy instruments such as monetary policy rate, liquidity ratio, cash reserve ratio, loan to deposit ratio and open market operation in the execution of monetary policy decision. The major limitation to this study is the use of only monetary policy rate and liquidity ratio. This study is confidence that the two

instruments selected would reflect monetary policy to a larger extent. Again, restricting the interpretation to the assumption of the Keynesian theory constitutes another limitation.

### **1.9 Definition of Operational Terms**

**Core inflation:** A measure of inflation that excludes certain items that face volatile price movements. Core inflation eliminates products that can have temporary price shocks because these shocks can diverge from overall trend of inflation and give a false measure of inflation. This is also the underlying inflation in a country.

**Monetary Programme:** A method of forecasting the net financing capacities of the individual institutional sector, the key monetary aggregate, the balance sheet of the Central Bank and the consolidated balance sheet of the banking system.

**Monetary Aggregate:** Measure of money stock, the sum of highly liquid assets that serve as medium of exchange, standard of GDP, deferred payment or store of value.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Conceptual Review**

##### **2.1.1 Concept of Macroeconomic policies**

Macroeconomic policy is concerned with the operation of the economy as a whole. In broad terms, the goal of macroeconomic policy is to provide a stable economic environment that is conducive to fostering strong and sustainable economic growth, on which the creation of jobs, wealth and improved living standards depend. The key pillars of macroeconomic policy are: fiscal policy, monetary policy and exchange rate policy. This brief outlines the nature of each of these policy instruments and the different ways they can help promote stable and sustainable growth (Munongo, 2012).

Economic development and growth is one of the major macroeconomic objectives of governments anywhere in the world. According to Akpan (1999) economic development describes the process of improvement in the various aspects of the economy and the society it supports. Such improvements are usually shown in the kind of desirable changes including reduction in the level of unemployment, reduction in the degree of personal and regional inequalities, reduction in the level of absolute poverty as well as increase in real output of goods and services. Others include improvement in literacy, housing and health services and improvement in the production capacity.

As observed by Chuku (2010), a number of changes in the environment account for the difference in the future level of economic development and that of the past. For instance, enhanced communication around the world as represented by the internet has sped up the flow of ideas across oceans and borders to an unprecedented degree and has made it possible

for many kinds of services to be located far from the location where those services ultimately are used. Some of the changes have both positive and negative effects on economic development. We need to appreciate these changes and their implications on economic development mainly in the areas of inflation, national productivity, unemployment, capacity utilization and poverty level.

The variables listed above are the key measures or indicators of economic development. In Nigeria, the level of economic development has been very low even with the abundant human and natural resources. And expansive view of economic development objective makes the situation in Nigeria more worrisome. Such perspective of economic development recognize broad based progress in human development including low infant mortality, high life expectancy, improvement in literacy levels, gender empowerment among others as the key elements. These objectives have increasingly become the focus of interventions across the world, reinforced by the Millennium Declaration in 2000 with clear targets to achieve the Millennium Development Goals (MDGs) in 2015 (Jesse, 2005).

### **2.1.2 Concept of Fiscal Policy**

Okoro (2013), defines fiscal policy as the efforts by the government to use taxes and government spending to ensure the smooth running of the economy. That is, the government uses these tools to try to prevent high unemployment and high inflation.

Fiscal policy determines government spending and tax rates. Expansionary fiscal policy, usually enacted in response to recessions or employment shocks, it increases government spending in areas such as infrastructure, education and unemployment benefits. According to Keynesian economics, these programs prevent a negative shift in aggregate demand by stabilizing employment among government employees and people involved with stimulated

industries. Extended unemployment benefits help stabilize the consumption and investment of individuals who become unemployed during a recession (Hall, 2018).

According to Hall (2018), contractionary fiscal policy can be utilized to reduce government spending and sovereign debt or to correct out-of-control growth fueled by rapid inflation and asset bubbles. In relation to the equation for aggregate demand, fiscal policy directly influences the government expenditure element and indirectly impacts the consumption and investment elements.

Fiscal policy operates through changes in the level and composition of government spending, the level and types of taxes levied and, the level and form of government borrowing. Governments can directly influence economic activity through recurrent and capital expenditure, and indirectly, through the effects of spending, taxes and transfers on private consumption, investment and net exports (Munongo, (2012).

In period of recession, government may increase spending and cut tax in a bid to reduce unemployment. When it does this, people have more money and can buy more goods and services. Under current institutional arrangements, fiscal policy is the only arm of macroeconomic policy directly controlled by government. As an instrument for stabilizing fluctuations in economic activity, fiscal policy can reflect discretionary actions by government or the influence of the 'automatic stabilizers'. A fiscal stimulus package is an example of discretionary action by government intended to support aggregate demand by increasing public spending and/or cutting taxes (Noman & Khudri, 2015).

The 'automatic stabilizers' refer to certain types of government spending and revenue that is sensitive to changes in economic activity and to the size and inertia of government more generally. They have a stabilizing effect on fluctuations in aggregate demand and operate without requiring any specific actions by government. For example, if the economy slows, on

the revenue side of the budget the amount of tax collected declines because corporate profits and taxpayers' incomes fall; on the expenditure side, unemployment benefits and other social spending increases. The effects of these changes tend to offset part of the decline in aggregate demand that would otherwise occur. This cyclical sensitivity makes fiscal policy automatically expansionary during downturns and contractionary during upturns in economic activity (Sanni, Amusa, & Agbeyangi, 2016).

At least conceptually, the operation of the automatic stabilizers over the economic cycle should have no effect on the underlying structural position of the budget. A short-term cyclical deterioration in the budget bottom line should be reversed as economic conditions improve. As well as having a short-term stabilization role, fiscal policy can also be framed against longer-term objectives. This can include ensuring the long-term sustainability of the budget and its capacity to meet future challenges, such as population ageing, and seeking to increase the long-term growth potential of the economy, through investments in areas such as infrastructure and education (Okoro, 2013).

Fiscal policy deals with the government policy concerning changes in the taxation and expenditure pattern of the public sector, while Monetary policy, deals with the changes in the factors and instruments that affect the supply of money in the economy and the rate of interest. These are routinely used by governments' globally in various policy mix or combinations to have desired effects and to steer the broader aspects of the economy. In case of India as with most other economies, the government of India deals with fiscal policy (through Annual Budget and other timely interventions), while there is central bank (Reserve bank of India), that is responsible for execution of monetary policy.

Fiscal policy is the result of several component policies or mix of policy instruments. These include; policy on taxation, subsidy, welfare expenditure, etc; investment or disinvestment



strategies; and debt or surplus budget management. Fiscal policy is an important constituent of the overall economic framework of a country and is therefore intimately linked with its general economic policy strategy (Okwo, 2010).’

### **2.1.3 Types of Fiscal Policy**

**Neutral Fiscal Policy:** This implies a balanced budget where (Government spending = Tax revenue). It further means that government spending is fully funded by tax revenue and overall the budget outcome has a neutral effect on the level of economic activity.

**Contractionary (restrictive) Fiscal policy:** This policy involves raising taxes or cutting government spending, so that (Government spending < Tax revenue) it cuts up on the aggregate demand (thus, economic growth) and to reduce the inflationary pressures in the economy.

**Expansionary Fiscal Policy:** It is generally used for giving stimulus to the economy i.e., to speed up the rate of GDP growth or during a recession when growth in national income is not sufficient enough to maintain the present standards of living. A tax cut and/or an increase in government spending would be implemented to stimulate economic growth and lower unemployment rates. This is not a sustainable policy, as it leads to budget deficits and thus, should be used with caution.

### **2.1.4 Tools of fiscal policy**

#### **1. Government Expenditure**

**Maintenance (including staff salaries):** This component can’t be altered in short-run and hence is hardly a part of policy making, however, in long-run, through VRS and reducing new jobs in public sector or vice versa, this expenditure can be altered.

**Loan payments:** This again is a component, which can't be touched in short-run, however, governments in long-run can reduce these payments or eliminate them by running the budget surplus.

**Subsidies:** This component is a major part of fiscal policy as it can be altered in the short-run. These are used by politicians as poll promise and political instruments to gain popular support during electioneering. Ideally only meritorious subsidies shall be in operation and all the wasteful subsidies must be phased out, for example, fertilizer subsidy and power subsidy benefits the large farm holder and capitalist farmers instead of the needy ones. In place of these, subsidies for health programs, renewable energy, public transport shall be encouraged to ensure good health and sustainable growth.

**Welfare schemes:** These are one of the policy options that once introduced can't be removed due to their populist nature. Similarly, in most of the cases these are necessary too and important instrument of social welfare and economic growth. However, it is the implementation part, which is key, as these schemes generally suffer from poor implementation and massive corruptions and loopholes. Thus, despite being meritorious expenditure in nature, these at time appears as waste.

**Wasteful expenses:** Needless to say that these are the expenditures that should be reduced to the barest minimum; however, no government in the world has shown the intention to curb them, though there are efforts to reduce them from time to time under public pressure. For example, full page government advertisements in newspaper to generate favorable public opinion.

## 2. Government Revenue

**Tax:** single: Single most important source on government revenue is also a very important policy measure as elaborated in the policy combinations above.

**Borrowing:** Borrowing is a necessary source of funds, though not a desirable one. Particularly, in developing countries, as tax/GDP ratio is low due to less per capita income. However, it becomes an important part of monetary policy as well due to its impact on interest rates and credit creation and thus, overall money supply.

**Proceeds from sale/lease of assets:** This is a both a one-time and regular source of income. For example, lending government buildings for private use, or other assets such as telecom spectrum or lease of a mine block for certain years, is a regular source of income. These however, are good sources of revenue, as they provide government more room to spend without increasing taxes.

### **2.1.5 Functions of Fiscal Policies**

Fiscal policy plays an important role in influencing the economic direction of the developing countries. When speaking of fiscal policy, the federal government generally is referring to two major governmental economic activities, taxation and spending. The national budget is the major fiscal instrument by which the federal government determines how much of its energy and resources to devote to these two major activities (Jawaid et al, 2010).

According to Nzotta (2004), the development of fiscal policy generally has four primary purposes or functions.

**Allocation:** The first major function of fiscal policy is to determine exactly how funds will be allocated. This is closely related to the issues of taxation and spending, because the allocation of funds depends upon the collection of taxes and the government using that revenue for specific purposes. The national budget determines how funds are allocated. This means that a specific amount of funds is set aside for purposes specifically laid out by the government. This has a direct economic impact on the country.

## **Distribution**

Whereas allocation determines how much will be set aside and for what purpose, the distribution function of fiscal policy is to determine more specifically how those funds will be distributed throughout each segment of the economy. For instance, the government might allocate \$1 billion toward social welfare programs, but \$100 million could be distributed to food stamp programs, while another \$250 million is distributed among low-cost housing authority agencies. Distribution provides the specific explanation of what allocation was intended for in the first place.

## **Stabilization**

Stabilization is another important function of fiscal policy in that the purpose of budgeting is to provide stable economic growth. Without some restraints on spending, the economic growth of the nation could become unstable, resulting in periods of unrestrained growth and contraction. While many might frown upon governmental restraint of growth, the stock market crash of 1929 made it clear that unfettered growth could have serious consequences. The cyclical nature of the market means that unrestrained growth cannot continue for an indefinite period. When growth periods end, they are followed by contraction in the form of recessions or prolonged recessions known as depressions. Fiscal policy is designed to anticipate and mitigate the effects of such economic lulls.

## **Economic Development**

The fourth major function of fiscal policy is that of economic development. However, fiscal policy is far more complicated than determining how much the government will tax citizens one year and then determining how that money will be spent. True economic growth occurs when various projects are financed and carried out using borrowed funds. This stems from the belief that the private sector cannot grow the economy by itself. Instead, some government input and influence are needed. Borrowing funds for this economic growth is one

way in which the government brings about development. This economic model developed by John Maynard Keynes has been adopted in various forms since the World War II era.

### **2.1.6 Economic Effect of Fiscal Policies**

Fiscal policy is used by Government to influence the level of aggregate demand in the economy in an effort to achieve economic objectives of price stability, full employment and economic development and growth. Keynesian economics suggests that adjusting government spending and tax rates are the best ways to stimulate aggregate demand. This can be used in times of recession or low economic activity as an essential tool in providing the framework for strong economic growth and working toward full employment. The government can implement these deficit spending policies due to its size and prestige and stimulate trade. In theory, these deficits would be paid for by an expanded economy during the boom that would follow (Mankiw, 1993).

During periods of high economic growth, a budget surplus can be used to decrease activity in the economy. A budget surplus will be implemented in the economy if inflation is high in order to achieve the objective of price stability Nelson (2007). The removal of funds from the economy will reduce levels of aggregate demand in the economy and contract it, bringing about price stability. Some economists argue that fiscal policy can have no stimulus effect. This is known as the treasury view and is categorically rejected by Keynesian economics. The Treasury View refers to the theoretical positions of classical economists in the British Treasury who opposed Keynes call for fiscal stimulus in the 1930s (Keynes, 1936).

The same general argument has been repeated by neoclassical economists up to the present day. From their point of view, when a government runs a budget deficit, funds will need to come from public borrowing (the issue of government bonds), overseas borrowing or the printing of new money. When a government funds a deficit with a release of government

bonds, an increase in interest rates across the market can occur. This is because government borrowing creates higher demand for credit in the financial markets, causing a lower aggregate demand, contrary to the objective of a budget deficit. This concept is called Crowding out effect (Cyrus & Elias, 2014).

Other possible problems with fiscal stimulus include the time lag between the implementation of the policy and detectable effects in the economy and inflationary effects driven by increased demand. In theory, fiscal stimulus does not cause inflation when it uses resources that would have otherwise been idle. For instance, if a fiscal stimulus employs a worker who otherwise would have been unemployed, there is no inflationary effect. However, if the stimulus employs a worker who otherwise would have had a job, the stimulus is increasing demand while labour supply remains fixed, leading to inflation.

### **2.1.7 Concept of Monetary policies**

Munongo (2012) defines monetary policy as a deliberate action of the monetary authorities to influence the quantity, cost and availability of money credit in order to achieve desired macroeconomic objectives of internal and external balances. The action is carried out through changing money supply and/or interest rates with the aim of managing the quantity of money in the economy.

Jawaid (2010) defines that monetary policy as any conscious action undertaken by the monetary authorities to change or regulate the availability, quantity, cost or direction of credit in any economy, in order to attain stated economic objectives. Monetary policy is designed to influence the behaviour of the monetary sectors; this is because changes in the behaviour of the monetary sector influence various monetary variables or aggregates.

Onyeiwu (2010) noted that the importance of money in economic life has made policy makers and other relevant stakeholders to accord special recognition to the conduct of

monetary policy. The Central Bank of Nigeria is the organ that is responsible for the conduct of monetary policy in Nigeria. Monetary policy can either be expansionary or contractionary, depending on the overall policy thrust of the monetary authorities. Monetary policy is expansionary when the policy adopted by the central bank increases the supply of money in the system and contractionary, when the actions reduce the quantity of money supply available in the economy or constrains the growth or ability of the deposit money banks to grant further credit.

Monetary policy constitutes the major policy thrust of the government in the realization of various macro-economic objectives. Essentially, monetary policy refers to the combination of discretionary measures designed to regulate and control the money supply in an economy by the monetary authorities with a view of achieving stated or desired macro-economic goals, (Nwankwo, 2010).

In effect, the monetary policy in force at any point in time, affects the level of money supply either by expanding it or through contraction of same. It also influences the level and structure of interest rates and thus the cost of funds in the market, depending on the prevailing economic conditions.(Onyeiwu, 2010).

The primary objective of monetary policy is the realization of stable non-inflationary growth. This gives the citizens confidence in the future value of their money, so that they can make sound economic and financial decisions. Low and stable inflation also helps to prevent inflationary boom and bust cycles that could result in a recession and higher unemployment (Adefaso & Mobalaji, 2010).

In Nigeria, central Bank of Nigeria is responsible for setting monetary policy. Monetary policy decisions are implemented by changing the cash rate (the interest rate on overnight loans in the money market). The cash rate is determined in the money market by the forces of

supply and demand for overnight funds. Through open market operations the CBN can target the cash rate by increasing or decreasing the supply of funds that banks use to settle transactions among themselves. For example, if CBN wants to lower the cash rate it can supply more exchange settlement funds than the commercial banks want to hold. In this case, banks will respond by offloading funds, which pushes the cash rate lower (CBN bulletin, 2016).

By changing the cash rate CBN is able to influence interest rates across the financial system. Changes in interest rates in turn can influence economic activity by affecting savings and investment behaviour, household expenditure, the supply of credit, asset prices and the exchange rate. If demand pressures are building up in the economy, reflected in rising prices, the CBN can tighten monetary policy, thereby dampening demand. Conversely, in the face of weak demand, reflected in deflationary pressures, the CBN can loosen monetary policy to support economic activity (CBN bulletin, 2016).

However, it is important to remember that monetary policy can exert an influence on the macro-economy even when interest rates are left unchanged. What matters is the level of interest rates. It is possible the cash rate may not have changed for some time but the level of interest rates is nonetheless exerting a strong expansionary or contractionary effect on the economy.

### **2.1.8 Functions of Monetary Policy**

- Monetary policy should try to maintain in the economy a most suitable interest rate structure. At present the interest structure is amendable only in the upward direction and very little in the downward direction, but with the help of monetary policy the structure becomes somewhat manageable in the downward direction also. For a large public debt that has to be raised in poor economies, rates of interest must be kept low.



- Monetary policy can be of great use in these economies for effecting necessary adjustment between the demand for and supply of money. The demand for money is likely to go up on account of increased transactions and gradual disappearance of non-monetized sector combined with increased demand for money on account of precautionary and speculative motives. The use of money and credit for speculative purposes has to be controlled by the monetary authorities through suitable monetary policy and by the government through direct physical controls, failing which, inflation is likely to appear, which may stifle growth instead of helping it.
- Monetary policy can, perhaps, be more useful in influencing the pattern of investment and production by controlling the provision of credit by banks. It can induce the banks to advance medium-term and long-term loans of productive nature at the same time prohibiting them to advance loans of unproductive and speculative nature.
- Monetary policy can help in the expansion of financial institutions by granting subsidies and special facilities to new institutions and provision of training facilities for their staff. In most of the underdeveloped countries the credit system is restricted to providing credit for large estates, plantations and to foreign traders, and are not available to farmers, small traders and industries. In such a situation an extension of commercial bank, co-operative bank and savings bank facilities can encourage development and mobilize savings for productive purposes. Therefore, it is said that the creation and mobilization of real savings—the most important condition for growth—is helped or hindered by monetary policy and by the development of financial institutions.

- Monetary policy can prove more effective through selective credit control. Poor economies are extremely inflation-sensitive on account of speculation in commodities that are in short supply, like wheat and rice. This speculation is done mostly by borrowed funds got from the banks. Monetary policy can be made use of to stop borrowing for speculative purposes and to divert them for productive purposes.
- Monetary policy can also help growth. The sectoral impacts of such policy in a developing economy are worth noting. Monetary expansion can be used, at least in theory, to change the terms of trade against the agricultural sector, which tends to benefit from increased production in the secondary or tertiary sectors. If the prices of industrial goods can be raised through inflation without affecting the prices of food-stuffs and raw materials, it may prove useful for growth but in actual practice it may be difficult to follow.
- Monetary policy in a developing economy should amongst other objectives also be concerned with the balance of payments problem. When a country starts developing, its balance of payments may become adverse on account of various reasons. Under such circumstances, besides, exercising direct controls on foreign exchange, the monetary authority can help in turning the balance of payments favourable by using the traditional methods of control, like raising the bank rate, etc.

### **2.1.9 Economic Effect of Monetary Policies**

Monetary policy is the process by which the government, through the Central Bank or monetary authority of a country, controls the supply of money, availability of money and cost of money or rate of interest, in order to attain a set of objectives oriented towards the growth and price stability in the economy. Monetary policy rests on the relationship between the rates of interest in an economy and the total supply of money (Jawaid, 2010).

Monetary policy uses a variety of tools or instruments to influence economic growth, inflation, exchange rates with other currencies and unemployment. Where currency is under a monopoly of issuance, or where there is a regulated system of issuing currency through banks which are tied to a Central Bank, the monetary authority and this influence the interest rate, in order to achieve policy goals. Monetary policy is referred to as either being an expansionary policy or a contractionary policy.

Expansionary policies increase the size of the money supply, or decrease the interest rate. A policy is referred to as contractionary if it reduces the size of the money supply or raises the interest rate. Furthermore, monetary policies are described as follows; accommodative, if the interest rate set by the Central monetary authority is intended to create economic growth, neutral, if it is intended neither to create growth nor combat inflation; or tight, if intended to reduce inflation (Orphanides, 2008).

It is important for policymakers to make credible announcements and degrade interest rates as they are non-important and irrelevant with regards to monetary policies. If consumers and firms believe that policymakers are committed to lowering inflation; they will anticipate future prices to be lower than otherwise. If an employee expects prices to be high in the future, he will draw up a wage contract with a high wage to match these prices (Orphanides, 2008).

Hence, the expectation of lower wages is reflected in wage-setting behaviour between employees and employers and since wages are in fact lower, there is no demand pull inflation because employers are paying out less in wages. In order to achieve this low level of inflation, policymakers must have credible announcements, that is, private agents must believe that these announcements will reflect actual future policy.

If an announcement about low-level inflation targets is made but not believed by private agents, wage-setting will anticipate high-level inflation and so wages will be higher and inflation will rise. A high wage will increase a consumer's demand (demand pull inflation) and a firm's costs (cost push inflation), so inflation rises.

Hence, if a policymaker's announcements regarding monetary policy are not credible, policy will not have the desired effect (Federal Reserve Board, 2006) If policymakers believe that private agents (consumers and firms) anticipate low inflation, they have an incentive to adopt an expansionary monetary policy, where the marginal benefit of increasing economic output outweighs the marginal cost of inflation.

However, assuming private agents have rational expectations, they know that policymakers have this incentive. Hence private agents know that if they anticipate low inflation, an expansionist's policy will be adopted, that causes a rise in inflation. Consequently unless policymakers can make their announcement of low inflation credible, private agents expect high inflation. This anticipation is fulfilled through adaptive expectations (Wage-setting behaviour) and so, there is higher inflation (without the benefit of increased output).

Hence, unless credible announcements can be made, expansionary monetary policy will fail. Announcements can be made credible in various ways. One is to establish an independent Central Bank with low inflation targets, but no output targets. Hence, private agents know that inflation will be low because it is set by an independent body. Central Banks can be given incentives to meet their targets, for example larger budgets, a wage bonus for the head of the bank, in order to increase their reputation and signal a strong commitment to a policy goal.

Reputation is an important element in monetary policy implementation. But the idea of reputation should not be confused with commitment. While a central bank, might not have

chosen any particular form of commitment (such as targeting a certain range for inflation). Reputation plays a crucial role in determining how much markets would believe the announcement of a particular commitment to a policy goal but both concepts should not be assimilated.

Also, note that under the rational expectations, it is not necessary for the policy-makers to have established its reputation through past policy actions. For example, the reputation of the head of the central bank might be derived entirely from his ideology, professional background and public statements. It has been argued that the head of a central bank should have a larger distaste for inflation than the rest of the economy on average. Hence, the reputation of a particular central bank is not necessarily tied to past performance, but rather to particular institutional arrangements that the markets can use to form inflation expectations (Federal Reserve Board, 2006).

#### **2.1.10 Tools of Monetary Policy**

Central banks have three main monetary policy tools: open market operations, the discount rate and the reserve requirement. Most central banks also have a lot more tools at their disposal. Here's what the three primary tools are and how they work together to sustain healthy economic growth (Akujuobi, 2012).

##### **1. Open Market Operations**

Open market operations are when central banks buy or sell securities. These are bought from or sold to the country's private banks.

When the central bank buys securities, it adds cash to the banks' reserves. That gives them more money to lend. When the central bank sells the securities, it places them on the banks' balance sheets and reduces its cash holdings. The bank now has less to lend. A central bank

buys securities when it wants expansionary monetary policy. It sells them when it executes contractionary monetary policy.

Before the recession, the U.S. Federal Reserve maintained between \$700 to \$800 billion of Treasury notes on its balance sheet. It added or subtracted to affect policy, but kept it within that range. QE nearly quintupled this amount to more than \$4 trillion by 2014 (Federal Reserve Board, 2015).

## 2. Reserve Requirement

The reserve requirement refers to the money banks must keep on hand overnight. They can either keep the reserve in their vaults or at the central bank. A low reserve requirement allows banks to lend more of their deposits. It is expansionary because it creates credit.

A high reserve requirement is contractionary. It gives banks less money to loan. It's especially hard for small banks since they don't have as much to lend in the first place. That's why most central banks don't impose a reserve requirement on small banks. Central banks rarely change the reserve requirement because it's expensive and disruptive for member banks to modify their procedures.

Central banks are more likely to adjust the targeted lending rate. It achieves the same result as changing the reserve requirement with less disruption. The fed funds rate is perhaps the most well-known of these tools. Here's how it works. If a bank can't meet the reserve requirement, it borrows from another bank that has excess cash. The interest rate it pays is the fed funds rate. The amount it borrows is called the fed funds. The Federal Open Market Committee sets a target for the fed funds rate at its meetings. Central banks have several tools to make sure the rate meets that target. The Federal Reserve, the Bank of England and the European Central Bank pay interest on the required reserves and any excess reserves. Banks won't lend

fed funds for less than the rate they're receiving from the Fed for these reserves. Central banks also use open market operations to manage the fed funds rate.

### 3. Discount Rate

The discount rate is the third tool. It's the rate that central banks charge its members to borrow at its discount window. Since the rate is high, banks only use this if they can't borrow funds from other banks. There is also a stigma attached. The financial community assumes that any bank that uses the discount window is in trouble. Only a desperate bank that's been rejected by others would use the discount window

#### **2.1.11 Economic Policy**

Economic policy is the deliberate attempt to generate increases in economic welfare. Since the late 1920s, when many advanced economies were on the brink of complete collapse, economists have recognized that there is a role for government and monetary authorities in steering a macro-economy towards increased economic welfare (Onyeiwu, 2012).

During the late 1930s and early 1940s, Keynes outlined most of the policy ground rules for his, and later, generations of policy makers.

The general view before Keynes, including those of the Classical and Neo-Classical economists, was that an economy would move naturally towards maximum economic welfare and full employment when its markets were allowed to operate freely. However, the model of the macro-economy that Keynes had developed during the 1930s in response to the Great Depression clearly showed that a macro-economy would not always automatically or quickly self-correct.

The contrast between the Classical and Keynesian perspective is often expressed in terms of the extent to which Adam Smith's invisible hand works, or fails, to maximize economic

welfare. Those on the Classical side of the argument believe it does, while those on the Keynesian side generally believe it does not, and that full employment equilibrium is a special, rather than a general case (Tesfay, 2004).

Keynes was able to demonstrate that a market economy could become trapped in a downward spiral of falling economic activity and diminishing economic welfare. Given the recent global financial crisis, and the Euro-debt problem, Keynes' ideas are as relevant today as in the 1930s.

For Keynes, the key questions were:

1. What events could cause a fall consumer or capital spending and trigger a downward spiral of aggregate demand, and economic activity?
2. What processes might keep aggregate demand from bouncing back, as the Classical economists had assumed?
3. How could governments and monetary authorities generate sustainable increases in aggregate demand? (Investopedia, 2016).

#### **2.1.12 Macroeconomic Policy Objectives**

The key objectives of macroeconomic policies are:

- Low inflation - the Government's inflation target is 2.0% for the consumer price index.
- Sustainable growth – growth of real gross domestic product – sustainable in keeping inflation low and reducing the environmental impact of growth.
- Improvements in productivity – this is designed to improve competitiveness and global trade performance



- High employment - the government wants to achieve an increase employment and eventually a situation where all those able and available can find meaningful work
- Rising living standards and a fall in relative poverty – cutting child poverty and reducing pensioner poverty.
- Sound government finances - including control over state borrowing and the total national debt (Chukwu, 2009).

### **2.1.13 Overview of Macroeconomic Policies**

In order to avoid major economic shocks, government make adjustments through policy changes which they hope will succeed in stabilizing the economy. They believe that the success of these adjustments is necessary to maintain stability and continued growth. This economic management is achieved through two types of strategies, namely, Fiscal and Monetary Policies. At the most aggregate level, macroeconomic policy consists of the triad of monetary, fiscal and exchange rate policy. New directions in any one of these areas have to be conceived and carried out in full coordination with the other two areas (Sheffrin, 2003).

**Fiscal Policy** In economics, fiscal policy is the use of government spending and revenue collection to influence the economy. It refers to the overall effect of the budget outcome on economic activity. Fiscal policy can be contrasted with the monetary policy, which attempts to stabilize the economy by controlling interest rates and the supply of money. The two main instruments of fiscal policy are government spending and taxation. Changes in the level and composition of taxation and government spending can impact on the following variables in the economy.

- a) Aggregate demand and the level of economic activity.
- b) The pattern of resource allocation.

c) The distribution of income (Sanusi, 2001).

The three possible stances of fiscal policy are balanced budget, expansionary and contractionary.

- i. Balance budget: - A neutral stance of fiscal policy implies a balanced budget where government spending is equal to tax revenue ( $G=T$ ). Government spending is fully funded by tax revenue and the overall budget outcome has a neutral effect on the level of economic activity.
- ii. An expansionary stance of fiscal policy involves a net increase in government spending ( $G>T$ ) through rises in government spending or a fall in taxation revenue or a combination of the two. This will lead to a larger budget deficit or a smaller budget surplus than the government previously had, or a deficit if the government previously had a balanced budget. Expansionary fiscal policy is usually associated with a budget deficit.
- iii. A contractionary fiscal policy ( $G<T$ ) occurs when net government spending is reduced either through higher taxation revenue or reduced government spending or combination of both. This would lead to a lower budget deficit or a larger surplus than the government previous balanced budget. Contractionary fiscal policy is associated with surplus (Federal Reserve Board, 2006).

#### **2.1.14 How Monetary Policy is Conducted in Nigeria**

According to CBN statistical bulletin (2016), the Central Bank of Nigeria through the Monetary Policy Committee (MPC) conducts monetary policy. The MPC is statutorily charged with the responsibility for the conduct of the monetary policy of the Bank. The MPC uses the instruments of monetary policy available with the Bank to effect changes in the liquidity of the deposit money banks to affect the supply of money. Often the MPC takes

monetary policy decisions through tinkering with the Monetary Policy Rate (MPR) in order to affect short-term interest rates.

The CBN does this by altering the target for the overnight interest rate — the rate financial institutions charge each other for overnight loans. A change in the target rate leads to changes in other interest rates, thereby affecting everyone's spending and borrowing decisions. The target rate is set periodically and reassessed at the subsequent MPC meeting. The CBN Act, 2007 provides for the constitution of a Monetary Policy Committee (MPC).

The Committee comprises 12 members the Governor as the Chairman, four Deputy Governors, two members of the Board of Directors of the Bank, three members appointed by the President and two members appointed by the Governor. Other committees set up to facilitate the success of monetary policy are Monetary Policy Technical Committee (MPTC) which meets prior to the MPC meetings, to review and make final inputs to the Economic Report for the MPC, Monetary Policy Implementation Committee (MPIC) meets weekly to review and monitor policy implementation, the Fiscal Liquidity Assessment Committee (FLAC) and Liquidity Assessment Group (LAG). FLAC has the mandate to design and regularly update the framework for obtaining information for forecasting fiscal liquidity, while LAG takes decisions on intervention in the financial markets - the domestic money and foreign exchange markets. Stable prices mean average prices rising by only a small amount, such as 2% per year. Full employment occurs when the labour force is fully employed in productive work (CBN bulletin, 2016).

In 2014, monetary policy was focused on achieving the objectives of price and exchange rate stability. Accordingly, the Bank sustained its tight policy stance with a view to ensuring that electioneering spending did not result in rise in inflation. Headline Inflation remained within single digits, and fluctuated between 7.7 and 8.5 per cent, in the review period due to the

combined effect of the declines in the prices of clothing and footwear; and transport components as well as the relative stability in the price of education in response to the tight liquidity measures taken at the MPC meetings during the year (CBN bulletin, 2014).

The exchange rate experienced significant pressure especially during the second half of the review period, due largely to the impact of the US Fed tapering, declining oil prices, depletion the foreign exchange reserves, and the absence of fiscal buffers. As a response, the Bank moved the exchange rate mid-point from N155/US\$ to N168/US\$ and widened the band around the midpoint from +/-3 per cent to +/-5 per cent.

The financial market was generally stable for 2014, although, significant fluctuations were noticed towards the end of the year. A number of policy instruments were deployed to achieve price and financial system stability, with a view to boosting investor confidence and reduce concerns about declining foreign exchange reserves. The policy instruments used to achieve price and financial system stability objectives were the Monetary Policy Rate (MPR), and other intervention instruments such as Open Market Operations (OMO), Discount Window Operations, Cash Reserve Ratio (CRR) and Foreign Exchange Net Open Position (NOP) limit.

During the period, the MPC raised MPR by 100 basis points from 12.0 to 13.0 per cent while maintaining the symmetric corridor of +/- 200 basis points around the MPR. The CRR on private sector deposits was raised by 500 basis points from 15.0 to 20.0 per cent, while CRR on public sector deposits was raised from 50.0 per cent to 75.0 per cent. The MPC also retained the Liquidity Ratio at 30.0 per cent, in order to address liquidity surfeit in the banking system.

OMO was principally used to mop up or inject liquidity into the system as a strategy for monetary management by the Bank. OMO auction increased over the corresponding period

of 2013 as a result of injections into the system arising from maturity of FGN Bonds and NTBs as well as AMCON bonds. In the period under review, the economy continued to experience fluctuations in liquidity levels.

To compliment OMO, the CRR was also used to manage liquidity in the system in order to smoothen the liquidity cycle, and reduce pressure on the exchange rate. Reserve money and its components trended upwards relative to their volume in the first half of 2014. Relative to the end-June 2014 values, the broad measure of money supply trend upwards, while narrow measures of money supply fell, reflecting the liquidity surfeit attributable to cyclical Federal Account Allocation Committee (FAAC) allocations and increased spending towards the 2015 general election.

The money market remained active in the second half of 2014 with CBN bills and government securities actively traded in the market. The improvement in liquidity conditions in the financial sector continued to influence market activities along with the demand pressure in the foreign exchange market. The interbank and open buy back (OBB) rates remained locked-in within the retained policy rate corridor of MPR +/-200 basis points in the review period, except in December, 2014. According to Security and Exchange Commission (SEC), despite the rebound in the activities of the uncollateralized segment of the money market, OMO and standing facilities dominated activities in the market. The daily Nigerian Interbank Offered rates (NIBOR) experienced occasional spikes but were generally stable, reflecting periods of liquidity tightness.

The performance of the capital market declined in the second half of 2014, relative to the first half of 2014 and the corresponding period of 2013. The All Share Index (ASI) fell by 18.42 per cent to 34,657.15 at end-December 2014, from its level of 42,482.48 at end-June 2014, and by 16.14 per cent, when compared with 41,329.19 recorded at end- December 2013. The development was due largely to external factors such as the recovery in some developed

economies and the effects of the US Federal Reserve tapering of its quantitative easing (QE) programme. Other macroeconomic developments that affected equities included the declining oil prices, depletion of external reserve, insurgency, and the uncertainties surrounding the 2015 general elections.

The Federal Government of Nigeria (FGN) bonds continued to dominate the fixed income securities market in Nigeria with fewer transactions recorded in the State/Local Government and Corporate Bond segments of the market. Activities in the global financial markets were characterized by uncertainties about economic recovery. For instance, while there have been rebounds in growth in the USA, growth in the EU, Japan and developing and emerging market economies continued to be constrained by a number of old and new fragilities. Accordingly, the exchange rates of major international currencies experienced mild fluctuations; and regional currencies such as the Ghanaian cedi, Kenyan shilling, the South African rand and the Egyptian pound also fluctuated.

The outlook for inflation is that the economy may experience a gradual rise in consumer prices but within single-digit target in the first half of 2015, due to increased spending in the run up to the 2015 general elections; depletion of the external reserves fuelling depreciation of the naira and its impact on food prices. These would be exacerbated by security concerns, disruption of agricultural activities and poor harvest in some areas affected by insurgency in the northern part of the country.

Headline inflation is projected to oscillate around 8.6 and 9.4 per cent in the first half of 2015, and could rise to 10.8 per cent by year end. This outlook is premised on the assumption that the reduction in the pump price of refined fuels is expected to ameliorate the impact of import costs on domestic prices and that the Bank will continue to pursue a tight monetary policy stance.

Data released by the National Bureau of Statistics (NBS) in November 2016 showed that the economy contracted further by 2.24 per cent in Q3 2016, having slipped into recession following another contraction in output in Q2, 2016. Although the overall contraction in Q3 was greater than that which was observed in Q1 and Q2, the non-oil sector grew by 0.03 per cent in Q3, driven mainly by agriculture, which grew by 4.54 per cent.

The Committee is of the view that the key undercurrents i.e. scarcity of foreign exchange, low fiscal activity, high energy prices and the accumulation of salary arrears - cannot be directly ameliorated by monetary policy actions. The Committee hopes that the recent increase in oil prices would be complemented by production gains to provide the needed tailwinds to sustainable economic activity. In that regard, the Committee commends the commitment of the fiscal authorities to step up efforts to fill the aggregate demand gap through a speedy resolution of the domestic indebtedness of the federal government to states and local contractors. The Committee believes that doing so will aid the effort towards economic recovery (CBN bulletin, 2017).

The committee noted that money supply (M2) grew by 19.02 per cent in 2016, being 8.0 percentage points higher than its programmed limit. It underscored the necessity of keeping the economy adequately lubricated in the face of declining output. Growth in Net Domestic Credit (NDC) was 24.79 per cent at end December 2016, being 17.94 per cent above its provisional benchmark for 2016. Likewise growth in net credit to government, at 58.84 per cent, surpassed its programmed target of 47.4 per cent.

In effect, all the major monetary aggregates exceeded their programmed provisional benchmarks for fiscal 2016. Headline inflation (year-on-year) continued to rise, creeping up in December 2016 to 18.55 per cent from 18.48 per cent in November, and 18.33 per cent in October, thus sustaining the upward momentum since January 2016 The increase in headline

inflation in December 2016 was driven by increase in the food component, which inched up from 17.19 per cent in November to 17.39 per cent in December. Core inflation, on the other hand, moderated slightly to 18.05 per cent in December 2016 from 18.24 per cent in November (CBN, 2017).

The Committee observed the increases in the month-on-month inflation rate in November and December, in contrast to successive declines between June and September 2016. It noted that the structural factors driving the sustained pressure on consumer prices, such as the high cost of power and energy, transport, production factors, as well as rising prices of imports are yet to abate. Nonetheless, the Committee estimates that the current policy stance and other measures directed at improving food production would combine with base effect to ushering some moderation in consumer prices in the short to medium term. Money market interest rates fluctuated in tandem with the level of liquidity in the banking system.

Thus, average interbank call rate, which stood at 15.34 per cent on 21st November 2016, closed at 9.90 per cent on December 30, 2016. Between these periods, the interbank call rate averaged 13.59 per cent. The average interbank call rate however, fell to 3.00 per cent on December 9, 2016, due to an increase in net banking sector liquidity to N495.48 billion on December 16 8, 2016, following the payment of statutory revenue to states and local governments as well as maturity of CBN bills during the period. The Committee welcomed improvements in the equities segment of the capital market as the All-Share Index (ASI) rose by 2.84 per cent from 25,499.00 on November 21, 2016, to 26,223.54 on January 20, 2016.

Similarly, Market Capitalization (MC) increased by 2.5 per cent from N8.80 trillion to 9.02 trillion during the same period. Relative to end December 2016, the capital market indices, however, fell by 2.04 and 2.05 per cent, respectively, reflecting the challenges confronting the economy. Total foreign exchange inflows through the CBN increased significantly by



82.45 per cent in December 2016 owing mainly to the increase in oil prices. Total outflows, however, spiked during the same period. The Committee noted that the average naira exchange rate remained stable at the inter-bank segment of the foreign exchange market in the review period.

The medium term outlook based on available data and forecast of key economic variables indicate a more resilient economy in 2017. Growth is expected to turn positive in fiscal 2017, as prior policy lags converge and the fiscal space becomes more accommodative. In addition, the agricultural sector is expected to play a bigger role in driving growth, given the expansion of the Anchor Borrower Program, as well as other developmental initiatives of the Government. Likewise, the prospects for moderation of price developments appear to be strengthening on the heels of positive developments in the food sub-sector. The Committee identified the downside risks to this outlook to include the possibility of a slower-than-expected rate of global economic activity, fluctuating oil prices and production shut-ins due to vandalism of oil installations. The Committee re-assessed the headwinds which confronted the economy in 2016 and the opportunities for recovery in 2017.

In particular, the MPC evaluated the implications of the rising wave of nationalistic ideologues across the West, the re-evaluation of trade agreements and the possibility of rapid monetary policy normalization in the United States, with adverse consequences for other countries, including Nigeria. The uncertainties underpinning the implementation of Brexit and the apparent retreat from globalization and free trade were also important points of reflection. In recognition of the seemingly inevitable structural shift in the global economy, the Committee reiterated the need to be more inward looking and hasten efforts towards economic diversification to support the domestic economy and improve life for the Nigerian

people. Consequently, members acknowledged the imperative of sectoral policies and greater coordination of monetary and fiscal policy.

Conscious of the prevailing market sentiments in favour of a rate cut, the Committee reasoned that most of its decisions in 2016 were informed by the need to address the delicate balance between price stability and growth. Noting that the pressures on consumer prices were yet to abate and even as the economy continued to be in recession despite the intervention support by the Central Bank, the Committee stressed that it was not oblivious of the full ramifications of the economic challenges facing the country.

The MPC was concerned that the current situation was not amenable to simplistic analyses and quick fixes such as have found expression and increased attention at different form and the media. The domestic economic challenges which include a chronically import dependent consumption culture, lack of competitiveness of many sectors of the economy and yawning infrastructural gap, have combined with an unfavorable external environment to complicate the macroeconomic policy environment.

The Monetary Authority had on many occasions, and to the extent feasible, taken extraordinary steps to support other policies as well as compensate for aspects of structural gaps in the economy even at the expense of its core mandate. The Committee specifically noted the positive contribution of agriculture to GDP in the third quarter, mostly attributable to the Bank's interventions in the sector. The Committee hopes that given the thrust of the 2017 budget and accompanying sectoral policies, output growth should resume in the short to medium term.

The MPC, therefore, lends its voice to efforts for an early finalization of the 2017 Federal Budget by the authorities concerned, and the resolve to pursue a non-oil driven economy, as these will go a long way in stimulating aggregate demand and restoring confidence in the

economy. The Committee also urged the authorities to seriously consider using the Public Private Partnership (PPP) model in its infrastructure development programme as a means of cushioning any possible shocks to budgeted revenue. The Committee further noted that Inflationary pressures would begin to subside as non-oil output recovers and the naira exchange rate stabilizes. Until then, it stressed, a rate cut would worsen the inflationary conditions and undermine the current outlook for stability in the foreign exchange market.

The Committee also feels that doing so would further aggravate demand pressures while undermining existing income levels in the face of the already expansionary monetary policy and increasing inflationary pressure which will make the economy unattractive for foreign and The consolidation of the achievement made so far in the implementation of the structural adjustment programme (SAP).

The plan is also to deal with pressing problems of inflation, unemployment, the sluggish performance of the productive sectors particularly manufacturing and the inadequate availability of foreign exchange with the aim of achieving of non – oil export. Other socio economic problems to be addressed by the plan include the high growth rate of population, threats to the environment and the menace of anti-social behaviour such as aimed robbery, and other juvenile delinquency (CBN bulletin, 2017).

#### **2.1.15 Concept of Economic Growth**

Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. It can be measured in nominal or real terms, the latter of which is adjusted for inflation. Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP), although alternative metrics are sometimes used (Okoro, 2013).

In simplest terms, economic growth refers to an increase in aggregate productivity. Often, but not necessarily, aggregate gains in productivity correlate with increased average marginal productivity. This means the average labourer in a given economy becomes, on average, more productive. It is also possible to achieve aggregate economic growth without an increased average marginal productivity through extra immigration or higher birth rates. A growing or more productive economy can make more goods and provide more services than before. However, some goods and services are considered more valuable than others. For example, a smart phone is considered more valuable than a pair of socks or a glass of water. Growth has to be measured in the value of goods and services, not only the quantity (Onyeiwu, 2012).

Another problem is not all individuals place the same value on the same goods and services. A heater is more valuable to a resident of Alaska, while an air conditioner is more valuable to a resident of Florida. Some people value steak more than fish, and vice versa. Because value is subjective, measuring for all individuals is very tricky. The best approximation is to use the current market value; in the United States, this is measured in terms of U.S. dollars. Since a higher total produced market value is considered more valuable, higher economic growth is positively associated with an increased quality of life or standard of living (Chowdhury & Alfaz, 2015).

#### **2.1.16 Causes of Economic Growth**

There are only a few ways to generate economic growth. The first is a discovery of new or better economic resources. An example of this is the discovery of gasoline fuel; prior to the discovery of the energy-generating power of gasoline, the economic value of petroleum was relatively low. Gasoline became a "better" and more productive economic resource after this discovery (Chowdhury & Alfaz, 2012).

Another way to generate economic growth is to grow the labor force. All else equal, more workers generate more economic goods and services. During the 19th century, a portion of the robust U.S. economic growth was due to a high influx of cheap, productive immigrant labor (Chowdury & Alfaz, 2012).

A third way to generate economic growth is to create superior technology or other capital goods. The rate of technical growth and capital growth is highly dependent on the rate of savings and investment, since savings and investment are necessary to engage in research and development. The last method is increased specialization. This means laborers become more skilled at their crafts, raising their productivity through trial and error or simply more practice. Savings, investment and specialization are the most consistent and easily controlled methods (Chowdury & Alfaz, 2012).

Using a Productive Possibility Frontier (PPF), an outward shift in the curve means that an economy has increased its capacity to produce all goods and services, and Vice versa. Outward shift of the curve can occur due to sufficient investment in new technology (i.e capital goods), as it enables production of vast quantities of output from relatively few resources. Introduction of new technology to production and manufacturing is among the reason for China's rapid growth rate in recent times. To achieve long run growth therefore, allocating scarce funds to capital goods rather than consumer goods is a necessary condition. Standard of living will be reduced at a short run as resources are diverted away for private consumption but can increase in the future by more than it would have been if such short term sacrifice had not been made (Okoro, 2010).

According to Okoro (2010), other factors that can lead to an outward shift of the PPF include specialization, new production methods such as the computerization of methods, increase in labor force through natural growth or immigration, and discovery of new raw materials,

which increase the capacity to produce, while inward shift of the PPF means industrialization, loss or exhaustion of some an economy's scarce resources. Low human and real capital investment, dearth of infrastructural facilities or its destruction through erosion or conflicts, and natural disasters such as earthquakes, floods etc. are among the reasons for inward shift in PPF.

### **2.1.17 Concept of Money Supply**

By money supply we mean the total stock of monetary media of exchange available to a society for use in connection with the economic activity of the country (Investopedia, 2016).

According Chowdury (2015), the standard concept of money supply, it is composed of the following two elements:

1. Currency with the public,
2. Demand deposits with the public.

Before explaining these two components of money supply two things must be noted with regard to the money supply in the economy. First, the money supply refers to the total sum of money available to the public in the economy at a point of time. That is, money supply is a stock concept in sharp contrast to the national income which is a flow representing the value of goods and services produced per unit of time, usually taken as a year.

Secondly, money supply always refers to the amount of money held by the public. In the term public are included households, firms and institutions other than banks and the government. The rationale behind considering money supply as held by the public is to separate the producers of money from those who use money to fulfill their various types of demand for money.

Since the Government and the banks produce or create money for the use by the public, the money (cash reserves) held by them are not used for transaction and speculative purposes and are excluded from the standard measures of money supply. This separation of producers of money from the users of money is important from the viewpoint of both monetary theory and policy.

### **2.1.18 Concept of Interest Rates**

Onyeiwu (2010) defines interest rate as the payment made by the borrower to the lender of a money loan. It is usually expressed as an annual rate in terms of money and is calculated on the principal of the loan.

We may define interest as the price paid for the use of others' capital funds for a certain period of time. In the real economic sense, however, interest implies the return to capital as a factor of production (Cyrus & Elias, 2014).

But, for all practical purposes, interest may be conceived of as a price of a money loan, i.e., liquid capital, which may be borrowed either for production or even for consumption purposes.

Interest is the price paid for the productive services rendered by capital. Interest is a compensation demanded by the lender of money funds for parting with liquidity (Investopedia, 2016).

The following are the major functions of interest in modern economic systems:

1. It encourages consumers to save more.
2. It provides capital for constructive productive services, and thereby helps the economic growth.
3. It helps allocation of savings in different productive channels.

4. It regulates the flow of funds.

### **Gross and Net Interest:**

The actual amount paid by the borrower to the capitalist as the price of capital fund borrowed is called gross interest, while the payment made exclusively for the use of capital is regarded as net or pure interest.

Gross interest includes, besides net interest, the following elements:

#### **1. Compensation for risk:**

Giving a money loan to somebody always involves a risk that the borrower may not repay it. To cover this risk, the lender charges more, in addition to the net interest. Thus, when loans are made without adequate security, they involve a high element of risk, so a high rate of interest is charged.

#### **2. Compensation for Inconvenience:**

A lender lends only by saving, i.e., by restricting consumption out of his income, which obviously involves some inconvenience which is to be compensated.

A similar inconvenience is that the lender may not be able to get his money back as and when he may need it for his own use. Hence, a payment to compensate this sort of inconvenience may be charged by the lender.

Thus, the greater the degree of inconvenience caused to the lender, higher will be the rate of interest charged.

#### **3. Payment for Management Services:**

A lender of capital funds has to spend money and energy in the management of credit. For instance, in the lending business, certain legal formalities have to be fulfilled, say, fees for



obtaining moneylender's license, stamp duties, etc. Proper accounts must be maintained. He has to maintain a staff as well.

Thus, for all these sorts of management services, reward has to be paid by the borrower to the lender. Hence, gross interest also includes payment for management expenses.

#### **4. Compensation for Changing Value of Money:**

When prices are rising, the purchasing power of money declines over a period of time, and the creditor loses. To avoid such a loss, a high rate of interest may be demanded by the lender.

Usually, the net rate of interest is the same everywhere. In economic equilibrium, the demand and supply for capital determines the net rate of interest. But, in practice, gross interest rate is charged.

Gross interest rates are different in different cases at different places and different times and for different individuals.

#### **Rates of Interest:**

Various rates of interest are charged on the different types of loans by various institutions.

The following are the main reasons for the disparities of gross interest rates:

(i) There are different types of borrowers. They offer different types of securities. Their borrowing motives and urgency are different. Thus, the risk element differs in different cases, which have to be compensated.

(ii) The money market is not homogeneous. There are different types of lenders and institutions specializing in different types of loans and the loanable funds, and the loanable funds are not freely mobile between them. The ideals of these institutions are also different.

(iii) Duration of loans also varies. Long-term loans have higher interest charges than short-term ones.

(iv) Duration of supply conditions of capital funds are also different in different countries; so different countries have different interest rates. Further, inflationary conditions differ in different countries.

### **2.1.19 Concept of Exchange Rate**

Mordi (2006) defines exchange rate as the price of a nation's currency **in** terms of another currency. An exchange rate thus has two components, the domestic currency and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency.

An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency, or cross rate. It is also known as a currency quotation, the foreign exchange rate or forex rate (Noman & Khudri, 2015).

According to Noman & Khudri (2015) an exchange rate has a base currency and a counter currency. In a direct quotation, the foreign currency is the base currency and the domestic currency is the counter currency. In an indirect quotation, the domestic currency is the base currency and the foreign currency is the counter currency. Most exchange rates use the US dollar as the base currency and other currencies as the counter currency. However, there are a few exceptions to this rule, such as the euro and Commonwealth currencies like the British pound, Australian dollar and New Zealand dollar.

Exchange rates for most major currencies are generally expressed to four places after the decimal, except for currency quotations involving the Japanese yen, which are quoted to two places after the decimal.

Exchange rates can be floating or fixed. While floating exchange rates – in which currency rates are determined by market forces – are the norm for most major nations, some nations prefer to fix or peg their domestic currencies to a widely accepted currency like the US dollar. Exchange rates can also be categorized as the spot rate – which is the current rate – or a forward rate, which is the spot rate adjusted for interest rate differentials (Okoro, 2013).

#### **2.1.20 Concept of Government Expenditure**

According to Olanipekum and Folorunso (2015), public expenditure is the value of goods and services bought by the State and its articulations.

Public expenditure plays four main roles:

1. It contributes to **current effective demand**;
2. it expresses a **coordinated impulse** on the economy, which can be used for stabilization, business cycle inversion, and growth purposes;
3. It increases the **public endowment** of goods for everybody;
4. it gives rise to **positive externalities** to an economy and society as a whole (or in specific sectors and geographical areas), the more so through its **capital** component.

With its prioritised structure and its peculiar decision-making processes, it substantiates the prevailing kind of State.

In democracy, public expenditure is an expression of people's will, managed through political parties and institutions. At the same time, public expenditure is characterised by a high

degree of inertia and law-dependency, which tempers the will of the current majority. Public expenditure can be financed through taxes, public debt, money emission, international aid.

### **2.1.21 Fiscal Policy and Economic Growth of Nigeria**

Nigeria's potential for growth and poverty reduction is yet to be realized. A key constraint has been the recent conduct of macroeconomics, particularly fiscal and monetary policies. This has led to rising inflation and decline in real incomes. National economic management became a Herculean task as the economy has to contend with volatility of revenue and expenditure. The widespread lack of fiscal discipline was further exacerbated by poor co-ordination of fiscal policy among the three tiers of government (Munongo, 2012).

Also, there is a weak revenue base arising from high-marginal tax rate with very narrow tax base, resulting in low tax compliance. As a result of these and other factors, serious macroeconomic imbalances have emerged in Nigeria. A review of these macroeconomic indices shows that inflation has accelerated to double-digit levels in 1999 and 2001. It increased from 0.2 to 16.5, respectively. This double-digit inflation continued up to 2005, and decreased to single digit in 2006 and 2007. In 2008, the inflation rate reverted to double digit (15.1) and continued to increase till 2013 when it then decrease to single digit (7.96) and continued till 2016 when it then rose to 18.7%.

Unemployment is a major political and economic issue in most countries. In Nigeria, the years of corruption, civil war, military rule, and mismanagement have hindered economic growth of the country. Nigeria is endowed with diverse and huge resources both human and material. However, years of negligence and adverse policies have led to the under-utilization of these resources (Economic Watch, 2010), and this has contributed to the increasing unemployment rate in Nigeria. In 2000, the unemployment rate was 13.1%, and 21.10% in 2010. On the average, there has been an upward trend.

Poverty reduction has been a major goal of various governments. This is evidenced by the fact that various governments have introduced different programs to reduce poverty levels. Examples are Nigerian Directorate of Employment (NDE) introduced in 1989 and the National Poverty Eradication Programme (NAPEP) introduced in 2001. Per capita income is the major index for measuring poverty level. Per capita income in Nigeria has been increasing steadily from year 2000 when it was N39,657 to year 2010 when it reached N71,131 (IMF, 2011). This increase in per capital income has not led to an increase in the standard of living of the citizens because of the increase in the cost of goods and services. The rising profile of Nigeria's indebtedness is a sour point in the public finance management and speaks volumes of the fiscal discipline of political actors' attitude to the sovereignty of Nigeria.

According to Nwankwo (2010), Nigerian debt profile was US\$32.5 billion by September 2010, that is, N5,241,667 million by 2010. In year 2000, the total outstanding debt of Nigeria was N3,995,638 million. There continued to be an upward trend until in 2006 when it came down to N3,177,409 million because of debt cancelation agreement between Nigeria and Paris Club.

Thereafter, it started rising again and reached N10,948.53 million in 2015. The expenditure pattern of Nigeria has been on the increase. In 2000, the total expenditure was N701,059 million. It has increased steadily, and in 2010, it was N4,199,429 million and it then increased to N5,160.74 million in 2016 respectively.

Generally, increase in expenditure should lead to reduced unemployment rate but in Nigeria, the reverse is the case— as total expenditure increases, rate of unemployment increases. This is because a greater percentage of the total expenditure is channeled to recurrent expenditure, and the proportion is worsening (Okwo, 2010).

The implication is that unemployment rate soars because less percentage of the total expenditure is spent on capital projects which creates job in an economy. One of the major issues raised against Nigeria's 2012 budget was the high rate of recurrent expenditure. Based on the budget, government proposed spending most of its money on running the administration rather than in the badly needed infrastructure projects to create jobs and boost growth in the continent's second largest economy (Olajide & Adekoya, 2012).

### **2.1.22 Monetary Policy and Economic Growth in Nigeria**

The central bank tries to maintain price stability through controlling the level of money supply (Jhingan, 2010). Thus, monetary policy plays a stabilizing role in influencing economic growth through a number of channels. However, the scope of such a role may be limited by the concurrent pursuit of other primary objectives of monetary policy, the nature of monetary policy transmission mechanism, and by other factors, including the uncertainty facing policy makers and the stance of economic policies. In addition, the concurrent target of intermediate goals may have implications on the attainment of the ultimate objective of achieving sustainable growth (Ajisafe & Foloranse, 2002).

The contribution that monetary policy makes to sustainable growth is the maintenance of price stability. Since sustained increase in price levels is adjudged substantially to be a monetary phenomenon, monetary policy uses its tools to effectively check money supply with a view to maintaining price stability in the medium to long term. Theory and empirical evidence in the literature suggest that sustainable long term growth is associated with lower price levels (Okwo, 2010).

In other words, a high inflation rate is damaging to long-run economic performance and welfare. Monetary policy has far reaching impact on financing conditions in the economy, not just the costs, but also the availability of credit, banks' willingness to assume specific

risks, etc. It also influences expectations about the future direction of economic activity and inflation, thus affecting the prices of goods, asset prices, exchange rates as well as consumption and investment.

A monetary policy decision that cuts interest rate, for example, lowers the cost of borrowing, resulting in higher investment activity and the purchase of consumer durables. The expectation that economic activity will strengthen may also prompt banks to ease lending policy, which in turn enables businesses and households to boost spending. In a low interest-rate regime, stocks become more attractive to buy, raising households' financial assets (Okwo, 2010).

This may also contribute to higher consumer spending, and makes companies' investment projects more attractive. Low interest rates also tend to cause currency to depreciate because the demand for domestic goods rises when imported goods become more expensive. The combination of these factors raises output and employment as well as investment and consumer spending (Philip, 2011).

### **2.1.23 Impact of Fiscal and Monetary Policies on Economy**

Fiscal and monetary policies are powerful tools that the government and concerned monetary authorities use to influence the economy based on reaction to certain issues and prediction of where the economy is moving. The monetary authorities need to make accurate predictions based on solid information to properly adjust the money flow and rates of interest. There is an inverse relationship in money flow and interest rates. Increasing money flow and decreasing interest rates can encourage spending and, as a result, stimulates the economy. More spending means more jobs and curbing unemployment (Cyrus & Elias, 2014).

Okoro, (2013) exerts that in order to create balance in the economy central bank uses various techniques of contraction and expansion. These techniques are helpful if based on accurate

data and records. A central bank buys and sells government securities to bring accurate momentum and money flow. Sometimes a central bank sets a required reserve ratio which bound other commercial banks to keep a certain amount of cash with them at all times. One of the techniques is to offer a discount or lower the interest rate to encourage borrowing, and as a result, involve more people in borrowing and spending. These are some of the quantitative techniques that central banks exercise to regulate economy properly. Apart from that, a central bank can exercise certain qualitative techniques like Regulation of consumer credit, Direct Action and Rationing of the credit to ensure the smooth running of the economy. It is a continuous process and changes with the requirements of the economy.

The fiscal and monetary policies have an impact on individual's life too. If a government thinks the economy is overheating and growing very fast, there are chances of inflation so, the government may decrease spending. In this regard, fiscal policy encourages growth. Decline in government spending means lowering the overall demand in the economy and, as a result, there will be lower production. Low production means unemployment and investments. So, a cut in government spending will hurt general people as they will have less money in pockets to invest in their stores or shops and there will be a general decline in the economy.

Similarly, taxes play a vital role in fiscal and monetary policy. Decreasing in taxes can stimulate the economy as people will have more money in their pockets to either invest or save. The investment will increase production and more people will be hired reducing the level of unemployment.

On the other hand, if the extra amount is put into banks, the banks will further loan it and the borrowers will spend. Here, it is important to note that all of these techniques are effective only if the government has enough money to support the economy when it needs money. If



the government is not able or doesn't have enough revenue to support spending, these techniques will have a crowding out effects. It is because the government will borrow in case of lower revenue resources. Government borrowing can give boost to interest rates. Increasing of interest rates can discourage individual and businesses, from borrowing money from banks. Tight borrowing can affect investments negatively. So, the implementation of fiscal and monetary policies depends upon government's financial strengths.

Inflation is one of the major issues that influence fiscal and monetary policies all over the world. When the monetary authorities, for example, decide to reduce the main funds rate, the resulting stronger demands for goods and services will give birth to higher wages and other costs. The higher costs reflect higher demands for labors and materials that the primary requirements of production. The higher costs not only influence current inflation but also influence economic performance and expectations about prices and wages. All these expectation can influence inflation in the economy.

Fiscal and monetary policies are extremely vital in keeping the economy strong and secure. Since the early nineteen hundreds, we can say the time of economic growth dominates the time of economic crunch or recession. Due to lack of proper implementation or political instabilities in the world the great depression (the 1930s) occurred and hopefully will not occur again, or will occur will lesser intensity like in 2008 onwards. Due to proper economic management and stable business cycles in the world the economies of various nations will enhance and maintain the level of stability that is satisfactory.

#### **2.1.24. The need for coordination of monetary and fiscal policy**

Taking into account the fact that an economy is a complex dynamic system which is influenced by a multitude of factors whose number is constantly increasing, which makes it unstable, the coordination of macroeconomic policies, especially monetary and fiscal policy

is a necessity of modern developments. This is especially important in the light of the fact that the abandoned Keynesian - monetarist controversy based on the affirmation of one instrument of economic policy at the expense of another and thus generating a need for permanent checking and analysis of the mechanism of combined application of instruments and measures of monetary and fiscal policy, given that no proper interaction between them exists, we can hardly talk about any purposeful and effective economic policy.

The problem becomes more evident in the light of the fact that monetary and fiscal policy, while conducted by separate and relatively independent institutions, so related to one another, it is often very difficult to make a distinction between them, and with complete precision to answer to what extent it is an effect of the one policy, and where the effect of the other begins. However, it should be noted that based on its interconnectedness the interdependence between them is evident. Monetary policy impact on interest rates and their term structure, inflation and inflation expectations have significant fiscal consequences (Onyeiwu, 2012).

The level of interest rates, in addition to its numerous implications in an economy, reflects its direct impact on fiscal policy through the cost of servicing the public debt affecting the calculation of its sustainability in the country. On the other hand, the volatility of interest rates may be one of the factors that can affect the fluctuation of the required level of surplus that would be sufficient to stabilize the relation between debt and output. Finally, high inflation is another factor that causes many implications on the public finances of economy, starting from an increase in the actual tax burden, stimulating the occurrence of so-called Olivera-Tanzi effect which is reflected in deterioration of taxes and expressed tendency to defer the payment of taxes, the creating of pressure on the expenditure side of the budget due to increased transfer of public expenditures, and generally prevents the making of any accurate fiscal projection for the future.

On the other hand, fiscal policy affects monetary policy through a variety of direct and indirect channels. The most important is certainly the fact that expansionary fiscal policy can result in large fiscal deficits, which may present a challenge for the government to put pressure on the monetary authorities to monetize the deficit, promoting an expansive monetary policy, rising inflation expectations, disrupting the exchange rate, causing a problem with payment balance, and finally with the ability to influence the formation of a currency or financial crisis. In this regard it is important to note that there are no relevant studies in the literature to confirm a strong empirical (cross-country) correlation between a high debt and high inflation (Nzotta, (2004).

It is also useful to emphasize that the fiscal theory of the price level shows that the public sector budget constraints imposed several restrictions on monetary and fiscal variables. According to this theory, the present value budget constraint determines the equilibrium price level in a way that if the expected discounted net down surplus or deficit of the state is not identical to the unpaid claim, the price level must be changed so as to establish the mentioned equality (Chadha & Nolan 2003, p. 4).

If, however, the fiscal deficit is not covered by its own monetization but is financed in the market, it may also cause a concern for monetary authorities because of the crowding-out effect that can ultimately undermine economic growth and development, while on the other hand, external financing of domestic deficit caused by expansionary monetary policy, could cause problems with the exchange rate and the balance of payments, which is also one of the problems that the monetary authorities may face (Chadha & Nolan 2003, p. 4).

The more direct channel through which fiscal policy can affect the monetary policy is the effect of indirect taxes impacting the price level, causing a potential spiralling of wages and prices, and ultimately influencing the rate of inflation. Not to mention the fact that the

unsustainably high public spending, enormously generous transfers and inefficient tax system could be a factor that could not only affect the potential output, but also cause a more restrictive monetary policy as the monetary response to the above mentioned situation. Changes in fiscal policy also affect monetary policy through a direct impact on aggregate demand. Changes in tax levels affect company profits and their disposable income, and therefore their consumption and investment decisions, which could have repercussions on inflation.

Another way in which fiscal policy can affect inflation is the impact of the fiscal effect on potential output in a way that lower income taxes can be one of the factors that will affect the creation of new companies, which ultimately may increase the potential output (Binay 2003).

Moreover, in addition to these direct channels, fiscal policy makes an impact on monetary policy and the indirect channel, which is manifested through the perception and expectations. This is the way that expectations of large budget deficits and significant borrowing to cover it can undermine confidence in the prospects of an economy, which will on the other hand cause an increased risk in financial markets and thereby act as a destabilizing factor in the foreign exchange market, achieving the final pressure on the very monetary policy order that is in place (Chadha & Nolan 2003).

Another indirect channel through which they can make an impact on fiscal monetary policy can be the phenomenon known in the literature as the Ricardian equivalence where the financial behaviour of economic agents depends on the perception of a country's fiscal sustainability, which ultimately may well affect the monetary disturbance and other projections. In addition, the financial markets may also be an important area for coordination between monetary and fiscal policies, because the link between monetary and fiscal policy can largely depend on the level of development of financial markets (Philips, 2011).

The interaction of these policies is particularly obvious when one wants to make an impact on the economic cycle in order to achieve macroeconomic stability and desired economic growth, and coordination in the field of economic growth is encouraged by regulating demand and eliminating instabilities occurring in the system, with the aim of achieving price stability as well as internal and external balance. Also, one of the important aspects of the interaction between monetary and fiscal policy is the need for a high degree of coordination in response to the financial crisis, which has recently been challenged by the events that occurred especially starting since 2007 (Philips, 2011).

The importance of coordination influenced by the fact that monetary and fiscal policy can determine many different economic values such as the level and structure of savings, investment, production, employment, and the balance of payments. The amount of taxes, the tax system type, the size and structure of public expenditure policies, budget surplus or deficit, as well as its financing on the one hand, and a change in the quantity of money in circulation, the level and structure of credit and cost of credit, on the other hand, represent a significant determinants of not only the level of prices and the exchange rate, but also the structure of production and employment in an economy.

The fact that after a period of “great moderation” a crisis that has caused the biggest economic contraction since the Great Depression occurred, and that it caused the need to review strategies, effects, and in general the role of monetary and fiscal policy given the fact that the confidence in the holders of these policies is seriously undermined, does not in any way diminish, but rather increases the importance of coordination, because the question is not whether to use simultaneous instrumentation of monetary and fiscal policy, but how to coordinate them and direct them towards the desired target variables (Philips, 2011).

In this sense, in order to achieve the main goals which are set before the macroeconomic policy, and that is one of sustained economic growth and price stability and a sustainable balance of payments, the key is close to the level of coordination among decision makers in the field of monetary and fiscal policy, since their final effects depend on how the measures taken in any of these policies affect the other. Therefore, the lack of coordination of these policies will lead to financial instability, dragging with it an increase in interest rates, the pressure on the exchange rate, inflation, and ultimately will have a negative impact on economic growth.

Thus, the goal of economic policy orientation has a strong influence on decision making about the appropriate combination of these instruments, which means that the coordination of these policies is of great significance for the effects of overall economic policy, which are mainly directed towards restoring the economy at or near steady state. This means that the so-called inconsistent and uncoordinated policy -mix leads to poor economic performance of an economy, which ultimately strongly confirms the importance of this coordination (Sanni et al, 2012).

Therefore Hanif and Farooq (2008) classify the basic reasons that explain the need for coordination between monetary and fiscal policy;

- Establishment of internally consistent and mutually aligned goals of monetary and fiscal policy measures towards non-inflationary stable growth;
- Facilitate the effective implementation of previous decisions made in order to achieve the set objectives of monetary and fiscal policy through the exchange of information and conducting consultations aimed in that direction;
- Influencing the monetary and fiscal policy to adopt sustainable policies.

Taking this approach into account, it can be concluded that coordination should be established at two levels in the short and long terms. When it comes to short term, coordination is carried out in order to create conditions for achieving price stability, where the emphasis is on the proper management of monetary policy and public debt, which largely determine the previously mentioned requirement.

On the other hand, in the long term it is necessary to set appropriate policy-mix, which should be a precondition for a quality approaching equilibrium level of the economy as well as the basis for a stable and sustainable economic growth, which will certainly be previously established if the level of the fiscal deficit in that period of time needs to be challenged for its monetization by the central bank and unsustainable increase in internal or external public debt. Areas where functional and institutional interdependence between the policies is especially expressed are the question of financing the budget deficit, the manner of use of assets arising from the budget surplus and management of public debt (Philips, 2011).

However, despite the existence of consensus on the need for synchronized use of instruments in available to the holders of these policies, the problem arises when you need to answer which instruments have priority when it comes to solving individual problems. Coordination of monetary and fiscal policy, otherwise designed by different government bodies that have their own goals, strengths and weaknesses, and limitations and resources, can be based on permanent contacts between holders of the two policies directed towards making joint decisions about strategies, effects and measures of these policy instruments. If the fiscal authorities are aware of the function of the monetary policy and its formal and informal analytical model, they will be able to anticipate the response of monetary policy in each fiscal action, and to adapt to future action (Sanni et al 2012).

In this sense, the effect of the mentioned interaction must result in the monetary authorities` anticipating each new fiscal initiative and responding to each fiscal impulse or incorporating fiscal plans in their estimates of future interest rate movements directed towards achieving the above mentioned goals. Also, fiscal authorities would have to take into serious consideration the response of monetary policy, prior to making final decisions, possibly combined with initiatives that are planned in the future. In addition, coordination may be based on the previously adopted series of policies and procedures that the decision makers will have to comply with, reducing the need for frequent interaction between them, resulting in the same effect as in the previous case. In any case, the way in which the coordination will be established depends primarily on a number of specific factors typical for each country, and the level of their institutional development (Philips, 2011).

## **2.2 Theoretical Framework**

### **2.2.1 The Classical View of Monetary Policy**

The classical economists' view of monetary policy is based on the quantity theory of money. The quantity theory of money is usually discussed in term of fisherian equation of exchange, which is given by the expression  $MV = PY$ . In the expression, M denotes the supply of money over which the Federal Government has some control; V denotes the velocity of circulation which is the average number of times a currency is spent on final goods and services over the course of a year; P denotes the price level GDP. Hence PY represents current nominal GDP. The equation of exchange is an identity which states that the current market value of all final goods and services (nominal GDP) must equal the supply of money multiplied by the average number of times a currency is used in transaction in a given year. The classical economist believes that the economy is always at or near the natural level of real GDP. Thus, they assume that in the short run, the Y in the equation of exchange is fixed.



They further argue that the velocity of circulation of money tends to remain constant. So that  $V$  can also be regarded as Fixed. Given that both  $Y$  and  $V$  are fixed, it follows that if the Central Bank of Nigeria (CBN) were to engage in expansionary (or contractionary) monetary policy, it will lead to an increase (or decrease) in money supply ( $M$ ), the only effect would be to increase (or decrease) the price level  $P$ , in direct proportion for the change in money supply ( $M$ ). In other words, expansionary monetary policy can only lead to inflation, and contractionary monetary policy can only lead to deflation of the price level.

### **2.2.2 The Monetarist View of Monetary Policy**

Monetarist is a school of thought led by Milton Friedman. This school of thought is a modern variant of classical macroeconomics. They developed a subtler and relevant version of the quantity theory of money.

The monetarists are of the opinion that the free-market economy has strong self-regulating tendencies; if a satisfactory general climate is maintained the economy will tend naturally toward full employment and a relatively stable price level (Lipsey and Steiner, 1981:706). At the same time, private initiative, spurred by the profit motive, will yield a satisfactory growth of real national income. In this view, governments' attempts to stabilize the economy will usually be perverse. They will cause larger recessions on the downward side and bigger inflations on the upside, than would have occurred had government policy been passive. Instead of trying to stabilize the economy, government policy should take a very passive stance.

The fiscal stance should be one of low and stable government expenditure and a budget that is balanced cyclically if not annually. The monetary stance should be one of a three percent increase in money supply, year in and year out, to accommodate the increased demand for money associated with a growth of wealth and full employment income. Against this stable

back-drop, the natural corrective forces of the economy can be relied on to prevent the extremes of serious recession and serious inflation.

Like any school of thought, Friedman (1963) emphasized on the supply of money as the key factor affecting the well-being of the economy and as well, accepted the need for an effective monetary policy to stabilize an economy. He also has the notion that, in order to promote steady growth rate, money supply should grow at a fixed rate, instead of being regulated and altered by the monetary authorities.

Friedman equally argued that since money supply might be demanded for reasons other than anticipated transaction, it can be held in different forms such as money, bonds, equities, physical goods and human capital. Each form of this wealth has a unique characteristic of its own and a different yield. These effects will ultimately increase aggregate money demand and expand output. The Monetarists acknowledge that the economy may not always be operating at the full employment level of real GDP.

Thus, in the short-run, monetarists argue that expansionary monetary policies may increase the level of real GDP by increasing aggregate demand. However, in the long-run, when the economy is operating at the full employment level, they argue that the quantity theory remains a good approximation of the link between the supply of money, price level, and the real GDP. Also, in the long-run expansionary monetary policy only lead to inflation and do not affect the level of real GDP.

### **2.2.3 The Neoclassical Growth model**

According to the Neoclassical growth model, debt has direct effect on economic growth. This is because the amount borrowed, if used optimally, is anticipated to increase investment. As long as countries use the borrowed funds for productive investment and do not suffer from

macroeconomic instability, policies that distort economic incentives or sizable adverse shocks, growth should increase and allow for timely debt repayment.

On the other hand, the indirect effect of debt is its effect on investment. The transmission mechanism through which debts affect growth is its reduction on the resources available for investment by debt servicing.

Also, public debt can act as an implicit tax on the resources generated by a country and create a burden on future generations which come in the form of a reduced flow of income from a lower stock of private capital. This in turn, may lead to an increase in long-term interest rates, a crowding out of private investments necessary for productivity growth, and a reduction in capital accumulation.

#### **2.2.4 Keynesian Theory**

Keynesian theory is a macroeconomic theory developed by John Maynard Keynes in 1936 known as general theory of employment, interest and money. Keynes theory asserts that expenditure is the key to economic stimulation.

Keynes identified four components of expenditure;

$NI = \text{Consumption} + \text{Investment} + \text{Government expenditure} + \text{Net Export}$

Consumption is consumer spending, investment is business spending, government expenditure is government spending and net export is nation's spending on other nations.

Keynesian theory sees spending as the driver for economic growth. Keynes stated that in the short run, economic output is strongly influenced by aggregate demand. He argues that as long as aggregate demand remains volatile and unstable, a market economy will often experience inefficient macroeconomic outcomes in form of economic recessions (when

demand is low) and inflation (when demand is high). These can be mitigated by economic policy responses, in particular, monetary policy actions by central bank and fiscal policy action by government, which can stabilize output over the business cycle.

Keynesians believe that aggregate demand is influenced by a number of economic decisions, both public and private, and sometimes behaves erratically. The public decisions include, most prominently, those on monetary and fiscal (i.e., spending and tax) policies. Some decades ago, economists heatedly debated the relative strengths of monetary and fiscal policies, with some Keynesians arguing that monetary policy is powerless, and some monetarists arguing that fiscal policy is powerless. Both of these are essentially dead issues today. Nearly all Keynesians and monetarists now believe that both fiscal and monetary policies affect aggregate demand.

According to Keynesian theory, changes in aggregate demand, whether anticipated or unanticipated, have their greatest short-run effect on real output and employment, not on prices. This idea is portrayed, for example, in the Phillips curves that show inflation rising only slowly when unemployment falls. Keynesians believe that what is true about the short run cannot necessarily be inferred from what must happen in the long run, and we believe and live in the short run.

This research work is anchored on Keynesian theory as the theoretical framework, Keynesians believe that output increases by multiply changes in spending and they also believe that changes in aggregate demand has a greater short-run effect on real output and employment. When the demand is low the economy will fall into recession there by needing fiscal policy action to stabilize it by reducing taxes and increasing spending and when the demand is high there will be inflation which will need monetary policy response by reducing

money supply and increasing interest rate. Those monetary and fiscal policies when applied in an economy will bring about stabilization in the economy.

## **2.2 Empirical Reviews**

Several authors have examined the relative impact of monetary and fiscal policy on various macroeconomic aggregates and economic activities in both developed and developing countries. The earlier studies on developed countries confirm that monetary rather than fiscal policy impacted greater influence on economic growth.

Andersen & Jordan (1968) and Carlson (1978) found that the response of economic activity to monetary actions compared with that of fiscal action was larger, more predictable and faster in the U.S.

Studies by Keran (1970), Elliot (1975) and Batten & Hafer (1983) also found that the monetary influence on investment and economic activity was more important than that of fiscal influence in Canada, Germany, Japan and England. The earlier evidence from developed countries, thus, strongly supports monetary policy while fiscal policy has little role, if any, to play in enhancing economic activities in these economies.

In a more recent study on developed countries, Senbet (2011) criticized the single equation model used in most of the previous studies in testing the relative importance of monetary and fiscal policy on nominal GNP stabilization. The author opined that there is possible endogeneity between both policies and economic activity and misspecification of the model coupled with the wrong use of nominal instead of real economic growth. The results further confirmed that monetary policy is relatively better than fiscal policy in affecting the real output.

Contrary to the findings above, some other studies on developed countries have found fiscal policy performing better than monetary actions. For instance, Poddar & Hunking (1971) and Artis & Nobay (1972) found that fiscal rather than monetary measures were more powerful and quicker-acting on economic activities in Canada and UK respectively. Cardia (1991), however, found that monetary policy and fiscal policy play only a small role in varying investment, consumption and output in Canada. Irrespective of this finding, the general consensus remains that monetary and not fiscal policy impacted stronger influence on nominal and real economic activities in developed countries which therefore calls for proper implementation of monetary policies in these countries.

In the case of developing countries, however, the bulk of empirical research has not reached a consensus concerning the relative power of fiscal and monetary policy to promote economic growth. For instance, Hussain (1982) and Chowdhury (1986) found that both the monetary and fiscal variables are significant in all the regression equations, but concluded that the changes in government expenditures exert a larger, more predictable and faster impact on Pakistan's and Bangladesh's economy respectively than do changes in money stock or the monetary base.

In a study, Shahid *et al* (2008) confirmed that monetary policy is a powerful tool than fiscal policy in South Asian countries. The result of Simorangkir and Adamanti (2010), however, showed that the combination of fiscal and monetary policies boosts economic growth of Indonesia effectively. Similar results by Mahmood and Sial (2011) showed that monetary and fiscal policies both play significant role in the economic growth of Pakistan.

The study of Anna (2012), however, suggested that monetary influence is relatively stronger and more predictable than fiscal policy in determining economic activity in Zimbabwe.

Nevertheless, Munongo (2012) found no significant role for monetary policy but has support for fiscal policy in Nigeria.

Contrary to this finding, Ezigbo (2012) revealed that monetary policy in a developing country plays an important role in increasing the growth rate of the economy by controlling inflation and maintaining equilibrium in the balance of payments.

In the case of Nigeria, Ajayi (1974), Ajisafe and Folorunso (2002) and Adefeso and Mobolaji (2010) found that monetary policy impacted greater influence than fiscal policy while Olaloye and Ikhide (1995), Philip (2009) and Medee and Nenbee (2011) argued that fiscal policies are more crucial for economic growth in the country. Familoni (1989) also denounced the classical preference of monetary policy over fiscal policy on the basis of their empirical evidence and predicted that it would only work for a developed economy.

Effiong (2012), however, investigated accounting implications of fiscal and monetary policies on the development of the Nigerian stock market. It was discovered that only a mixture of monetary and fiscal policy exerted a significant impact on the development of Nigerian stock market. Also, Enahoro (2013) reported that fiscal and monetary policies had enhanced operational efficiency in the Nigerian financial institutions, by reducing financial indiscipline in the financial and fiscal systems. The paper concluded that fiscal and monetary policies had galvanized government to commit budgetary management which would also address anomalies in the financial system.

Ogege and Shiro (2012), however, investigated the dynamics of Nigeria's monetary and fiscal policies, focusing specifically on their effects on the growth of Nigerian economy. The paper revealed that both monetary and fiscal policy contributed to the growth of Nigerian economy. Similarly, Sanni, *et al* (2012) found that none of the policies can be said to be

superior to another and that a proper mix of the policies may enhance a better economic growth.

The review of the existing literature from developed countries indicates a general support for monetary rather fiscal policy while the general consensus is that there should be policy mix in the developing countries. However, the issue of appropriate policy mix as suggested by many authors is not yet addressed.

Darrat (1984) investigated the relative influence of fiscal and monetary actions in a modified St. Louis single-equation in 5 Latin American countries, i.e. Brazil, Chile, Mexico, Peru and Venezuela. The annual time series data was taken during the time period from 1950 to 1981 of gross national product, money stock, government spending and exports. The results suggest that fiscal policy significantly lead monetary policy in explaining changes in nominal income.

Ali, Irum and Ali (2008) examined the effectiveness of monetary and fiscal policy for economic growth in South Asia Region (i.e. Pakistan, India, Srilanka and Bangladesh) through Auto Regressive Distributed Lag (ARDL) and Error Correction Model (ECM) using annual data series during 1990 to 2007. Results suggested that the monetary policy instead of fiscal policy has greater influence on economic growth in South Asian Countries. They considered Gross domestic product, broad money (M2) and fiscal balance for the study.

Jawaid, Arif and Naeemullah (2010) have done a study on the comparative analysis of monetary and fiscal policy on Pakistan. They have done the research based on the “Quantity Theory of Money” and the Keynesian approach to determine the relationship between Gross Domestic Product, Money Supply (MS) and Fiscal Balance (FB). To find out the existence of the long run relationship variables, they performed stationary analysis and the presence of autocorrelation was shown in the estimated model. The cointegration tests confirmed positive



long run relationship between monetary and fiscal policy with economic growth. Numerous studies have been done on the effectiveness of the monetary and fiscal policy.

Rakic and Radenovic (2013) have done a thorough literature review on the effectiveness of monetary and fiscal policy. They have deduces that in order to determine the impact of monetary and fiscal policies on the economic activities, following various techniques and variables are used: - Monetary policy variables: interest rate, inflation rate, exchange rate, money supply, broad money - Fiscal policy variables: government revenues, government expenditures, budget deficit, budget surplus - Growth variables: logarithm of real GDP, GDP growth rate, nominal income, nominal income growth rate. They analyzed monetary policy through broad money supply, fiscal policy through government expenditures and economic growth through real GDP and found that fiscal policy exert greater influence on RGDP.

Onyeiwu (2012) examined the impact of monetary policy on the Nigeria economy using Ordinary Least Squares (OLS) method. The result showed that monetary policy represented by money supply exert a positive impact on GDP growth and balance of payment but negative impact on rate of inflation and he concluded that CBN monetary policy is effective in regulating the liquidity of the economy which affects some macroeconomic variables such as output, employment and prices.

Owalabi and Adegbite (2014) examined the impact of monetary policy on industrial growth in Nigerian economy using multiple regression analysis. They analyzed the relationship between manufacturing output, treasury bills, deposit and lending, and rediscount rate and industrial growth, and found that the variables had significant effects on the industrial growth.

Adefeso and Mobolaji (2010), also investigated fiscal - monetary policy and economic growth in Nigerian by employing Jobansen Maximum Likelihood Cointegration procedure. The result shows that there is a long – run relationship between economic growth, degree of openness, government expenditure and broad money supply (M2). Chukwu (2009), analyzed the effect of monetary policy innovations in Nigeria. The study used a Structural Vector Auto-Regression (SVAR) approach to trace the effects monetary policy stocks on output and prices in Nigeria. The study also analyzed three alternative policy instrument, that is, broad money (M2), minimum rediscount rate (MRR), and the real effective exchange rate (REER). The study found evidence that monetary policy innovations have both real and nominal effect on economic parameter depending on the policy variable selected.

Micheal and Ebibai (2014), examined the impact of monetary policy on selected macroeconomic variables such as gross domestic product, inflation and balance of payment in Nigeria using OLS regression analysis. The result shows that the provision of investment friendly environment in Nigeria will increase the growth rate of GDP. Akujobi (2012), investigated the impact of monetary policy instrument on economic development of Nigeria using multiple regression technique and found that treasury bill, minimum rediscount rate and liquidity rate have significant impact on economic development of Nigeria.

Okwo, et al (2012) examined the effect of monetary policy outcomes on macroeconomic stability in Nigeria. The study analyzed gross domestic product, credit to the private sector, net credit to the government and inflation using OLS technique. None of the variables were significant, which suggested that monetary policy as a policy option may have been inactive in influencing price stability.

Bernhard (2013) examined the channels of monetary transmission mechanism in Nigeria using Granger casualty test to estimate the relationship between the various channels and the

selected macroeconomic aggregates. The study shows that three channels of transmission were functional for inflation targeting. They include the interest rate, exchange rate and credit channels.

Okoro (2013) examined the impact of monetary policy on Nigeria economic growth by testing the influence of interest rate, inflation, exchange rate, money supply and credit on GDP. Augmented Dickey Fuller (ADF) test, Philips–Perron Unit Test, Co-integration test and Error Correction Model (ECM) techniques were employed. The results show the existence of long–run equilibrium relationship between monetary policy instruments and economic growth.

Cyrus and Elias (2014) investigated the impact of fiscal and monetary policies by using variance decomposition and impulse response function and found that fiscal policy has significant and positive impact on real output growth in Kenya, while monetary policy shocks have contradiction with fiscal policy shocks.

Akanni and Osinow (2013) analyzed the effect of fiscal instability on economic growth in Nigeria. According to study findings that both total and capital fiscal spending had negative relationship with economic growth while recurrent fiscal spending was on the contrary. In addition, the study found that trade openness and size of labor force had significantly and positively affected economic growth.

Similarly, Noman and Khudri (2015) estimated the effects of fiscal and monetary policies on economic growth in case of Bangladesh. The estimated variables of both policies show significant impact on Bangladesh's economic growth which implies that both policies were balanced and correspondingly contribute in the economic growth of Bangladesh economy.

In similar line Chowdhury and Afzal (2015) investigated the effectiveness of monetary policy and fiscal policy in Bangladesh. The results of Engle Granger test, Trace Statistics and Maximum Eigen value test shows that there is positive and significant relationship among fiscal policy, monetary policy and economic growth in Bangladesh.

Tesfay (2010) investigated the relative effectiveness of fiscal and monetary policies on economic growth in case of Ethiopia, with the objective of finding out the relative strength of monetary and fiscal policies on economic growth. According to study findings, both money supply and government expenditure were found statistically insignificant to influence the real variables such as GDP and export. However, in the long term, policy variables can only control nominal variables such as inflation and the exchange rate.

Mueller (2011) investigated economic, political and institutional constraints to fiscal policy implementation in sub-Saharan Africa. It was found that planned fiscal adjustments or expansions are less likely to be implemented. The larger they are, the more inaccurate the growth forecasts they are based on. The finding supports the ongoing efforts in the region to improve the quality and timeliness of economic data, enhance forecasting capacity, adopt realistic fiscal plans, and strengthen governance, budgetary institutions, and public financial management procedures.

Ogbole, Amadi and Essi (2011) wrote on fiscal policy: its impact on economic growth in Nigeria (1970-2006). The study involves comparative analysis of the impact of fiscal policy on economic growth in Nigeria during regulation and deregulation periods. Econometric analysis of time series data from Central Bank of Nigeria was conducted. Results showed that there is difference in the effectiveness of fiscal policy in stimulating economic growth during and after regulation period. Appropriate policy mix, prudent public spending, setting of

achievable fiscal policy targets and diversification of the nation's economic base, among others, were recommended.

In the same vein but covering a shorter period Adeoye (2006) analyzed the impact of fiscal policy on economic growth in Nigeria in 1970-2002. The finding shows that public investment negatively affects output growth implying that public expenditure has a crowding out effect on private investment.

Chuku (2010) uses quarterly data to explore the monetary and fiscal policy interactions in Nigeria between 1970-2008. The paper examines the nature of fiscal policies in Nigeria using vector auto-regression (VAR) model. The evidence indicates that monetary and fiscal policies in Nigeria have interacted in a counteractive manner for most of the sample period (1980-1994) while at other periods no symmetric pattern of interaction between the two policy variables was observed.

Huang and Padilla (2002) wrote on fiscal policy and implementation of the Walsh Contract for Central Bankers. They developed a simple macroeconomic model where the time inconsistency of optimal monetary policy is due to tax distortions. They concluded that implementing the optimal policy mix requires either that central bank enjoy primacy over the fiscal authority or that fiscal policy be also delegated to an independent authority.

Omitogun and Ayinla (2007) examined empirically the contribution of fiscal policy in the achievement of sustainable economic growth in Nigeria. They used Solow growth model estimated with the use of ordinary least square method and found out that fiscal policy has not been effective in the area of promoting sustainable economic growth in Nigeria. They suggested that Nigerian government should put a stop to the incessant unproductive foreign borrowing, wasteful spending and uncontrolled money supply and embark on specific

policies aimed at achieving increased and sustainable productivity in all sectors of the economy.

Amin (1999) analyzed the relationship between public and private investment stressing the crowding in or crowding out of private investment by public expenditures in Cameroon. Based on secondary data from the public sector, the results of a growth model show that the relevant factors have positive effects on growth while those of the investment model show the crowding in of infrastructures and social sector. The study concluded by recommending the relocation of more resources to productive sectors and increasing and sustaining of spending on those productive sectors or those components of public expenditures that crowd in the private sector.

Ossowski and Fedelino (2003) looked at fiscal policy formulation and implementation in oil producing countries. Their study showed that resource dependent economies tend to grow more slowly than non-resource dependent ones at comparable levels of development. Poverty is still widespread in a number of oil-producing countries. They concluded that a pattern of fluctuating fiscal expenditures associated with oil volatility has entailed significant economic and social costs for a number of oil producers. Auerbach, (2009) suggested that for fiscal discretionary policy to be practiced on a large-scale attention must be paid to policy design.

## 2.4 Summary Table of Empirical Literature

Author(s)	Country Examples	Methodology	Variables in the Study	Findings
Ali, Irum & Ali (2008)	South Asia i.e Pakistan, Sri Lanka, India, Bangladesh	Johansen cointegration, panel unit root test, ARDL.	M <sub>2</sub> , & FD on GDP	Broad money supply appeared as a significant variable in both short run as well as long run. While fiscal deficit appeared insignificant in the short run as well as long run.
Ajayi S.I (1974)	Nigeria	Johansen cointegration and Error correction approach, Variance decomposition analysis and error correction model.	Broad money on GDP	There is a long run equilibrium relationship that exist between broad money and economic growth. The result shows that broad money supply granger cause GDP, the recursive residuals, cusum of squares show that the broad money demand is stable in Nigeria.
Olanipekun & Folorunso (2015)	Nigeria	Johansen co-integration, Philip perron unit root test and Error correction mechanism.	Exchange rate, Interest rate, Money supply, Government Revenue on GDP	It was found that the current level of exchange rate, domestic interest rate, current level of government revenue and money supply are appropriate policy instrument mix in promoting economic growth both in the short run and long run.
CHOWDHURY & Afzal (2015)	Bangladesh	Granger causality, Johansen and OLS	Interest rate, exchange rate money supply, and Government expenditure on GDP	The results of Engle Granger test, trace statistics and maximum Eigen value test shows that there is positive and significant relationship among fiscal policy, monetary policy and Economic growth of Bangladesh.
Tesfay (2010)	Ethiopia	Johansen co-integration, Ordinary Least square.	Money supply, government expenditure, inflation and exchange rate on GDP and export.	Findings show that both money supply and government expenditure were found statistically insignificant to influence GDP and export. In the long term policy variable can only

				control nominal variables such as inflation and exchange rate.
Chuku (2010)	Nigeria	Vector auto regressive (VAR) model	Government expenditure, money supply and Interest rate on GDP.	The evidence indicates that monetary and fiscal policy in Nigeria have interacted in counteractive manner for most of the sample period, while at other periods no symmetric pattern of interaction between the two policy variables was observed.
Noman & Khudri (2015)	Bangladesh	Exchange rate, interest rate, money supply and government revenue on GDP	OLS, Johansen co-integration, philip perron and ADF.	The estimated variables of both policies show significant impact on Bangladesh economic growth which implies that both policies were balanced and correspondingly contribute in the economic growth of Bangladesh economy.
Cyrus & Elias (2014)	Kenya	Money supply, government revenue, exchange rate on GDP	Variance decomposition and impulse response function	It was found that fiscal policy has significant and positive impact on real output growth in Kenya, while monetary policy shocks have contradiction with fiscal policy shocks.
Micheal & Ebibai (2014)	Nigeria	Inflation and balance of payment on GDP	OLS, Johansen co-integration	The result shows that the provision of investment friendly environment in Nigeria will increase the Growth rate og GDP.
Onyeiwu (2012)	Nigeria	Money supply, balance of payment on inflation and GDP	Multiple regression	The result showed that money supply exert a positive impact on GDP growth and balance of payment exert negative influence on Inflation.
Rakic & Radenovic (2013)	Pakistan	Broad money supply and government expenditure on RGDP.	Ordinary least square method, Philip Perron unit root test and co-integration test	It was found that fiscal policy instead of monetary policy exert greater influence on RGDP.



## **2.4 Summary of Literature**

Reviewing related literatures revealed that macroeconomic policy significantly induced growth. This implies that monetary and fiscal policies play important role in stabilizing the economy thereby reducing inflation and increasing output. Optimal mix of both policies will help stimulate economic growth. All these empirical studies were only carried in a particular economy at a time.

There are theories that backed this study such as monetarist theory, Neo classical growth theory, classical theory and Keynesian theory. The Keynesian theory was adopted as the theoretical framework of this study. Keynesians believe that expansionary monetary policy increases the supply of loan-able funds available through banking system, causing interest rates to fall. With lower interest rate, aggregate expenditures on investment and interest-sensitive consumption goods usually increase, causing real GDP to rise.

Hence, monetary policy can affect real GDP indirectly. Keynes also view fiscal policy as the best policy that brings about growth in an economy since it acts in the interest of the general public. According to Keynes, when the government embark on public borrowing to finance its expenditure, unemployed funds are withdrawn from the private pockets such that the consumption level of private individuals remains unaffected. These funds when injected into the economy by government lead to a multiple increase in aggregate demand causing an increase in output. This according to Keynes is the multiplier effect of government borrowing (Matthew & Mordecai, 2016).

## **2.5 Gaps in literatures**

There are studies combining monetary and fiscal policy but most of them are concentrated in other countries of the world such as Kenya, Bangladesh, U.S, UK, South Asia, America and Spain among others. In Nigeria, based on internet search, the only study that have combined

both monetary and fiscal policy was Olanipakun and Flororunso (2015) who studied fiscal and monetary policy instruments and growth sustainability in Nigeria from 1995-2013. In this regard, it becomes justifiable to carry out empirical investigation on effect of both monetary and fiscal policies on economic growth in Nigeria. This study takes a new dimension by using real gross domestic product as against gross domestic product utilized in the work of Olanipakun and Flororunso (2015). Secondly, government expenditure was broken down into its two components: recurrent and capital which was also lacking in the work of Olanipakun and Flororunso (2015). Thirdly, this study used up to date data spanning from 1985 to 2016 as against Olanipakun and Flororunso (2015) whom stopped at 2013 and applying a superior ARDL econometric modelling.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Research Design

This research work adopted an ex-post facto research design in studying the effect of monetary and fiscal policy instruments on economic growth of Nigeria from 1985 to 2016. In an ex-post facto research design, the researcher is incapacitated from manipulating or altering the data as they are published by government established agencies of parastatals. The adoption of an ex-post facto research design within the period studied is to ensure enough data points for the econometric analysis in order to cater for the loss of degree of freedom.

#### 3.2 Nature and Sources of Data

The data used in this study were secondary in nature. The data were collected for the period of 1985 to 2016 from the Central Bank of Nigeria (CBN) and National Bureau of Statistic (NBS) official reports. All the data were on an annual basis as provided in the various official reports and publications of the above mentioned data sources.

#### 3.3 Model Specification

This study adopted and modified the model of Olanipekun and Folorunso (2015). The original model of Olanipekun and Folorunso (2015) is stated as:

$$RGDP = f(MS, INTR, EXR, INF, GRV, GEXP) \dots \dots \dots 3.1$$

Where:

*RGDP* = Real gross domestic product

*MS* = Money supply

*INTR* = Interest rate

*EXR* = Exchange rate

*INF* = Inflation

*GRV* = Government revenue

*GEXP* = Government Expenditure

The model was modified by removing money supply, interest rate, inflation and revenue, while introducing monetary policy rate, liquidity ratio, fiscal deficit and breaking down government expenditure into recurrent and capital expenditure. Consequently, the modified model of Olanipekun and Folorunso (2015) which is now the model of this study is stated as:

Monetary policy model:

$$RGDP = f(MPR, LR, EXCHR) \dots \dots \dots 3.2$$

Fiscal policy model:

$$RGDP = f(REXP, CEXP, FD) \dots \dots \dots 3.3$$

Logging the dependent and independent variables to provide for easy interpretation of the result and eliminate the possible effect of outlier led to the following equations:

**Model 1**

$$\text{Log}RGDP_t = \alpha_0 + \alpha_1 \text{Log}MPR_t + \alpha_2 \text{Log}LR_t + \alpha_3 \text{Log}EXCHR_t + \varepsilon_t \dots \dots \dots 3.4$$

**Model 2**

$$\text{Log}RGDP_t = \alpha_0 + \alpha_1 \text{Log}REXP_t + \alpha_2 \text{Log}CEXP_t + \alpha_3 \text{Log}FD_t + \varepsilon_t \dots \dots \dots 3.5$$

Where:

*RGDP* = Real gross domestic product

*MPR* = Monetary policy rate

*LR* = Liquidity ratio

*EXCHR* = Exchange rate

*REXP* = Recurrent expenditure

*CEXP* = Capital expenditure

*FD* = Fiscal deficit

### 3.4 Description of Variables

The dependent variable is economic growth which was proxied by Real Gross Domestic Product (RGDP). The independent variables are the monetary and fiscal policy instruments of the Nigerian government. The monetary policy used in this study are Monetary Policy Rate (MPR), Liquidity Ratio (LR) and Exchange Rate (EXCHR), whereas the fiscal policy variables are Recurrent Expenditure (REXP), Capital Expenditure (CEXP) and Fiscal Deficit (FD).

**RGDP is real gross domestic product:** This is the monetary value of all finished goods and services produced in a within a country borders in a specific time period. Although RGDP is calculated on an annual basis, it includes all private and public consumption, government outlays, investment and exports less imports that occur within a defined territory. Olanipekun and Folorunso (2015), Senbet (2011) and Akanni and Osinow have applied this variables in their studies.

**MPR is monetary policy rate:** This is interest rate charged by the Central Bank of Nigeria in extending funds to deposit money banks in Nigeria. Ezigbo (2012), Anna (2012) Adefeso and Mobolaji (2010) have recognise the role of monetary policy rate in economic growth.

**LR is liquidity ratio:** liquidity ratio is the total specified liquid assets of deposit money banks relative to total liabilities which must be maintain by the deposit money banks to meet up with their short term obligations. Liquidity ratio was used in the works of Adefeso and Mobolaji (2010) and Ajisafe and Folorunso (2012).

**EXCHR is exchange rate:** Exchange rate is the price of one country's currency against another. It is the rate at which a country's currency is exchanged for another or currencies of other countries. Ali, Irum and Ali (2008) and Jawaid, Arif and Naemullah (2010) utilized exchange rate in their studies.

**REXP is recurrent expenditure:** Recurrent expenditure is unproductive government expenditure on day to day running of government functions. Recurrent expenditure are obvious fund embarked for salaries and wages, transfers to pension and social programmes, interest payment and provision of subsidies on specified type of consumption among others. Cyrus and Elias (2014) and Akanni and Osinow (2013) applied this measurement of fiscal deficit.

**CEXP is capital expenditure:** Capital expenditure is productive investment expenditure by government that creates employment, improves incomes and better the standard of living of the people. Capital expenditure is evidence in funds allocated for construction of roads, telecommunication and transports, hospital, school and industrial edifices. Capital expenditure was seen in the works of Noman and Khudri (2015), Chowdhury and Afzal (2015) and Omitogun and Ayinla (2007).

**FD is fiscal deficit:** Fiscal deficit is government borrowing to finance expenditure that could not be covered by revenue. In other words, fiscal deficit occurs when government expenditure is in excess of revenue. Ezeabasili, Mojekwu and Herbert (2012), Tesfay (2010) Ogbole, Amadi and Essi (2011) proxied fiscal policy with fiscal deficit.

### **3.5 Method of Data Analysis**

The models were estimated using Auto-regressive Distributive Lag (ARDL) technique of data analysis, while the Structural Vector Auto-regression (SVAR) Model was used to determine the response of economic growth to shocks in monetary policy and fiscal policy instruments. The research hypotheses and questions formed the basis on which the result of the analysis were presented.

### **Unit Root Test**

The results of the ordinary least square estimation might be spurious if the variables were non-stationary. Unit root test of stationarity for each of the variables adopting the Augmented Dickey-Fuller (ADF), Philip Peron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) specification were utilized to ascertain the stationarity of the data. The suitable lag length for ADF estimation starts with maximum lag but that of PP and KPSS starts with few lags.

### **Co-integration Test**

If all the variables are not found stationary at levels (i.e. they exhibit unit roots), we proceed further to carry out a co-integration test. The co-integration relationship between the variables was ascertained by Auto-Regressive Distributed Lag (ARDL) bound as against the conventional technique of Johansen co-integration. The choice of the Auto-Regressive Distributed Lag (ARDL) approach against the traditional Johansen co-integration framework is that ARDL is structured in such a way that it takes into consideration the different order of integration of time series data.

### **Granger Causality Test**

The effect of monetary policy and fiscal policy instruments on economic growth in Nigeria was ascertained using the Granger causality test. The granger causality technique gives an idea of the predicting power of a variable. When monetary policy and fiscal policy instruments help in the prediction of economic growth, economic growth is said to be Granger caused by monetary policy and fiscal policy instruments. Alternatively, economic growth is said to be Granger caused by monetary policy and fiscal policy instruments when the coefficients on the lagged of monetary policy and fiscal policy instruments are statistically significant.

### **ARDL Error Correction Model**

This can be used when the result of a co-integration test for a particular model reveals that more than one co-integrating vectors exist among the variables of interest. An Error Correction Model is designed for use with non-stationary series that are known to be co-integrated. The ECM has co-integration relations built into the specification so that it restricts the long-run behaviour of the endogenous variables to converge to their co-integrating relationships while allowing for short-run adjustment dynamics. The use of the methodology of Co-integration and ECM add more quality, flexibility and versatility to the econometric modelling of dynamic systems and the integration of short-run dynamics with the long-run equilibrium.

### **3.6 Regression Results Interpretation**

The Adjusted R-Squared, F-Statistic and Durbin Watson test were the statistical criteria to interpret the result of the models that were estimated. Furthermore, the coefficient of the respective variables also explained the nature of relationship between the dependent and the independent variables.

**Adjusted R-Square ( $R^2$ ):** The adjusted coefficient of determination indicates how well data points fit a statistical model – sometimes simply a line or curve. It is a statistic used in the context of statistical models whose main purpose is either the prediction of future outcomes or the testing of hypotheses, on the basis of other related information. It provides a measure of how well observed outcomes are replicated by the model, as the proportion of total variation of outcomes explained by the model. An  $R^2$  of 1 indicates that the regression line perfectly fits the data.

**F\* Statistic:** F-statistic tests the hypothesis that all coefficients (except the intercept) are equal to zero. This statistic has  $F(k-1, n-k)$  distribution under the null hypothesis and



normality assumption, and its *p-value* indicates probability that the hypothesis is indeed true. Conventionally, *p-values* smaller than 0.05 is an evidence of rejection of hypothesis of joint significance of explanatory variables.

**Durbin Watson Statistic:** The Durbin-Watson test is the conventional tool to check for autocorrelation in the model. In a situation where is the Durbin-Watson detects the presence of autocorrelation in the model, the serial correlation LM test was utilized to correct the autocorrelation issue observed.

### 3.7 A Priori Expectation

The Keynesian monetary theory as well as the Keynesian theory of government expenditure envisages the positive effect of monetary and fiscal policy on economic growth. Table 1 presents the supposed signs of the monetary policy and fiscal policy instruments relative economic growth based on theoretical consideration.

**Table 1: A Priori Expectation of the Monetary and Fiscal Policy Instruments**

<b>Symbol</b>	<b>Variable</b>	<b>Substitution</b>	<b>Supposed Signs</b>
MPR	Monetary Policy Rate	Monetary Policy	-
LR	Liquidity Ratio	Monetary Policy	-
EXCHR	Exchange Rate	Monetary Policy	-
REXP	Recurrent Expenditure	Fiscal Policy	+
CEXP	Capital Expenditure	Fiscal Policy	+
FD	Fiscal Deficit	Fiscal Policy	+

*Source: Researcher's Assumption from Keynesian Theory of Monetary and Fiscal Policy*

## CHAPTER FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Data Presentation

The data as sourced from Central Bank of Nigeria (CBN) statistical bulletin and National Bureau of Statistic (NBS) which were used in this study are presented in this section. Table 2 presents the monetary policy variables: monetary policy rate, liquidity rate and exchange rate, while Table 3 summarizes the data on fiscal policy: recurrent expenditure, capital expenditure and fiscal deficit from 1985 to 2016.

**Table 2: Real Gross Domestic Product, Monetary Policy Rate, Liquidity Ratio and Exchange Rate from 1985 to 2016**

Year	Real Gross Domestic Product (₦'Million)	Monetary Policy Rate (%)	Liquidity Ratio (%)	Exchange Rate Volatility (₦ per USD)
1985	14,953,910.00	10.00	65.00	0.8938
1986	15,237,990.00	10.00	36.40	2.0706
1987	15,263,930.00	12.75	46.50	4.0179
1988	16,215,370.00	12.75	45.00	4.5367
1989	17,294,680.00	18.50	40.30	7.3916
1990	19,305,630.00	18.50	44.30	8.0376
1991	19,199,060.00	14.50	38.60	9.9095
1992	19,620,190.00	17.50	29.10	17.2984
1993	19,927,990.00	26.00	42.20	22.0511
1994	19,979,120.00	13.50	48.50	21.8861
1995	20,353,200.00	13.50	33.10	21.8861
1996	21,177,920.00	13.50	43.10	21.8861
1997	21,789,100.00	13.50	40.20	21.8861
1998	22,332,870.00	14.31	46.80	21.8861
1999	22,449,410.00	18.00	61.00	92.6934
2000	23,688,280.00	13.50	64.10	102.1052

2001	25,267,540.00	14.31	52.90	111.9433
2002	28,957,710.00	19.00	52.50	120.9702
2003	31,709,450.00	15.75	50.90	129.3565
2004	35,020,550.00	15.00	50.50	133.5004
2005	37,474,950.00	13.00	50.20	132.1470
2006	39,995,500.00	10.00	55.70	128.6516
2007	42,922,410.00	9.50	48.80	125.8331
2008	46,012,520.00	9.75	44.30	118.5669
2009	49,856,100.00	6.00	30.70	148.8802
2010	54,612,260.00	6.25	30.40	150.2980
2011	57,511,040.00	12.00	42.00	153.8600
2012	59,929,890.00	12.00	49.70	157.5000
2013	63,218,720.00	12.00	63.20	157.3100
2014	67,152,790.00	13.00	38.30	158.5626
2015	69,023,930.00	11.00	39.58	193.2792
2016	67,931,230.00	13.00	41.25	253.4923

*Source: Central Bank of Nigeria (CBN) Statistical Bulletin; and National Bureau of Statistics (NBS)*

**Table 3: Recurrent Expenditure, Capital Expenditure and Fiscal Deficit from 1985 to 2016**

Year	Recurrent Expenditure (₦' Million)	Capital Expenditure (₦' Million)	Fiscal Deficit (₦' Million)
1985	7,580.00	5,460.00	-3,039.7
1986	7,700.00	8,530.00	-8,254.3
1987	15,650.00	6,370.00	-5,889.7
1988	19,410.00	8,340.00	-12,160.9
1989	25,990.00	15,030.00	-15,134.7
1990	36,220.00	24,050.00	-22,116.1
1991	38,240.00	28,340.00	-35,755.2
1992	53,030.00	39,760.00	-39,532.5

1993	136,730.00	54,500.00	-107,735.3
1994	89,970.00	70,920.00	-70,270.6
1995	127,630.00	121,140.00	1,000.0
1996	124,290.00	212,930.00	32,049.4
1997	158,560.00	269,650.00	-5,000.0
1998	178,100.00	309,020.00	-133,389.3
1999	449,660.00	498,030.00	-285,104.7
2000	461,600.00	239,450.00	-103,800.0
2001	579,300.00	438,700.00	-221,000.0
2002	696,800.00	321,380.00	-301,400.0
2003	984,300.00	241,690.00	-202,700.0
2004	1,032,700.00	351,300.00	-172,600.0
2005	1,223,700.00	514,500.00	-161,400.0
2006	1,290,200.00	552,390.00	-101,400.0
2007	1,589,270.00	759,320.00	-117,200.0
2008	2,117,360.00	960,890.00	-47,380.0
2009	2,127,970.00	1,152,800.00	-810,010.0
2010	3,109,380.00	883,870.00	-1,105,400.0
2011	3,314,510.00	918,550.00	-1,158,500.0
2012	3,325,160.00	874,830.00	-975,700.0
2013	3,689,060.00	1,108,390.00	-1,153,500.
2014	3,426,900.00	783,120.00	-835,680.0
2015	3,831,950.00	818,370.00	-1,557,790.0
2016	4,178,590.00	634,590.00	-2,208,220.0

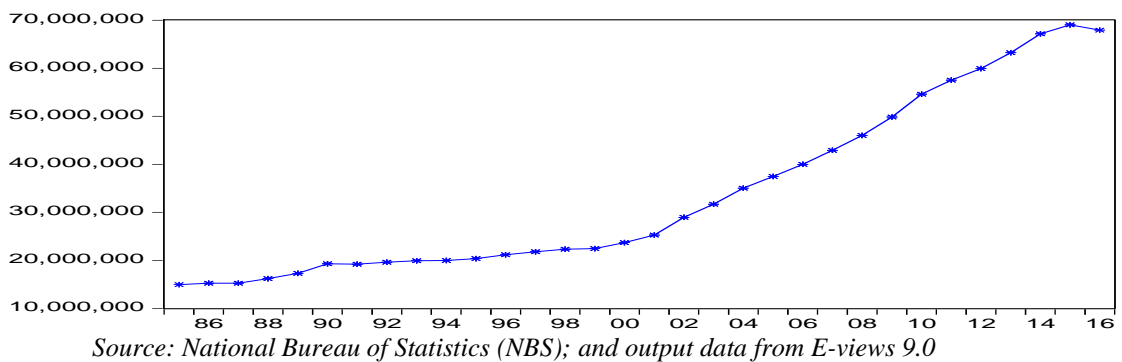
*Source: National Bureau of Statistics (NBS)*

#### 4.1.1 Trend in Economic Growth and Monetary Policy Instruments

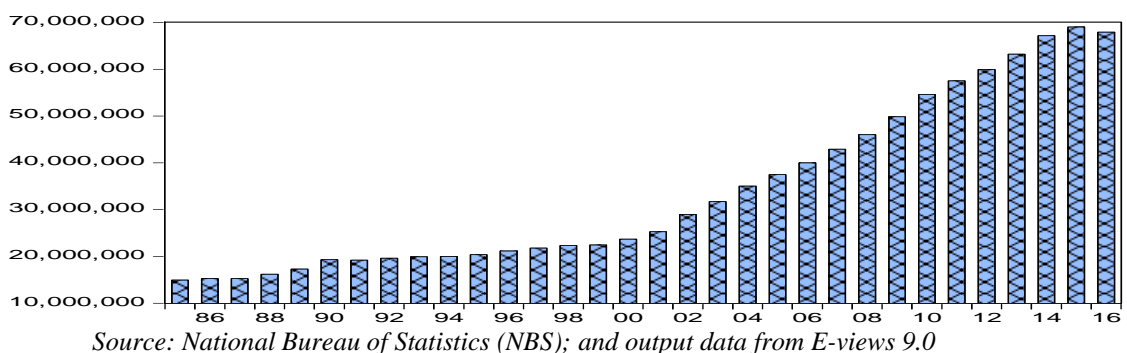
##### Real Gross Domestic Product

The real gross domestic product was ₦14,953,910 million in 1985, which had risen by ₦42,354,260 million by the end of 2010 to settle at ₦54,612,260 million. The real GDP has continued to appreciate from 2010 to 2014. From 1985 to 2000, as shown in Table 2, Fig. 1 and 2, real gross domestic product gradually rose from ₦14,953,910 million in 1985 to ₦23,688,280 million in 2000, an increase of 46.25%. The gross domestic product has been on steady rise from ₦25,267,540 million in 2001 to ₦69,023,930 million in 2015 and then ₦67,931,230 million in 2016 owing to the recession in the economy.

**Fig. 1: Real Gross Domestic Product Graph Trend from 1985 to 2016**



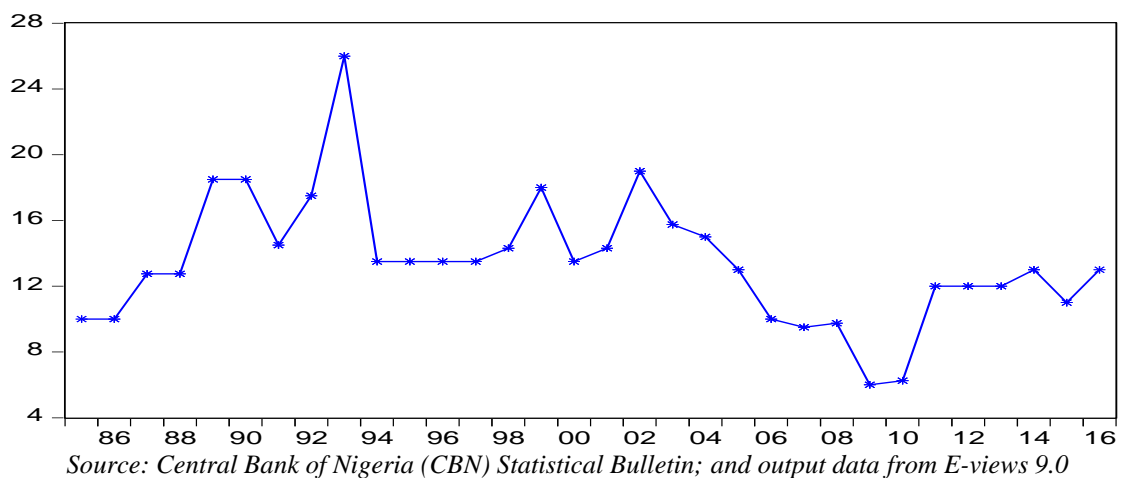
**Fig. 2: Real Gross Domestic Product Bar Chart Trend from 1985 to 2016**



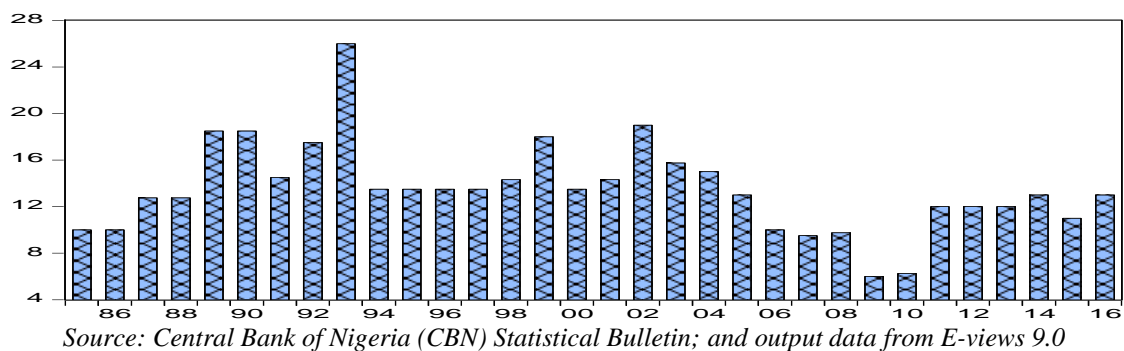
### Monetary Policy Rate

Monetary policy rate in remained unchanged in 2006 from its value in 1985. In 2012, monetary policy rate increased to 12%. As can be seen from Table 2, Fig. 3 and Fig. 4, between 2000 and 2007, monetary policy rate reduce tremendously, however, it sharply increased to 9.57% in 2008 from 9.50% in 2007. In 2010, market capitalization ratio to GDP was 6.25% compared to 6% in 2009. It fluctuated from 12% in 2013 to 13% in 2016.

**Fig. 3: Monetary Policy Rate Graph Trend from 1985 to 2016**



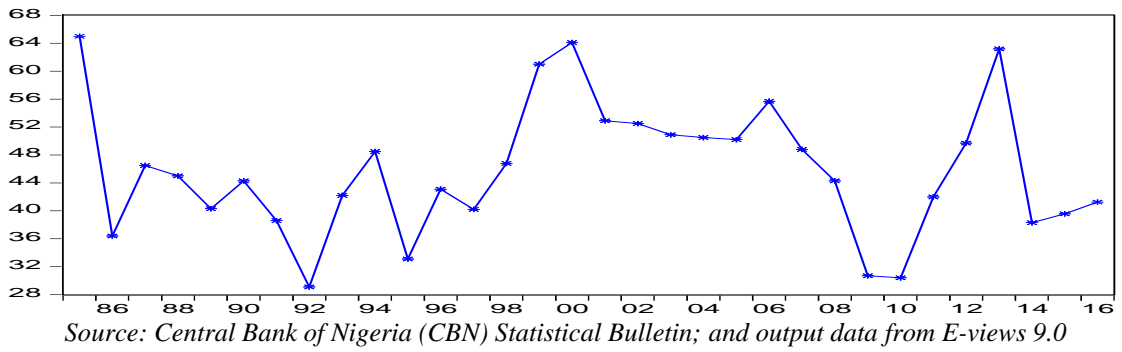
**Fig. 4: Monetary Policy Rate Bar Chart Trend from 1985 to 2016**



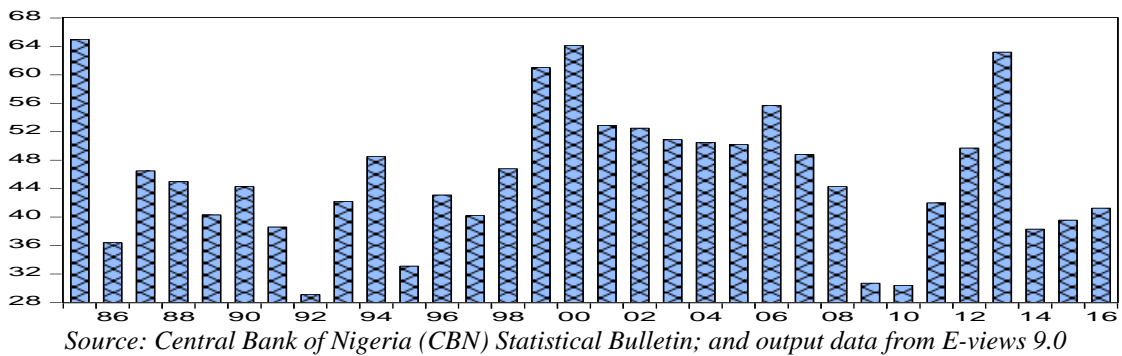
### Liquidity Ratio

As can be seen in Table 2, Fig. 5 and Fig. 6, from 1985 to 2016, there has fluctuation in the liquidity ratio. The liquidity ratio was 65.0% in 1985 but has depreciated to 41.25% in 2016. The period 1999 to 2004 reveals a steady decline in liquidity ratio from 61.0% in 1999 to 50.50% in 2004.

**Fig. 5: Liquidity Ratio Graph Trend from 1985 to 2016**



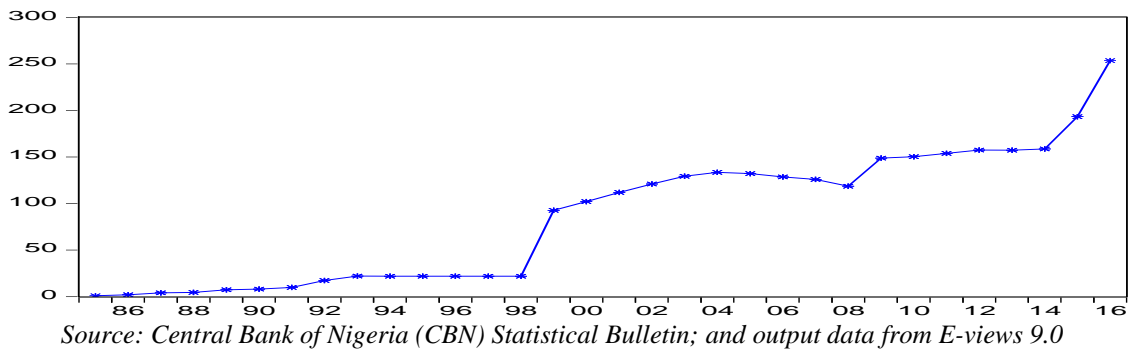
**Fig. 6: Liquidity Ratio Bar Chart Trend from 1985 to 2016**



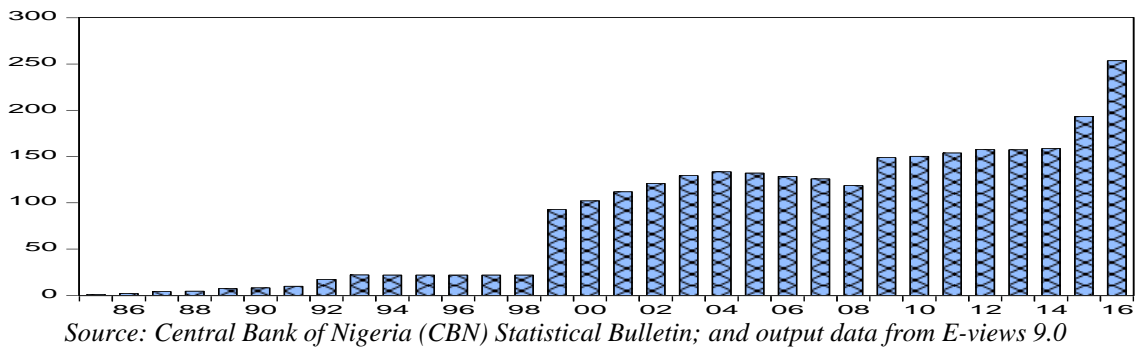
### Exchange Rate

Table 3, Fig. 7 and Fig. 8 reveals that exchange rate (₦/US\$) during the period from 1985 to 2016 depreciated significantly from ₦0.61/US\$ to ₦253.4923/US\$ respectively. This depreciation in the value of the ₦ in comparison to the US\$ is quite significant at about 41,455% in the period under review.

**Fig. 7: Exchange Rate Graph Trend from 1985 to 2016**



**Fig. 8: Exchange Rate Bar Chart Trend from 1985 to 2016**



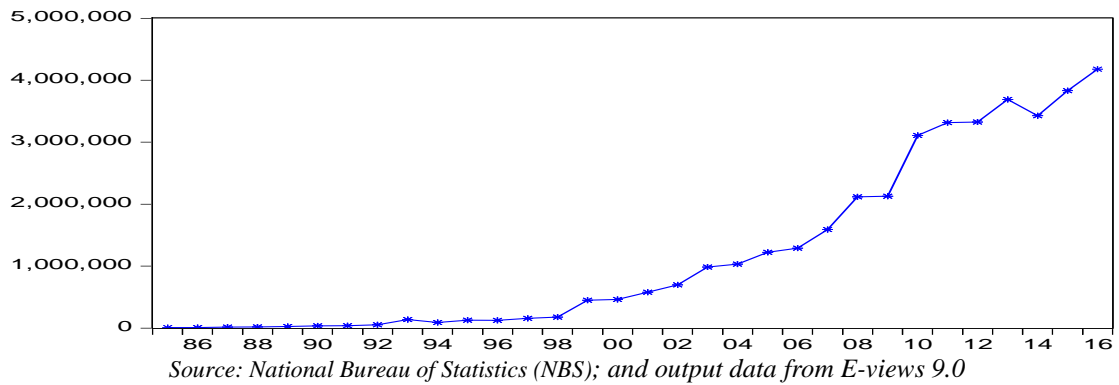
#### 4.1.2 Trend in Fiscal Policy Instruments

##### Recurrent Expenditure

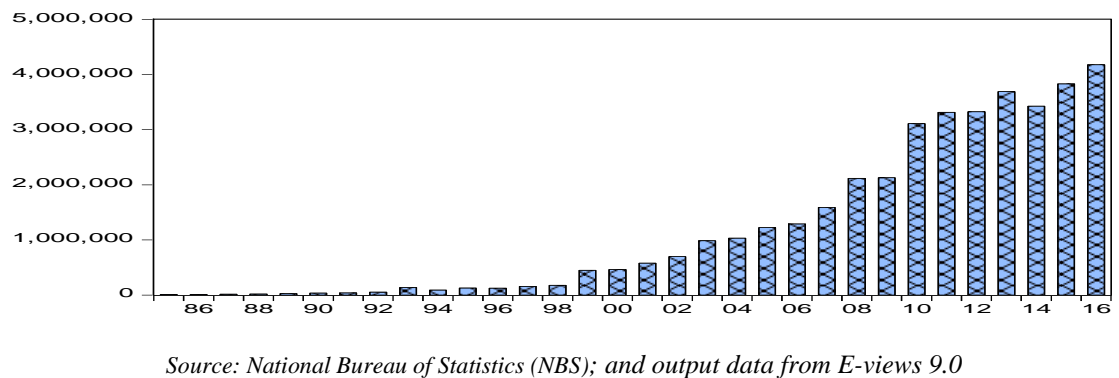
The recurrent expenditure of the government as at 1985 was valued at ₦7,580 million but has risen to ₦3, 109,380 million in 2010. There was further appreciation in 2011 as it was put at ₦3, 314,510 million but went down in 2012 to amount ₦3, 325,160 million. Nevertheless, in 2016, recurrent expenditure increased to ₦4, 178,590 as shown in Table 3, Fig. 9 and 10.



**Fig. 9: Recurrent Expenditure Graph Trend from 1985 to 2016**



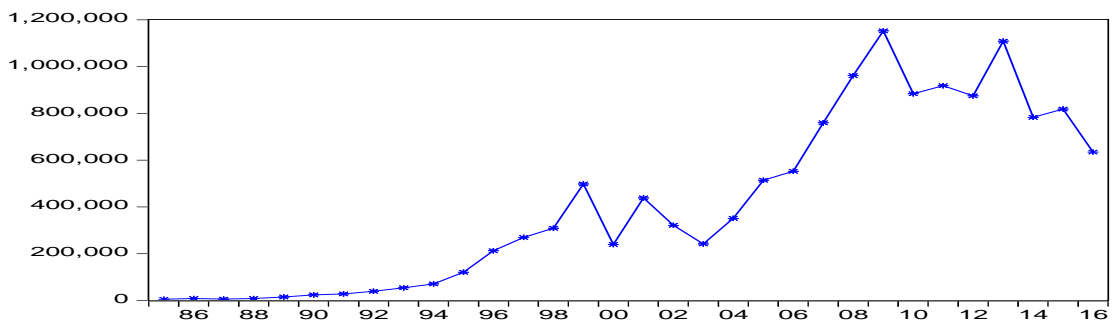
**Fig. 10: Recurrent Expenditure Bar Chart Trend from 1985 to 2016**



### Government Capital Expenditure

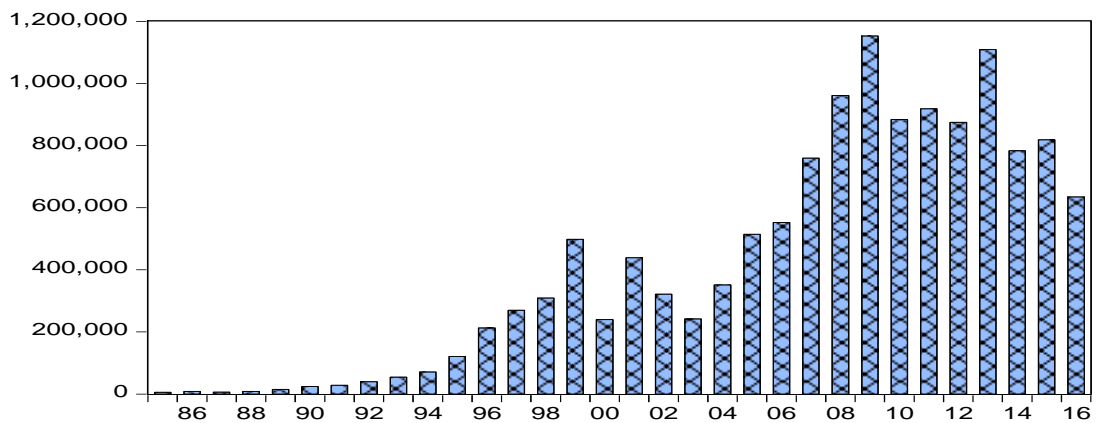
Government capital expenditure from ₦5,460 million in 1985 to ₦634, 590 million in 2016, an increase of over 500% within a period of thirty six years. From 2007 to 2016, the capital expenditure of the government has maintained a steady rise. There was a little reduction in capital expenditure of the government in 2016 owing to fall in revenue largely from decline in oil price in the international oil market. Table 3, Fig. 11 and 12 give the trend in capital expenditure within the period studied.

**Fig. 11: Recurrent Expenditure Graph Trend from 1985 to 2016**



Source: National Bureau of Statistics (NBS); and output data from E-views 9.0

**Fig. 12: Recurrent Expenditure Bar Chart Trend from 1985 to 2016**

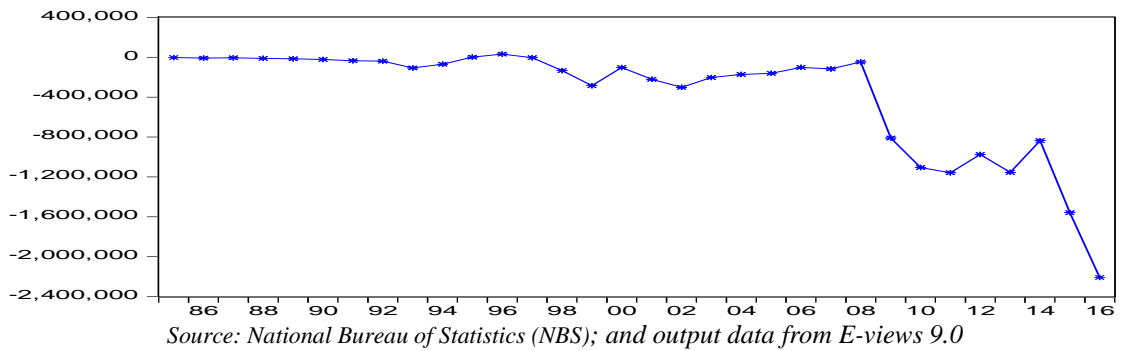


Source: National Bureau of Statistics (NBS); and output data from E-views 9.0

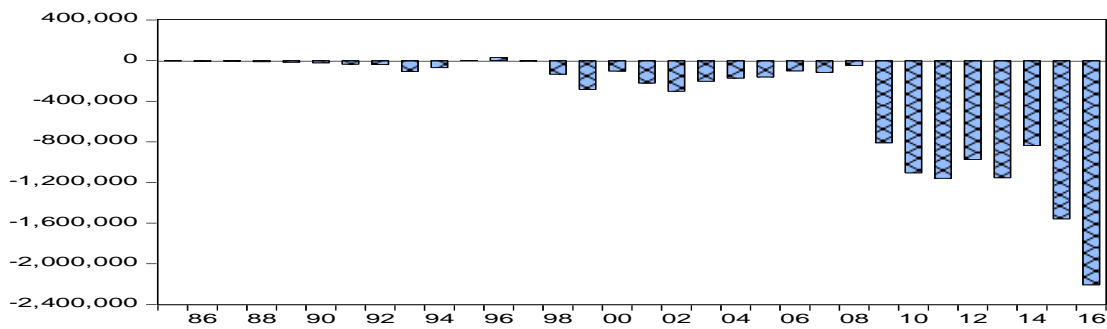
### Fiscal Deficit

Fiscal in 2009 was ~~₦~~810.01 million, a rise of over 9,419% from the ~~₦~~47.38 million in 1985. In 2012, fiscal deficit decline by 18.74% to ~~₦~~975.7 million. As can be seen from Table 3, Fig. 13 and Fig. 14, between 1985 and 1994, fiscal deficit rose tremendously, however, with sharp decline from ~~₦~~3,902.1 million in 1985 to 1,000 in 1995. In 2010, fiscal deficit was -1,105.4 million, a rise of 26.71% compared to ~~₦~~810.10 million in 2009. It continued to fluctuate from ~~₦~~1,153.5 million in 2013 to ~~₦~~1,557.79 million in 2015 and depreciated further by ~~₦~~2, 208,220 million in 2016.

**Fig. 13: Fiscal Deficit Graph Trend from 1985 to 2016**



**Fig. 14: Fiscal Deficit Bar Chart Trend from 1985 to 2016**



## 4.2 Descriptive Properties of Variables

The descriptive properties of the variables in the models are contained in Table 4. The attributes of the descriptive properties were the mean, median, maximum, standard deviation, skewness, kurtosis, Jarque-Bera, p-value and number of observations of the data. From Table 4, the mean of the data were disclose to be 33918289 for RGDP, 13.49594 for MPR, 45.78531 for LR, 86.08086 for EXCHR, 1201485 for REXP, 413319.1 for CEXP and -373250.4 for FD. The median of the data were shown as 2447791, 13.25000, 44.65000, 107.0243, 520450.0, 315200.0 and -112467.7 respectively for RGDP, MPR, LR, EXCHR, REXP, CEXP and FD. The maximum and minimum values reveal 69023930 and 14953910 for RGDP, 6.000000 and 3.905638 for MPR, 65.00000 and 29.10000, 253.4923 and 0.893800 for EXCHR, 4178590 and 7580.000 for REXP, 1152800 and 5460.000 for CEXP

and 32049.40 and -2208220 for FD. The standard deviation of the variables are 18125995, 3.905638, 9.493145, 70.87116, 1403997, 370662.4 and 551831.0 for RGDP, MPR, LR, EXCHR, REXP, CEXP and FD respectively. The skewness coefficient dispels that the data were positively skewed towards normality but with the exception of fiscal deficit. With inferences from the Kurtosis coefficients, MPR and FD are not leptokurtic in nature. In terms of the normality of the data, the p-values of the Jarque-Bera statistic are significant at 5% level of significance. This implies that the data are normally distributed that is, the data follows normal distribution.

**Table 4: Descriptive Properties of Data**

	<b>Mean</b>	<b>Median</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Std. Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>Jarque-Bera</b>	<b>P-value</b>	<b>Obs</b>
RGDP	33918289	2447791	69023930	14953910	18125995	0.742811	2.082446	9.065306	0.001988	32
MPR	13.49594	13.25000	26.00000	6.000000	3.905638	0.809740	4.892447	8.272093	0.015986	32
LR	45.78531	44.65000	65.00000	29.10000	9.493145	0.303991	2.622255	7.683110	0.020664	32
EXCHR	86.08086	107.0243	253.4923	0.893800	70.87116	0.253828	1.976941	9.739154	0.019129	32
REXP	1201485.	520450.0	4178590.	7580.000	1403997.	0.912738	2.298037	8.100154	0.048076	32
CEXP	413319.1	315200.0	1152800.	5460.000	370662.4	0.498988	1.913658	9.901460	0.034399	32
FD	-373250.4	-112467.7	32049.40	-2208220.	551831.0	-1.732864	5.314572	23.15801	0.000009	32

*Source: Output data from E-views 9.0*

### **4.3 Diagnostic Test Result**

#### **Serial Correlation LM Test**

The serial Correlation test is an alternative to the Q-statistic test for serial correlation. Unlike the Durbin Watson statistic for AR(1) errors, the LM test may be used to test for higher order ARMA errors and is applicable whether there are lagged dependent variables or not. Therefore, it is recommended in preference to Durbin Watson whenever there are concern that errors may exhibit possible autocorrelations. The null hypothesis of LM test is that there is no serial correlation up lag order 2. The p-value of the Breusch-Godfrey serial correlation

test in Table 5 suggests that the null hypothesis could not be rejected. Consequently, the models are free from autocorrelation. This overrides any possible result of Durbin Watson in testing autocorrelation in any stated model.

**Table 5: Serial Correlation LM Test**

<b>Model Estimates</b>	<b>F-statistic</b>	<b>P-value</b>
RGDP →MPR + LR + EXCHR	2.841260	0.1355
RGDP →REXP + CEXP + FD	3.036931	0.1198

*Source: Output data from E-views 9.0*

### **ARCH Heteroskedasticity Test**

The ARCH test is a Lagrange Multiplier (LM) test for autoregressive conditional heteroskedasticity in the residuals. The rationale behind choosing this heteroskedasticity specification was based on the fact that in many financial time series, the magnitude of residuals appears to be related to the magnitude of recent residuals. The probability of the Chi-square statistic for the models are insignificant at 5% level of significance, suggesting that there is no existence of heteroskedasticity in the models. This is in line with econometric assumption that a model should be free from problem of heteroskedasticity. Table 6 presents the ARCH test of heteroscedasticity for the models.

**Table 6: Harvey Heteroskedasticity test**

<b>Model Estimates</b>	<b>F-statistic</b>	<b>P-value</b>
RGDP →MPR + LR + EXCHR	0.320638	0.9801
RGDP →REXP + CEXP + FD	1.350600	0.2561

*Source: Output data from E-views 9.0*

### Ramsey RESET Test

The Ramsey RESET test determines whether a model is correctly specified/fitted or not. It also gives an inference as whether or not variable(s) are neglected in a model. The rationale behind the test is that if non-linear combinations of the independent variables have any power in explaining the dependent variable, the model is not well specified. The p-values as depicted in Table 7 is insignificant at 5% level of significance. The alternate hypothesis that the model is well specified is accepted.

**Table 7: Ramsey Reset Specification**

Model Estimates	t-statistic	df	P-value
RGDP →MPR + LR + EXCHR	0.412935	7	0.6920
RGDP →REXP + CEXP + FD	1.212649	11	0.2507

*Source: Output data from E-views 9.0*

### Multicollinearity Test

It can be inferred from the correlation matrix in Table 8 that three of the independent variables: MPR, LR and FD are negatively correlated with the dependent variable-RGDP. The highest correlation (+/-) between the monetary policy variables was between MPR and EXCHR with a correlation of -344, while for the fiscal policy variables was between FD and REXP which is -0.90. For the fact that this study want to determine how each of the fiscal policy instruments affect economic growth, REXP, CEXP and FD were estimated. With this, it is assumed that multicollinearity does not exist between the explanatory variables.

**Table 8: Correlation Matrix**

	RGDP	MPR	LR	EXCHR	REXP	CEXP	FD
RGDP	1.000000	-0.435741	-0.092096	0.902684	0.989508	0.887187	-0.866919
MPR	-0.435741	1.000000	0.103629	-0.344302	-0.436636	-0.540352	0.297163
LR	-0.092096	0.103629	1.000000	0.098308	-0.082186	-0.009891	0.141633
EXCHR	0.902684	-0.344302	0.098308	1.000000	0.886181	0.825225	-0.804367

REXP	0.989508	-0.436636	-0.082186	0.886181	1.000000	0.866518	-0.906142
CEXP	0.887187	-0.540352	-0.009891	0.825225	0.866518	1.000000	-0.677335
FD	-0.866919	0.297163	0.141633	-0.804367	-0.906142	-0.677335	1.000000

Source: Output data from E-views 9.0

#### 4.4 Stationarity Test

For a statistical conclusion from a regression estimation, the data must be free from stationarity defects which affects most time series data due to the way data were generated by the agencies involved. To ensure the data were free from stationarity defect, the stationarity test were checked using the Augmented Dickey-Fuller (ADF), Phillips Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS). The ADF and PP test were performed in three estimations: constant, trend and constant; and none, whereas the KPSS was performed in two sets: constant and trend & constant

#### Augmented Dickey-Fuller (ADF)

The ADF stationarity test result in Table 9 depicts that all the variables were not stationary at level form even though the estimation was done at constant, trend and constant; and none. Nevertheless, the data became stationary at first difference as shown in Table 10. By implication of the result in Table 10, the order of integration of the data is order one that is, 1(1).

Table 9: ADF Test Result at Level

Variables	Constant	Trend and Constant	None	Remark
RGDP	-0.922352 (0.77)	-2.065955 (0.54)	0.166929 (0.73)	Not Stationary
MPR	-3.039349 (0.04)**	-3.565456 (0.04)**	-0.614533 (0.54)	Stationary
LR	-4.082776 (0.00)*	4.066568 (0.01)*	-1.084049 (0.25)	Stationary
EXCHR	0.972844 (0.99)	-1.599340 (0.77)	2.639293 (0.99)	Not Stationary
REXP	1.969006 (0.99)	-1.073647 (0.92)	3.695280 (0.99)	Not Stationary

CEXP	-1.252741 (0.64)	-2.293773 (0.42)	-0.238379 (0.52)	Not Stationary
FD	4.342353 (1.00)	-0.285281 (0.98)	5.082890 (1.00)	Not Stationary

Source: Output data from E-views 9.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC), p-values are in parentheses where (\*) and (\*\*) denote significance at 1% and 5% respectively.

**Table 10: ADF Test Result at First Difference**

Variables	Constant	Trend and Constant	None	Remark
RGDP	-5.761356 (0.00)*	-5.155997 (0.00)*	-3.256680 (0.00)*	Stationary
MPR	-6.702611 (0.00)*	-6.064627 (0.00)*	-5.457440 (0.00)*	Stationary
LR	-7.431656 (0.00)*	-6.348991 (0.00)*	-6.525491 (0.00)*	Stationary
EXCHR	-3.669242 (0.01)*	-3.995108 (0.02)**	-3.041231 (0.00)*	Stationary
REXP	-5.614567 (0.00)*	-5.257659 (0.00)*	-3.719801 (0.00)*	Stationary
CEXP	-7.021884 (0.00)*	-6.921931 (0.00)*	-6.900748 (0.00)*	Stationary
FD	-4.116066 (0.00)*	-4.635338 (0.00)*	-3.825461 (0.00)*	Stationary

Source: Output data from E-views 9.0

Note: The optimal lag for ADF test is selected based on the Akaike Info Criteria (AIC), p-values are in parentheses where (\*) and (\*\*) denote significance at 1% and 5% respectively.

### Phillips Perron (PP) Test

The PP test which is similar to the ADF also depicts that all the variables were not stationary at level as detail in Table 11. However, the data were stationary at first difference and are integrated of order on: 1(1) as presented in Table 12.

**Table 11: PP Test Result at Level**

Variables	Constant	Trend and Constant	None	Remark
RGDP	2.031597 (0.99)	-1.320857 (0.87)	5.654885 (1.00)	Not Stationary
MPR	-3.036500 (0.04)	-3.527853 (0.05)**	-0.497490 (0.49)	Stationary
LR	-4.082776 (0.00)*	-4.127810 (0.00)*	-1.113152 (0.25)	Stationary
EXCHR	0.816211 (0.99)	-1.839619 (0.66)	2.408619 (0.99)	Not Stationary
REXP	2.172189 (0.99)	-0.965212 (0.93)	3.728145 (0.99)	Not Stationary



CEXP	-1.154157 (0.68)	-2.293773 (0.42)	-0.075283 (0.65)	Not Stationary
FD	3.767242 (1.00)	0.710226 (0.99)	5.907991 (1.00)	Not Stationary

Source: Output data from E-views 9.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denote significance at 1% and 5% respectively.

### Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Test

The stationarity of the data were further affirmed using the KPSS test of stationarity. From Table 13, the data were all stationary at level but this was not the case in first difference estimation in Table 14 as stationarity could not be realized for all the variables.

**Table12: PP Test Result at First Difference**

Variables	Constant	Trend and Constant	None	Remark
RGDP	-5.095488 (0.00)*	-5.329364 (0.00)*	-5.187868 (0.00)*	Stationary
MPR	-7.457876 (0.00)*	-7.411914 (0.00)*	-7.663519 (0.00)*	Stationary
LR	-11.33251 (0.00)*	-11.33251 (0.00)*	-11.49966 (0.00)*	Stationary
EXCHR	-3.669723 (0.00)*	-3.979343 (0.02)**	-2.994521 (0.00)*	Stationary
REXP	-5.733958 (0.00)*	-3.842017 (0.02)**	-8.800843 (0.00)*	Stationary
CEXP	-7.475509 (0.00)*	-7.347241 (0.00)*	-7.361155 (0.00)*	Stationary
FD	-3.832721 (0.00)*	-4.523048 (0.02)**	-2.952244 (0.00)*	Stationary

Source: Output data from E-views 9.0

Note: In determining the truncation lag for PP test, the spectral estimation method selected is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denote significance at 1% and 5% respectively.

**Table 13: KPSS Test Result at Level**

Variables	Constant	Trend and Constant	Remark
RGDP	0.643187 (0.00)*	0.186541 (0.00)*	Stationary
MPR	0.154592 (0.00)*	0.148170 (0.00)*	Stationary
LR	0.119727 (0.00)*	0.119106 (0.00)*	Stationary
EXCHR	0.687698 (0.00)*	0.120301 (0.00)*	Stationary

REXP	0.606129 (0.00)*	0.185448 (0.00)*	Stationary
CEXP	0.618973 (0.00)*	0.112060 (0.00)*	Stationary
FD	0.631353 (0.00)*	0.191304 (0.00)*	Stationary

Source: Output data from E-views 9.0

Note: The spectral estimation method selected for KPSS test is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respectively.

**Table 14: KPSS Test Result at First Difference**

Variables	Constant	Trend and Constant	Remark
RGDP	0.555547 (0.00)*	0.106796 (0.00)*	Stationary
MPR	0.105128 (0.74)	0.039845 (0.57)	Not Stationary
LR	0.336822 (0.96)	0.288681 (0.71)	Not Stationary
EXCHR	0.343652 (0.01)*	0.068785 (0.06)	Stationary
REXP	0.061268 (0.00)*	0.609521 (0.00)*	Stationary
CEXP	0.105190 (0.42)	0.106238 (0.83)	Not Stationary
FD	0.438626 (0.11)	0.151785 (0.03)**	Stationary

Source: Output data from E-views 9.0

Note: The spectral estimation method selected for KPSS test is Bartlett kernel and Newey-West method for Bandwidth, p-values are in parentheses where (\*) and (\*\*) denotes significance at 1% and 5% respectively.

#### 4.5 Co-integration ARDL Result

The stationarity test conducted using the ADF, PP and KPSS have provided evidence that the data are stationary and free from any defect that may likely cast a dent on the statistical reliability of the result which permits for testing the co-integration relationship between the variables. Tables 15 and 16 shows the result of the ARDL long run relationship between monetary policy, fiscal policy and economic growth in Nigeria. From the result in Table 15, there is a long run relationship between monetary policy and economic growth in Nigeria. This is based on the fact that the f-statistic of 7.428925 is greater than the lower and upper bound critical value of 3.23 and 4.35 respectively. Similarly, Table 16 also reveals the

presence of a long run relationship between fiscal policy and Nigeria’s economic growth. The f-statistic of 6.300442 is higher the lower and upper bound critical value of 3.23 and 4.35 respectively.

**Table 15: Bound Test for Real Gross Domestic Product and Monetary Policy**

<b>T-Test</b>	<b>5% Critical Value Bound</b>		<b>Remark</b>
<b>F-Statistic</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	
7.428925	3.23	4.35	Null Hypothesis Rejected

*Source: Output data from E-views 9.0*

**Table 16: Bound Test for Real Gross Domestic Product and Monetary Policy**

<b>T-Test</b>	<b>5% Critical Value Bound</b>		<b>Remark</b>
<b>F-Statistic</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	
6.300442	3.23	4.35	Null Hypothesis Rejected

*Source: Output data from E-views 9.0*

#### **4.6 Nature of ARDL Long Run relationship and Error Correction Model**

Having established that monetary and fiscal policy instruments are related with economic growth in the long, it then become necessary to determine the speed of adjustment to equilibrium otherwise called the error correction model. This was ascertained using the ARDL approach. As can be seen in Table 17 the error correction model coefficient showed the supposed negative which is statistically significant at 5% significance level. The implication of this result is that there is significant error taking place. There is tendency of the model to move towards equilibrium following disequilibrium in previous periods. About 25.97% of error generated in past years was corrected in current. The significance of the p-value (0.0020) of the ECM coefficient (-0.259663) is a further affirmation of the long run relationship between monetary policy and economic growth in Nigeria as revealed earlier in

Table 15. As expected, the error correction coefficient of the long run relationship between fiscal policy and economic growth in Table 18 revealed the supposed negative sign and statistically significant. This is another insight that the model returns to equilibrium owing to disequilibrium in previous period thus 28.39% of error generated in previous years is corrected in present year. The ARDL correction model determination has further authenticated the result of the long run relationship between monetary policy, fiscal policy and economic growth in Nigeria.

**Table 17: ARDL Error Correction RGDP→MPR, LR and EXCHR**

<b>Short Run Co-integrating Form</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
D(RGDP(-1))	0.229732	0.260801	0.880871	0.4041
D(RGDP(-2))	-0.170050	0.258276	-0.658403	0.5288
D(RGDP(-3))	-0.364356	0.264879	-1.375559	0.2062
D(MPR)	46137.95	58993.62	0.782084	0.4567
D(MPR(-1))	88983.26	59233.91	1.502235	0.1714
D(MPR(-2))	165301.5	64977.13	2.543996	0.0345
D(MPR(-3))	88650.75	57310.17	1.546859	0.1605
D(LR)	-77701.65	30657.91	-2.534473	0.0350
D(LR(-1))	-23162.35	25144.57	-0.921166	0.3839
D(LR(-2))	44231.14	35523.24	1.245132	0.2483
D(LR(-3))	92829.51	26806.15	3.462993	0.0085
D(EXCHR)	-7603.046	11840.95	-0.642098	0.5388
D(EXCHR(-1))	7927.861	15031.66	0.527411	0.6122
D(EXCHR(-2))	-38415.61	14555.62	-2.639229	0.0297
D(EXCHR(-3))	-22462.80	15443.62	-1.454503	0.1839
CointEq(-1)	-0.259663	0.057615	-4.506858	0.0020
<b>Long Run Coefficient</b>				
MPR	-1118166.19	425974.10	-2.624963	0.0304

LR	-864963.188	156777.51	-5.517138	0.0006
EXCHR	338840.166	36195.511	9.361386	0.0000
C	71855307.724	6404343.899	11.219777	0.0000

*Source: Data output via E-views 9.0*

**Table 18: ARDL Error Correction RGDP→REXP, CEXP and FD**

<b>Short Run Co-integrating Form</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
D(REXP)	0.513013	1.662156	0.308643	0.7629
D(REXP(-1))	-5.311950	1.875286	-2.832609	0.0151
D(REXP(-2))	1.539909	1.802515	0.854311	0.4097
D(REXP(-3))	4.502328	1.033000	4.358498	0.0009
D(CEXP)	-3.437315	1.894674	-1.814199	0.0947
D(CEXP(-1))	-2.813747	2.677484	-1.050892	0.3140
D(CEXP(-2))	-8.195623	2.636420	-3.108618	0.0090
D(FD)	3.179355	0.745549	4.264450	0.0011
D(FD(-1))	-6.591027	2.214466	-2.976350	0.0116
D(FD(-2))	-3.028197	2.802087	-1.080693	0.3011
D(FD(-3))	7.526993	2.524090	2.982062	0.0114
CointEq(-1)	-0.283926	0.116278	-2.441789	0.0311
<b>Long Run Coefficient</b>				
REXP	16.617152	3.4208580	4.857597	0.0004
CEXP	19.974852	11.216764	1.780803	0.1003
FD	29.674442	16.308599	1.819558	0.0938
C	21150292	1400543.7	15.101487	0.0000

*Source: Data output via E-views 9.0*

#### **4.7 ARDL Short Run Relationship**

Having ascertain the nature of the long run relationship between monetary policy, fiscal policy and economic growth in Nigeria, it is necessary to determine the short run relationship using the Auto-regressive Distributive Lag (ARDL) model was utilized in estimating the short run relationship between fiscal policy instruments and selected macroeconomic variables. The statistical criteria for interpretation of the ARDL regression result was based on Adjusted R-square, f-statistic, Durbin Watson and coefficients of the dependent and independent variables.

##### **Economic Growth and Monetary Policy Instruments**

Table 19 insights that in the short run, monetary policy rate has positive but insignificant relationship with economic growth, whereas liquidity ratio and exchange rate have negative relationship with economic growth. The negative relationship between liquidity ratio and economic growth is significant at 5% level of significance. When monetary policy instruments are held constant, economic growth would amount to ₦18,658,137 million. A percentage increase in monetary policy rate leads to ₦46,137.96 million increase in real gross domestic product. Economic growth would be down by ₦77701.65 million and ₦7603.05 million following a unit increase liquidity ratio and depreciation in exchange rate respectively.

The adjusted R-square reveals that 99.87% variation in real gross domestic product was attributed to changes in monetary policy instruments of the Central Bank of Nigeria within the period covered by this study. The f-statistic (1066.142) and p-value (0.00) show that monetary policy instruments significantly explained the changes in economic growth of Nigeria. The Durbin Watson value of 2.5 depict the absence of autocorrelation problem in the

model. In addition, the serial correlation LM test in Table 5 has also provided evidence of no autocorrelation in the model.

**Table 19: ARDL Regression: Economic Growth and Monetary Policy**

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
RGDP(-1)	0.970070	0.276876	3.503626	0.0080
RGDP(-2)	-0.399782	0.355009	-1.126116	0.2928
RGDP(-3)	-0.194307	0.388621	-0.499991	0.6305
RGDP(-4)	0.364356	0.264879	1.375559	0.2062
MPR	46137.96	58993.62	0.782084	0.4567
MPR(-1)	6451.638	57131.45	0.112926	0.9129
MPR(-2)	-88983.26	59233.91	-1.502235	0.1714
MPR(-3)	-165301.5	64977.13	-2.543996	0.0345
MPR(-4)	-88650.75	57310.17	-1.546859	0.1605
LR	-77701.65	30657.91	-2.534473	0.0350
LR(-1)	-32998.63	27089.70	-1.218125	0.2579
LR(-2)	23162.32	25144.57	0.921166	0.3839
LR(-3)	-44231.14	35523.24	-1.245132	0.2483
LR(-4)	-92829.51	26806.15	-3.462993	0.0085
EXCHR	-7603.046	11840.95	-0.642098	0.5388
EXCHR(-1)	42636.62	13796.79	3.090328	0.0149
EXCHR(-2)	-7927.861	15031.66	-0.527411	0.6122
EXCHR(-3)	38415.61	14555.62	2.639229	0.0297
EXCHR(-4)	22462.80	15443.62	1.454503	0.1839
C	18658137	4115283.	4.533865	0.0019
R-squared	0.999605	Mean dependent var		36561216
Adjusted R-squared	0.998668	S.D. dependent var		17867352
S.E. of regression	652186.9	Akaike info criterion		29.78986
Sum squared resid	3.40E+12	Schwarz criterion		30.74143
Log likelihood	-397.0580	Hannan-Quinn criter.		30.08076

F-statistic	1066.142	Durbin-Watson stat	2.570834
Prob (F-statistic)	0.000000		

*Source: Data output via E-views 9.0*

## **Economic Growth and Fiscal Policy**

Table 20 provides evidence that government recurrent expenditure and fiscal deficit have significant positive relationship with economic growth in the short run, while capital expenditure has negative insignificant relationship with economic growth. Economic growth would be valued at ₦6005127 million if fiscal policy instruments: recurrent, capital expenditure and fiscal deficit are held constant. A unit increase in government recurrent expenditure and fiscal deficit result in ₦51.30 million and ₦317.94 million appreciation in economic growth, whereas a percentage rise in capital expenditure would reduce economic growth by ₦343.73 million. The result in Table 20 depicts the coefficient of the adjusted R-square as 0.999079. By implication, 99.91% changes in economic growth was significantly as a result of joint variation in recurrent, capital expenditure fiscal deficit as evidence by f-statistic (1954.38) and p-value (0.00). There is no element of autocorrelation in the model as divulged by the Durbin Watson value (2.9).

**Table 20: ARDL Regression: Economic Growth and Fiscal Policy**

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
RGDP(-1)	0.716074	0.116278	6.158288	0.0000
REXP	0.513013	1.662156	0.308643	0.7629
REXP(-1)	4.935323	1.378190	3.581017	0.0038
REXP(-2)	5.311950	1.875286	2.832609	0.0151
REXP(-3)	-1.539909	1.802515	-0.854311	0.4097
REXP(-4)	-4.502328	1.033000	-4.358498	0.0009
CEXP	-3.437315	1.894674	-1.814199	0.0947



CEXP(-1)	-1.900667	2.240309	-0.848395	0.4128
CEXP(-2)	2.813747	2.677484	1.050892	0.3140
CEXP(-3)	8.195623	2.636420	3.108618	0.0090
FD	3.179355	0.745549	4.264450	0.0011
FD(-1)	3.153773	1.660518	1.899270	0.0818
FD(-2)	6.591027	2.214466	2.976350	0.0116
FD(-3)	3.028197	2.802087	1.080693	0.3011
FD(-4)	-7.526993	2.524090	-2.982062	0.0114
C	6005127.	2155751.	2.785631	0.0165
R-squared	0.999591	Mean dependent var		36561216
Adjusted R-squared	0.999079	S.D. dependent var		17867352
S.E. of regression	542129.1	Akaike info criterion		29.53996
Sum squared resid	3.53E+12	Schwarz criterion		30.30121
Log likelihood	-397.5594	Hannan-Quinn criter.		29.77268
F-statistic	1954.383	Durbin-Watson stat		2.912076
Prob (F-statistic)	0.000000			

*Source: Data output via E-views 9.0*

## 4.8 Structural Analysis

### Granger Causality Analysis

The effect of monetary policy and fiscal policy instruments on economic growth in Nigeria was ascertained using the granger causality test analysis. The justification of the using the granger causality analysis is that it determine the predicting power of one variable against another unlike in the traditional OLS which measures only relationship. Two variables may correlate but that does not mean they affect each other. From the granger causality analysis in Table 21, there is no causal relationship between monetary policy rate and real gross domestic product; liquidity ratio and real gross domestic product as causality does not flow

from either direction. In other word, monetary policy rate and liquidity ratio have no significant effect on economic growth of Nigeria. In the same vain, there a unidirectional causal relationship between exchange rate and real gross domestic product, causality runs from exchange rate to real gross domestic product at 5% significance level. By implication, exchange rate has significant effect on economic growth of Nigeria.

**Table 21: Granger Causality Result for Economic Growth and Monetary Policy**

<b>Null Hypothesis:</b>	<b>Obs</b>	<b>F-Statistic</b>	<b>Prob.</b>	<b>Remarks</b>
MPR does not Granger Cause RGDP	31	0.92266	0.3450	No Causality
RGDP does not Granger Cause MPR		2.77031	0.1072	No Causality
LR does not Granger Cause RGDP	31	1.77401	0.1936	No Causality
RGDP does not Granger Cause LR		0.00085	0.9770	No Causality
EXCHR does not Granger Cause RGDP	31	11.3216	0.0022	Causality
RGDP does not Granger Cause EXCHR		2.17099	0.1518	No Causality

*Source: Data output via E-views 9.0*

From the inferences in Table 22, there is a unidirectional causal relationship between government capital expenditure and economic growth. Causality flows from capital expenditure to economic growth at 5% significance level. This suggests that capital expenditure has significant effect on economic growth. There was evidence of bidirectional causal relationship between fiscal deficit and economic growth as causality from both direction that is, from fiscal deficit to economic growth, and from economic growth back to fiscal deficit. This findings indicates that fiscal deficit has significant effect on economic growth in one hand, and in the other hand, economic growth exerts significant influence on fiscal deficit. There was a causal one way relationship between recurrent expenditure and economic growth but this time, it flows in the opposite that is, economic growth to recurrent

expenditure. This is to say that it is economic growth that has significant effect on recurrent expenditure of the government within the period studied.

**Table 22: Granger Causality Result for Economic Growth and Fiscal Policy**

<b>Null Hypothesis:</b>	<b>Obs</b>	<b>F-Statistic</b>	<b>Prob.</b>	<b>Remarks</b>
REXP does not Granger Cause RGDP	31	0.22865	0.6362	No Causality
RGDP does not Granger Cause REXP		16.4503	0.0004	Causality
CEXP does not Granger Cause RGDP	31	17.1402	0.0003	Causality
RGDP does not Granger Cause CEXP		0.50482	0.4883	No Causality
FD does not Granger Cause RGDP	31	4.88637	0.0354	Causality
RGDP does not Granger Cause FD		6.43427	0.0171	Causality

*Source: Data output via E-views 9.0*

### **Variance Decomposition**

The variance decomposition was carried out to ascertain which of the monetary policy and fiscal policy instrument that has much influence or causes more changes in economic growth. The variance decomposition result in Table 23 reveals exchange rate as the monetary policy instrument that influences or causes more changes in economic growth. In the second place is liquidity ratio, and monetary policy the least. The variation in economic growth proxied by real gross domestic product was more explained by fluctuation in real gross domestic product itself.

**Table 23: Variance Decomposition of RGDP and Monetary Policy**

<b>Period</b>	<b>S.E.</b>	<b>RGDP</b>	<b>MPR</b>	<b>LR</b>	<b>EXCHR</b>
1	1001316.	100.0000	0.000000	0.000000	0.000000
2	1828997.	97.65382	0.677971	1.624893	0.043315
3	2468079.	90.10636	2.838242	5.219814	1.835586
4	2966702.	75.86878	5.502717	9.050075	9.578427
5	3483478.	57.11657	6.923096	11.24228	24.71805

6	4125841.	40.76677	6.241947	11.17699	41.81429
7	4884428.	30.52150	4.667504	9.830203	54.98079
8	5686346.	25.09207	3.455238	8.283347	63.16934
9	6457735.	22.14149	2.926684	7.010826	67.92100
10	7153244.	20.17957	2.906050	6.089789	70.82459

*Source: Data output via E-views 9.0*

With regard to economic growth and fiscal policy, Table 24 dispels that capital expenditure causes more changes in the economic growth compared to other fiscal policy instruments. This is flowed by recurrent expenditure and then fiscal deficit. It is concluded that exchange rate and capital expenditure are the monetary policy and fiscal policy variables that great influence economic growth in Nigeria.

**Table 24: Variance Decomposition of RGDP and Fiscal Policy**

<b>Period</b>	<b>S.E.</b>	<b>RGDP</b>	<b>REXP</b>	<b>CEXP</b>	<b>FD</b>
1	774524.2	100.0000	0.000000	0.000000	0.000000
2	1726427.	83.54251	5.271708	8.226192	2.959588
3	3161643.	60.04315	13.02692	16.27810	10.65182
4	5009550.	45.32594	16.40755	24.66234	13.60417
5	7167727.	35.82193	17.51659	31.49808	15.16339
6	9569294.	29.31070	17.36509	37.41731	15.90690
7	12151294	24.68619	16.54886	42.37074	16.39420
8	14843359	21.36235	15.38784	46.63192	16.61788
9	17551863	18.94319	14.10213	50.33157	16.62311
10	20171771	17.13434	12.82486	53.61564	16.42516

*Source: Data output via E-views 9.0*

## Impulse Response Function

The impulse response function in this study details how economic growth responds to sudden shocks in monetary policy and fiscal policy instrument. Put differently, it ascertain the magnitude of variation in economic growth attributed to a unit change in monetary and fiscal policy instruments. As can be seen in Table 25, economic growth respond positively to any shock in liquidity ratio and exchange rate in short and long run. Similarly, economic growth responds negatively to any shock in monetary policy rate only in the short run but positively in the long run. With regard to economic growth and fiscal policy instrument, Table 26 provides evidence that economic growth responds positively to shock in all the fiscal policy instruments: recurrent, capital expenditure and fiscal deficit both in short and long run.

**Table 25: Impulse Response Function of RGDP and Monetary Policy**

Period	RGDP	MPR	LR	EXCHR
1	1001316.	0.000000	0.000000	0.000000
2	1504696.	-150597.8	233144.6	38065.45
3	1490639.	-387568.5	513423.9	332211.0
4	1090277.	-558052.5	691784.3	855111.0
5	503413.0	-596472.6	753446.9	1468473.
6	-93122.24	-471644.0	733759.2	2029390.
7	-584942.8	-225869.0	665314.5	2449337.
8	-911973.5	60653.13	577171.8	2703404.
9	-1058356.	321342.6	495274.9	2810540.
10	-1045056.	516234.3	438633.9	2813453.

*Source: Data output via E-views 9.0*

**Table 26: Impulse Response Function of RGDP and Fiscal Policy**

Period	RGDP	REXP	CEXP	FD
1	774524.2	0.000000	0.000000	0.000000
2	1374823.	396391.0	495162.3	297005.0
3	1874001.	1070067.	1175573.	988201.6
4	2317954.	1677916.	2135885.	1532740.
5	2651259.	2209482.	3161233.	2091971.
6	2904519.	2627180.	4252175.	2603032.
7	3099987.	2921231.	5319636.	3104919.
8	3258302.	3077054.	6338758.	3522317.
9	3360240.	3088825.	7232805.	3820610.
10	3370729.	2956393.	7943980.	3952665.

*Source: Data output via E-views 9.0*

#### **4.9 Hypotheses Testing**

**Decision Rule:** If the p-value of f-statistic in granger causality test is significant at 5% level of significance, the null hypothesis is rejected. On the other hand, the null hypothesis is accepted if the p-value of f-statistic in granger causality test is insignificant at 5% level of significance.

#### **Restatement of Hypotheses**

1.  $H_0$ : Monetary policy rate has no significant effect on real gross domestic product.
2.  $H_0$ : Liquidity ratio has no significant effect on real gross domestic product.
3.  $H_0$ : Exchange rate has no significant effect on real gross domestic product.
4.  $H_0$ : Recurrent expenditure has no significant effect on real gross domestic product.
5.  $H_0$ : Capital expenditure has no significant effect on real gross domestic product.
6.  $H_0$ : Fiscal deficit has no significant effect on real gross domestic product.

**Table 27: Test of Hypotheses**

<b>Hypotheses</b>	<b>Independent Variables</b>	<b>F-Statistic</b>	<b>P-Value</b>	<b>Decision</b>
Hypothesis 1	Monetary Policy Rate	0.92266	0.3450	Accept $H_0$ and Reject $H_1$
Hypothesis 2	Liquidity Ratio	1.77401	0.1936	Accept $H_0$ and Reject $H_1$
Hypothesis 3	Exchange Rate	11.3216	0.0022	Reject $H_0$ and Accept $H_1$
Hypothesis 4	Recurrent Expenditure	0.22865	0.6362	Accept $H_0$ and Reject $H_1$
Hypothesis 5	Capital Expenditure	17.1402	0.0003	Reject $H_0$ and Accept $H_1$
Hypothesis 6	Fiscal Deficit	4.88637	0.0354	Reject $H_0$ and Accept $H_1$

*Source: Granger Causality Output in Tables 21 – 22*

On one hand, Table 27 depicts the acceptance of the null hypothesis for hypothesis one, two and four as the p-values of the f-statistic are greater than 0.05 (insignificant at 5% level of significance). On the other hand, it reveals the rejection of the null hypothesis for hypothesis three, five and six.

#### **4.10 Discussion of Findings**

The long run relationship between monetary policy, fiscal policy instruments and economic growth in Nigeria points to the critical role of the monetary policy decision of the Central Bank of Nigeria and Federal Government fiscal policy programmes on growth and development of economy. It could be adduced from this finding that for Nigeria to achieve the desire level of economic growth and development appropriate monetary policy and fiscal sustainability be practiced by the government having consideration that Nigeria is a developing economy and wants to attain development in the nearest future. It also brings to light that monetary and fiscal policy of the government is indispensable in the regulation, stabilization and intervention of eventual developments within the economy.

The positive relationship between gross domestic product and fiscal deficit in Table 20 is in line with the Keynesian theory that fiscal deficit spurs economic growth. This supports the

works of Olanipekun and Folorunso (2015) and Okoro (2013) that the level of economic growth attained by Nigeria at current time was a result of government's fiscal deficit over the years. Monetary policy rate having a positive relationship with real gross domestic product is unexpected owing to its ultimate effect on prime lending rate which affect productive economic activities. This refutes the study of Olanipekun & Folorunso (2015) that interest rate has not helped in mobilizing funds for economic investment. Invariably, the assertion that a change in interest rate brings about a corresponding decrease in real gross domestic product would be affirm by the result of this study.

Exchange rate having a negative relationship with real gross domestic product in Table 19 and exerting a significant effect on economic growth in Table 21 evidences the devastating effect of deterioration in Nigeria's exchange rate over the years. Ordinarily, a change in exchange rate is expected to bring about corresponding increase in gross domestic product of Nigeria but the reverse is the case in Nigeria. The exchange rate of Nigerian Naira against other countries of the world, especially the USA Dollar, British Euro and European Euros has greatly depreciated over the years starting from 1986 when the Structural Adjustment Programme (SAP) was introduced in Nigerian. The negative relationship between exchange rate and economic growth is not in tandem with the studies of Tesfay (2010), Chowdhury & Afzal (2015) and Chuku (2010).

Government recurrent expenditure was found to have positive significant relationship with economic growth. This is in line with the Keynesian postulation that public spending increases output. This is in line with findings of Micheal and Ebibsi (2014), Onyeiwu (2012) and Rakic and Raenovic (2013). It is quite unfortunate that despite the increasing government over the years, the country still lack basic infrastructures such as good road, good healthcare centres, power supply just to mention a few. The budgetary system of the country is standing



on a weak platform. Cases of budget delays, padding, weak structure for budget implementation monitoring is prevalent. In addition corruption in the management of public funds, extra-budgetary spending, awarding of contracts to cronies and embezzlement of public funds are not lacking in Nigerian news. The country which is public sector driven up to 80% have not achieved excellence in growth as always planned because of the aforementioned factors among others.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary of Findings

This study examined the effect of monetary policy and fiscal policy instruments on growth of Nigerian economy from 1985 to 2016. Specifically, the study ascertained the effect of monetary policy rate, liquidity ratio, exchange rate, recurrent expenditure, capital expenditure and fiscal deficit on real gross domestic product. The result of the analysis revealed the following:

1. Monetary policy rate has no significant effect on economic growth. There is a positive relationship between economic growth and monetary policy rate.
2. Economic growth is not affected by variation in liquidity ratio. Liquidity ratio negatively correlates with economic growth.
3. Exchange rate has significant effect on economic growth of Nigeria. There is negative relationship between exchange rate and economic growth.
4. Economic growth in Nigeria is not significantly affected by government recurrent expenditure despite the fact that they positively associated.
5. Capital expenditure of the government has significant effect on economic growth. Although the short run relationship between capital expenditure and economic growth is negative.
6. Nigeria economic growth is affected by fiscal deficit practice of the government. Fiscal deficit significantly relates with economic growth in Nigeria.

## **5.2 Conclusion**

This research work examine the effect of monetary policy and fiscal policy instruments on economic growth in Nigeria. The role of government monetary and fiscal policy in the regulation, stabilization and intervention of eventual developments within the economy is indispensable. The inter-relationship between monetary policy, fiscal policy and economic growth has been a topic of importance in literature, yet researchers have not arrived at a consensus opinion. With this, this study concludes that fiscal policy affect economic growth in Nigeria more than monetary policy.

## **5.3 Recommendations**

In view of the findings of this study, the following recommendations are put forward for consideration by decision makers:

1. Government should allocate and effectively monitor funds sourced as a result of fiscal deficit to the provision of critical economic infrastructures such as electricity, access road, health, communication among others to reap the benefit associated with fiscal deficit.
2. The Central Bank of Nigeria should make policies that will keep the exchange rate at a stable rate since exchange rate volatility is affecting the growth of Nigerian economy.
3. Governments should make policies that will help increase government revenue generation to spend more on capital projects and ensure that public funds are not diverted into private pockets which result in no execution of projects.
4. The Central Bank of Nigeria should further develop the financial sector through making more funds available to the private sector by reducing monetary policy rate which affects interest rate ceiling on loans to the private sector.

5. Monetary policy should be structured in a way to compliment fiscal policy so that the level of inflation would be lowered whenever government relies majorly on fiscal deficit as an instrument of fiscal policy.
6. There should be consistency in policy objectives of the CBN. Policy inconsistency often sends the wrong signal to stakeholders in agricultural sector and prevent the sector's long term capital investments that could endanger increased productivity in the agricultural sector.

#### **5.4 Contribution to Knowledge**

The major contribution of this study to knowledge is in its attempt to determining whether economic growth is more propelled by monetary policy or fiscal policy which is lacking in previous studies in the context of Nigeria. This study makes a contribution by providing a time series assessment for an emerging country on the effect of monetary policy and fiscal policy instruments on economic growth in Nigeria using up-to-date data on variables of interest. The use of a superior tools of analysis: ARDL against the OLS estimation contributes to knowledge in this subject area

#### **5.5 Suggestion for Further Studies**

This study only utilized three monetary policy variables: monetary policy rate, liquidity ratio and exchange rate; three fiscal policy variables: recurrent expenditure, capital expenditure and fiscal deficit. The relationship between monetary policy and fiscal policy are ideal in government formulation of fiscal policies. Further research should be conducted on other monetary policy variables such as cash reserve ratio, loan to deposit ratio and taxation aspect of fiscal policy.

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