# THE PERFORMANCE OF MONETARY POLICY IN THE NIGERIAN ECONOMY (1980-2010)

**BY**

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## TABLE OF CONTENT

Certification ------------------------------------------------------------------- i

Acknowledgement ----------------------------------------------------------ii

Dedication --------------------------------------------------------------------iii

Abstract -----------------------------------------------------------------------iv

**CHAPTER ONE**

**1.1** Introduction -----------------------------------------------------------1

**1.2** Background of the study ---------------------------------------------1

**1.3** Statement of the problem -------------------------------------------7

**1.4** Objectives of the study ----------------------------------------------8

**1.5** Statement of hypothesis ---------------------------------------------9

**1.6** Scope and limitations of the study -----------------------------------9

**1.7** Significance of the study ---------------------------------------------9

**CHAPTER TWO**

**2.0** Literature review ------------------------------------------------------11

**2.0.1** Conceptual definition of monetary policy ---------------------------11

**2.0.2** Evolution of the monetary policy framework in Nigeria ------------12

**2.0.3** Review of the monetary policy before the Structural

Adjustment Programme (SAP) ----------------------------------------------16

**2.1 Theoretical literature review** -------------------------------------------19

**2.1.1** Monetary policy under the Structural Adjustment

Programme (SAP) -----------------------------------------------------------19

**2.1.2** Nigeria monetary policy experience ------------------------------------23

**2.2 Empirical literature review** --------------------------------------------28

**2.2.1.** Framework of monetary policy in targeting inflation ---------------28

**2. 2.2** An appraisal of the performance of monetary policy in Nigeria --30

**2.2.3** Suggestion for dealing with inflation in Nigeria ----------------------33

**CHAPTER THREE**

**3.0** Research methodology --------------------------------------------------37

**3.1** Model specification -------------------------------------------------------37

**3.2** Method of evaluation ---------------------------------------------------39

**3.2.1**Unit root test ------------------------------------------------------------39

**3.2.2**Presentation of co-integration and error corrections ----------------40

**3.2.3** Diagnostic tests ---------------------------------------------------------40

**3.3** Justification of the model ------------------------------------------------40

**3.4** Research approach ------------------------------------------------------41

**CHAPTER FOUR**

**4.0** Presentation of data and discussion of results -------------------------42

**4.1** Presentation of data -------------------------------------------------------42

**4.1.1** Unit Root Test ---------------------------------------------------------42

**4.1.2** Co-integration Test ---------------------------------------------------45

**4.2** Economic Opinion, Interpretation/Appriori Criteria -------------------48

**4.3** Statistical Criteria of the Results ------------------------------------48

**4.3.1** T-test ---------------------------------------------------------------------48

**4.3.2** F-test ---------------------------------------------------------------------49

**4.4** Economic Criteria ---------------------------------------------------------50

**4.4.1** Test for Autocorrelation -----------------------------------------------50

**4.4.2** Normality test -------------------------------------------------------------51

**4.4.3** Test for multicollinearity ----------------------------------------------52

**CHAPTER FIVE**

Summary -----------------------------------------------------------------------55

Conclusion ---------------------------------------------------------------------58

Recommendations ---------------------------------------------------------------59

Bibliography ------------------------------------------------------------------61

## CERTIFICATION

This is to certify that this project work was originally carried out by Ezinne Meshach Chimezie, a student in the department of Economics with Registration number EC/2008/647, Caritas University Amorji-Nike Enugu, Enugu State.

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# DEDICATION

In totality, this research project is dedicated to my family & friends.

## ABSTRACT

The purpose of this project work is based on the relative performance of monetary policy in the Nigerian economy. This work discussed the meaning of monetary policy is as combination of measures designed to regulate the value, supply and cost of money in an economy in consonance with the expected value of economies activities. The study shows further, the aims and objectives of monetary policy which includes price stability, maintenance of balance of payment equilibrium, promotion of employment, tackling inflation, output growth and sustainable development. The literature review shed more light on conceptual and evolutionary framework of monetary policy in Nigeria, review of monetary policy before and offer the structural adjustment programme (SAP), and appraisal of the performance of monetary policy in Nigeria were thoroughly discussed. also appropriate measures for managing inflation in the economy were also suggested from the research instruments and techniques, if was observed that there are leakages in velocity of money through corrupt practices in the system and diabolic means of creating cash flow which causes inflation, multiplicity of unemployment and low output growth. The research work, also showed the interplay between the gross domestic product (GDP) and other monetary policy variables (real exchange rate, real interest rate, money supply and liquidity ratio), and their respective contribution to the economy. In conclusion this project suggests total means of curling corruption using the various law enforcements in the country.

## CHAPTER ONE

### 1.0 INTRODUCTION

### 1.1 BACKGROUND OF THE STUDY

For most economies, the objectives of monetary policy include price stability, maintenance of balance of payments equilibrium, promotion of employment and output growth, sustainable development. These objectives are necessary for the attainment of internal and external balance, and the promotion of long run economic growth. The importance of price stability derives from the harmful effect of price volatility which undermines the objectives. This is indeed a general consensus that domestic price fluctuations undermines the role of monetary values as a store of value, and frustrate investments and growth.

Ajayi and Ojo (1981) and fisher (1993), empirical states on inflation, growth and productivity have confirmed the long run inverse relationship between inflation and growth. When decomposed into its components, that is growth due to capital accumulation, productivity growth, and the growth rate of the labour force, the negative association between inflation and growth has been traced to the strong negative relationship between it and capital accumulation as well as productivity growth respectively. The importance of these empirical findings is that stable prices are essential for growth due to capital accumulation, productivity growth, and the growth rate of the labour force, the negative association between inflation and growth has been traced to the strong negative relationship between it and capital accumulation as well as productivity growth

respectively. The importance of these empirical findings is that stable prices are essential for growth. The success of monetary policy depends on the operating economic environment, the institutional framework adopted, and the implementation of monetary policy is the responsibility of the central bank of Nigeria (CBN). The mandates of the CBN as specified by the CBN Act of 1958 include;

- Issuance of legal tender currency.
- Maintaining external reserves to safeguard the international value of the currency.
- Promoting monetary stability and a sound financial system.
- Acting as banker and financial adviser to the federal government.

However, the current monetary policy framework focuses on the maintenance of price stability while the promotion of growth and employment are the secondary goals of monetary policy. The performance of monetary policy depends on some legal framework upon which it operates. The legal framework are quantitative general or indirect and second, qualitative selective or direct. The effect effects the level of aggregate demand through the supply of money, cost of money and availability of credit. Out of the two types of instruments, the first category include bank are variations, open market operation, and required reserve ratio. They are meant to regulate the overall level of credit in the economy through commercial banks. The selective credit control aims at controlling specific types of credit. This includes changing margin requirement and regulation of consumer's credit (M.L Jhingan, 2003).

In any economy, the conducts of both policies are normally rooted through banking institutions that play in the intermediation process. The role of bringing lenders and borrowers together through this process the central bank plays a very important role in determining the price of money (Ebhodaghe, 1996). Therefore, monetary policy is important in its own right from the past view of monetary economists and policy maker's interns of its impacts on the economy. Of all tools available to government for directing the cause of the economy, monetary policies have proven to be the most visible instrument for achieving medium term stabilization objectives (CBN guideline 2002). Indeed monetary policy formulation and implementation emerged as a critical government responsibility so that the economy does not go astray. Policies are made not only for their own sake rather for achieving some desired goals over a given period of time.

Generally, the primary objectives of monetary policy is concerned with the application of expansionary monetary policy measures during economic recession and contractionary monetary policy controls money supply because it is believed that its rate of growth has an effect on inflation. The basic aim of monetary policies is not to aggregate themselves but the aggregate in the real sectors of the economy such as, level of capital price stabilization and economic development. Policies are designed in order to change the trend of some monetary variables in particular direction so as to induce the desired behavioral change in the monetary policy. The central bank's role is to conduct appropriate monetary policy that is consistent with the main economic objectives that will help the growth of gross domestic product (GDP), sustainable inflation are and stable balance of payment position. This is done by putting in place the direct or indirect monetary approach so as to control monetary trends. In this regards the CBN determines the amount

of money to be supplied that is consistent with the nation's macro-economic objectives and manipulate the monetary instrument at its disposal in order to achieve the stated objectives. Monetary policy influences the macrocosmic objectives because it is believed that there occurs a relationship between the real variables. Monetary policy affects all aspects of our economic and financial decisions whether to buy a car, build a house, start up a business or to expand the existing ones, whether to send one's child to school or to make the child learn trade. Money supply or monetary policy tries to influence the performance of the economy as reflected in key macro-economic indicators like inflation, GDP and employment. It works by affecting aggregate demand across the economy, that is, individuals' and firms' willingness and stability to spend on goods and services. In doing this, monetary policy has two fundamental goals to promote maximum sustainable output and employment and to maintain sustainable price level in the economy. The job of stabilizing output in the short run and promoting price stability in the long run involves several steps first, the central bank tries to estimate how the economy is doing now and how it is likely to do in the medium term, then, it compares this estimates to its goals for the output and the price level, if there is a gap between the estimates and the goals, the CBN have to decide on how forcefully and swiftly to act to close the gap. Estimate of the current economic conditions are not as even as the most up-to-date data on key variables like employment, growth, productivity etc, largely reflect condition in the past. So to get a reasonable estimate of the current and medium term economic conditions, the central bank tries to find out what the most relevant economic developments are such as government spending, economic conditions abroad, financial conditions at home and abroad and the use of new technologies

that boos productivity. These developments are the incorporated in an economic model to see how the economy is likely to evolve over time. In doing this, the central bank is confronted with some unexpected development such as the Niger-Delta crisis that disturbed the oil production and slowed down the revenue generation by the government they therefore, have to build uncertainties into their model. Uncertainty seems to be problem at every part of the monetary policy process there is yet no set of policy and procedures that policy makers can use to deal with all situations that may arise. Instead, policy makers must decide how to precede by analysis the issue is far from being settled. Indeed, the central bank spends a great deal of time and effort in researching into the various ways to deal with different kinds of situation. Since these issues are not likely to be resolved very soon, the central bank is likely to continue to look at everything.

Nigeria did not have any stable macroeconomic policy enforcement before and during the inflammation of structural adjustment programme (SAP). The terms of trade deteriorated for most of the period between 1980 to 1985 and some previous years before the 1980. The consumer price index (CPI) growth rate was on the average of 17.1% between 1980 and 1985 and though this fell to about 5.0% in 1986 and 1987, if again started to rise from 1988, peaking at 47.5% in 1989. It has remained consistently high in the 1990s reading an all time high of 54.7% in 1994. The current account reported as surpluses between 1989 and 1993 after a fairly long period of deficit between 1981 and 1988 (there was a moderate surplus in 1984 and 1985 due to the austerity measures embarked upon by the federal government under the then military administration of general Babangida). Domestic savings as a ratio of GDP, which stood at an average of 27.7% between 1970 and1980, started to fall in 1981. Between 1981 and 1986, it

stood at 13.8% the instrument ratio has followed the same pattern although, reporting slightly lower figures. Fiscal deficit has been chronic and is financed by borrowing from the banking system. The share of commercial banks in total financial assets has shown a structural shift from about 57.7% in 1986 to 36.4% in 1993, the major gainer has been the central bank whose share has increased from 33.1% to 46.4% during the same period. It is doubtful if the structural adjustment programme has improved competitiveness in the system as the three largest banks still amount put a third of total deposits. One major feature of banking in the period of deregulation is the occurrence of large distress in the banking system. Close to 42 banks were severely distressed in the system in the system with 45 percent of loans classified as non-performing loans (CBN 1994). The performance of major monetary and commercial banks ratios did not show any appreciable improvement during reforms. For example, total loan and advances measured as a ratio of GDP declined from 25.6 percent in 1986 to 14.3 percent in 1990. The aggregate domestic credit, GDP ratio which peaked at 50.3 percent in 1986, reduced by half in 1993 (24.5%) with credit to government commanding a larger proportion. The ratio of both narrow money MI save trend. From a high trend of 19.2 percent in 1981, MI/GDP ratio phi-meted to 11.5 percent in 1993 and M2/GDP ratio from 30.6 to 20.1 percent following the same pattern severely negative before the liberalization exercise the deregulation exercise in 1987 yield interest rate that were mildly negative to positive in the period 1987-1990. But with pressure on prices thereafter real interest rates have turned severely negative, again for the period of 1991 to 1994. It can be observed that most macro-economic aggregates have become severely unstable in recent times it is in this environment that indirect monetary control was initiated in 1993. Much of

difficulty in achieving the objectives of SAP resulted largely from failure to achieve fiscal balance and the consequent reliance on borrowing from the central bank to finance the fiscal deficits. This has adversely affected both the market for foreign exchange, money and goods and the expected role of market in allocating resources efficiently. The extent to which open market operations in government bills can help to successful manage the excess liquidity in the system which is created by government borrowing from the central bank is one of that while should be of interest given the enormity of this problem in the attainment of stabilization goals in the economy.

## 1.2 STATEMENT OF THE PROBLEM

one a yearly basis, the monetary authority formulate guidelines geared towards the enhancement and development of policy variable designed to ensure optimal performance of the banking industry and ultimately to advise the macroeconomic goals or objectives but in the implementation of such policy variable certain conflicting issues are to be addressed ranging from the ability to comply with various monetary policy goodliness as well as satisfying depositors and shareholders. In fact, commercial banks are reluctant in their responsibility to comply with the rules and regulations set by the central bank such as the open market operation (OMO), required reserve ratio (RRr), bank rate, liquidity ratio, selective credit control and moral suasion. These are the instruments of central bank in controlling the activities and operations of commercial banks in other to achieve the macroeconomic objective such as growth, price stability balance of payment equilibrium, full employment. The central bank of Nigeria (CBN)

guidelines helped in setting of the interest rates charged by the commercial banks, sales or purchases of securities to control the money supply, and changes in the required reserve ratios of banks and other financial institutions. The guidelines affected other interest are both through open market operations to affect the probability that the banks are going to need to borrow at its own lending rate, and by the announcement effects of changes in the central bank's minimum lending rate, which are regarded by the markets as statement about the authorities forecasts and objectives. The CBN guideline on monetary policy works through the effect of the cost and availability of loans to real activity, and through this on inflation, and on international capital movement and thus on exchange rate.

Central Bank of Nigeria and the federal government's formulation and implementation of the monetary policy more or less finds its ultimate translation to the economy in real terms. The controversy bothering whether or not monetary policy measures actually impact on the Nigerian economy is a problem this study sets to solve.

## 1.3 OBJECTIVE OF THE STUDY

The broad objective of the study is to examine the effectiveness of monetary policy in the Nigerian economy. The specific objectives are as follows.

- To assess the impact of money supply on economic growth in Nigeria

- To determine the impact of liquidity ratio on economic growth in Nigeria.
- To ascertain the effect of interest rate on Nigeria's GDP

## 1.4 STATEMENT OF HYPOTHESES

The hypotheses tested in this study are stated in their will forms as follows

$H_0$: Money supply has no significant impact on GDP in Nigeria

$H_{02}$: Interest rate in Nigeria has no significant impact on GDP

$H_{03}$: There is no significant relationship between liquidity ration and GDP in Nigeria

## 1.5 SCOPE OF THE STUDY

This work is aimed at examining the performance of monetary policy is on the Nigerian economy, the effects, the appraisal, and possibly the solution to the problems facing the implementation and working of monetary policies in Nigeria.

## 1.6 SIGNIFICANCE OF THE STUDY

This study will be of great benefit to bankers, investment analysts, government agencies, academics, private and public sectors more so, it will be useful to policymakers in the attempt to fashion out dynamic and reliable monetary policy measure for controlling commercial banks ability to create money and thereby influence the effective development of the economy.

# CHAPTER TWO

## 2.0 LITERATURE REVIEW

### 2.1 CONCEPTUAL DEFINITION OF MONETARY POLICY

Monetary policy is defined by the Central Bank of Nigeria (CBN) as combination of measures designed to regulate value supply and cost of money in an economy, in consonance with the level of economic activities. Odufalu, (1994) defined monetary policy as the combination of measures taken by monetary authorities (e.g. the CBN and the ministry of finance) to influence directly or indirectly both the supply of money and credit to the economy and the structure of interest rate for economic growth, price stability and balance of payment equilibrium. He added that the CBN is empowered by decree 25 of 1991 Act, to formulate and implement monetary policy in Nigeria, in consultation with the ministry of finance subject to the approval of the President. (Onyido, 1993) sums it up when he said that monetary policy is therefore applied to influence the availability and cost of credit in order to control the money supply policy. He generally describe the action taking by the Central Bank as using tools / instrument at its disposal to influence monetary conditions in particular, the quantity and supply of money in the macro-economic goods.

These goals would normally include price stability, full employment, high economic growth rate and balance of payments equilibrium. The attainment of these goals will result into the country achieving both internal and external balance of trade and

payment. The practice of monetary policy using tools / instruments to regulate the quantity of money supply to achieve stability in the economy is based on the premise that there is a stable relationship between the quantity of money supplied in an economy and economic activities. Even though, the way and manner with which the central bank regulates its money supply vary from place to place the approach can be divided into two main groups. The first group advocates that monetary policy should target price stability as its single important objectives. The other macro-economic goal agitates for due regulation of money supply and in extension in the control of persistent price increase to ensure sustainable and balance development in the economy.

## 2.2 EVOLUTION OF THE MONETARY POLICY FRAMEWORK IN NIGERIA.

Generally, central bankers and economists are less divided in their perceptions of the objectives of monetary policy than in their views about what role the central band should play in accomplishing these objectives.

Consistent with its legal mandates, the objectives of monetary policy of the CBN since its inception have been the followings;

- Achieving domestic price and exchange rate stability.
- Maintaining of a favorable balance of payment.
- Development of sound financial system.
- Promotion of rapid and sustainable rate of economic growth and development.

Against this background, this section focuses on the evolution of Nigeria's monetary policy in the past forty years. Accordingly, it discusses the various regimes and the rationale for adopting them and appraises their relative successes and failure.

a) The Exchange Rate Targeting Regime (1959-1973)

The conduct of monetary policy in Nigeria under the colonial government was largely by the prevailing conditions in Britain. The instrument of monetary policy at that time was the exchange rate, which was fixed at par between the Nigerian naira and the British pound. This was very convenient, as fixing the exchange rate provided a more effective mechanism for the maintenance of balance of payment viability and for control over inflation in the Nigerian economy. This fixed parity lasted until 1967 when the British pound was devalued. Owing to the civil unrest in the later part of this period, the monetary authorities did not consider it expedient to devalue the Nigeria naira in sympathy with the British pound. Two major reasons accounted for this; first, a considerable proportion of the Nigerian naira would only raise the domestic price of imports without any appreciable impact on exports, which were largely the primary products. Rather than devalue, the monetary authorities decided to peg the Nigerian currency to the US-dollars, but imposed severe restrictions on imports via strict administrative controls on foreign exchange.

Following the international financial crisis of the dearly 1970s, which led to the devaluation of the US dollar in relation to Nigerian currency, Nigeria abandoned the dollar peg and once again kept faith with the pound until 1973, when the Nigerian currency was once again pegged to the US dollar. With those

developments, the severe drawbacks in pegging the Nigerian naira to a single currency became obvious. A clear case was that the naira had to undergo a "de facto" devaluation in sympathy with the dollar when the economic fundamentals dictated otherwise, in 1973 and 1975 respectively. It was against this backdrop that the need to independently manage the exchange rate of the naira became very imperative and was firmly established. Hence, in 1978, Nigeria pegged her currency to a basket of 12 currencies of her major trading partners.

**b) Monetary Targeting Regime 1974 to date**

From 1970, the economy witnessed a major structural change that affected the conduct of monetary policy. Oil dominated the export in 1970 and over 96 percent from 1980. While non-oil export (mostly agriculture) declined rapidly from 42.4 percent in 1970 to 16.9 percent in 1973 as a result of the increased revenue accessing to the government from oil, the imbalance in the balance of payments and law external reserves became things of the past. Indeed, Nigeria's external reserves rose rapidly by over 1,000 percent in 1975 from about ₦100 million in the late sixties approximately ₦3.4 billion in 1975. The need to finance post-war developments also led to a considerable growth in public expenditure, thus intensifying inflationary pressures. Under the circumstances, the monetary authorities adopted a new monetary policy framework. This development marked the beginning of monetary targeting in Nigeria, which involved the use of market (indirect) and non-market (direct) instruments. Consequently, the major focus of monetary policy was predicted on controlling the monetary aggregates, a policy stance which was largely based on the belief that inflation is essentially a monetary phenomenon.

**c) Direct Control, 1974 – 1992**

The major objective of monetary policy during this period was to promote rapid and sustainable economic growth. Consequently, the monetary authority imposed quantitative interest rate and presented sect oral credit allocation to the various sectors of the economy. Overall, the “preferred” sectors, such as agriculture, manufacturing and construction were singled out for the most favored treatment, in terms of generous credit allocation and a below market lending rate.

The most important instrument if monetary control the CBN relied upon was the setting of targets for aggregate credit to the domestic economy and the prescription of low interest rates. With these instruments, the monetary authority hoped to direct the flow of loan able funds with a view to promoting rapid development through the provision of finance to the preferred sectors of the economy. The level and structured of interest rates were administratively determined by the CBN. Both deposit and lending rates were fixed in order to achieve social optimum in resource allocation, promote the orderly grow of the financial market, curtail inflation and lessen the burdens of internal and international debt servicing of the government. In implementing the policy, the sectors were classified into three categories: (1) “preferred” agriculture, manufacturing and residential housing, (2) “less preferred” imports and general commerce; and (3) “others”. This classification enabled the monetary authorities to direct financial resources at concessionary rates to sectors considered as priority areas. These rates were typically below the CBN. Determined minimum rediscount rate (MRR) which itself was low and not determined by market forces. Empirical evidence during the control regime era revealed that the flow of credit to the prior sectors did not meet the prescribed targets and failed to impact positively on investment, output and domestic price level. Overall, banks tended to practice adverse selection in their credit allocation. The major factor which impaired the

effectiveness of monetary policy during the era of control regime was the lack of instrument autonomy by the Central Bank. During this period, monetary policies were dictated by the Ministry of Finance and as such, were influenced by short-term political considerations. Beginning from mid-1981, crude oil prices to a downturn as prices fell from the peak of US & 40 per barrel to US & 14.85 in 1986. This led to severe external sector imbalance. The emerging economic development made Nigeria adopt the Structural Adjustment Programmer (SAP) under General Ibrahim Babangida as the Military Head of State, as a policy option to put the economy back on the path of sustainable growth. In a broad terms, the SAP strategy involved both structural and sect oral policy reforms. The reforms included the deregulation of the financial system to accomplish a market-oriented financial system that would support efficient financial intermediation. The programme, thus, entailed reforming and dismantling the control regime which was characterized by a system of fixed credit allocations, a subsidized and regulated interest rate regime, exchange controls and import licensing. The emergence of SAP ushered-in a regime of financial sector reforms characterized by the free entry and free exit and the use of indirect instruments for monetary controls.

## 2.3 REVIEW OF MONETARY POLICY BEFORE THE STRUCTURAL ADJUSTMENT PROGRAMME (SAP).

Prior to the introduction of the Structural Adjustment Programmer (SAP) in 1986, the economic environment which guarded the administration of monetary policy was characterized by the growing importance of the oil sector which could be termed as the period of boom and burst, the expending role of the public sector, in the economy and over dependence on the external sector.

According to Ekezie (1997), the main objectives of monetary policy were maintenance of relative price stability and a healthy balance of payment position. Monetary management depends on the use of direct monetary instruments such as credit ceilings, selective credit control, administered interest rate and exchange rate as well as prescription of cash reserves requirement and special deposits. The use of market based instrument was not feasible at that point of the narrowness and underdeveloped nature of the financial market the inadequate supply of the relevant debt. The most popular instrument of monetary policy is the issuance of credit rationing guidelines, mostly in the form of setting the rates for the components and aggregate commercial banks loans and advances to the private sector. The sectoral allocation of banks credit in CBN guidelines was to stimulate the production sector and thereby stem inflationary pressure Adebayo (1996). The control of interest rate to relatively low level was done to promote investment and growth. Occasionally, special deposit was imposed to reduce the amount of free reserves and credit creating capacity of banks.

Minimum cash ratios were imposed on banks in mid 1970s on the basis of their total deposit liabilities but since cash rates were usually lower than those voluntarily maintained by the banks, they proved less effective as a restraint on their credit operation. However, in the seventies, it became increasingly difficult to achieve the aims of monetary policy with the large increase in government expenditure; the financial sector experienced rapid monetary expansion in this period because expenditure stemmed up from the monetization of its huge oil revenue (Ojo, 1992)

Generally, monetary aggregate, government fiscal balance of payments position moved in undesirable direction. Compliance of banks to credit guidelines was less than satisfactory in the sense that the low rate on government debt instrument did not

sufficiently attract private sector savers and since CBN was required by law to absorb unsubscribed portion of government instrument, high powered money was usually injected into the economy. Consequent to the effectiveness of the direct monetary tools in controlling money supply and employed in the pre-SAP era, there was a consensus for a shift towards the technique of indirect control via a market oriented financial system to promote effective mobilization of financial saving and efficient allocation. Equally in 1981, the reserve requirement was scrapped. The banks now rely on the desired nations of cash liquid assets to total deposit that commercial banks adopt in their own self interest. With well developed markets for liquid assets, modern banks can get better with cash reserves of only 1 or 2 percent of deposit. Although, the CBN is still committed to act as lender of last resort, then commercial banks have to guess how much of a penalty will be imposed if they have to borrow from the CBN. To further concentrate the mind, official target paths for the money supply and this was announced in 1980 in the government medium term financial strategy.

## 2.4 MONETARY POLICIES UNDER THE STRUCTURAL ADJUSTMENT PROGRAMME (SAP).

The SAP was adopted in July 1986 against the crash in international oil market and the resultant deteriorating economic condition in the country. The Structural Adjustment Programme (SAP) was designed to achieve fiscal balance and the balance of payment visibility by altering and structuring the production and consumption pattern of the economy's elimination of price distortion, reduce the heavy dependency on crude oil export base and achieving sustainable growth. The objectives of monetary policy on the introduction of SAP have remained as earlier stated "The stimulation of

output and employment and the promotion of domestic and external stability" monetary policy is then aimed at inducing the emergency of a market oriented financial saving and efficiency resources allocation. In pursuant of this view, monetary policy framework, the ceiling imposed on individual banks credit was removed for banks which met some specific programmed criteria set by the CBN. The criteria comprised specific cash reserves and liquidity ration, presidential guidelines, statutory minimum paid up capital, adequate ratio and sound management. The meeting o the requirement was also to efficient market operations.

Despite the monetary reforms introduced at the initial period of SAP, some of the problems of monetary policy management have persistently increased over time. The control constraint continues to be ineffective control framework and the uncertainties created by fiscal operations. Some dynamic reforms have been introduced since 1990. For example, in 1990, the ceilings in banks credit expansion were henceforth not to allow for exemptions as before. Also commercial and merchant banks were subject to equal treatment, since their operations were formed from experience to reduce similar effect on the system. In 1991, the cash reserve requirement was modified such that its base was expanded to include all deposits, liability comprising demand, savings and tile deposit. Also in 1991, the CBN brought into operation the risk weighted measure of capital adequacy requirement and statement of accounting standards, the Presidential guidelines amongst others, spot out the criteria to be employed by the banks for classifying non-performing loans. In 2011, the Asset management Company of Nigeria (AMCON) purchased the non-performing loans from the commercial banks. The first round of the purchase of non-performing loans that was done was actually restricted to margin lending by intervened banks and non-performing loans (NPLs) of those intervened banks, but limiting the purchase of the loans that they bought from the

non-intervened banks to only margin loans. AMCON have gone round to purchase all NPLs from all the banks. The CBN had targeted a total non-performing loan ratio of five percent across the sector. The CBN would not allow bad loans to stack up again to more than five per cent of total loans across the banking industry. In March 2011,, AMCON said it had bought about ₦1tn non-performing loans of 22 reserved and non-reserved banks in the second phase of its rescuer programme n the banking sector. AMCON is going to issue at this point, a shelf-registration of ₦3tn, but the corporation issued about ₦1.7tn bounds on April 6.The ₦30bn tranche was the only portion of the series 1 bonds that was open to the public; the amount was large enough to determine where the price of the bonds should be. Commencement of operations of AMCON and the inherent benefit will trickle down the entire economy and sustain financial stability before the expiration of the company.

Financial sector reform (FSR) became a major component of the structural adjustment programme inn Nigeria with the deregulation of interest rates in August 1987. However, in terms of attention, research efforts in this regard have been minimal, when compared to the effort into the other components of the programme such as trade lateralization and exchange rate reforms. Even where research is available, emphasis has tended to be placed on the institutional aspects of the programme and here to the focus has been on the banking sub-sector (Ikhide and Alewole 1994, Ojo 1993, Soyibo and Adekanye 1992). In recent times, however, more attention has started to focus on the reform of the financial sector. First, it is realized that the structure of the commercial banks and non bank intermediaries can affect macro-economic performance; (Gertler 1998) provides an excellent survey on the connection between the efficiency of financial markets and macro economic performance. For instance, the behavior of monetary aggregates has great implication

for the level of prices and the balance of payments. Secondary, it is becoming increasingly clear that the ability to sustain stabilization policies such as exchange rate reforms may hinge critically on th3e structural changes in the financial sector. Specifically, such structural changes in the financial sector may be crucial to the efficient conduct of monetary policy. Without such structural changes it would be difficult to make any substantial progress with macro-economic stability.

Thirdly, some recent literature has started to focus on the issue of sequencing and timing of both the overall stabilization programme and the liberalization of the financial sector. The speed, sequence and timing of specific components of financial sector reforms may hinder the attainment of the objectives of the goals of stabilization policy. The reverse is also true. Forth and more important for our present purpose, the adoption of indirect methods of monetary control may make easier the transition from a regulated to the deregulated economic. Over the years, there has been a gradual shift in the overall approach to economic management in Nigeria and other LDCs. After several unsuccessful decades of emphasis on the role of government interventions in promoting growth, developing countries are now devoting more efforts to having market signal guidelines towards the allocation of resources. This has been accompanied by the promotion of private sector development.

However, it is conceived that such efforts at promoting the private sector is better implemented through an increased role of market forces in the allocation of resources in the economy. Thus, direct control of monetary aggregates which places emphasis on the imposition of limits on the price or quantity of credit must yield way to indirect methods aimed at influencing financial institutions' liquidity through market forces. This has several implications for th3e conduct of monetary policy on the Nigerian

economy. The objectives of commercial sector reform during the SAP up to date is to defined in a broad manner is to increase the size, improve the efficiency and raise the diversity of the financial system of the economy. This objective is attained through financial liberalization which is viewed as the process of moving towards market determined interest rate as well as market determined prices on all classes of financial products, banking system characterized by symmetric entry and exit conditions to all participants, increasing internationalization or the opening up of domestic markets to international competition and limited barriers to the introduction of new financial products. Within the context of Nigeria and within the framework of this research, this became operational through allowing market determine interest rate to prevail for most of the reform period, eliminating direct credit restructuring balance sheets of financial intermediaries and improving commercial banks infrastructure. Thee well developed financial systems are needed to ensure that indirect methods of monetary management work well. However, the transition away from poorly developed, depressed or thin financial market is very difficult to achieve so long as the direct methods of control are in place. This then is a paradox. The objective of this literature is to examine how this relationship between the liberalization of the commercial financial sector and monetary policy framework has worked itself out over the period of adjustment in Nigeria. From our discussion so far, three issues which this study will attempt to focus on emerges as;

(a) The important linkages in the monetary policies framework under indire3ct controls.

(b) The problem on the initial conditions, especially the fiscal deficit and bank restructuring arrangement may vary in magnitude from country to country

(c) Added to these is the fact that countries may also differ in the pre-existing depth and sophistication of their financial system.

## 2.2 EMPIRICAL LITERATURE REVIEW.

### 2.2.1 AN APPRAISAL OF THE PERFORMANCE OF MONETARY POLICY IN NIGERIA.

The short coming of direct instrument of monetary policy is well known and documented and need to be emphasized again. Despite the progressive deregulation of the financial sector and the commencement of transition to market based instrument of monetary management, the conduct of the effective monetary policy in Nigeria has been constrained by a number of factor particularly the absence of fiscal discipline until 1995. The lack of instrument autonomy for the Central Bank frequent policy changes and reversal and widespread distress in the financial sector have constrained the effectiveness of monetary policy in the post SAP period. From the inception of Structural Adjustment Programmer (SAP), the thirst for monetary policy in Nigeria has largely been restrictive and aimed at containing demand pressure on domestic prices and foreign exchange market among other stabilization objectives. Consequently, the shift to market based approach refer to have p9otential to enhance effectiveness in addressing the real cause of monetary instability and financial distress. Also, growth target for monetary and credit aggregates were exceeded by substantial margin resulting in the acceleration of inflation rate to double digit and increased pressure on exchange rate. Equally, there is virtually no effect in self-regulation. The level of liquidity outside the commercial band system is yet another facto hindering the effectiveness of monetary policy. Apart from volume of the monetary authorities do not have a measure of that liquidity. Thus, it is impossible to target such substantial

liquidity with monetary policy and because of aggregate economy is impaired. It involves five main elements;

(I) the public announcement to medium term target for inflation.

(II) The institutional commitment to price stability as the primary goal of monetary policy to which oth3er goals are subordinates.

(III) Information exclusive strategy in which many variables and monetary aggregates in the exchange rate used for deciding the setting of policy instrument.

(IV) Increase transparency of policy strategy through communication with the public and the market about th3e plans, objectives, and decisions of the monetary authorities.

(V) Increase transparency and accountability of the Central Bank for attaining its inflation objectives. The commercial banks are the main operators of the monetary policies with the CBN being the monetary authority. The aim of the monetary policies are basically to control inflation, maintain healthy balance of payment position for the country order to safeguard the external value of the national currency and promote adequate and sustainable level of economic growth and development. The commercial banks plays a crucial role in the implementation of monetary policies whole the monetary policy is aimed t achieving some macro-economic objectives. A counter cyclical monetary expansion may raise output and help to bring down the level of unemployment in the short run but may aggregate th3e problem of inflation in extremely high extent, it will overshadow the benefit of increase in output and employment level, the level of feedback effect to the commercial banks would go below savings by customers.

Direct monetary control techniques, which have been in vogue in the 60s and 70s, were restrained up to June 1986. The instrument had significant influence on the Nigerian economy. Thus, during t 80s, the permissible aggregate credit expansion ceiling was on the downward trend reflecting the policy of restraining the growth in the liquidity of the banking system. The direct monetary control was not used only to control overall credit expansion but also to determine;

(I) The proportion of bank loans.

(II) Merchant bank asset portfolio.

(III) Proportion of bank loans to small-scale indigenous enterprises.

(IV) Proportion of band loans to indigenous borrowers.

(V) Proportion of rural deposit granted as loan to rural dwellers.

(VI) Categories of banks exempted from credit ceiling.

(VII) Cash deposit for imports.

(VIII) Lid on interest rate e.t.c.

The above justified the claim that the financial sector particularly the banking sub-sector in the most regulated sector of the economy. According to research, it is a sector whose players are literally told not only what business to do. How much to change for its products and services? How to distribute its profit? The implication of this is that commercial banks in the performanc3e of their role as financial intermediaries especially during this period have a little control over the utilization of their funds. With the introduction of indirect monetary control, Nigerian economy witnessed mopping up excess liquidity in the same through the issuance of stabilization securities, since

October 1990 (though suspended since March 1993) and increase in commercial bank cash reserve ratio in 1989 and 1990. The ability of bank to grant credit was further reduced by raising the maximum liquidity ratio for commercial banks from 25 per cent to 30 per cent in 1987 and this was retained up to 1999. The experience of monetary policy in Nigeria originated from the CBN Act of 1958 and its subsequent amendment form the act of the bank drew inspiration as to what should constitute its short and long term monetary policy objectives, the short to medium term objectives compliment the Federal Government budget objectives. The CBN Act if 1958 stated the objectives of the bank as being;

(I) Issuance of legal tender currency in Nigeria.

(II) Maintaining external reserves to safeguard the international values of the legal tender currency.

(III) Promoting monetary stability and a sound financial system in Nigeria and;

(IV) Acting as banker and financial adviser to the government.

Over the years, the principal objectives have metamorphosed into maintaining a single digit inflation rate, maintaining exchange rate stability, promoting sound financial system, hi8gh level of output growth and employment generation and enhancing the overall efficiencies of the economy. The present agitation for the deregulation of petroleum sector will stem up the price of goods and services in the market by over 100 per cent. Survey has shown that there has been a significant price increase in the market owing to the minimum wage demand by the labor unions and this price increase had doubled. Also the partial removal of the subsidy on petroleum products had again created another price increase. In the heydays of the oil boom, the

naira in relation to the U.S dollars averaged about 50.65%. Federal government satisfied all conditions for an IMF loan except the call for devaluation of the naira. In pursuance of the monetary policy objectives, the CBN over the years employed direct and indirect policy measures and instruments. The direct measures includes the imposition of ceilings on interest rate and credit expansion on banks, enforcement of sectional allocation of credit expansion, administratively determination of the level of structures of interest rates and other quantitative control measures. The indirect measures include required cash ratio, market based interest rate policy minimum rediscount rate, liquidity rate, open market operation and moral suasion. The direct monetary control era lasted through 1992. However, since 1993, the CBN has shifted market based instrument in line with the global trend towards a market based framework for monetary control. CBN guidelines (2002).

Monetary policy instruments used under indirect control regime have evolved over the years with the monetary authority time-turning than as dictated by trends in the economy especially the overall money aggregates, such major instruments are;

**(a) Open Market Operation (OMO)-:** It refers to the purchase, sale of government securities (Nigeria Treasury Bill NTB) including the CBN for the purpose of increasing or reducing the money supply. Open Market Operation expands monetary base, thereby raising the money supply and bowering shorter, interest rates. In 2002, the CBN introduced another monetary instrument known as the CBN certificate to compliment the use of government security for conduction open market operation (CBN Guideline 2002). The CBN certificate is different from other instrument in the sense that, it cannot be discounted for this is to enhance the efficiency of monetary policy actions, given the instability of the only available treasury. In terms of impact, the sales and

purchase of CBN certificate has the same impact as the sales and purchase of other government securities.

The last trenched of the Central Bank of Nigeria certificate matured in August 2002 and has since then extinguished CBN plans as currently underway to introduce a new short term instrument called "CBN-OMO" bill to compliment the NTBs in CBN's portfolio for OMO especially for liquidity management. The OMO bill have maturity period of 30 to 60 days to be issued on the basis of need based on the Dutch auction system and targeted at the authorized deals only (CBN 2002). Equally, Open Market Operation (OMO) will be conducted weekly in the secondary market, mainly in short term government securities of carrying maturities, or in order to meet the various preferences of participant in the market. OMO will be complimented by reserve requirements and discount window operation including Re-purchase Agreement (REPOS) while discount houses will continue to play the role of principal dealer in the market (CBN Guideline 2002/2003)

**(b) Discount (Rediscount) policy -:** It refers to the condition under which and how much the CBN lends to commercial banks in forming its rate as a lender of last resort. It primarily involve changes in the discount rate (for minimum rediscount ratio MRR) and affects the volume of loans to the banks, and to monetary base and expand the money supply, a fall in discount rate reduces the monetary base and shrinks the money supply. The CBN facility at which discount loans or discounts are made to banks is called the "Discount Window". The MRR is also used to influence the level and direction of other rates determines whether the

commercial bank is adopting a policy of monetary ease or monetary restraint. The MRR is currently fixed at 18.5 percent.

**(c) Reserve Requirement -:** Cash and liquid assets are the requirement imposed by the CBN that commercial banks must hold at a certain amount of reserves. It is the minimum amount of reserve (or eligible liquid asset) that commercial banks must hold in proportion to total deposit liabilities. For each category of the deposit liabilities, a rise in the cash ratio or liquidity ratio reduces the amount of deposit that can be supported by a given level of monetary base and will lead to contraction of the money supply. Conversely, a fall in the ratio leads to an expansion of the money supply because more multiple deposit creation can take place. The reserve required is currently by the CBN fixed at 12.5 percent for cash reserve ratio. However for those in the bank that shows evidence that 20 percent outstanding loan is to real sector, the cash reserve ratio has been reduced.

**(d) CBN-certificate-:** This was issued for the liquidity first time in year 2001 to mop up the excess liquidity generated by the rapid monetization of the windfall going from the crude oil receipts. It will be issued as the need arises to compliment traditional monetary policy tool to contain growth in liquidity to desired level (CBN Guideline 2002).

**(e) National Saving Certificate-:** This is medium for long term securities intended to broaden and offer alternative investment options for both banks and the public. It is used to supplement effort at managing on a more sustainable basis, the persistence excess liquidity on the economy while facilitating saving and investment growth.

**(f) Federal Government Development Stock-:** This is meant to encourage the government to source its long term financing needs from the capital market. This will also change the direction of bank credit fair in favor of the private sector. The instrument was suspended in 1980s and efforts are not being made to resume its floatation.

**(e) Moral Suasion-:** This involves subtle appeals to banks through bank committee and other communication channels to briefly correct compel and give guideline. The use of moral suasion has not off course been confirmed to CBN alone. Nearly every government functioning has used the opportunity of their public address to urge banks to pursue on e type of policy or the other. From the above explained instruments, it is pertinent to know that three out of these instruments are currently as a monetary policy tools in Nigeria. They have been reviewed and compressed with the other stated tools above, the three tools are;

(I) Open Market Operation (OMO).

(II) Discount (Rediscount) policy and;

(III) Reserve Requirement

### 2.2.3 FRAMEWORK OF MONETARY POLICY IN TARGETING INFLATION IN NIGERIA.

Nigeria monetary policy is enhanced to target the reduction in the rate of inflation with the framework of maintaining price stability as a single most important objective of monetary policy. This monetary policy framework directed towards

the reducing inflation presupposes the existence of a stable and predictable relationship between monetary aggregates and other economic variable in the economy. The monetary framework as operated by the CBN entails certain target growth path for one or more definition of money stock for year or over a million terms prior to fiscal year 2002, the CBN has shifted to a medium term 2002, the CBN has shifted to a medium term perspective which implies that chosen monetary aggregate may not necessarily be achieved within one year. Under this framework, the CBN shrines to maintain equilibrium in the financial assets like bonds do not diverge significantly to induce upward or downward pressure on interest rate and price. Thus, the bank used the instrument at its disposal to ensure that the demand for and supply of financial assets including money are consistent with the desire of the public to hold them and willingness of su0ppliers to supply them. The framework is based on the quality theory of money and the money supply process. Monetary target is predicted on the empirical evidence that inflation is basically a monetary phenomenon and therefore, the monetary authorities must control the supply in other to control inflation. The quantity theory of money is mathematically stated as;

$$MV=PQ$$

Where M=money supply

V=velocity of monetary circulation

P=price level

Q=Real Aggregate Output (Income)

The link between the total quantity of money in circulation and the total spending in final goods and service produced in the economy, the rate of turnover of MV that is, the average number of times per year that a unit of the naira is spent on buying the total amount of goods and services produced in the economy. Inflation targeting in recent monetary policy strategy whose basic idea is that the Central Bank adopts or assigns explicit numeric target range from inflation to making achievements of this target its primary objective. It is important to bear in mind that this does not mean the Central Bank ignores unemployment or the rate of economic growth. It simply means that as long as inflation remains within the stated range, the Central Bank is free (and indeed expected) to stabilize the economy. However, the basic doctrine of inflation targeting is the price stability, accountability, and discipline on the part of the Central Bank and the government itself.

### 2.3.4 SUGGESTION FOR DEALING WITH INFLATION IN NIGERIA

The suggestions examined to be remedies for dealing with inflation in Nigeria are in the light of the peculiarity of the Nigeria economy. This is because, it is not anything else, macro-economic policies cannot but be conceived of in terms of particular economy. Among the areas to which government policies need to be directed in order to alleviate the problem of inflation include the following;

(I) **Distribution network-:** The channels of distribution for an average commodity have been unnecessarily long and cumbersome. Bothe manufactured goods and agricultural products pass through a long chain of distribution before reaching the final consumer. This overtime has developed a severe implication for inflation as prices are raised at each

stage for profits. Since the mentality is that the distribution of goods and services is more profitable than production, the role of distributors in price escalation has intensified. The government should not relent in recognizing the distribution network with a view of shortening the channels between the producers and the consumers.

(II) **Incentives to production authorities-:** The government should institute an incentive scheme which will boost the output of goods and services. The practice in the past has been mainly and directly at demand management, such as controlling the consumer's income. However, such demand management policies were not very successful. Sectors such as agriculture, energy and road network should be given the highest priority through various incentives to induce formers to increase their output, also the good road network to convey their output from their place of production to the final points to reach the consumers who desire of such products also the electricity that can aid the agricultural outputs eves as the raw materials for industries. These have the effect of reducing or moderating the price increases. Manufacturing has been a problematic sector arising largely from the high foreign input content. Encouragement should be selective and directed more towards enterprises using local raw materials.

(III) **Government income policies-:** Income policies relating to salary increases have been implemented in the post with the aim of gaining a political point. Thus, salary increase/adjustment should be undertaken with the least publicity. This way, marketer would be taken unaware and thus even if there price increases here will be the result of the higher

level of purchasing rather than status quo ante where sellers raised their prices in anticipation to the payment of such bourses

(IV) **Pricing Policies-:** The mixed economy nature of the Nigeria economy has often meant that the government partly owns factors of production for which it determines prices. Moreover, the government owned income prices of productivity board grants increases in commodity price. Thus, in the event that the government raises price of any item it produces directly the consequently beset for its transmission to other sectors. There is event each time the Federal Government raises the pump-price of petrol, this have been consequently transmitted to other sectors of the economy. It is therefore, suggested that future price increases of such products which are major inputs to other sectors should be rarely undertaken. On the other hand, the implementation should be carefully worked out to prevent abuses.

(V) **Exchange rate policy-:** Another area in which the government can improve its management of inflation is the exchange rate control policy. The policy assumes the form of exchange rate recreation (devaluation/revaluation/appreciation). An economy which is suffering from inflection but with an over-valued currency should approach the issue of realigning the exchange rate with caution. This is because devaluation/depreciation has the effect of raising the domestic price levels further fueling the rate of inflation could get out of control. The adoption of a flexible market demand exchange rate for the Naira in September 1986 has partly been responsible for the acceleration in the rate of inflation. Government policy in this direction should be half the

slide in the Naira exchange rate, so as among other things, ameliorate the inflationary trend. The present global economic meltdown speaks on the economic exchange rate. There has been adjustment and re-adjustment of the Naira to Dollar just o ensure that the world economic recession will not bring about price escalation within the Nigeria economy which is a welcome development. The Central Bank through commercial banks gave the guidelines wherever there is the need to make any adjustment in the sales of foreign currencies such as dollars, Euro Yen, Pound etc just to ensure it does not affect our local transaction with the outside world.

(VI) **Absence of multiple policy objectives-:** This is the second requirement for an efficient inflation targeting framework is the absence of other (primary) policy target other than the rate of inflation. This implies that the monetary authority must be willing to abandon targeting other indication such as exchange rate output, income growth, the level of unemployment, wages etc in these circumstances the inflation target because the one and only primary target the monetary authority should focus to achieve.

# CHAPTER THREE

## 3.0 RESEARCH METHODOLOGY

In carrying out this work, certain methods were used, this chapter explains in depth the procedures followed in arriving at the influence of this research work, research decision is the framework for investigating a research problem or in otherworld's, refers to the methods used in collecting data which are to be used in investigating and analyzing a research problem. Data collection on its own involves a range of activities from the individuals in libraries extracting information from volumes of materials available as regard this work. Taking into cognizance he fact that two main forms of data collection exist (i.e. the primary and secondary sources). The performance of monetary policy in Nigeria as a research work under study will adopt a structural auto-regressive approach to establish a relationship between monetary policy in Nigeria and economic growth. Secondary data will be used in this research work and will be obtained from central bank of Nigeria (CBN) statistical bulletin. The VAR model is an econometric method that facilitates the specification parameter, estimation and aids in formulating monetary policy and their model in Nigeria.

## 3.1 MODEL SPECIFICATION

**a) Functional and linear equations**: the functional and linear equations which form the model, from the theoretical and literature review in the previous chapter, if is observed that there were a causal link between monetary policy and the Nigerian economy. In this section, we pursue this same objective further by specifying our model. The model is to verify the performance of monetary policy on Nigerian economy. The approach is to modify the model by specifying a multiple regression equation made up of gross domestic product (GDP), as a function of the independent variables (i.e. money supply, integrate, exchange rate, and disqualify ratio). Also, it is obvious that money supply, interest rate, exchange rate, and liquidity ratio will influence gross domestic product in Nigeria. The model is specified as;

$GDP = \beta_o + \beta_1 ms + \beta_2 exr + \beta_3 int + \beta_4 l_r + ei$

$\beta_1, > O,\ \beta_2 > 0,\ \beta_3 < 0,\ \beta_4 < 0$

**b) Definition of the variable abbreviations.**

The variables (in abbreviations) used in the model above are clearly and fully presented below,

GDP= Gross domestic product (in Nigeria)

MS= money supply

EXR= exchange rate

INT= interest rate

LR= liquidity ratio

ei= error term.

## C) APRIORI ECONOMIC EXPECTATIONS OF THE VARIABLES.

$\beta_o$ is to take care of the constant variable, $\beta_1$ is the coefficient of money supply (MS) which is expected to be greater than zero ($\beta_1$>o) because it is positively related to gross domestic product in Nigeria $\beta_2$ is the coefficient of exchange are (RER) which is expected to be greater than zero (RER >o) due to its positive relationship with gross domestic product in Nigeria. $\beta_3$ is the coefficient of interest rate (Int) which is expected to be less than zero (Int <o) due to its negative relationship with the gross domestic product in Nigeria. Whilst $\beta_4$ is the coefficient of liquidity ratio (Lr) and it is expected to have a negative relationship with the gross domestic product in Nigeria.

## 3.2 METHOD OF EVALUATION

We estimate the parameters of the model after obtaining the data. We use statistical techniques of regression analysis to obtain the parameter estimates. The techniques of model to be used in analysis are coefficient of determination, F-test and t-test.

### 3.2.1 UNIT ROOF TEST

Ordinary least square (OLS) regression techniques will be used and if is useful for estimation of gross domestic product in Nigeria which is the dependent variable. It will be regressed on the explanatory variables in the equation which include money supply, exchange rate, interest rate, and liquidity ratio.

### 3.2.2 PRESENTATION OF CO-INTEGRATION AND ERROR CORRECTIONS

Some statistical and econometric tests will be used to evaluate the regression, these includes, multiple R, which is the correlation coefficient and if measures the extent to which variables relates, R-esquire which is the coefficient of determination measures the percentage (proportion) of variation in the dependent variables. The F-statistic measures the overall significance; the βeta coefficients measures the relative significance of each of the independent variable, t-statistic, and Durbin Watson-test tests for auto correlation of errors in the regression equation.

### 3.2.3 DIAGNOSITIC TESTS.

The co-integration test and the unit roof test would be specified as diagnostic test. Although with several lags of the variables each estimated coefficient will not be expected to be statistically

significant. However, stationary test is very important, time series which has been postulated that all time series faced with the same problem of stochastic trend of to fluctuation in the data structure.

## 3.3 JUSTIFICATION OF THE MODEL

In this study, secondary method of data collection was sued in the collection of data. The use of secondary method was chosen for this study because it is considered to be the most appropriate method for the needed information at the least amount of time. However, this has been chosen amongst other instrument of data collection for this study because of some added advantage if has over other methods.

In order to establish the performance of monetary policy in Nigeria, we shall adopt the VAR economic model because if best explains the performance of monetary policy in Nigeria. The auto-correlation is due to the appearance of lagged values of the dependent variable, and the term vector is for the fact that we are dealing with vectors of two variables.

## 3.4 RESEARCH APPROACH

The approach used in this study is basically obtained from secondary sources. This is regarded as the plan structure and

strategy of investigation conceived so as to obtain answers to research problems. It ensures that the required data are collected and that they are accurate. However, the secondary data used in this study was obtained from the central bank of Nigerian (CBN) statistical bulletin.

# CHAPTER FOUR

## 4.0 PRESENTATION OF DATA AND DISCUSSION OF RESULTS

### 4.1 PRESENTATION OF DATA

In econometric analysis attempt is usually made in discovering and establishing existing relationship between the different economic variables involved in the analysis. To this effect, this chapter would serve as an attempt to evaluate the performance of monetary policy in the Nigerian economy. This is done by checking the type of relationship that exists between gross domestic product in Nigeria and money supply, interest rate, exchange rate and liquidity ratio. This shall be done through the use of regression analysis. The computational device is the statistics/data analysis (stata)tm software programmed.

#### 4.1.1 UNIT ROOT TEST

The first point or issue of analysis in this chapter is to conduct the unit roof test so stationary using the augmented dickey fuller (ADF) test. The augmented dickey fuller results comprising of the test statistic and the critical values as originally generated are presented in the table 4.1 below.

## TABLE 4.1 UNIT ROOT TEST (ADF-TEST) AT LEVEL FORM

| Variable | ADF-test | Lag | 1% critical value | 5% critical value | 10% critical value | Order of integration |
|---|---|---|---|---|---|---|
| RER | -1.785 | 2 | -3.730 | -2.992 | -2.626 | 1 |
| RIR | -2.539 | 2 | -3.730 | -2.992 | -2.626 | 1 |
| MS | 2.076 | 2 | -3.730 | -2.992 | -2.626 | 1 |
| LR | -2.20 | 2 | -3.730 | -2.992 | -2.626 | 1 |
| GDP | -0.583 | 2 | -3.730 | -2.992 | -2.626 | 1 |

**DECISION RULE**

Reject null hypothesis (Ho) of unit root of ADF calculated value is greater than the critical value in absolute terms. From the table above, it is observed that the null hypothesis of unit root cannot be rejected. Thus, the variables are not stationary. We therefore difference ach of the variables.

**Table 4.2 (ADF and critical values in absolute terms)**

| Variable | ADF | Lag | 1% critical value | 5% critical value | 10% critical value | Order of integration |
|---|---|---|---|---|---|---|
| RER | 1.785 | 2 | 3.730 | 2.992 | 2.626 | 1 |
| RIR | 2.539 | 2 | 3.730 | 2.992 | 2.626 | 1 |
| MS | 2.076 | 2 | 3.730 | 2.992 | 2.626 | 1 |
| LR | 2.200 | 2 | 3.730 | 2.992 | 2.626 | 1 |
| GDP | 0.583 | 2 | 3.730 | 2.992 | 2.626 | 1 |

From the above illustrations, meanings can easily be attached to each of the variables as thus.

$H_o$.: The monetary policy variables have unit roots.

$H_{o1}$: The monetary policy variables have no unit root.

Since, all the variables (i.e. real exchange rate, real interest rate, money supply, liquidity ratio and gross domestic product) have unit roots in them, thus conforming to the null hypothesis where test statistic is less than the critical (tabulated) values.

**TABLE 4.3 TESTING FOR UNIT ROOT AT DIFFERENCE FORM**

| Variable | ADF-test | Lag | 1% critical value | 5% critical value | 10% critical value | Order of integration |
|---|---|---|---|---|---|---|
| RER | 3.649 | 2 | 3.736 | 2.994 | 2.628 | I(1) |
| RIR | 4.092 | 2 | 3.736 | 2.994 | 2.628 | I(1) |
| MS | 10.041 | 2 | 3.750 | 3.000 | 2.630 | I(1) |
| LR | 3.636 | 2 | 3.736 | 2.994 | 2.628 | I(1) |
| GDP | 3.038 | 2 | 3.736 | 2.994 | 2.628 | I(1) |

d. (RER, RIR, MS, LR, GDP).

Where d= differential,

The table above shows that all the variables are stationary after first difference.

Since all the variables are integrated at the same order, that is, at first order, we therefore suspect evidence of co integration in the model, the result is presented below.

**CO-INTEGRATION TEST**

The tale 4.2 shows that the error term is stationary at its level form because the absolute augmented dickey fuller (ADF) values and 2.658 is greater than the 1%, 5% and 10% critical values of 2.654, 1.950 and 1.602 respectively this implies that there is a long run relationship between the dependent variable and the independent

variables. Thus, there is a co-integration between the dependent and independent variable.

Table 4.4 regression result LGDP (dependent variable0

| Variable | Coefficient | Robust std error | t | p>/t/ |
|---|---|---|---|---|
| RER | - 0.0102819 | 0.0014742 | -6.97 | 0.000 |
| RIR | 0.0007359 | 0.0150931 | 0.05 | 0.961 |
| MS | 4.48e-078 | 6.45e-08 | 6.94 | 0.000 |
| LR | 0.0672764 | 0.0180584 | 3.73 | 0.001 |
| Cons | 11.72867 | 1.065938 | 11.00 | 0.000 |

From table 4.4 above, the estimated model is stated as:

GDP= 11.72867 -0.102819Rer + 0.0007359Rir+ 4.48e-078Ms + 0.0672764Lr

**Interpretations**

11.72867= GDP, when all other variables are zero.

RER: An increase in real exchange rate decreases GDP by 0.0102819.

RIR: an increase in real interest rate will increase the GDP by 0.0007359.

MS: An increase in money supply will increase the GDP by 4.48e-07

LR: An increase in the liquidity ratio will increase the GDP by 0.0672764.

$R^2$: 07813, i.e. about 78.1% total variation in GDP is explained by the independent (explanatory) variables

Since the error term to not have a unit root, we when check for error correction model (ECM)

Dfuller ecm, lag (10 no constant augmented dickey fuller test for unit roof no of OBS =29

---Interpolated dickey fuller in absolute---

| | Test statistic | 1% critical value | 5% critical value | 10% critical value |
|---|---|---|---|---|
| Z(t) | 2.658 | 2.64 | 1.94 | 1.602 |

From the above illustration, it is observed that the value of the error term is greater than the critical values and thus the error correction model (ecm) does not have a unit root.

## 4.3 ECONOMIC OPINION, INTERPRETATION/APPRIORI CRITERIA

**TABLE 4.5**

| Variable | Expected signs | Estimate | Remark |
|---|---|---|---|
| RER | - | β<O | Conforms |
| RIR | - | β>O | Does not conform |
| MR | + | β>O | Conforms |
| LR | + | β>O | Conforms |

From the table above, all the independent variables conform with the exception of the real interest rate. The sign of real interest rate (RIR) is an issue as if indicates that an increase in real interest rate increases economic growth in the long-run which is contrary to economic theory and conventional wisdom that output or economic growth is reduce.

## 4.4 STATISTICAL CRITERIA OF THE RESULT

### 4.4.1 t-test

The calculated t-statistic for all the variables are greater than the critical value obtained from the table, for instance the calculated t-value for RER, RIR, MS, AND LR. This implies that the impact of each variable on economic growth is significantly not equal to zero.

1) Coefficient of multiple determinations ($R^2$).
2) Student t-test
3) Hypothesis

$H_0$: the individual parameters are not significant

$H_1$: the individual parameter is significant

Table 4.6

| Variables t-value | t-tab | Remark |
|---|---|---|
| RER (-6.97) | +2.056 | Significant |
| RIR(0.05) | + 2.056 | Insignificant |
| MS (6.94) | +2.056 | Significant |
| LR (3.73) | +2.056 | Significant |

From the above illustration, all the variables except the real interest rate (RIR) are statistically significant and thus the null hypothesis is rejected for all the variables expect the real interest rate.

**4.42 f-statistics**

Hypothesis

$H_0$: $\beta_1 = \beta_2 = \beta_3 = \beta_4$

$H_1$: $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4$

$F_{cal}$= 4.5.6 $F_{tab}$ =2.74

Since, $F_{cal}$ is greater than $F_{tab}$, hence, the null hypothesis

($H_o$) is rejected that the overall estimate is not significant and conclude that the overall estimate is statistically significant.

## 4.5 ECONOMETRIC CRITERIA

### 4.5.1 TEST FOR AUTOCORRELATION

This test is aimed at ascertaining if autocorrelation occurred in the model. To achieve, this, we assume that the values of the random variables are temporarily independent by employing the technique of Durbin Watson (dw) statistics.

Autocorrelation is defined as "correlation between members of series of observation ordered in time" (Gujarati 2003:442)

DECISION RULE

i) $d^k < d^l$: rejected Ho i.e. presence of positive autocorrelation of first order.

ii) $d^k > (4-d^l)$: reject $H_o$ i.e. presence of negative autocorrelation of first order.

iii) $d^u < d^k < (4-d^u)$: accept null hypothesis ($H_o$) i.e. no autocorrelation.

iv) $d^l < d^k < d^u$ or $(4-d^u) < d^k < (4-d^l)$ test is inconclusive

Where $d^l$= lower limit

$d^u$= upper limit

$d^w$ or $d^k$= Durbin Watson

N=31 (number of observation)

K= 5 (number of explanatory variable)

N - K= 26

$d^l$ = 1.229

$d^u$ = 1.650

$d^k$ = 1.876251

$4-d^l$=2.771

$4-d^u$=2.35

Conclusion

Since $d^u<d^k<4-d^u$, we accept the null hypothesis ($H_o$) and conclude that there is no autocorrelation.

### 4.5.2 NORMALITY TEST

The normality test adopts Skewness/kurtosis test for normality. The Skewness/kurtosis test for normality is an asymptotic or large sample and if is based on the ordinary least square residuals. The test computes the skewness and kurtosis measures of the OLS residual and it follows the Chi-square distribution (Gujarati 2004).

$H_o$: $\beta$ =0 (the error term follows a normal distribution)

$H_1$: $\beta \neq 0$ (the error term does not follow normal distribution)

**Decision rule**

Reject $H_o$, if the probability of $X^2$ (Chi) <0.05 since the probability of 0.6967>0.05, we accept $H_0$ and conclude that that error terms followed normal distribution.

## 4.5.3 TEST FOR MULTICOLLIUANITY

| | Lr | MS | Rir | Rer | LGDP | Remark |
|---|---|---|---|---|---|---|
| Lr | 1.0000 | | | | | - |
| MS | -0.2728 | 1.000 | | | | NM |
| Rir | 0.20662 | 0.2848 | 1.0000 | | | NM,NM |
| Rer | 0.3105 | - 0.3567 | - 0.1113 | 1.0000 | | NM,NM,NM |
| LGDP | -0.0379 | 0.7039 | 0.2945 | -0.6783 | 1.000 | NM,NM,NM,NM |

Where m=presence of multicollinearity

NM=absence of multicollinearity

The multicollinearity is not a problem, since no correlation exceeds 0.80 (with exception of the principal diagonal).

**Table 4.7**

**Short run model or dynamic model**

| D.LGDP | Coefficient | Standard error | T | p>/t/ | (95%conf | Interval |
|---|---|---|---|---|---|---|
| Rer | | | | | | |
| D1. | -0.0004578 | 0.0006175 | -0.73 | 0.0472 | -0.0017291 | 0.0008256 |
| Rir | | | | | | |
| D1 | -0.0010189 | 0.0025237 | -0.40 | 0.690 | -0.0062395 | 0.0042017 |
| MS | | | | | | |
| D1 | -1.37e-07 | 8.38e-08 | -1.63 | 0.116 | -3.10e-07 | 3.67e-05 |
| Lr | | | | | | |
| D1 | 0.0016417 | 0.0044217 | 0.37 | 0.714 | -0.0075052 | 0.0107886 |
| LGDP | | | | | | |
| L1 | 0.0486699 | 0.031682 | 1.54 | 0.138 | -0.0168694 | 0.1142092 |
| Ecm | | | | | | |
| L1 | -0.0697656 | 0.0547642 | -1.27 | 0.0215 | -0.1830449 | 0.435318 |
| Const | -0.4109361 | 0.419057 | -0.98 | 0.337 | -1.277821 | 0.4559492 |

/ecm/ = 0.0697565 x 100

$=6.97565 = 6.97\%$

The test between the long run equation and the short run equation measures the speed of adjustment of economy resulting from the variations in the monetary policy variables. From the table 4.7, the absolute value of error correction model coefficient (of 6.97%) in percentage, shows the discrepancy between the short run and the longrun. The 6.97% reveals that there is a very small (sluggish) rate of adjustment in each period. The coefficient of the residual indicates the disequilibrium between the longrun and short run growth in the economy is corrected within a year.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1 SUMMARY

This project research has traced the evolution of Nigerian monetary policy. Variables such as interest rate, exchange rate, money supply, liquidity ratio and others have been x-rayed to promote the background review to the reader. It discussed the economic development as regards the monetary policy under the period reviewed. The highlight of the Nigerian economy of the 1970s, where the growing importance of oil the expending role of the public sectors in the economy despite the fairly unimpressed economic problems such as the prevailing circumstances, monetary management increasingly faced the weakness of the monetary control framework and large diverging of fiscal operations from the set monetary and credit gargets. The oil boom in the 70's came to an end in the early '80s. Rigorous economic controls were mounted to stem the deterioration. In that framework, monetary policy applied more vigorously credit ceiling. Selective credit controls and regulation of interest rates. In spite of these actions, monetary expansion was very rapid particularly in 1980s when a temporary oil boom occurred while monetization of oil earnings spurred monetary growth in 1980s, which was introduced by high domestic credit targets was unsatisfactory.

Not surprising the economy faced necessary trend between 1980 and 1985. The output growth was negatively accompanied by labour discharge and high rate of unemployment inflationary pressures were sustained while balance of rising external debt burden. The problem of monetary policy were largely a carryover from the previous decade and these include the apparent ineffectiveness of the

monetary control framework based on direct instrument and government fiscal operations, especially the increase financing of fiscal deficits by the central bank. The structural adjustment programme (SAP) launched in July 1986 brought with it a renewal philosophy of economic deregulation that would lead to elimination of price distortions and a resurgence of rapid growth in the non-oil sectors. The basic instrument of the new strategy was the adoption of a realistic exchange rate policy coupled with the liberalization of external trade and payment system. Create reliance of market forces in the determination of the price and rationalization of public expenditure programme. The monetary policy through having the same overall objectives as before was expected to play a unique role in restoring economic stability in Nigeria. The sectoral credit guidelines were reformed to give banks some flexibility in their credit operations, whole in august 1985, which served as start of this study. The stance of monetary policy was consequently a tight one as to reduce the excess liquidity mopping, measures such s withdrawal of all deposit on outstanding external payments, arrears and public sector deposits from the banks in 1986 and 2006 respectively. The main cause of the removal of all interest rates charged by banks was the increase in aggregate bank credit to the economy; similarly banks development with regards to credit ceilings and sectoral credit guidelines was very poor. Meanwhile, the liquidity in the commercial banks capital base was increased from N5 billion to N25billion in 2004 and came to execution in 2005 so as to ensure a strong financial system by the monetary policy.

The impact of structural adjustment programme (SAP) on the economy and in the light of monetary development was quite positive in relative terms, but full economic recovery could not be relative terms but full economic recovery could

not be achieved within a short span of the programme. Nevertheless, the problems of monetary policy appeared to have persisted in so for as the fundamental causes had not been removed, the monetary target were not being achieved because, overtime, it becomes more difficult to enforce compliance particularly as frequent changes were made in the composition of credit and timely data not usually available. Also, the sectoral credit guidelines were not usually applied by banks and indeed the end use of credit could not be guaranteed. Above all, monetary policy did not achieve the types of synchronization with the fiscal as was envisage in the control framework, when fiscal operation deviated from the targets, monetary development could not uphold the underlying assumptions and hence, domestic price stability and external equilibrium which are important and the objectives of monetary policy could not be assured. Under these circumstances a deliberate attempt were made to improve efficiency of monetary policy in the 1990s towards this general direction, the plan to shift to the use of direct monetary policy was formally announced early in 1991 but apart from liberalization measures adopted since 1986 especially the deregulation of interest rate. Some actions have been taken since 1990 to pare way for the use of such indirect monetary tools. These include the widening of the definition of bank rate, eh equality treatment of all banks in the monetary control process the redefinition of the cash reserve requirement, the reintroduction of CBN stabilization securities for miffing up liquidity and reforms embracing the increase in the paid up capital of banks, the introduction of the weighted measure of capital adequacy, prudential guideline uniform accounting standard as well as the promulgation of the banks and other financial instrument decree (BOFID) No. 24 Act 25 of (1991).

In particular, majority of direct tool of monetary policy were abolished in the mid 90's and in 1996 more especially, to pave way for contemporary need of the period among measure that were introduced are jacking up minimum paid of capital to N500 million in 1997 and to N2 billion in 2001. The abolition of sectoral landing in 2005, it was raised to N25 billion, flexible variation of Cash Reserved Required (CRR) and liquidity ratio which stood at 12.5% and 40% respectively among others. The movement towards a market based monetary system in the developing economies is unique. It is appropriate to ask whether such as a technique can be effectively applied.

However, one of the lessons of financial liberalization measures do in fact foster development of financial markets of financial system processes, the critical minimum conditions for effective use of the market based monetary instrument can be obtained in the above area where the conditions are fully met. There is scope for improving the situation so as to pave the way for effective implementation of these instrument, vigorous effort must be made to eliminate the excess liquidity which was prevailed in the economy since 1988, ensured continues harmonization of fiscal and monetary policies so as to enthrone steeper competition in the banking and financial institution to plug possible loopholes in the economy and improve the database of the banking system.

## 5.2 CONCLUSION

The general conclusion that emerges from this study is that monetary policies adopted during the period under review have been effective in controlling the volume of the economy management. This is an evident that our multiple regression analysis result reveals that monetary policies do have significant

effects on the performance of Nigeria economy. The study reveal the negative influence of liquidity ratio and interest rate on the economy while the exchange rate and money supply are positively related based on our findings under the studied reviewed. The study also reveals that liquidity ratio and interest rate cause the economy ineffectiveness. Investor did not have access to the cash in other to increase their productivity due to high interest rate. Also, observed is lack of cooperation and incomplete observance of credit guidelines by commercial banks, absence of broad and effective monetary market, lack of capacity and autonomy of Central Bank of Nigeria (CBN) to use its powers and lack of coordination between the use of monetary and fiscal policies in controlling the volume of financial sector credits during the period under review.

Meanwhile, the exchange rate and money supply in the period was statistically significant. The time under review was when government borrowed from different sources such as external debt; the Paris club of creditor in 1986, 1989, 1991 and 2000 respectively, also London club of creditors was another Nigeria's creditor. The last one was multi-lateral debt e.g. World Bank Group, African Development Banks, Economic Community of West African States (ECOWAS).

## 5.3 RECOMMENDATIONS

From the observation and subsequent problems discussed in the study, the following recommendations are proffered as thus. For effective operation of the monetary policy measures in the Nigerian economy, the Central Bank of Nigeria should be granted full autonomy on its monetary policy functions. Partial

autonomy should be replaced with full autonomy for the central banks in the developing economies at large which is invariably subjected to government interference and its politics. Though, commercial banks and other financial intermediaries have failed to comply with the stipulated prudential guidelines, it is within the powers of the central bank of Nigeria and other financial authorities to persuade such banks to abide by the regulations governing the issuance of credit to the public. Any deviation from the set regulations should be punished to serve as a deterrent to others. In order for the financial system to function effectively, through the exercise of the techniques of the monetary and capital markets, the policy should be well structured to ensure optimum adherence. The success of any development policy is the proper execution of the plan. To such extent, any application of the techniques of monetary policy without adequate execution will not achieve the desired objectives. Global experience has indicated that monetary policy must work in random to create the right macroeconomic framework in other word such monetary policy applied by the central bank is to great extent depends on coordination with fiscal policy. However, these two phenomena should be articulated in order to bring out effective results. Therefore, the execution of monetary policy through its techniques requires effective and prudent management on the part of the monetary authorities.

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