Analytical Consequence of Monetary Policy Instrument on the Nigerian Economic Growth

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ABSTRACT

Though in recent times, the Central Bank of Nigeria has tried to make use of monetary policy; but despite the increasing emphasis on the manipulation of monetary policy in Nigeria, the macroeconomic problems still persist. Thus, in order to determine whether monetary policy monetary policy has any impact on the Nigerian economy, four monetary policy instruments were tested against Gross Domestic Product. The analytical technique used is simple regression analysis while the student t-test was used for the test. Results from the findings indicated that although monetary policy appears to be significant for the period under review since their Prob>F is 0.0049 with F-Stat 10.15, it has not been so effective because its contribution to GDP is minimal. Hence, the government should diversify the productive base of the economy and move it away from its monolithic nature of oil to a more domestic and export-oriented like agriculture and capacity building; and they should be more focused in formulating monetary and other macroeconomic policies to build investors’ confidence and integrity in government programme.

Keywords: Balance of Payment, Inflation Rate, Gross Domestic Product, Interest Rate, and Money Supply.

1.0 INTRODUCTION

The social, economic, political, and ideological conditions under which monetary policy instrument among other policy instruments such as industrial, energy and so on; is expected to operate in any economy would neither be sample nor be static within the global settings. The monetary management as commonly defined is the mechanism for regulating the supply of money at optimum level that will ensure the attainment of devised national economic objectives; including price stability, sustainable output, employment growth, and external variability. Hence, within the last two decades in the developing countries (especially Nigeria), there are varying degree of development complexities capable of disrupting the consistency of any one single monetary policy instruments aimed at any specific development goal.

In the economic area, the question as to whether monetary policy can or cannot, indeed, achieve these objectives is at the centre of the controversy between several theories (monetary, industrial, econometrics and so on) culminating in a series of models development and policy instruments emerged for operating mal-functioning aspect of the economic system which emanated from the dynamic of the socio-economic settings; that resulted in the adoption of such monetary policy instruments aimed at the maintenance of stability in the economy. Therefore, the monetary policy strategy for achieving the stated national economic objectives in any economy is often influenced by the stage of development of the economy and its financial infrastructure. In the early stages of economic development, a central bank of a national typically relies on direct instrument of monetary policy, notability administrative controls of bank credit an interest rate.

Certainly, the emergency of such monetary policy instrument and their implementation would have impacted positively or otherwise on various institution in the process of accomplishing their established targets. In this regards, the primary objective of this study is to identify such monetary policy instruments and highlights their implication for banks and the entire Nigerian economy. Because, the efficiency of monetary policy remains questionable if not controversial in Nigeria (likewise other less-developed countries); when used to determine the rate of economic growth and development.

Despite the fact that the monetary policy instrument used by the central bank of Nigeria (CBN) to control the supply of money in the economy contributed positively to the success of achieving some stated objectives. These policies are normally incorporated in the Federal Government budget every year. In Nigeria, monetary policy is detailed out in the form of guidelines to all banks and other financial institutions. The implementation of such instrument is experiencing the following few problems in their mode of operator:

✓ Rigidity of administered interest often provided a margin to the banks which are insufficient to cover transaction costs and risk.
✓ The unsustainable large and growing government deficit financing aggravated by the deficiency of the existing system to provide the suitable framework financing and controlling; borrowing requirements of the F.G.
When lending to special sectors is considered as national policy goals the society as a whole bear the cost through the government budget instead of burdening the banks with such costs.

On this basis, the aim of this study is to examine the impact of monetary policy instrument on the Nigerian economy; thus, the explicit objective of this to access the effectiveness of monetary policy in Nigeria. This study therefore, will specifically consider the following objectives:

i. To examine the relationship Nigerian economic growth and the monetary policy instruments over the period under review.

ii. To ascertain the extent at which monetary policy instrument of Central Bank of Nigeria has influenced Nigerian economic growth over the period under review.

2.0 CONCEPTUAL UNDERPINNINGS

Theoretical Position

Monetary Policy consists of discretionary measures designed by the monetary authorities to regulate and influence the supply, cost, and direction of money and credit provided to the economy. The measures are undertaken in such a way that monetary expansions are kept at a pace consistent with the level of economic activity and in an agreement with general key stability. Success or failure of monetary policy can be accessed on the basis of its impact on economic growth as well as on the domestic and external stability of the economic growth in Nigeria.

According to Shoaib (2010) as cited by Hameed et al. (2012), the monetary theory opined that monetary policy manipulates the money supply and rate of interest in such a way to achieve the goals of the manifestation of the ruling party. The monetarist proceeds to inflation, as they seek to attribute observed rates of inflation in different countries to the respective growth rates of money supply per unit of the national product. This school of thought believes that inflation is mainly a monetary phenomenon. In Nigerian situation, as there are other factors responsible for inflation in the country; this may not be totally true. The Economic and Financial Review of the CBN (2007) argued that inflation in Nigeria moves with a lag with fluctuations in money supply. Thus, between 1970 and 1981, peaks in growth of broad money were associated with double digits inflation and that since 1984 to date; the rate of inflation has grown faster than that of growth in money supply. This trend suggests that although growth in money supply may be significant in explaining inflation in Nigerian, it is not the only factor. Additionally, the monetarists’ argument was advanced by Friedman (1956 and 1968). He stated that changes in money supply have been seen to cause changes in price. It follows, therefore, that an increase in money supply is likely to cause an increase in prices and hence inflation. Hence, monetary policy provides a logical relationship between its variables stipulated to affects the outcomes regarding the Central Bank applies these tools to regulate the money creation, targeting the rate of interest to manage the pace of monetary circulation. The objective is to stabilize internal and external value of the currency.

In the past, experts had commended on the monetary policy, Falegan (1978) in his article on the instrument of monetary policy circular: Their Applications and Effectiveness on Nigeria, highlighted the impact of the monetary policy circular on the economy, monetary circular and Bank activities. This section shows that some researchers had inquired to the activities of monetary policy circulars in Nigeria economic set-up, but they had not built any model to test compliance rate.

Otiti (1980) stated that money and monetary policy objectives are use to achieve full employment, rapid economic growth, maintain price stability and balance of payment equilibrium. He traces the use of monetary policy circular from 1972-1980, then he concludes that appropriate monetary policy instrument contributes to economic growth by adjusting money supply to needs of growth, by directing the flows of funds in the required channels and providing institutional facilities for credit in field of economic activities.

Nwankwo (1980) defined the machinery of monetary authorities as “the machinery of government formulates and executes monetary policy. The machinery of Nigeria includes the Federal Executive Council (FEC) the Ministry of Finance and Central Bank of Nigeria (CBN). He affirmed that under this arrangement, each has specific statutory functions in monetary policy formulation and execution and concluded that the relationship in the formulation stage was weak because it tends to ignore implementer of the policy (Banks). He therefore concluded that the definition should broaden to include the three key operators in banking scene.

Emeruwasu (1981) wrote on the national monetary policy, exchange rates and Nigeria balance of payment. He submitted that monetary policy and exchange rates changes have traditionally been advocated for dealing with balance of payment disequilibrium. He felt that there was need to use monetary policy and exchange rate in combination with other fiscal trade restrictive measure to deal with trade imbalance.

In 1986, the concept of structural adjustment programme (SAP) was introduced to realign the economic indices while deregulation was introduced to eliminate distortion in the economic system. This action led to liberalization of external trade, adoption of realistic exchange rate policy and external debt payment system.

Overview of Monetary Policy
There is no doubt that financial liberation has been the cornerstone of the Structural Adjustment Programme (SAP) in Nigeria. To date, financial liberation had produced profound changes in the structure and modalities of the financial sector such has not been witnessed before. Obviously, monetary policy has been moving spirits behind these changes. Hence, monetary policy as the major economic stabilization weapon which involves measures designed to regulate and control the volume, cost, availability, and direction of money and credit in an economy to achieve some specified national economic objectives. According to Wrightsman (1976), monetary policy is a deliberate effort by the monetary authority of a nation to control the money supply and credit conditions for the purpose of achieving the above stated objectives. Similarly, Okongwe (1988) defined monetary policy as the extents of cause to exchange rate policy so that domestic price, import and expert, external balance and debt policies becomes legitimate planning concerns as well. While, Lipsey and Crystal (1995) opined that monetary policy is therefore traditionally seen as working through the LM curve, shifting aggregate by altering the supplies of monetary aggregates and availability of money.

In light of the above, monetary policy are the actions which affects prices, employment, and economic growth by influencing the availability and cost of money and credit in the economy and its one of the tools that a national government uses to influence its economy. The modern central banking dated back to the aftermath of the great depression of the 1930. Government, led by the economic they of the great John M. Keynes, realize that collapsing money supply and credit availability great contributed to the savagery of this depression. This realization that money supply affected economic activities led to government attempt to influence money supply through “Monetary Policy” at this time led to central bank of each nation to establish “Monetary Authority”. This meant that rather than accepting whatever happened to money supply, they would actually true to influence the amount of money available; and this would influence credit creation and the overall level of economic activity measured by the Gross Domestic Product (GDP).

The role assigned to monetary policies in adjusting balances in economy has varied considerably among different studies by different research. Broadly, monetary policy has been assigned a relatively important role in accelerating economic development of a country by influencing the cost and availability of credit provided to the economy. According to Ojo (1997) measures are undertaken in such a way that monetary expansion is kept at a pace consistent with the level of economic activity and in consonance with general macroeconomic stability. Nevertheless, the success or failure of these policies can be assessing on the basis of its impact on economic growth as well as the domestic and external stability of the economy.

Monetary policy is essentially concerned with money supply and the availability of credit. These policies are normally incorporated in the Federal government budget every year. But why do governments attempt to control the money supply? Because most government believes that its rate of growth has an effect on the rate of inflation. So, monetary policy comprises those government actions which are designed to influence the behavior of the monetary sector. Monetary policies are effective only when economics are characterized by well-developed money and financial markets. In such an environment, a deliberate change in a particular monetary variable has the effect of influencing the movement of many other variables in the monetary sector.

Objectives of Monetary Policy

The policies are designed in an attempt to change the trends of some monetary variables in particular directions so as to induce the desired behavior change in monetary sector. Objectives of monetary policy refer to the ultimate national economic factors and goals, which can change from time depending on the economic fortunes of a particular country. Generally, such objectives include:

- Maintenance of relative stability in domestic prices.
- Attainment of a high rate of or full employment.
- Achievement of a high, rapid and sustainable economic growth.
- Maintenance of balance of payment equilibrium.
- Exchange rate.
- Control inflation.

Instrument or Tools of Monetary Policy

These instruments or tools of monetary policy can broadly be classified into two:

I. Quantitative instruments: These are “Impartial” or “Impersonal” tools, which operate primarily by influencing the cost, volume, and availability of bank reserves. They lead to regulate the use of credit and cannot be used effectively to regulate the use of credit in particular areas or sectors of the credit market. It is further classified into traditional (or market weapon), and non-traditional (or direct control of bank liquidity).

- Traditional (or market weapon) tools: These tools or instruments rely on market forces to transmit their effects to the economy. Specifically, they include:

  i. Open Market Operation (OMO): Is an important weapon of monetary control in an economy with well developed money and capital market. These involve sales or purchase of government securities in the open market depending on whether the economy is inflationary or deflationary respectively. In an economy like Nigeria therefore, where the financial market is very name and the underdeveloped with
large amount of excess reserves usually maintained by bank and inadequatesupply of securities, the successful use of OMO becomes limited.

ii. Reserve Requirement: Commercial bank are required to maintain certain (or a minimum) reserve requirements in order to control their. They if the central bank wishes to increase liquidity and investment, it reduces the discount rate; and this in turn, reduces rate charged by commercial bank resulting in attractive borrowing or low cost of borrowing and hence expansion liquidity and investment (and vice-versa).

iii. Reserve Requirement: Commercial bank are required to maintain certain (or a minimum) reserve requirements in order to control their liquidity and influence their credit operations.

Thus, they are usually experience as a percentage of customers’ deposits, and they can be manipulated by the control bank to vary the ability of commercial banks to make loans to the public simply increasing or decreasing the ratios.

✓ Non-traditional (or direct control of bank liquidity): These tools strike directly at banks’ liquidity they include:

   - Supplementary reserve requirement: Here, the central banks require banks to hold, over and above the legal minimum cash reserves, a specified percentage of their deposits in government securities; hence it is also called special deposit policy.

II. Qualitative Instruments: These confer on the monetary authorities the power to regulate the terms on which credit is granted in specific sectors. Typically, these controls seek to regulate the demand for credit specific uses by determining minimum down payments and regulating the power of time over which the loan is to be paid. It is further classified into moral suasion and selective credit controls.

i. Moral Suasion: Is supposing to work through appeal and voluntary action rather than by regulation and authority. It involves the employment of persuasions or friendly persuasions, public pronouncements or outright appeal on the past of monetary authorities to the banks requesting then to operate in a particular direction for the realization of specified government objectives.

ii. Selective credit controls: Using guideline involves the administrative orders whereby the central bank instruments commercial banks on the cost and volume of credit to specified sectors depending on the degree of priority of each sectors depending on the degree of priority of each sector.

Impact of Monetary Policy on the Nigeria Economy

The effect of fiscal federalism worsens the problem of excess liquidity it adverse implications for domestic prices exchange and interest rates. In the period under review, the persistence of structural bottlenecks in the economy continued to serve as constraints to economic recovery. The overall performance of the economy will remain below its potential, while some of the key indicators showed marginal improvement.

Monetary, financial and external sector policies, as well as other economic policy measures are formulated for the sole objective of economic policy measuring stability and reversing the upward trend in inflation rate to a durable single digit. This is against the background that price stability is crucial for a sustained long-term economic growth and also for poverty eradication. But over the years, these objectives are still to a large extent elusive to the participants in Nigerian economy. As shown in table 2.1, a narrow money supply (M1) was 32.6% and it rose to 52.8% and 54.4% in 1992 and 1993 respectively. When viewed against the background of the percentage share of CBN in the credit given to the government sector, the phenomenal increases would be appreciated.

During this period, inflation rate which was 38.8% in 1988 increases to 40.9% in 1989; but decreased to 7.4% in 1990, whereas returned to the double digit figure 13.0% in 1991. In 1995, the inflation rate hit an all time high percentage of 72.8 against 15.0%; and it decreases as the year went by but kept fluctuimguntil if came to 23.8% in 2003. Money supply (M1 and M2) and the rate of inflation were at significant variance with targeted rates while other key indicators like real GDP growth rates have consistently witnessed a decrease in each successive period. In 1988, the economy only achieved a GDP of 9.9% which deduced to 7.4% in 1989; and since then the GDP has fluctuating before hitting a historic low of 2.2% in 1994. Between 1995 to the year 2001, the real GDP growth rates have been stagnating; 2.2%, 3.4%, 3.2%, 2.4%, 2.8%, and 3.8% and in 2001, 3.5%.

3.0 METHODOLOGY

In testing the empirical validity of the study in an attempt to achieve a better and meaningful result, secondary data were used. The analysis covered a period of 30 years (1983 to 2012); and the data were collected from the statistical bulletin of the Central Bank of Nigeria.

This existing information which is useful for the purpose of the study was therefore regressed using STATA 10 data analysis package. However, for the purpose of this study, the regression analysis will require the specification of a model for reasonable analysis as shown thus:

\[ Y = f (X_1, X_2, X_3, X_4) \]

Where;

\[ Y = GDP \]
\( X_1 = \text{Inflation} \)
\( X_2 = \text{Money Supply} \)
\( X_3 = \text{Interest Rate} \)
\( X_4 = \text{Balance of Payment} \)

Mathematically, as given below:

\[
Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_t \tag{2}
\]

Where:

\( Y, X_1, X_2, X_3, X_4 \) were as earlier defined

\( \alpha = \text{Intercept/Constant} \)

\( \beta_1, \beta_2, \beta_3, \beta_4 = \text{Parameters of the coefficient} \)

\( \varepsilon_t = \text{Stochastic random error terms} \)

Hence, explicitly, it is given as:

\[
\log GDP = \alpha + \beta_1 \text{INF} + \beta_2 \log MS + \beta_3 \text{INT} + \beta_4 \log BOP + \varepsilon_t \tag{3}
\]

The reason being that, increase in money supply will lead to a fall in the interest rate; and this fall in interest rate will lead to an increase in investment; thereby consuming GDP to rise. Similarly, a favourable BOP implies that export is more than import; and an increase in export leads to an increase in GDP.

Also, a fall in exchange rates causes goods and services to be more competitive in the international market which leads to increase in demand for goods and services this increasing. Likewise, a fall in interest rate will lead to an increase in market and increase in investment will this lead to increase in GDP.

4.0 RESULT AND DISCUSSION

The model undertakes an investigation into the effect of monetary policy instrument on Nigerian economic growth. The study therefore makes use of Gross Domestic Product (GDP) as a proxy for Nigerian economic growth in relation to monetary policy instrument parameters such as Inflation (INF), Money Supply (MS), Interest rate (INT), and Balance of Payment (BOP). The findings are presented in table 4.1 below:

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<th>Table 4.1: Results for the Model</th>
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<td>Dependent Variable</td>
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\( R^2 = 0.8529 \)

\( \text{Prob } F = 0.0049 \)

\( \text{Adj } R^2 = 0.7688 \)

\( \text{Root MSE } = 0.11397 \)

\( \text{F-Stat } (4,7) = 10.15 \)

Source: Computation and Output of STATA 10 based on Author’s Field Survey (2013).

According to the result presented in table 4.1 above, a unit increase on Balance of Payment over the study period resulted in an increases of 0.0535718% on the Nigerian economic growth. In addition, such unit changes in Money Supply and Interest rate resulted in 0.0391133% and 0.0132323% increase on the growth of the Nigerian economy respectively. Conversely, such unit change in Inflation rate resulted in about 0.0021948% decrease on the Nigerian economic growth.

The statistical properties of the explanatory variables collectively are significant at 5% level of significance since their \( \text{Prob } F = 0.0049 \) with \( \text{F-Stat } 10.15 \). The \( R^2 \) value of 0.8529 implies that 85.3% of the total changes in the dependent variables are attributable to changes in the explanatory variables; and the \( R^2 \) is further reduced to about 76.9% after adjustment.

5.0 CONCLUSION AND RECOMMENDATIONS

Taking cognizance of the situation surveyed on Nigerian economic growth; due to the overall significance of the estimated regression, the study concludes that there is a significant effect of Monetary Policy Instrument on the Nigerian economic growth over the period under review. Hence, Central Bank of Nigeria (CBN) irrespective of its reputation, size, and effectiveness should appreciate the importance and the effectiveness of monetary policy instrument in its operation.

On this basis, the following recommendations may be found useful:

- Monetary management of the monetary base should use direct or traditional monetary tools via reserves requirements, discount rate mechanism, and open market operation in developing their financial market.
The indirect monetary control should involve the control of money stock through mainly a manipulation of monetary base.

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