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THE RELATIONSHIP BETWEEN MONEY SUPPLY, INFLATION AND ECONOMIC GROWTH IN NIGERIA (1980 – 2020)

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Abstract

The ability to control price increase as well as stimulating the economy for growth is a major concern for policy makers while inflation targeting has remained a principal objective of monetary authorities. The empirical relationship between inflation, money supply and economic growth remains a vital input for policy making. Although various studies have examined the relationships, this study differs in terms of methodology and scope. The main objectives of the study are; to estimate the empirical relationship between money supply, inflation and economic growth; to determine the lag length it takes for money supply and inflation to impact on economic growth and to examine the short and long-run relationship among the variables. Secondary data were collected for the period of the study from the Central Bank of Nigeria (CBN) statistical bulletin of various issues from 1980 – 2020. Ordinary least square technique, granger causality and augmented angle granger test as well as the general equilibrium were the econometric frameworks employed for the analysis in this study. It was found that inflation has negative relationship with economic growth and that money supply and inflation are positively related. In terms of the lag length, it was found that it is only after a period of two years that lower inflation rates would lead to the increase in economic growth. In general, inflation is harmful to economic growth in Nigeria. For the short and long-run relationships, it was found that there is co-integration in the long run relationship between Money supply and inflation in Nigeria going by the trace and Eigen-value statistics. Lastly, it was found that money supply and inflation have a long run equilibrium relationship. From the foregoing analysis, this study recommends that to accelerate economic growth with minimum inflation in Nigeria, money supply should be kept in check with the inflation targeting objective of the central bank.

Keywords: Money Supply, Inflation, Economic Growth, Monetary, OLS

JEL Classification: E50, E51, E52

1. Introduction

The performance of most of the macroeconomic variables of a country is important to policy makers. The Central Bank of Nigeria (CBN) and its organs attempt to maintain a reasonable level of money supply in Nigeria at a specific period of time (Bawa & Ismaila, 2021). This depends on the prevailing situations in the economy at such a time. The desired aggregate level of money supply is meant to lubricate the economy and its volume affects other macroeconomic variables in the country. One of such other variable is the rate of inflation or changes in the general price level. As the higher volume of money in circulation in the economy is always advocated for to enable the economy meet its annual budgetary obligation, some economists (Stiglitz,

1998) are of the opinion that the result may be detrimental to the economy. That such persistent increase in the volume of money may cause inflation. Therefore policy makers design policies to prevent increase in the general price levels.

There are also some conflicting opinions among economists on the nexus between inflation and economic growth. Some economists (e.g. Paul & Chowdhury, 1997) are of the opinion that an inflationary economy is a characteristic of an economy not performing well while others (e.g. Grossman & Helpman, 1990) think that this may be the characteristic of a growing economy. The origin of the monetary theory that excessive money growth is the cause of inflation is the monetarists view headed by Milton

Friedman. This is closely allied with the classical school of thought. The non-monetarists or Keynesians dispute the link between increase in money supply and inflation. They argue that increase in money supply will lead to increase in spending and if there are unemployed resources, firms will increase output in response (Friedman, 1964).

Economic growth is one of the most important macroeconomic policy objectives irrespective of the economic system (Todaro, 2000). Economic growth is desirable because it affects the standard of living of every individual in the country. However, in the past few years growth in the Nigerian Economy had always been below the targeted budgetary provisions (CBN, 2001). This could be attributed to the fact that Nigeria is a primary producer and needed imported raw materials to feed its industries. However, most Nigerian industries were unable to source for local raw materials as demanded by SAP resulting in under capacity utilization in industries possibly due to high inflation rates and an over-heated economy (attributed to excess currency in circulation) which led to increased cost of production, crowding out investment among others. This affected the overall growth and development of the Nigerian economy.

The ability to control price increase as well as stimulating the economy for growth is a major concern for policy makers. While inflation targeting has remained a principal objective for monetary authorities, the desirable volume of money in circulation that would bring about sustainable economic growth whilst keeping the level or rate of inflation at optimum or at a desirable point has always been a major problem to the monetary authorities (Tule, Okpanachi et al, 2015). Consequently, there is usually the policy conflict of either attaining a desirable level of inflation vis-a-vis the attainment of increased economic growth. This is the major problem that this study intends to dissect by examining the relationship between money supply, inflation and economic growth. The outcome of this study no doubt would serve as a yardstick for setting appropriate inflation targets and money supply levels that would be consistent in bringing about desirable levels of economic growth. This research paper is structured into different sections. The first section looks at the general introduction, the second section examines

the literature review, the third section presents the methodology of the study, the fourth section details the results and the analysis of the data, while the fourth section concludes the study by highlighting some basic recommendations.

2 Literature Review

Economists have defined inflation (concept) to mean a situation of persistent and rapid rise in the general level of prices of goods and services. The public and policy makers' perceive of this condition is undesirable, as it adversely affects the standard of living, especially of the low-income earners in the economy. On the supply side, inflation increases the cost of the factors of production and leads to uncertainty in business planning, thereby constraints investment, which is critical to economic growth (Ogwuma, 1996).

The supply of money is a stock at any particular point of time, though it conveys the idea of flow over time and synonymous with such terms as 'money stock', 'stock of money' and 'quantity of money' (Jhingan, 1997). The supply of money is the total quantity and the amount of money in an economy at any given moment. There are three views regarding the definition of money supply. The first which is the traditional and stresses on the medium of exchange function of money. According to this view, money supply is defined as currency with the public and demand deposits with commercial banks. The Keynesian school also subscribed to the views of this school of thoughts. According to their views demand deposits are savings and current accounts of depositors in commercial banks are the liquid form of money because depositors can draw cheques for the amount lying in their accounts.

The concept of economic growth could be loosely defined as the increase in the productivity and productive output of the economy. It is the same as an outward shift in the production possibility frontiers of an economy reflected in sustained increase in per capita GNP. Rising per capita GNP requires that GNP growth rates per annum exceed annual population growth rates. Theories and models have been advanced in attempt to explain the growth rationale of national incomes and the relationship that exist between factors of production, supply and demand, and the intonations among economic sectors. An economy grows by passing from

one stage to another, and a stage is defined by the economic variables that are associated with it. The focus of growth models and theories, therefore, is to provide policy guides that will enable the economy attain full employment level and an even distribution of incomes and national income growth. There abound studies and discussions on how to achieve rapid economic growth in the Less Developed countries (LDCs). These studies place emphasis on how developed countries achieved their present level of development, and they expect the (LDCs) to follow their paths. But the strategies, which they advocate for the LDCs, are sometimes detached from reality because circumstances cannot be expected to follow much of the paths of the already developed countries (Okwuosa, 1976).

The theoretical foundation or framework for this study is the monetarist theory if inflation. The monetarist emphasis the role of money as the principal cause of demand-pull inflation. They contend that inflation is always a monetary phenomenon. Its explanation is to be found in the quantity theory of money. The monetarists employ the familiar identity of Fisher's equation of exchange as follows:

MV=PQ

Where M is the money supply Where V is the velocity of money Where P is the price level, And Q is the level of real output.

Going by this theory, the amount of money spent did not affect the level of real output so that a doubling of the quantity of money would result simply in doubling the price level. Until price has risen by this proportion, individuals and firms would have excess cash which they would spend, leading to rise in prices. Thus, inflation proceeds at the same rate at which the money supply expands. In this analysis, the aggregate supply is assumed to be fixed and there is always full employment in the economy. Naturally, when the money supply increases it creates more demand for goods but the supply of goods cannot increased due to the full employment of resources. This leads to rise in prices, but it is a continuous and prolonged rise in the money supply that will lead to true inflation.

Empirical Literatures

Bawa and Ismaila (2021), in their study 'Threshold Effect of Inflation on Economic Growth in Nigeria' utilized a quarterly time series data for the period 1981 – 2009 to estimate a threshold level of inflation for Nigeria. Using a threshold regression model developed by Khan and Senhadji (2001), the study estimated a threshold inflation level of 13 percent for Nigeria. Below the threshold level, inflation has a mild effect on economic activities, while above it, the magnitude of the negative effect of inflation on growth was high. The negative and significant relationship between inflation and economic growth for inflation rates both below and above the threshold level is robust with respect to changes in econometric methodology, additional explanatory variables and changes in data frequency.

Gatawa and Akinola (2017) empirically examined the impact of money supply, inflation, and interest rate on Economic Growth in Nigeria using time series data from 1973-2013. VAR Model and Granger Causality test within error correction framework were used. The results of the VEC model provides an evidence in support of a positive impact of broad money supply while inflation and interest rate exhibits a negative impact on growth most especially in the long run. The short run parsimonious results revealed that with the exception of inflation, broad money supply and interest rate were negatively related to economic growth. For the test of causality, it was revealed that none of the explanatory variables Granger causes economic growth, implying that money supply, inflation and interest rate have not influenced growth. The study therefore, recommended for an expansionary monetary policy, zero interest based finance capable of attracting investment in the real sector of the economy and arresting the inflationary tendency associated with monetary policy

Efiong (2016) in his study "Impact of inflation on economic growth in Nigeria in the context of an emerging market" using time series data spanning forty one years (1970-2011) which was obtained from the Central Bank of Nigeria (CBN) statistical bulletin volume 22, and Central Bank of Nigeria official website examined the nature of the relationship existing between the focus variables - economic growth (proxied by real Gross Domestic Product, GDP) and inflation

rate. The Augmented Dickey Fuller (ADF) and Philip-Perron (PP) tests were used to test for the stationary of the variables while the granger causality test was employed to ascertain the direction of influence between inflation and economic growth in Nigeria. The results show that there exists a statistically significant positive relationship between inflation and economic growth in Nigeria. The study also revealed that there is no leading variable in the relation between inflation and economic growth in Nigeria.

Tule, Obioma, Okpanachi, Odeniran and Olaoye (2015), examined Monetary Growth and Inflation Dynamics in Nigeria. The study examines a key relationship (money/inflation) underpinning the conduct of monetary policy in Nigeria. The methodology was a Vector Auto regressive (VAR) model. Three variants of OLS - ordinary least square, fully modify OLS, and dynamic OLS – techniques were used in estimating the data. Results from these estimates showed that the coefficients of money supply were positive and significant at 1, 5, and 10 per cent, respectively in the inflation equation for the full sample period, suggesting that money supply bears a long run positive relationship with inflation. Based on the coefficient stability results obtained from the Chow test, the entire sample was divided into two sub samples with the first one covering the period 1982q1 to 1996q4 while the second sub sample covered the period 1996q1 to 2012q4. The equation was re-estimated for the two sub-samples. The coefficient of money supply was significant in the first sub sample but insignificant in the second sub sample, buttressing the point that the relationship between inflation and money supply might have weakened in recent years. Overall, the study confirms the existence of some relationship between growth in monetary aggregates and inflation, but this relationship has weakened in recent years.

Sola and Peter (2013) in their study ''Money Supply and Inflation in Nigeria: Implications for National Development'' probed money supply and inflation rate in Nigeria. Secondary data spanning the period 1970 - 2008 were sourced from the CBN Statistical Bulletin. The study used Vector Auto Regressive (VAR) model. The stationary properties of the model were also explored. The results revealed that money supply and exchange rate were stationary at level while oil revenue

and interest rate were stationary at the first difference. Results from the causality test indicate that there exists a unidirectional causality between money supply and inflation rate as well as interest rate and inflation rate. The causality test runs from money supply to inflation, from the interest rate to inflation and from interest rate to money supply.

Osuala, (2013) carried out an empirical study on the impact of inflation on economic growth over a period of thirty-one years. The VAR results revealed a statistically significant positive impact of inflation on economic growth in Nigeria while the causality test shows that there is no causality in between the two variables.

Taiwo, (2012) in his study on "Impact of injection and withdrawal of money stock on economic growth in Nigeria" adopted Ordinary Least Square (*OLS*) as estimation technique over a period of (1970-2008). The results revealed that monetary aggregate injection has positive effect on economic growth while withdrawal of money stock showed a negative impact on the *GDP* of Nigeria.

Similar to the above is the work of Aminu and Amono, (2012) which conducted an empirical investigation into the effect of inflation on the growth and development of Nigeria Economy. The work employed Cobb Douglas Production function with ordinary least square method and concluded that inflation posses a positive impact on economic Growth, secondary annual data from 1973-2010 was used to derive the conclusion.

Babatunde and Shuaibu (2011) in their study "the relationship between money supply, inflation and economic growth in Nigeria" estimated a monetary growth model for Nigeria by examining the existence of a significant long-run relationship between money supply, capital stock, inflation and economic growth between 1975 and 2008. This study used an error correction mechanism in the bounds testing approach to cointegration within an autoregressive distributed lag framework. The empirical estimates reveal a positive and significant relationship between money supply and capital stock while a negative relationship was found between inflation and growth.

Chimobi (2010) used Nigerian data on CPI and GDP for the period 1970-2005 to examine the existence or not, of a relationship between inflation and economic growth and its causality. He adopted the Johansen-Juselius co-integration technique and Engle-Granger causality test. A stationarity test was carried out using Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests and stationarity was found at both 1 and 5 percent level of significance. After testing for causality at two different lag periods (lag 2 and lag 4), he found the result suggesting unidirectional causality running from inflation to economic growth. Thus, the study maintained that the unidirectional causality found is an indication that inflation indeed impacts on economic growth. However, this study did not estimate or suggest any threshold level at which the impact could be positive or negative, significant or not, in the long run or short run. Thus, a study that attempt to estimate the inflation threshold level would have added to the debate especially that most economies are turning towards adopting inflation targeting.

Frimpong and Oteng-Abayie (2010) attempted to find out whether inflation is harmful or not; and if it is at what level does it become harmful to economic growth in Ghana. They adopted a threshold regression model designed to estimate the inflation thresholds instead of imposing them, using annual data on CPI and GDP covering 1960-2008. They found evidence of threshold effect of inflation on economic growth, which was estimated at 11 per cent. Below this level, inflation is likely to have mild effect on economic growth, while above it inflation would significantly hurt economic growth. They concluded that the current medium term inflation target of 6-9 per cent annual average set by the Bank of Ghana and the Government is in the right direction as it is below the estimated 11 per cent threshold.

Fabayo and Ajilore (2006) in their paper titled "inflation – How Much is too Much for Economic Growth in Nigeria" using annual data from 1970-2003 suggested the existence of threshold inflation level of 6 per cent for Nigeria. They explained that above this threshold, inflation retards growth performance of the economy while below it, the inflation-growth relationship is significantly positive. They suggested that the goal of macroeconomic management in Nigeria

should be to bring down inflation to a moderate single digit of 6 per cent (optimal inflation target policy).

A careful observation of the literatures reviewed above shows that most of the studies centred on the nexus between inflation and economic growth or the relationship between money supply and inflation but failed to examine the interwoven relationship between the trio of inflation, money supply and economic growth in Nigeria. This is a very significant gap that this study intends to bridge by using annual time series data from 1980-2020.

3. Methodology

This section presents an analysis of the secondary data collected for the study. Secondary data were collected for the period of the study from the Central Bank of Nigeria (CBN) statistical bulletin of various issues for the period 1980 - 2020. The models specified are estimated and the objective of the study evaluated. To have the idea of the behavior of the data in use, basic pre-estimation diagnostic tests on the data are presented beginning from table 1 below

3.1 Model Specification

The study employs structural Vector Auto-regression (VAR) methodology to examine the magnitude of the effect and the response to impulse function of economic growth (GDP), inflation (INF) with respect to money supply (Ms). Sims (1980) developed the Vector Autoregression (VAR) framework, which he first used for the analysis of monetary policy.

The VAR model used to analyze the relationship between money supply, inflation and economic growth in Nigeria begins with a structural model.

According to Stock and Mark, ordering of the variables is very important. Sims (1980) suggests ordering the variables from the most pervasive to the least pervasive, so that variables contemporaneously affecting the other variables are ordered first, and the variables with less or no contemporaneous effect on the others are ordered last. But that notwithstanding, the variables in this study were ordered based on economic theory (see Nkwatoh 2011). More equally, of importance in VAR estimates is the determination of lag length. The lag length, in this study, is determined using Akaike Information Criterion.

The VAR model for this study is represented as follows:

$$\begin{bmatrix} GDP_t \\ INF_t \\ MS_t \end{bmatrix} = A_1 \begin{bmatrix} GDP_{t-1} \\ INF_{t-1} \\ MS_{t-1} \end{bmatrix} + \dots + A_p \begin{bmatrix} GDP_{t-p} \\ INF_{t-p} \\ MS_{t-p} \end{bmatrix} +$$

The Autoregressive Distributed Lag (ADL) Model is specified below:

Dependent variable = Economic growth (Proxied by GDP).

Independent variable = inflation (INF) and money supply (Ms).

$$GDP_{t=} \quad \alpha_{o} + \alpha_{1}GDP_{t-1} + \alpha_{2} GDP_{t-1} + \ldots + \alpha_{n}GDP_{t-n} + \beta_{1}INF_{t-1} + \beta_{2}INF_{t-1} + \ldots + \beta_{n}INF_{t-n} + \lambda_{1}Ms_{t-n} + \lambda_{2}Ms_{t-1} + \ldots + \lambda_{n}Ms_{t-n} + U_{t} - - - - - - - - 2$$

Where α_0 , α_1 , ... α_n are be coefficients to be estimated showing the influence of past levels of economic growth on current economic performance. Likewise, $\beta 1$, $\beta 2$, ..., β_n are the coefficients to be estimated showing the dynamic impact of inflation on GDP. For money supply (Ms), these coefficients are λ_1 , λ_2 ,..., λ_n . U_t is the error term capturing other factors that influences GDP.

3.2 Method of Data Analysis

 $\varepsilon_t \dots 1$

The data for the study will be analyzed using ADF statistics, OLS and Granger Causality Test

Our analysis started with the observation of the behavior of the secondary data in use by looking at the time profiles of each of the variables. It was observed that given their time series relationships, the behavior shows a non-stationary set of data. There is therefore a necessity to have a unit root test for these variables. This was done and observed that the variables in use were found to be stationary at first and second differences but were made to be stationary before being put to use. For the purpose of convenience and better analysis of the results, the results are segmented and presented individually to enable us arrive at a good conclusion.

4 Results and Data Analysis

Table 1: Unit Root Test Results

	LEVELS			FIRST DIFFERENCE			SECOND DIFFERENCE		
VARIABLES	Intercept	Intercept	None	Intercept	Intercept	None	Intercept	Intercept	None
		and trends			and			and trends	
					trends				
Ms	1.13	-0.87	1.19	-0.52	-2.22	0.80	-2.62	-2.35	1.99**
INF	-2.87	-2.81	-1.55	-6.61***	-4.58	-4.72	-6.08	-5.93	-6.24
GDP	0.23	-1.38	2.86*	-1.18	-1.1	0.02	-2.64	-3.00	-2.73
			**						
MsGr	-1.46	-1.25	-0.92	-4.09***	-4.44	-4.20	-6.38	-6.26	-6.58
GDPGr	-9.00***	-7.66	-5.58	-8.58	-8.25	-8.90	-6.97	-6.68	-7.21

Source: Authors' computation

Table 2: The Relationship between Economic Growth (GDP), Money supply and 1nflation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	4.313045	0.913223	4.722885	0.0006
GDP(-1)	1.157111	0.111749	10.35456	0.0000
GDP(-3)	-0.599427	0.105049	-5.706160	0.0001

^{*} Statistically significant at 10% level

^{**} Statistically significant only at 5% and 10% levels

^{***} Statistically significant at both 1%, 5% and 10% levels

MS(-3)	0.064173	0.012377	5.184984	0.0003
INF(-1)	0.020895	0.005320	3.927474	0.0024
INF(-2)	-0.014890	0.004337	-3.433539	0.0056
R-squared	0.996795	Mean dependent var		11.62627
Durbin-Watson stat	2.869564	Prob(F-statistic)		0.000000

Source: Authors' computation

The model shows that it takes three years for money supply to impact positively on the growth of the Nigerian economy while inflation takes a lag length of one year before it impacts on economic growth. The inflation relationship with GDP at lag two was negative. The policy implication of this is that, low levels of inflation rate would lead to economic growth after two years. This tends to suggest that the impact of inflation

targeting on the economy exercises some lag (response lag) before it impacts on the growth of the economy.

Money supply, inflation and economic growth are short-run variables. It would therefore be important to examine if the variables are in equilibrium in the short-run as well as in the long run. The granger causality result for the short run relationship is presented below.

Table 3: Granger Causality Test				
Null Hypothesis:	Obs	F-Statistic	Probability	
MS does not Granger Cause INF	24	3.78623	0.04131	
INF does not Granger Cause MS		1.12302	0.34595	
GDP does not Granger Cause INF	24	1.42309	0.26552	
INF does not Granger Cause GDP		0.50923	0.60893	
GDP does not Granger Cause MS	24	1.68844	0.21138	
MS does not Granger Cause GDP		3.17633	0.06456	

Source: Authors' computation

The granger causality result shows that money supply granger causes inflation in the short run while money supply in turn, granger causes economic growth. The test for long-run equilibrium between Money Supply and Inflation rate using Augmented Engle-Granger (AEG) test are to be put in use here. This test requires that both series are not stationary in their level forms. A simple linear regression is then estimated and the residual obtained. This residual is then tested for stationarity using the ADF statistics. The result shows that Money Supply and Inflation have a long-run relationship. The result is significant at 1%, 5% and 10%.

Policy Implication

The idea of starting with the simple linear relationships between the variables in use is to examine their respective independent relationships with each other. This research started with the examination of the relationship between economic growth and inflation and found that inflation and economic growth are negatively related. This means that inflation is detrimental to

economic growth in Nigeria. This is, therefore, the agreement or a non-contention issue among most economists worldwide. Thereafter, the study of the relationship between the Gross domestic Product (GDP) and money supply was examined statistically. The statistics show a negative relationship between the variables although not statistically significant. This may not be unconnected with the government's concentration on execution of recurrent budget which may be counterproductive to the Gross Domestic product. Many stay at home now to just consume salary without physical contribution to the GDP.

Inflation and money supply are positively related, going by the statistical results in tables 2 and 3. This result is also a confirmation of the quantity theory of money which says inflation is always and everywhere a monetary phenomenon.

The necessity in looking at the relationship between the three variables produced the results we obtained in table 4 where the multiple regression model shows that the GDP and money supply are negatively related but money supply and inflation are positively related to confirm our results from simple linear regression model on the variables.

In continuation of the findings for this research, the Autoregressive Distributive lag (ARDL) model was adopted to find the lag length (the period of time) it takes each of the variables to impact on each others. The result shows that it takes three years for money supply to impact positively on the growth of the Nigerian economy while inflation takes a lag length of one year before it impacts on economic growth. The inflation relationship with GDP at lag two was negative. The policy implication of this is that, low levels of inflation rate would lead to economic growth after the second year.

The use of granger causality test is to obtain a result that shows the direction of causality in the analysis. From table 3, money supply granger causes inflation in the short run while money supply in turn, granger causes economic growth only in the long run.

5. Conclusion and Recommendations

The paper examines the relationship between money supply, inflation and economic growth in Nigeria. We started with the background introduction where we highlighted the problem of the inability of the Nigerian policy makers to control these three variables and their tendencies to tame inflation as desired. To have a successful study, questions on the research were put forward on the existing relationships between the variables and that if the variables have a tendency to move together. Another important question that this research is expected to answer is the lag period it takes, if any, before money supply impacts on economic growth.

In achieving the objective of the study, the result of the linear regression model reveled that inflation and GDP are negatively related. Also, that there is a negative relationship between GDP and money supply in Nigeria. However the result from money supply and inflation shows that the two variables are positively related. On the lag length, the results obtained show that it takes three years for the volume of money supply to impact positively on the growth of the Nigerian economy while inflation takes a lag length of only one year. On the grangers' causality tests, it shows that

money supply granger caused inflation in the short run while money supply also granger caused economic growth.

To achieve sustainable economic growth, monetary policy can be used to stabilize the growth cycle. In result terms however, monetary policy objectives have narrowed down to inflation targeting while the level of inflation and money supply have consequence for economic growth. From the results generally; it implies that the control of money supply is vital in accelerating economic growth in Nigeria. Although after the lag period of two years, it was found that lower inflation rate would accelerate economic growth.

In conclusion therefore;

- i. Money supply has a short run influence on inflation, that is, it is money supply that causes inflation in the short run and not vice versa. This study therefore affirms the monetarists' position on the quantity theory of money.
- ii. Money supply has short run equilibrium with economic growth in the short run. That it is money supply that drives economic growth in the short run and not economic growth driving money supply.
- iii. Inflation accompanies economic growth in the first year of inflation targeting but becomes negatively related with economic growth (i.e. does not support economic growth) after a longer period of two years.
- iv. Money supply and inflation are co-integrated in the long run i.e. have a significant long run relationship.

The following recommendations could be drawn from the results of this research study:

- i. Efforts should be made to improve on domestic production of essential goods and services so as to be able to curtail the economy's inflationary trend.
- ii. Domestic investments should be encouraged through government's incentives to, as well, prevent imported inflation.
- iii. As the volume of money supply is negatively related to GDP in the long-run, such evidence suggests that a higher volume of money supply may likely not be channeled into productive sectors. This is evidenced from the corrupt nature of officials in the Nigerian economy. There is a need to intensify efforts at eradicating corruption in the Nigerian economy.
- iv. It is important to note that other outlet of controlling money supply is the annual budgetary provisions.

Government should always make way for continuous annual balance budget not surplus one.

- v. To stimulate economic growth, money supply should be controlled and kept in check with the inflation targeting objective of the Central Bank of Nigeria.
- vi. Among the country's inflation related problem is our inability to produce much needed goods and services. In short, Nigeria has no capacity to produce what it

desires, hence it is sometimes difficult to run away from the continuous inflationary trends without the development of technology, hence a recommendation to intensify efforts for the development of advanced technology in Nigeria.

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