

## Research Article

### Analysis of Fiscal and Monetary Policies on Economic Growth: Evidence from Nigerian Democracy

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**Abstract:** The research deals with analysis of Nigeria democracy and its impact on fiscal and monetary policies. Secondary data from Central Bank of Nigeria (CBN) was mainly used for this study. The study adopted descriptive statistics, regression and correlation analysis on fiscal and monetary variables (i.e., inflation, interest rate, narrow money, broad money, government recurrent and capital expenditure). The objectives of the study are to describe the trend of policy variables; examine the impact of fiscal and monetary instruments on economic growth (i.e, Real Gross Domestic Product (RGDP) as proxy for economic growth) and to make recommendations based on the research findings. The results revealed that there has been fluctuation in the trend of policy variables in Nigeria (i.e., inflation rate, interest rate, narrow money, broad money, government re-current and capital expenditure) considered with reference to the stable democracy in Nigeria between 1999-2008. The results also show that 96.3% of the variation (model 1) has been explained by the explanatory variables, 98.1% of the variation in dependent variable (model 2) has been explained by the explanatory variable, 99.4% of the total variation in dependent variable has been explained by the explanatory variables (model 3) and 85.7% of the variation in dependent variable (model 4) has been explained by the explanatory variables. The results further showed that broad money and re-current expenditure have positive relationship with RGDP which shows that a unit increase in the aforementioned variables will lead to a unit increase in GDP, but re-current expenditure is 5% significant with broad money having no significant level. Narrow money, inflation, interest rate and capital expenditure have negative impact on GDP, though; interest rate is significant at 10% probability level. The correlation results further showed that narrow money, broad money and government recurrent expenditure are significant at 1% probability level while government capital expenditure is significant at 5% probability level with inflation and interest rate having no significant relationship and negatively related with RGDP. The study concluded that narrow money, broad money, government recurrent expenditure and capital expenditure are significant variables that affect economic growth in Nigeria.

**Keywords:** Economic growth, fiscal policy, grosses domestic product, monetary policy and regression analysis

## INTRODUCTION

Governance has been described as the exercise of political power in the management of human affairs and the material resources at federal, state and local government level. Thus, economic foundation of a country largely determines by its political structure. Governance is policy making and policy execution regulated by systems of laws and guidelines which are segregated into specific operations to achieve national objectives. The art of governance is rather complex because it influences economic, political and social aspects of a nation. Effective government is achieved by means of good public policies with clear objectives, targeted programmes and readiness to anticipate and review outcomes if and when necessary. All governments have the responsibility to maintain stable macroeconomic policies.

Politically, Nigerian nation experienced civilian rule from independence to January, 1967 when the first military coup d'etat occurred fighting a civil war from May 1967 to January 1970. The military returned power to civilian on October 1979 but staged a comeback on 3<sup>rd</sup> December, 1983 (with a 3-month interim national government in 1993) and has since the been in power until return of power to a democratically elected civilian administration in May, 1999.

Nigeria's monetary policy is anchored on the monetary targeting framework and price stability which represents the overriding objectives of monetary policies. Monetary policy is therefore defined as a policy employed by the central bank in controlling of the money supply as an instrument for achieving the objectives of economic policy. It is therefore a combination of the measure designed to regulate the value, supply and cost of money in the economy in

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consonance with the expected level of economic activities (Central Bank of Nigeria, 1995).

Fiscal policy is the powerful instrument of stabilization in developing economy in which Nigerian is a typical example. Fiscal policy is a measure employed by governments to stabilize the economy, specifically by adjusting the levels and allocations of taxes and government expenditures. When the economy is sluggish, the government may cut taxes, leaving taxpayer with extra cash to spend and thereby increasing levels of consumption. An increase in public-works spending may likewise pump cash into economy, having an expansionary effect. Conversely, a decrease in government spending or an increase in taxes tends to cause the economy to contract. Fiscal policy is often in tandem with monetary policy. Until the 1930s, fiscal policy aimed at maintaining a balanced budget; since then it has been used "countercyclical," as recommended by John Maynard Keynes, to offset the cycle of expansion and contraction in the economy.

The impact of fiscal and monetary policy has been the subject of controversy among economists. The monetarist regarded monetary policy more effective than fiscal policy for economic stabilization. On the other hand, Keynesians hold the opposite view of Friedman and Meiselman (1963), Chowdhury (1986, 1988) and Cardia (1991); have examined the impact of fiscal and monetary policies on various aggregates. However, the bulk of theoretical and empirical research has not reached a conclusion concerning the relative's power of fiscal policy on economic growth. Some researchers find support for the monetarist view, which suggests the monetary policy generally has a greater impact on economic growth and dominates fiscal policy in terms of its impact on investment and growth (Elliot, 1975). However, others argued that fiscal policies are crucial for economic growth (Chowdhury, 1986; Olaloye and Ikhide, 1995).

However Cardia (1991) found that monetary and fiscal policies play only a small role in varying investment, consumption and output. The experiment of 1970s clearly demonstrates that policy mix produced only stagflation. Some economists took keen interest in money by combining Keynesian neoclassical mixture which called the "funnel" theory by James Tobin. The argument was that tax rate and money growth simultaneously leads to stagflation thus the Government could choose either fiscal or monetary policy stimulus which will enhance growth. Contrary to the Say's law supply was thought to create its own demand. If the economy were below full employment, money growth will stimulate economic growth by escalating both nominal and real GDP. If the money were above full employment by stimulating money growth can lead to stagflation, because workers would demand high wages and firms will hike prices. Any economy whether developed or developing is out to achieve certain objectives which include full employment, equitable

distribution of income, desired rate growth and price stability.

In attempt to achieve these objectives government has adopted two major mechanisms namely the monetary and fiscal policies. In Nigeria for instance, undue reliance has been placed on fiscal policy rather than monetary policy (Darrat, 1984), which has led to greater distortions in Nigerian economy. A redirection in the monetary policy and in particular emphasis on more relevant and effective instruments came in the wake of deregulation of the money market beginning from 1987. Today, fiscal and monetary policies are both commonly accorded prominent roles in the pursuit of macroeconomic stabilization in developing countries.

Given the fact that both monetary and fiscal policies impact on economic growth and development, it is not surprising that they are entwined. This relationship has been explicitly explained thus; Fiscal and monetary policies are inextricably linked in macroeconomic management; developments in one sector directly affect developments in the other. Undoubtedly, fiscal is central to health of any economy, as government's power to tax and to spend affects the disposable income of citizens and corporations, as well as the general business climate. In this regard, the interrelationship between public spending and private sector performance is of paramount importance (Ekpo, 2003).

Monetary policy requires the establishment of a relationship between monetary instruments, which the authority controls the key target of the policy objectives. Money supply is there the centerpiece of monetary tools and intermediate target of monetary policy.

Government expenditure has increase tremendously in attempt to solve pressing budgetary problems and also accelerate economic growth; the government pursues expansionary policies. Government expenditure can also be finance from direct and indirect taxes, monetarization of foreign exchange earnings and domestic credit from banking system and borrowings from the non-bank public.

**Statement of the problem:** There is consensus of opinion in literature on the impact of fiscal and monetary policies on economic growth in developed and developing countries of the world. However, there had been contrasting opinions on which the two policies exert greater influence or determines the nature and the tempo of aggregate economic activities in any economy. Despite the demonstrated efficacy of fiscal and monetary policies in other developed economies of the world as policies; other policies have not been sufficiently and adequately yielded any encouraging economic development in Nigeria.

In Nigeria, there have been very few empirical studies regarding efficacy of the stabilization tools. The

purpose of this study is, therefore, to test empirically study the effectiveness of the two policy variables in particularly with reference the period of nascent democracy in Nigeria. It is a general belief of the generality of people and the world at large that democracy is the best form of government that bring about a better turn-around of the whole economic. The question is, how realistic is this assertion or belief? The general objective of the study is to examine the impact of fiscal and monetary policies on economic growth in Nigeria particularly when the military return power to democratically elected government. Specific objectives of the study are: to determine the trend of monetary and fiscal instrument over the years (1999-2008), to examine the impact of monetary and fiscal policies on gross domestic product being a proxy for economic growth in Nigeria and to make recommendations based on research findings on how monetary and fiscal can enhance economic growth and development in Nigeria.

#### **Statement of hypothesis:**

**H<sub>0</sub>** : There's no significant relationship between fiscal and monetary policies on economic growth of Nigeria.

**H<sub>1</sub>** : Fiscal and monetary policy have a significant relationship on the economy of Nigeria.

**Significance of the study:** The study is very relevant as it will empirically show the impact of fiscal and monetary policies in Nigeria particularly during the democratic experience. However it is important to study the effect of the two policies to ensure the efficiencies on the gross domestic product (i.e., economic growth). The purpose of this study is to fill the gap by testing the comparative effect of the two policy variables in the case of developing economy like Nigeria. This will also contribute to knowledge and serve as a framework for government policy mix with a view to enhancing economic growth and development.

### **EMPIRICAL REVIEW**

Fiscal policy is a major instrument of economic management for any government. It is clear that the most serious problems, which have severally constrained the impact of monetary policy in Nigeria, have been the persistence of large government deficits and their financing by the CBN. In short fiscal policy has been constraint to monetary policy rather than been deals with the discretionary control of money supplied by monetary authorities in other to achieve the stated or desired economic goals.

Ojo (1993) emphasized mutual dependence of fiscal and monetary policies. He opined that monetary policies can be integrated through the use of the

technical financial programming. Financial programming involves the design of comprehensive packages of policy measures to achieve some specified macroeconomic objective.

Prior to the Structural Adjustment Programme (SAP) in June 1986, monetary management depended on the use of direct money controls like credit ceiling, direct control of interest and exchange rates, selective credit control as well as cash reserve requirement. Ajayi and Ojo (1981) emphasized that in developing economies of which Nigeria is a typical example, the emphasis is always on fiscal policy rather than monetary policy. In his study, he estimated the variables of monetary and fiscal policies using the Least Square (OLS) method and found out those monetary influences are much larger and more predictable than fiscal influence; he said greater should be placed on monetary action. The response of economic activities to fiscal actions relatives to monetary action (represented by GDP, government expenditure and money supply MI respectively) is (a) larger, (b) more predictable and (c) faster. The result of the test was not in consistent with any of any of these proportions. Consequently, either the commonly used measure of fiscal influence does nit correctly indicates the degree and direction of such influences. On the other hand, test outcomes are consistent with alternative prepositions. The response of GDP to changes in money supply compared with that government expenditure is larger, more predictable and faster.

Odufalu (1994) study was mainly on monetary policy variables as determinants of bank performance in Nigeria. He developed a bank profitability structural model, using explanatory variables like average interest rate on savings, liquidity cash ratio, cash ratio, Treasury bill rate, using pooled data for twelve commercial banks, he estimated the model by method of Ordinary Least Square (OLS). From his result it indicates that 39% of bank profits are due to monetary policy influence Odufalu (1994).

Hancock (1989) examined the effect of interest rates and other components of monetary policy on Bank profitability and production of financial service in a deregulated environment. She developed an explicit model; of financial production which included asset and liability holdings as well as the demand and supply by commercial Banks of financial services.

### **RESEARCH METHODOLOGY**

The area of study is Nigeria. The sources of data were mainly from secondary source. These data were from the published textbooks, journal, CBN statistical bulletin and CBN annual report and statements of accounts of various years. Time series data spinning from 1999 to 2008 were gathered on six independent variables. Government recurrent expenditure, capital

expenditure, broad money, narrow money, inflation rate and interest rate likewise GDP stands as the dependent variable. Our dependent variable is Gross Domestic Product (GDP) while our explanatory variables cover the inflation rate, interest rate, government re-current and government capital expenditure, narrow money and broad money.

**Analytical techniques:**

The techniques adopted in the study are:

- Descriptive statistics
- Ordinary least square method
- Correlation matrix.

**Descriptive statistics:** This involves the use of charts to show the trends of all macro-economic variables (Gross domestic product, inflation rate, interest rate, government re-current and government capital expenditure, narrow money and broad money).

**Correlation matrix:** The formula for correlation is as stated below:

$$r = \frac{(x-x)(\bar{y}-\bar{y})}{\sqrt{(x-x)^2(\bar{y}-\bar{y})^2}} \quad (1)$$

**Model specification:** Reading through the various works and analyses of the various writers. It is possible to specify our empirical model in the following manner:

$$Y_t = f(MP_t, FP_t) \quad (2)$$

Implicit functions

where, Y is a measure of economic activity in which Gross Domestic Product (GDP) is employed as a proxy, MP and FP are measures of monetary and fiscal actions of the government respectively. Narrow money, broad money, real interest rates and inflation rates are employed as proxies for monetary policy variables while the fiscal variables are the government recurrent expenditure, government capital expenditure. The subscript (t) means time period.

The model is explicitly specified as:

Model 1

$$RGDP = \beta_0 + \beta_1 M_1 + \beta_2 M_2 + \beta_3 INT + \beta_4 INF \quad (3)$$

Model 2

$$RGDP = \alpha_0 + \alpha_1 GREXP + \alpha_2 GCaEXP \quad (4)$$

Model 3

$$RGDP = \lambda_0 + \lambda_1 M_1 + \lambda_2 M_2 + \lambda_3 INT + \lambda_4 INF + \lambda_5 GCaEXP + \lambda_6 GREXP + ET \quad (5)$$

Model 4

$$RGDP = Y_0 + Y_1 \Sigma MV + Y_2 \Sigma FV \quad (6)$$

where,

C = The autonomous variable

e<sub>t</sub> = Error term

β<sub>0</sub>, β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, β<sub>4</sub>, β<sub>5</sub> and β<sub>6</sub> are the coefficient of the independent variable

- RGDP = Real gross domestic product
- M<sub>1</sub> = Narrow money supply (N' billion)
- M<sub>2</sub> = Broad money supply (N' billion)
- INT = Interest rate (%)
- INF = Inflation rate (%)
- GREXP = Government recurrent expenditure (N' million)
- GCaEXP = Government capital expenditure (N' million)
- ΣMV = Sum of all monetary variables
- ΣFV = Sum of all fiscal variables

The model was estimated using Ordinary Least Square techniques (OLS). It was subjected to a dynamic estimation using the lag structure of the variables. There will be determination of the existence of substantial co-movements among time series variables. The reason for this is that when the dependent and independent variables have unit roots, traditional estimation method, using observations on levels of those variables would likely find a statistically significant relationship even when meaningful "economic" linkage is absent (Akinlo and Odusola, 2003).

To determine the time series properties of the variables the data was be subjected to Augmented Dickey-Fuller Unit Root Test (Dickey and Fuller, 1981). The univariate time series behavior will therefore be determined.

**A priori expectation:** It is expected that β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub> and β<sub>4</sub> should be either > 0 or < 0, while λ<sub>1</sub>, λ<sub>2</sub>, λ<sub>3</sub>, λ<sub>5</sub> and λ<sub>6</sub> to be > 0, λ<sub>4</sub> should be < 0.

**RESULTS AND DISCUSSION**

**Inflation rate (1999-2008):** Figure 1 shows the inflationary trend. In 1999, the inflation rate was very low, it increased in 2000 and fell back in 2002, it later rose in 2005 and dropped in 2007, the rate is increasing gradually since 2008. Inflation is inversely related to growth in the economy i.e. the higher the inflation rate, the lower the economy growth and the lower the inflation rate, the higher the economy growth.

**Growth in interest rate (1999-2008):** Figure 2 shows the movement of interest rate over the period under review, the interest rate in 1999 was high and dropped

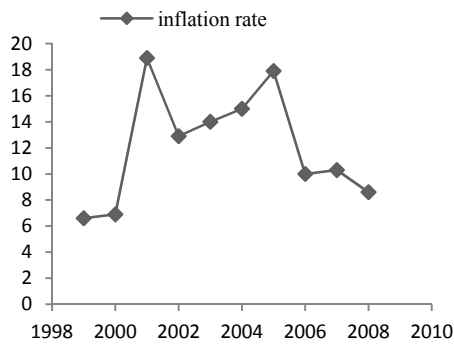


Fig. 1: Trend of inflation rate

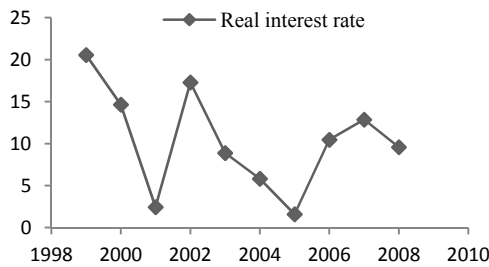


Fig. 2: Trend of interest rate

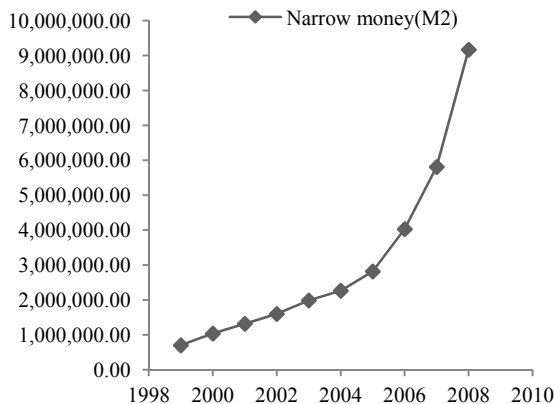


Fig. 3: Trend of narrow money

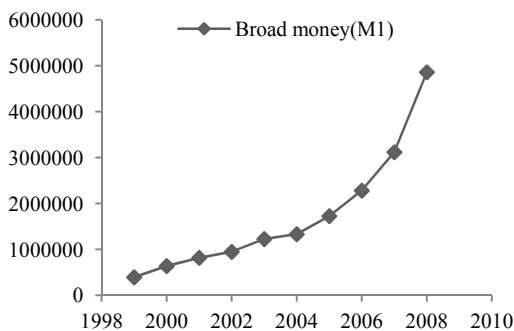


Fig. 4: Trend of broad money

in 2001, it rose in 2002 and in 2005 it dropped and later increased in 2007. From the above it is clear that, the

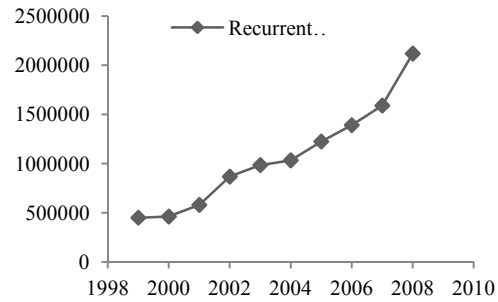


Fig. 5: Trend of government recurrent expenditure

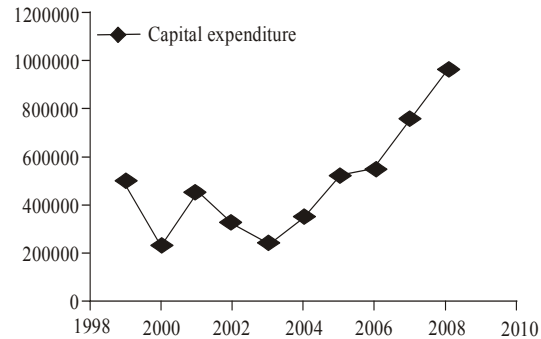


Fig. 6: Trend of capital expenditure

interest rate is moving downwards in 2008. There is a direct relationship between interest rate and saving and an inverse relationship between investment and interest rate.

**Narrow money (1999-2008):** Figure 3 shows that there has been a continuous increase in the supply of currency with non bank and demand deposit between the periods of 1999-2008.

**Broad money (1999-2008):** Figure 4 shows that amount of money and liquidity in the economy continues to increase from 1999 to 2008.

**Recurrent Expenditure (1999-2008):** Figure 5 shows that recurrent expenditure continues to increase from 1999 till 2008.

**Capital expenditure (1999-2008):** Figure 6 shows that the capital expenditure decreased in 1999 and increased in 2000. Capital expenditure continues to decrease from 2001 till 2003, later increased in 2004 till 2009.

**RGDP and monetary instruments:** The result of Table 1 reveals that there is inverse relationship between economic growth and interest rate, whereas there is a positive relationship between economic growth and other variables (inflation, M1 and M2). Thus, inflation, M1, M2, growth will increase RGDP while holding interest rate constant, but the reverse is the case for interest rate, when inflation rate, M1 and M2 are held constant. The t-statistics shows the significant relationship between RGDP and the

Table 1: Regression results of GDP and monetary variables

Variable	Coefficient	S.E.	t-Statistic	Prob.
C	3.654221	0.271330	13.46783	0.0000
LINF	0.060232	0.084362	0.713963	0.5072
LINT	-0.034975	0.049399	-0.708001	0.5106
LM1	0.226139	0.065126	3.472321	0.0178
LM2	0.096750	0.041638	2.323615	0.0677
-----				
R-squared	0.963257	Mean dependent var		5.676000
Adjusted R-squared	0.933862	S.D. dependent var		0.121765
S.E. of regression	0.031315	Akaike info criterion		-3.782615
Sum squared resid	0.004903	Schwarz criterion		-3.631323
Log likelihood	23.91308	F-statistic		32.76997
Durbin-Watson stat	1.878690	Prob (F-statistic)		0.000882

Table 2: Regression results of GDDP and fiscal variables

Variable	Coefficient	S.E.	t-Statistic	Prob.
C	2.600832	0.191133	13.60742	0.0000
GREXP	0.546380	0.035998	15.17788	0.0000
GCAEXP	-0.033888	0.041157	-0.823376	0.4374
-----				
R-squared	0.981075	Mean dependent var		5.675878
Adjusted R-squared	0.975668	S.D. dependent var		0.120970
S.E. of regression	0.018870	Akaike info criterion		-4.859191
Sum squared resid	0.002492	Schwarz criterion		-4.768415
Log likelihood	27.29595	F-statistic		181.4414
Durbin-Watson stat	1.341409	Prob (F-statistic)		0.000001

(Data analysis 2010)

estimated macroeconomic variables (i.e., INF, INT etc.). R-square value shows that 96.3% of variation in GDP is being explained by the explanatory variable. F-statistics value of 32.77. Though, all the variables are not showing any level of significant on the GDP.

**Summary of regression results:**

Model 1  $LGDP = \beta_0 + \beta_1 LINF + \beta_2 LINT + \beta_3 LM1 + \beta_4 LM2$   
 $RGDP = 3.654 + 0.0602INF - 0.035INT + 0.226M_1 + 0.097M_2$   
 (13.468) (0.714) (-0.708) (3.472) (2.324)  
 R-squared = 0.963(96.3%)  
 F-statistics = 32.77  
 D.W= 1.879

Figures in parenthesis are t-statistics

**RGDP and fiscal policy:** The result in Table 2 shows the positive relationship between economic growth and Government recurrent expenditure and a negative relationship between economic growth and capital expenditure, which implies that capital expenditure, does not have any significant relationship with RGDP while the recurrent expenditure has significant relation

with GDP. The co-efficient of determination R-squared result reveals that 98.1% of the variations in RGDP are being explained by government recurrent expenditure and government capital expenditure. The f-statistics also shows that the model is significant. However, the model also revealed positive serial correlation as shown in the value of Durbin Watson test of 1.34.

$LRGDP = 2.60 + 0.55LGREXP - 0.034LCAEXP \dots \dots \dots Eq. (2)$   
 (13.61) (15.18) (-0.82)  
 R-squared = 0.981(98.1%)  
 F-statistics = 181.44  
 D.W=1.34

**RGDP and monetary and fiscal policies:** This model in Table 3 examined the relationship between GDP and the fiscal and monetary policies in Nigeria. The result shows that M2 and recurrent expenditure have positive relation with RGDP, while other variables (M1, INF, INT and capital expenditure) have negative relationship with GDP. The R-squared shows that 99.4% of the variation in GDP is attributed to joint consideration of all variables of the two sectors. This implies that a unit increase in the number of independent variables will

Table 3: Regression results of GDP, monetary and fiscal variables

Variable	Coefficient	S.E.	t-Statistic	Prob.
Variable	Coefficient	S.E.	t-Statistic	0.0027
C	2.780781	0.301200	9.232330	0.1592
INF	-0.119790	0.064261	-1.864115	0.0893
INT	-0.065607	0.026458	-2.479631	0.4666
M1	-0.069940	0.084087	-0.831750	0.8910
M2	0.004650	0.031213	0.148960	0.0267
GREXP	0.657949	0.161429	4.075783	0.1701
GCAEXP	-0.080587	0.044835	-1.797390	5.676000
-----				0.121765
R-squared	0.994390	Mean dependent var		-5.261975
Adjusted R-squared	0.983169	S.D. dependent var		-5.050166
S.E. of regression	0.015797	Akaike info criterion		88.62294
Sum squared resid	0.000749	Schwarz criterion		0.001826
Log likelihood	33.30988	F-statistic		
Durbin-Watson stat	3.229682	Prob(F-statistic)		

(Data analysis 2010)

lead to a unit increase in GDP. While the f-statistics indicates that the specified model is significant, the series possess a level of negative autocorrelation as the Durbin Watson test shows that the value is approximately 3.2, which is greater than 2, i.e., negative of autocorrelation.

**Model 3:**

$$\begin{aligned}
 \text{RGDP} &= C + \lambda_1 M1 + \lambda_2 M2 + \lambda_3 \text{INT} + \lambda_4 \text{INF} \\
 &+ \lambda_5 \text{GCaEXP} + \lambda_6 \text{GREXP} + \text{et} \\
 \text{RGDP} &= 2.781 - 0.066M1 + 0.004M2 - 0.12\text{INF} - \\
 &0.066\text{INT} - 0.081\text{CaEXP} + 0.658\text{GREXP} \\
 &(9.232) \quad (-0.832) \quad (0.149) \quad (-1.864) \quad (-2.480) \quad (-1.797) \\
 &(4.076) \\
 \text{R-squared} &= 0.994(99.4\%) \\
 \text{F-statistics} &= 88.63 \\
 \text{D.W} &= 3.23
 \end{aligned}$$

**RGDP AND THE SUM OF MV AND SUM OF FV**

This model in Table 4 examined the relationship between GDP and the sum of fiscal and monetary variables in Nigeria. The result shows that MV and FV have positive relation on GDP. The R-squared shows that 85.7% of the variation in GDP is attributed to joint consideration of the sum of variables of the two sectors. This implies that a unit increase in the number of independent variables will lead to a unit increase in GDP. While the f-statistics indicates that the specified model is significant, the series possess no positive serial correlation (autocorrelation) as the Durbin Watson test shows that the value is approximately 0.71, which is less than 2, i.e. there is positive autocorrelation.

**Model 4:**  $\text{RGDP} = Y_0 + Y_1 \Sigma \text{MV} + Y_2 \Sigma \text{FV}$   
 $= 2.687 + 0.058 \Sigma \text{MV} + 0.187 \Sigma \text{FV}$   
 $= (4.926) (1.859) (2.726)$

R-squared = 0.857(85.7%)  
 F-statistics = 20.93  
 D.W = 0.71

**Correlation matrix of macroeconomics variables:**

This shows the relation between RGDP and other variables (inflation, interest rate, narrow money, broad money, government recurrent and capital expenditure). This was computed using SPSS version 16.0.

**GDP and inflation:** The result of Table 5 reveals that there is relatively positive correlation (0.070) between inflation and Gross domestic Product. More so, Inflation does not have any significant relationship with GDP. Thus, does not contribute to the GDP. This fact is in line with the economic theory.

**RGDP and interest rate:** The result of Table 6 reveals that there is relatively negative correlation (-0.182) between interest rate and Gross domestic Product. More so, Interest rate does not have any significant relationship with GDP. Thus, does not contribute to the GDP. This fact is in line with the economic theory.

**RGDP and narrow money:** The result of Table 7 reveals that there is a strong positive correlation (0.959) between narrow money and Gross domestic Product. Moreso, Narrow money has 1% significant relation with the RGDP. Thus, being a factor contributing to the GDP.

**RGDP and broad:** The correlation result in Table 8 shows that broad money is significant at 1% probability level and also positively related (0.850) to the GDP.

**RGDP and GREXP:** The result in Table 9 shows that there is high positive correlation between Government recurrent expenditure and gross Domestic Product. This

Table 4: Regression results on RGDP, sum of MV and FV

Variable	Coefficient	S.E.	t-Statistic	Prob.
C	2.687201	0.545537	4.925792	0.0017
MV	0.057952	0.031181	1.858590	0.1054
FV	0.185625	0.068085	2.726360	0.0295
R-squared	0.856728	Mean dependent var		5.676000
Adjusted R-squared	0.815793	S.D. dependent var		0.121765
S.E. of regression	0.052261	Akaike info criterion		-2.821819
Sum squared resid	0.019118	Schwarz criterion		-2.731043
Log likelihood	17.10909	F-statistic		20.92899
Durbin-Watson stat	0.708615	Prob (F-statistic)		0.001113

(Data analysis 2010)

Table 5: Correlation matrix of GDP and INF

		Gross domestic expenditure	Inflation
Gross domestic expenditure	Pearson correlation	1	0.070
	Sig. (2-tailed)		0.849
	N	10	10
Inflation	Pearson correlation	0.070	1
	Sig. (2-tailed)	0.849	
	N	10	10

Data analysis

Table 6: Correlation matrix of GDP and INT

		Gross domestic expenditure	Interest rate
Gross domestic expenditure	Pearson correlation	1	-0.182
	Sig. (2-tailed)		0.615
	N	10	10
Interest rate	Pearson correlation	-0.182	1
	Sig. (2-tailed)	0.615	
	N	10	10

Data analysis

Table 7: Correlation matrix on GDP and M1

		Gross domestic product	Narrow money
Gross domestic product	Pearson correlation	1	0.959**
	Sig. (2-tailed)		0.000
	N	10	10
Narrow money	Pearson correlation	0.959**	1
	Sig. (2-tailed)	0.000	
	N	10	10

\*\* : Correlation is significant at the 0.01 level (2-tailed); Data analysis

Table 8: Correlation matrix on GDP and M2

		Gross domestic product	Broad money
Gross domestic product	Pearson correlation	1	0.850**
	Sig. (2-tailed)		0.002
	N	10	10
Broad Money	Pearson correlation	0.850**	1
	Sig. (2-tailed)	0.002	
	N	10	10

\*\* : Correlation is significant at the 0.01 level (2-tailed); Data analysis

Table 9: Correlation matrix and GDP and GREXP

		Gross domestic product	Government recurrent expenditure
Gross domestic product	Pearson correlation	1	0.990**
	Sig. (2-tailed)		0.000
	N	10	10
Government recurrent expenditure	Pearson correlation	0.990**	1
	Sig. (2-tailed)	0.000	
	N	10	10

\*\* : Correlation is significant at the 0.01 level (2-tailed); Data analysis

Table 10: Correlation matrix on GDP and CAEXP

		Gross domestic product	Government capital expenditure
Gross Domestic product	Pearson correlation	1	0.589
	Sig. (2-tailed)		0.073
	N	10	10
Government capital expenditure	Pearson correlation	0.589	1
	Sig. (2-tailed)	0.073	
	N	10	10

is further confirmed by 1% probability level on GDP. This implies that government recurrent expenditure influences on GDP.

**RGDP and CAEXP:** The Table 10 shows that government capital expenditure is positively related (0.589) to GDP. Though, capital expenditure does not have any level of significant on the GDP. This implies that government capital expenditure does not influence on Gross Domestic Product (GDP).

### SUMMARY OF FINDINGS

The study focuses on the impact of monetary and fiscal policies as evidence in the democratically elected government of Nigeria. These have been evaluated by addressing some critical hypotheses of these instruments on the economy. The study has been able to find out that there has been fluctuation in the trend of



policy variables in Nigeria (i.e., inflation rate, interest rate, narrow money, broad money, government recurrent and capital expenditure) considered with reference to the eight year rule of President Olusegun Obasanjo (1999-2007).

Olusegun Obasanjo was the former President of the Federal Republic of Nigeria between 1999-2007

The result of regression shows that 96.3% of the variations (model 1) in the dependent variable had been explained by the explanatory variables. In model 2, 98.1% of the variations in dependent variable were explained by the explanatory variable while 99.4% of the total variation has been explained by the explanatory variables (model 3) and 85.7% of the variations in the dependent variable of model 4 had been explained by the explanatory variables as indicated above. The result further shows that broad money and re-current expenditure has positive relationship with RGDP which shows that a unit increase in those variables will lead to a unit increase in GDP, increase in GDP, but re-current expenditure has 5% significant with broad money having no significant level. Narrow money, inflation, interest rate and capital expenditure have negative impact on GDP, though; interest rate is significant at 10% probability level. The correlation analysis shows that narrow money, broad money, government recurrent expenditure is significant at 1% probability level while government capital expenditure has 5% probability level with inflation and interest rate having no significant relation and negatively related with RGDP.

The analysis of the Ordinary Least Square methods (OLS) showed that broad money and government recurrent are positively related to the growth in GDP. Thus, these variables contribute to economic growth.

### CONCLUSION

The research study examined the impact of fiscal and monetary policies on economic growth of Nigeria with particular reference to the period of stable democratic dispensation (1998-2008). The study concluded that narrow money, broad money, government recurrent expenditure and capital expenditure are significant policy variables that affect economic growth in Nigeria (i.e., using Real Gross Domestic Product as proxy for economic growth). This also conforms to the *apriori* expectations. The study therefore opined and recommends that in order to put Nigeria economy on the path of sustainable growth and development, the democratically elected government must harness and better co-ordinate her fiscal and monetary policies in conjunction with the Central Bank of Nigeria in order to enhance the welfare of the citizenry.

### REFERENCES

- Ajayi, S.I. and O. Ojo, 1981. Money and Banking: Analysis and Policy in the Nigerian Context. Allen and Unwin, London, pp: 274, ISBN: 0043303188.
- Akinlo, A.E. and A.T. Odusola, 2003. Assessing the impact of Nigeria's naira depreciation on output and inflation. *Appl. Econ.*, 35(6): 691-703.
- Cardia, E., 1991. The dynamics of a small open economy in response to monetary, fiscal and productivity shocks. *J. Monet. Econ.*, 28(3): 411-434.
- Central Bank of Nigeria, 1995. Monetary Policy in Nigeria. CBN Briefs, Research Department, Series 95/03.
- Chowdhury, A., 1986. Monetary and fiscal impacts on economic activities in Bangladesh: A note. *Bangladesh Dev. Stud.*, 14(2): 101-106.
- Chowdhury, A., 1988. Monetary policy, fiscal policy and aggregate economic activity: Some further evidence. *Appl. Econ.*, 20: 63-71.
- Darrat, A.F., 1984. The dominant influence on fiscal actions in developing countries. *Eastern Econ. J.*, 10(3): 271-284.
- Dickey, D. and W. Fuller, 1981. Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 49: 1057-1072.
- Ekpo, A., 2003. The Macroeconomic Policy Framework: Issues and Challenges. Central Bank of Nigeria 3rd Annual Monetary Policy Conference Proceedings on Issues in Fiscal Management: Implications for Monetary Policy in Nigeria, Central Bank of Nigeria Publications, Lagos.
- Elliot, J.W., 1975. The influence of monetary and fiscal actions on total spending: The St. Louis total spending equation revisited. *J. Mon. Cred. Bank.*, 7: 181-192.
- Friedman, M. and D. Meiselman, 1963. The Stability of Monetary Velocity and the Investment Multiplier in the United States, 1887-1957 in *Stabilization Policies*. Prentice Hall, Englewood.
- Hancock, D., 1989. Bank Profitability, Deregulation and the Production of Financial Service. Research Working Paper, Federal Reserve Bank of Kansas City, December, 1998.
- Odufalu, O., 1994. Monetary and banking profitability in Nigeria. *First Bank Nigeria Plc, Bi-Ann. Rev.*, 4(8).
- Ojo, M., 1993. The Application of Open Market Operations as an Instrument of Monetary Policy in Nigeria. *The CBN Bullion*, (Issue 3).
- Olaloye, A.O. and S.I. Ikhide, 1995. Economic sustainability and the role of fiscal and monetary policies in a depressed economy: The case study of Nigeria. *J. Sustain. Dev.*, 3: 89-100.