The Effectiveness of Fiscal Policy on Economic Stabilization in Nigeria

Benson Mbonu Ogbonna (Ph.D)¹ Chiwuike Newington Uba² Joseph Chukwudi Odionye¹
 1.Department of Economics, Abia State University, Uturu, Nigeria
 2.Department of Economics, Enugu State University of Science and Technology, Enugu, Nigeria

Abstract

The effectiveness of fiscal policy in Nigeria over the years has been a matter of great controversy. Thus, this study investigated the effectiveness of Nigeria's fiscal policy on economic stabilization over the periods 1983–2015. The Auto Regressive Distributed Lag Error-correction model (ARDL-ECM) was employed to take care of short-run dynamics. The fiscal policy variables considered in the study include government expenditure, taxes, government borrowing. Economic stabilization was mirrored with GDP and unemployment level. Over all, the results indicate that both government expenditure and government borrowing has a negative significant impact on unemployment. It reveals an increase in unemployment as government expenditure and government borrowing (public debt) increases. In addition, the outcome supports key conclusion that jointly, government expenditure, government borrowing and taxes have significant positive impacts on gross domestic project (GDP). Consequent upon the findings of the study, we recommend that fiscal policy should be designed in such a way that government expenditure resources are spent on projects that enhance the earning capacity of the low income people and goods required mostly by poor households like education and medical facilities. In addition, there should be re-allocation of capital expenditure so as to enhance employment opportunities for unemployed people. Also, fiscal indiscipline on the part of the government should be curbed while a good, transparent and accountable expenditure system should be put in place.

Keywords: Economic Stabilization, ARDL, Fiscal Policy, ECM, Economic Growth

1.1 Background of the Study

Nigeria is endowed with enormous potentials for growth and development with her vast oil and gas resources, rich and expensive agricultural land, solid minerals and abundant human resources. Despite these factors, since 1960 when she got her independence from Britain, the successive governments have not done enough to put the nation's resources to effective productive use as to chart the path of growth and development. The net result is that the Nigerian economy is now performing below her potential as the "Crown prince of the Gulf of Guinea".

The Nigerian economy has been plagued with several challenges over the years. Researchers have identified some of these challenges as: gross mismanagement/ misappropriation of public funds, (Okemini and Uranta, 2008), corruption and ineffective economic policies (Gbosi, 2007); lack of integration of macroeconomic plans and the absence of harmonization and coordination of fiscal policies (Onoh, 2007); inappropriate and ineffective policies (Anyanwu, 2007). Imprudent public spending and weak sectoral linkages and other socioeconomic maladies constitute the bane of rapid economic growth and development (Amadi et al., 2006).

Since independence, Nigeria's fiscal objectives has amongst others, included, making available for financing economic development, the maximum flow of material resources consistent with minimum consumption requirements; containing inflationary pressures, raising additional revenue, and minimizing existing inequalities in wealth, income and consumption standards which may tend to undermine production efficiency, offend a sense of social justice and endanger political stability. In addition, encouraging domestic production and substantially reduce government budget deficit and reduce both external and domestic debts. Others include the generation of employment, reduction of over-stressed economic and social infrastructure. Finally, amongst other objectives is the lessening the over-dependence on the oil sector as the main source of foreign exchange earnings and government revenue.

The main fiscal instruments in Nigeria include changes in taxation rates, government expenditure and public debt. It is evident that one of Nigeria's greatest problems today is the inability to efficiently manage her enormous human and material endowment.

Despite the lofty place of fiscal policy in the management of the economy as shown from time to time though the government's fiscal policies, the Nigerian economy is yet to come on the path of sound growth and development. Studies by Agiobenebo (2003), Gbosi (2002) and Okowa (1997) indicate that the economy is still married by chromic unemployment, rising rate of inflation, dependence on foreign technology, monoculture foreign exchange earnings from crude oil, and more. In spite of many, and frequently changing, fiscal, monetary and other macro-economic policies, Nigeria has not been able to harness her economic potentials for rapid economic development (Ogbole, 2010).

Although, the study on the growth impact of fiscal policy has generated large volume of both theoretical and empirical literature. However, most of these studies paid more attention to developed economies and the

inclusion of developing countries in case of cross-country studies were mainly to generate enough degrees of freedom in the course of statistical analysis (Aregbeyen, 2007). There is a popular assertion in the empirical literature that public spending is negatively correlated with economic growth due to inefficiency of the public sector especially in the developing countries where large proportion of public spending is attributed to non-development expenditure like defence and interest payments on debt (Husnain et al., 2011) and Nigeria is not an exception.

Several empirical studies have supported the assertion of the existence of a relationship between fiscal policy (FP) and economic growth (EG) in several economies of the world following the Keynesian philosophy that pulled depressed economies out of depression during the great depression era. Empirical studies in some developing economies tell the same story. Ekpo (1994), in Adeoye (2006), in Nigeria, found a positive correlation between public investment and EG as the former crowded in private investment. Adeoye's (2006) study covered a different time frame for the Nigerian economy and established a negative relationship between public investment and EG (this time, public investment crowded-out private investment). From the study of a panel of 40 African countries, Aregbeyen (2007) established a positive and significant correlation between government capital and public investment and EG, while he found that current and consumption expenditures were negatively associated with it. Other studies also confirm either a negative or a positive correlation/relationship between FP (with government expenditure, public investment or related variables used as proxies) and EG.

However, current trends in fiscal administration has introduced various ways in view to reducing such expenditure that contributes little to the development goals of national economy. Alongside this thought is the adoption of MTEF (1998) as part of broad package of budget reforms to encourage cooperation across various government arms in planning and strategy for reducing wasteful expenditure.

The various studies were unable to say for certain, how and to what extent fiscal policy has been effective in Nigerian economy. In addition to the above, the various results of the previous studies were unable to say for certain, whether there is significant relationship between government expenditure, taxes, government borrowings (debt) and some notable economic variables: unemployment and gross domestic product (GDP) which are mirror image of economic performance during the years under review. In view of the above, this study sought to determine the effectiveness of fiscal policy on economic stabilization in Nigeria. Specifically the objectives sought to:

i. determine the effect of fiscal policy instruments (government spending, government borrowing and tax) on economic growth in Nigeria.

ii. determine the effect of fiscal policy instruments (government spending, government borrowing and tax) on unemployment level in Nigeria.

The remaining of this work is organized into four sections: section two is the theoretical and empirical reviews, section three explains the methodological and data issues, section four discusses the results and section five is recommendations resulting from the findings.

2.1 Theoretical Review

Wide range of literature is available on the important role of fiscal policy in economic stabilization. There are two schools of thought who explain the role of fiscal policy in two distinct ways; they are neo classical school of thought and the Keynesians. New classical school of thought blames fiscal policy for creating crowding out of private investment and causing inflation. Increase in the public debt cause an increase in interest rate which put downward pressure on output and inflation. Moreover due to increase in public debt public will anticipate higher taxes in future which further raise labor supply, lower consumption, real wages, current economic activity and inflation (Shaheen and Turner, 2008). All of the economists believe that the classical model holds for the time frame of a decade or more. Afonso et al., (2005) claimed that in addition to economic factors many social, cultural, environmental and geographic factors are involved in the long run so no single explanation can be given to fully predict the behavior of fiscal policy that's why now days the concept of the quality of public finances is becoming popular to improve the role of fiscal policy for raising long run growth potential.

2.2 Empirical review

The impact of fiscal policy on growth has generated large volume of empirical studies with mixed findings using cross sectional, time series and panel data. Some of these studies are country-specific while others are cross-country.

Ekpo (1994) in Adeoye (2006) using Autoregressive Distribution Lag (ARDL) modelling process observed that in Nigeria (1960-1990) public spending on infrastructure crowded in private investment and thus spurs economic growth (though private investment was reported to be more efficient than public investment). According to Aregbeyen (2007), the studies of Devarajan et al (1996), Fuente's (1997), Amin (1998), Kneller et al (1999) and Bose et al (2003) indicate correlation between FP and EG. Devarajan et al (1996)

used endogenous growth model and found that productive government expenditure enhanced economic growth.

Furthermore, the study conducted by Kneller *et al* (1999) using Vector Autoregression (VAR) confirmed the studies of Devarajan *et al* (1996) and Fuente (1997). Bose et al (2003) used VAR methodology and found that government capital expenditures in GDP is positively and significantly correlated with economic growth but that the growth effect of current expenditure is insignificant. Aregbeyen's (2007) study of a panel of 40 African countries (including Nigeria), using VAR and OLS revealed that Government Capital and public investment expenditures were significantly positively associated with economic growth while current and consumption expenditures were negatively associated. The former category of expenditure was in less proportion of government total expenditure than the latter category. Aregbeyen (2007) believed that though government expenditures were necessary for economic growth, the *quality of such expenditure* is of more important consideration. According to him the quality of government expenditures is the distribution of government expenditures between capital and consumption purposes on one hand and current and consumption purposes on the other hand.

Adeoye (2006) examined the effects of fiscal policy on growth of the Nigerian economy (1970-2002). The result showed that capital expenditure as a ratio of GDP (used as proxy for public investment) exerted a negative impact on output growth by having a crowding-out effect on private investment. Despite several studies on fiscal policies, Adeoye (2006) still observed, using ARDL model that "the debate on the usefulness of fiscal policy as a tool for promoting growth and development remains inconclusive, given the conflicting results of current research". He opined that while the studies of Thornton (1990), Lin and Liu (2000) indicated a net positive effect, those of Baily (1980) and Feldstein (1980) indicated a negative net effect.

Also, the study of Lin and Liu (2000) on China's economy showed that fiscal decentralization significantly contributed to economic growth rate mainly through efficient resources allocation rather than by inducing additional investment using overlapping generations model of endogenous growth. (This agrees with the hypothesis that fiscal decentralization can increase economic efficiency). Thus from the foregoing empirical studies it may be inferred that the relationship between FP and EG may be either negative or positive depending on varying prevailing economic factors in the economies in question.

Enache (2009) investigated the connection between fiscal policy and economic growth in Romania using Forecasted time series data which covered periods between 1992 and 2013. The empirical results using neoclassical growth model with OLS analysis indicated weak evidence for the positive impact of fiscal policy on economic growth. The study concluded that government authorities could use fiscal policy to affect economic growth in an indirect manner. Karimi and Khosravi (2010) investigated the impact of monetary and fiscal policies on economic growth in Iran using autoregressive distributed approach to cointegration between 1960 and 2006. The empirical results indicated existence of long-run relationship between economic growth, monetary policy and fiscal policy. The results further revealed a negative impact of exchange rate and inflation (as proxies for monetary policy), but a positive and significant impact of government expenditure on growth.

Nurudeen and Usman (2010) analyzed the impact of government expenditure on economic growth in Nigeria over the period 1970 – 2008 using the cointegration and error correction methods. The paper revealed that government total capital expenditure, total recurrent expenditures and expenditure on education have negative effect on economic growth while expenditures on health, transport and communication are growth enhancing. Dauda (2010) examined the effect of investment spending in education on economic growth in Nigeria using thirty-one (31) years' time series data from 1977 to 2007. The study employs cointegration and error correction techniques. The result shows positive and significant effect of educational expenditure on economic growth.

Ajisafe and Folorumo (2002) using cointegration and error correction modelling techniques, carried out a study titled "The relative effectiveness of fiscal and monetary policy in macroeconomic management in Nigeria" for the period of 28 years (1970-1998). They observed that monetary rather than fiscal policy exert impact on macroeconomic variables during the period under review. They also noted that the emphasis on fiscal actions of the government has led to greater distortions in Nigeria economy. They were however of the opinion that both monetary and fiscal policies should be used complementarily.

Ozoh, Uma and Odionye (2016) examined the effects of fiscal policy on unemployment and inflation reduction in Nigeria. They decomposed total tax into company income tax, petroleum profit tax and customs and excise dutes in order to determine the individual tax effects on inflation. Their result showed evidence that government capital expenditure at lag one and two does not reduce unemployment but at lag three does significantly. They equally found that only customs and excise duties had significant effects on inflation in Nigeria.

Abel and Chibuike (2006) in their work titled "Rethinking monetary and fiscal policies In Nigeria", reviewed the monetary and fiscal policies in Nigeria and noted that fiscal indiscipline has turned Nigeria from revenue generating to revenue sharing nation. They were of the view that fiscal and monetary policies have not been effective as expected and this is as a result of fiscal indiscipline on the part of the operators of the system.

They however suggested that fiscal indiscipline on the part of the government should be curbed in order to put Nigeria on the right track of growth.

These results reinforce the argument that empirical outcomes are likely to differ from country to country and time to time even when same estimation techniques are employed. However, this work is also going to look at the effectiveness of fiscal policy in Nigeria economy with special interest in government expenditure as it affects gross domestic product and unemployment in the period (1983-2015) using a dynamic model.

3.1 Model Specification

Given that this study aimed at finding out the effectiveness of fiscal policy on economic stabilization in Nigeria with emphasis on fiscal policy instruments, ARDL model was employed.

The functional form for the two objectives are given below in equations 1 and 2 respectively

GDP = f(GvtEx, Taxes, GvtBr). (1)

Where, GDP= Gross Domestic Product (GDP) GvtEx = Government Expenditure (capital and recurrent) Taxes = Taxes (petroleum profit tax, company income tax, custom & excise duties, personal income tax and other non-oil taxes) GvtBr = Government Borrowings (domestic and external).

UMP = f(GvtEx, Taxes, GvtBr).(2)

Where UMP = GvtEx, Taxes and GvtBr are as defined above

The choice of ARDL model was based on its advantages over other models. The Auto Regressive Distributed Lag (ARDL) Model which uses a bounds test approach based on unrestricted error correction model (UECM) was employed here to measure the effectiveness of fiscal policy instruments on economic stabilization and to test for a long run relationship among the relevant variables. This model was developed by Pesaran and Pesaran (1997) and used by Pesaran, et al (2001) and the main advantage of this approach lies in the fact that it can be applied irrespective of whether the variables are I (0) or I (1). This approach also allows for the model to take a sufficient number lags to capture the data generating process in a general-to-specific modelling framework. Although, a dynamic error correction model (ECM) can be derived from ARDL through a simple linear transformation, Banerjee et al., 1998 and Pesaran et al., 2001, have introduced bound testing as an alternative to test for the existence of cointegration among the variables. The bounds test procedure is merely based on an estimate of unrestricted error correction model (UECM) using ordinary least squares estimator. Tang (2003) argues that the UECM is a simple re-parameterization of a general ARDL model. Also following Shrestha and Chowdhury (2007), to illustrate the ARDL modelling approach, the unrestricted error correction model of equation (1 and 2) respectively is:

$$\Delta GDP_{t} = \beta_{0} + \beta_{1} \operatorname{GDP}_{t-i} + \beta_{2} \operatorname{GvtEx}_{t-i} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta GDP_{t} + \sum_{i=0}^{q} \gamma_{i} \Delta GvtEx_{t-i} + \sum_{i=0}^{q} \phi_{i} \Delta Taxes_{t-i} + \sum_{i=0}^{q} \alpha_{i} \Delta GvtBr_{t-i} + \mu.....(3)$$

$$\Delta UMP_{t} = \beta_{0} + \beta_{1} UMP_{t-i} + \beta_{2} \operatorname{GvtEx}_{t-i} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta UMP_{t} + \beta_{2} \operatorname{GvtEx}_{t-i} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta UMP_{t} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta UMP_{t} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta UMP_{t} + \beta_{3} \operatorname{Taxes}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \beta_{4} \operatorname{GvtBr}_{t-i} + \sum_{i=0}^{p} \delta_{i} \Delta UMP_{t} + \beta_{4} \operatorname{GvtBr}_{t-i} + \beta_{4} \operatorname{GvtBr}_$$

$$\sum_{i=0}^{q} \gamma_i \Delta GvtEx_{t-i} + \sum_{i=0}^{q} \phi_i \Delta Taxes_{t-i} + \sum_{i=0}^{q} \alpha_i \Delta GvtBr_{t-i} + \mu.....(4)$$

i=0

The terms with the summation signs in equations (3 and 4) represent the Error Correction Model (ECM) dynamics and the coefficients β_i are the long run multipliers corresponding to long run relationship (Poon, 2010). β_i and μ represent the constant and the white noise respectively. Δ is the first difference operator. The data used for this study are secondary data and were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin (2015), covering 1983 – 2015.

3.3 Unit Root Tests

It is important to check each time series variable for stationarity or unit root before conducting the co-integration test on specified models. The unit root test has to be conducted first because without it, if the regression analysis is conducted in the traditional way and time series variables are found to be non-stationary, the result will be spurious. Here we use the Augmented Dickey Fuller (ADF) for the unit root tests.

The ADF is unit root test for time series. It is shown in the equation below:

$$\Delta Y_t = \beta_0 + \beta_1 \operatorname{t} + \delta Y_{t-1} + \sum_{i=1}^n \alpha_i \Delta Y_{t-i} + \varepsilon_t.$$
(5)

where Y_t is the variable in question, \mathcal{E}_t is white noise error term.

These tests are used to determine whether the estimated δ is equal to zero or not. The number of lagged difference terms to include is often determined empirically, the idea being to include enough terms so that the error term in (5) is serially uncorrelated. Fuller (1976) has compiled cumulative distribution of the ADF statistics by showing that if the value of the calculated ratio of the coefficient is less than critical value from ADF statistics, then Y is said to be stationary.

4.0 Data Analysis and interpretation

4.1 Data Analysis

The estimates from the analysis (ADF, regression, test of cointegration) carried out using E-views 9 software are presented thus:

4.1.1 Unit Root Test

A unit root test (ADF) was conducted to ascertain whether the variables in the model are stationary and to determine the order of integration of the model variables. This is necessary as it helps to avoid spurious regression results.

The summary of Unit Root Tests (ADF) results using E-views software is detailed in the table below:

Variable	Order of	ADF Test	ADF Critical Value			Lag	Remark
	Integration	Statistics	1%	5%	10%	Length	
GDP	I ~ (1)	-4.895663	-4.2846	-3.5629	-3.2152	2	Stationary
GvtBr	I~ (0)	-3.752025	-4.3393	-3.5875	-3.2292	5	Stationary
GvtEx	$I \sim (1)$	-8.942035	-4.2846	-3.5629	-3.2152	0	Stationary
Taxes	$I \sim (0)$	-2.893080	-2.6649	-1.9557	-1.6088	8	Stationary
Ump	$I \sim (1)$	-5.921721	-4.2846	-3.5629	-3.2152	0	Stationary

Table 1: Summary of ADF test results at 1%, 5% and 10% critical value

From table 1 above, observe that the variables GDP, GvtEx and Ump are not stationary at level form but became stationary after first difference which implies that the variables (GDP, GvtEx and Ump) are integrated of order one (I ~ (1)) whereas the remaining variables (GvtBr and Taxes) are integrated of order zero (I ~ (0)) as they are stationary at level form. The decision is based on the fact the ADF statistics that is greater than the ADF critical values at 5% and 10% level. Thus, we reject H₀ and conclude that the variable is stationary.

Since the variables are integrated of order one and zero and none of the variables is integrated of order two. We therefore, apply the ARDL bound cointegration test. But before we apply the ARDL bound cointegration test, we first determine the optimum lag length using Akaike information criteria. After twenty (20) models automatically generated, ARDL (1,1,1,0) and ARDL (1,2,1,0) models were chosen based on Akaike information criteria for objectives one and two respectively (see appendix).

4.2 ARDL Bound Cointegration Test

A necessary condition for testing for ARDL bound co-integrating test is that each of the variables be integrated of either of order one or zero or both (Pesaran, Shin and Smith, 2001). Since all the variables are integrated of order one and zero, we proceeded to estimate the ARDL bound test. The null hypothesis of ARDL bound cointegration is that the variables are not cointegrated as against the alternative that they are cointegrated. The decision rule is to reject the null hypothesis if the F-statistics is greater than the upper bound critical values at chosen level of significance. The result of the ARDL cointegration test for the first and second objectives is shown in table 2 below.

Model	F-Statistics	K	Significance level	Critical Bound Value	
				10 (Lower Bound)	11 (Upper Bound)
1	144.94	3	5%	3.23	4.35
			1%	4.29	5.61
2	2.86		5%	3.23	4.35
			1%	4.29	5.61

Table 2: ARDL Bound Cointegration Test Result for Objectives 1 and 2

From table 2 the F-statistics for model 1 is 144.9 and is greater than the upper (I1) bound of 5.61 at 1% level of significance. Thus, we reject the null hypothesis and conclude that there is cointegration in the model. This implies that there is a long run relationship between fiscal policy and economic growth in Nigeria. But in the case of second model, we cannot reject the null hypothesis since the F-statistics of 2.86 is less than the upper

bound at both 1% and 5% significant level and conclude that there is no long run relationship between fiscal policy and unemployment level in Nigeria.

Since there is long run relationship between fiscal policy and economic growth, we therefore estimate the short run and long run ARDL regression models for model 1 and the results are presented in tables 4 and 5 below respectively:

Table 3: Summary of Parsimonious Short Run Relationship between fiscal Policy and Economic Growth Result

ARDL Model (1.2, 1, 0,)					
	Dependent Variable GDP				
Variables	Coefficient	Std. Error	t-statistics	Probability	
Constant	37317.08	207980	0.1794261	0.8590	
GDP(-1)	0.772785***	0.032267	23.94961	0.0000	
GVTEX	3.841707***	0.483279	7.949251	0.0000	
GVTEX(-1)	2.474599***	0.903526	2.738825	0.0112	
GVTBR	-0.973823***	0.222911	-4.368670	0.0002	
TAXES	-0.073189	0.457807	-0.159869	0.8743	
ECM(-1)	-0.227215***	0.032267	-7.041674	0.0000	
	R-squared = 0.99618				
	Adj R-Squared = 0.99527				
	F-Statistics = 1091	1.59	F-prob = 0.0000		

***[**] denotes significant of variable at 1% [5%] significance level respectively. Variables were based on their order of integration

4.3 Interpretation of Short Run ARDL Result

From table 3 above, the constant value is 37317.08, meaning that when the variables (GvtEx, GvtBr and Taxes) are zero, the GDP will 37317.1.

The coefficient of the previous value of GDP is positive and statistically significant implying that the present state of economic growth depends positively on its immediate past state. In other words, what drives the present growth of Nigerian economy is its past state.

The coefficients of government expenditure up to one (1) are positive and statistically significant implying that government expenditure as instrument of fiscal policy has a positive and significant impact on economic growth in Nigeria. This further suggests specifically that a 1 naira increase in current year of government expenditure will increase GDP by N3.83m naira while government expenditure at lag will increase GDP by N2.24m respectively. This result corroborates the findings of Ozoh, Uma and Odionye (2016) and is consistent with economic 'a priori' expectation.

The coefficient of government borrowing is negative and significant which implies that an increase in government borrowing reduces gross domestic product in Nigeria. Similarly, the coefficient of taxes has negative impact on GDP but not significant.

The coefficient of error correction model (ECM (-1)) is (-0.227) and is appropriately signed. This speed of adjustment suggests that about 22.7% of the previous period's disequilibrium in economic growth is corrected every year by government fiscal policy. The implication is that it will take more than four years for any disequilibrium in the growth process of Nigerian economy to be corrected by fiscal policy instruments.

The coefficients of multiple determinations and its adjusted are 0.996 and 0.995 respectively, suggesting that about 99.6% of the variations in GDP is explained by the variables included in the model which suggests that variations in fiscal policy instruments accounted for 99.5% of the variations in gross domestic product in Nigeria. This further shows a good explanatory power of the model. The result of F-statistics is 10911.6 which shows that the overall regression is highly significant.

Table 4: Summary of Long Run Relationship between Fiscal Policy Instruments and Unemployment Level Result

	Dependent Variable UMP				
Variables	Coefficient	Std. Error	t-statistics	Probability	
Constant	164237.11	906557.35	-0.181166	0.8577	
GVTEX	27.798844***	1.798672	15.455204	0.0000	
GVTBR	-1.600860***	0.461950	-3.465438	0.0019	
TAXES	-0,322114	1.986730	-0.162133	0.8725	

***[**] denotes significant of variable at 1% [5%] significance level respectively.

4.4 Interpretation of Long Run ARDL Result

The long run coefficient from table 4 above shows that government expenditure is positively and statistically significant suggesting that increase in government expenditure will increase unemployment by N27.8m in the long run. This result again contradicts the theoretical postulation. Expectedly, government borrowing is negatively and significantly related with unemployment while taxes as fiscal policy instrument are negatively but insignificantly related to unemployment in Nigeria.

4.5 Objective two (2): Effect of Fiscal Policy on Unemployment Level.

Since the ARDL bound cointegration result shows no long run relationship between fiscal policy instruments and unemployment level, we therefore estimate the ARDL result at their order of integration and the summary of the result is presented in table below:

.	Dependent Variable INF				
Variables	Coefficient	Std. Error	t-statistics	Probability	
Constant	1.176528	0.984866	1.194607	0.2444	
UMP(-1)	0.530470***	0.173323	3.060584	0.0055	
D(GVTEX)	6.11E-06***	2.01E-06	3.041940	0.0058	
D(GVTEX(-2))	-3.57E-06	2.47E-06	-1.442030	0.1628	
D(GVTBR(-1))	-1.40E-06	7.50E-07	-1.870010	0.0743	
D(TAXES)	-3.72E-07	1.48E-06	-0.251935	0.8033	
	R-squared = 0.937761				
	Adj R-squared = 0.918819				
	F-Statistics = 49.50623				
	F-prob = 0.000000				

Table 5: Summary of ARDL (1,2,1,0) for Objective 2

***[**] denotes significant of variable at 1% [5%] significance level respectively. Variables were based on their order of integration Table 5 shows the APDL result of the effect of fiscal policy instruments on unemployment in Nigeria.

Table 5 shows the ARDL result of the effect of fiscal policy instruments on unemployment in Nigeria. Expectedly, present unemployment situation depends positively on the past unemployment level suggesting that if there is no sound employment generation policy to reduce unemployment in a particular period, the unemployment situation will increase in the next period.

The coefficient of government expenditure at current period is positive and significant implying that increase in government expenditure increases unemployment in the country. This is contrary to the theoretical expectation. However, the coefficient of government expenditure at lag two is negative but insignificant. The implication of this result is that it takes up two years before government expenditure will begin to produce the desired result in terms of unemployment reduction. This corroborates the fact that fiscal policy is associated with some level of time lag.

The coefficient of government borrowing at lag one is negative suggesting that an increase in government borrowing will reduce unemployment in the country after one year. This is as expected, given that government borrowing itself will not reduce unemployment in a country but how it is being used in a productive way and thus it takes some time before it starts to yield the desired effects. Similarly taxes have negative but insignificant effect on unemployment level in Nigeria.

The coefficients of multiple determination suggests that about 93.8% of the variations in unemployment is explained by the fiscal policy instruments. The result of F-statistics is 49.51 which shows that the overall regression is highly significant.

5.0: Recommendations:

1. There should be conscientious and deliberate move towards setting our priorities right and reducing misappropriation of fund. In other words, fiscal indiscipline on the part of the government should be curbed while good, transparent and accountable expenditure system should be put in place.

2. The fiscal stance also requires serious re-examination. The reduction of public expenditure in socioeconomic infrastructure may constrain private sector investment. It is therefore advisable to increase rather than to reduce public expenditure particularly in the area of infrastructure provision and employment generation. Given the limited resources available to government, this can be achieved by reducing government non-infrastructural investment by encouraging private sector participation in that sector, while government concentrates on infrastructural investment.

3. Fiscal policy should be designed in such a way that government expenditure resources are spent on projects that enhance the earning capacity of the low income people and goods required mostly by poor households like education and medical facilities.

4. There should be re-allocation of capital expenditure so as to enhance employment opportunities for unemployed people, making provision for financial aid for the unemployed for their self-employment as this can be used to redistribute income so as to achieve equity and for the attainment of social and economic justice.

References

- Adeoye, T. (2006), "Fiscal Policy and Growth of the Nigeria Economy: An Empirical Perspective", Ibadan: National Institute of Social and Economic Research Monograph Series, No. 3.
- Ajiobenebo, T. J. (2003), *Public Sector Economics: Principles, Theories, Issues and Applications,* (3rd ed.) Port Harcourt: Lima Computers.
- Ajisafe, R. A. and Folorunso, B. A. (2002), "The Relative Effectiveness of Fiscal and Monetary Policy in Macroeconomic Management in Nigeria", The African Economic and Business Review, 3(1): 23 40.
- Amadi, S.N. and Essi, I.D. (2006), "Government Economic Policy and Nigerian Capital Market Behaviour: A Causality Analysis", Journal Development Alternatives Area Studies, San Antonio, USA.
- Amin, A.A. (1998), "Cameroon's Fiscal Policy and Economic Growth", African Economic Research Consortium, Nairobi November, 1998.
- Aregbeyen, O. (2007), "Public Expenditure and Economic Growth in Africa", Africa Journal of Economic Policy, 14(1): 1-25.
- Banerjee A. (1993), "Co-integration, Error Correction, and the Econometric Analysis of Non-Stationary Data". Oxford, Oxford University Press.
- Bose, N., Haque, M.E., and Osborn, D.R. (2003), "Public Expenditure and Growth in Developing Countries: Education is the Key." Discussion Paper Series No. 80
- Dauda, R. O. (2010), "Investment in Education and Economic Growth in Nigeria: An Empirical Evidence", International Research Journal of Finance and Economics, 55:158-169.
- Devarajan, S.V., Swaroop, V. and Zhou, H., (1996), "The composition of public expenditure and economic growth", Journal of Monetary Economics, 37, 313-344.
- Ekpo, A. (1994), "Public expenditure and economic growth in Nigeria 1960 to 1992", Final Report. AERC, Nairobi.
- Enache, C. (2009), "Fiscal Policy and Economic Growth in Romania", Annales Universitatis Apulensis Series Oeconomica, 11(1).
- Fuente, A. (1997), "Fiscal Policy and Growth in the OECD", Discussion Paper Series No. 1755. Centre for Economic Policy Research: London, UK
- Gbosi, A. N. (2008), *Contemporary Macroeconomic Problems and Stabilization Policies*. Port Harcourt: Automatic Ventures.
- Gbosi, A.N. (2007), The Nigerian Economy and Current Economic Reforms, Ibadan: Olorunnishola Publishers.
- Husnain, M. I., Khan, M., Haq Padda, I., Akram, N. & Haider, A. (2011), "Public Spending, Foreign Direct Investment and Economic Growth: A Time Series Analysis for Pakistan (1975-2008)", International Research Journal of Finance and Economics, 61:21–27.
- Karimi, M. S. & Khosravi, A. (2010), "To Investigation the Relationship between Monetary, Fiscal Policy and Economic Growth in Iran: Autoregressive Distributed Lag Approach to Cointegration", American Journal of Applied Sciences, 7(3): 420-424.
- Kneller, R., Bleaney, M.F. and Gemmell, N. (1999), "Fiscal Policy and Growth: Evidence from OECD countries", Journal of Public Economics, 74: 171-190.
- Lin, S. (2000), "Government debt and economic growth in an overlapping generations model", Southern Economic Journal, 66(3), 754-763.
- Nurudeen, A. & Usman, A. (2010), "Government Expenditure and Economic Growth in Nigeria, 1970-2008: A Disaggregated Analysis", Business and Economics Journal, Volume 2010: BEJ-4.
- Ogbole, F.O. (2010), "Fiscal Policy and Macroeconomic Performance in Nigeria", Unpublished PhD Thesis, Department of Banking and Finance, Rivers State University of Science and Technology, Port Harcourt.
- Okemini, E.B. and Uranta, D.T. (2008), "Poverty & Criminality in the Niger-Delta Region: A critical Analysis", Integrated Soc. Mgt. J., 1(2): 1-8.
- Okowa, W. J. (1997), Oil, Systemic Corruption, Abdulistic Capitalism and Nigerian Development: A political *Economy* (2nd ed.) Port Harcourt: Paragraphics Publishers.
- Onoh, J. (2007), *Dimensions of Nigeria's Monetary and Fiscal Policies-Domestic and External*. Aba: Astra Meridian Publishers.
- Ozoh, F. O., Uma, K.E. and Odionye, J.C. (2016). *The assessment of the effects of fiscal policy on unemployment and inflation reduction: The case of Nigeria*. International Journal of Research in Management, Economics and Commerce, vol. 6 (9) pp. 1-10.
- Pesaran, M.H and Pesaran, B. (1997), Working with Microfit 4.0: Interactive Econometric Analysis. Oxford,

Oxford University Press.

Pesaran, M.H, Shin, Y and Smith, R.J (2001), "Bounds Testing Approaches to the Analysis of Level Relationships", *Journal of Applied Econometrics 16: 289-326*

Poon, W.C (2010), "A Monetary Policy Rule: The Augmented Monetary Conditions Index for Philipines Using UECM and Bounds Tests", *Discussion Paper 04/10, Monash University, Department of Economics.*

Shrestha, M.B and Chowdury, K (2007), "Testing Financial Liberalization Hypothesis with ARDL modelling approach, Applied Financial Economics 17: 1529-154.

Tang, T. C. (2003). Japanese aggregate import demand function: Reassessment from the 'bound' testing approach. *Japan and the World Economy*. 15: 419-436.