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Examining the Fiscal Policy-Poverty Reduction Nexus in Nigeria

Olaolu OPASINA¹, Joel Ede OWURU² and Adesoji Oladapo FARAYIBI³

Abstract

Using a multiple regression analysis in the autoregressive distributed lag framework with ECM we include three major components of fiscal policy variables (Government capital expenditure, Government recurrent expenditure and Government Budget Deficit) as regressors and the rate of poverty in Nigeria as the dependent variable, this study explored the potency of fiscal policy in Nigeria in addressing the seemingly endemic poverty scourge from 1980-2011. Findings indicate that the level of government capital expenditures in Nigeria does not reduce the level of poverty in the country over the period of time covered by the study. Although the ECM result, which shows the speed of adjustment of the model from the short run to the long run equilibrium, is on the average, yet the economy did not show any sign of much potency in using the selected fiscal policy variables to tackle the menace of poverty in Nigeria. The study recommends that government should intensify action in implementing effective fiscal policies to ameliorate the level of poverty conditions in Nigeria.

Keywords: Fiscal Policy, Poverty Reduction, ECM, SAP, Capital Expenditure, Recurrent Expenditure.

1. INTRODUCTION

From the dawn of 18 century till date, contentions on the best ways to effectively use fiscal policy tools to mitigate some of the incessant challenges facing most developing countries in terms of rising unemployment rate, deficit budgeting, rising public debt and incidence of tax evasion, and largely the scourge of poverty among others has occupy a central stage in macroeconomic policy and management deliberation. As a matter of urgency, it is significant to understand issues relating to the appropriate scope, nature and conduct of fiscal policy with a view to addressing short run macroeconomic instabilities and to fostering long run macroeconomic growth and development by addressing the poverty scourge in Nigeria particularly and other developing countries of the world in general.

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The general conceptualization of fiscal policy according to Bogdonov, (2010) as cited by Oyeranti and Ishola (2012) is that policy framework which refers to the way a government influences an economy through revenue collection and spending. In this view, fiscal policy in any economy is the mechanism through which revenue collected through taxes by the government is manipulated in such a way that the performances of some basic macroeconomic variables such as income distribution, aggregate demand, and resource allocation among others are enhanced.

Indeed, fiscal policy administration through the instrument of Government expenditure plays an important role in poverty reduction, increase per capita income and finally culminates into economic growth and development. In the Keynesian approach, public spending may increase the aggregate demand which further stimulates the economic growth and employment. Many studies, like Ogiogio, (1995), Fajingbesi and Odusola (1999) and recently Abu, et al (2010) empirically shows that real government capital expenditure as a Fiscal policy tool has a significant positive influence on real output growth, and by extension poverty reduction. Yet, others studies like Nyong and Odubekan (2002), Olowononi (2006) and Keho (2010) contend that increase in government spending may leads to fiscal deficit.

The problem however is that if government reduces their expenditure it may adversely affect the economy. Yet, excess of government expenditure due to increase in recurrent expenses or unproductive use of the collected tax in the economy creates fiscal deficit. In fact, many economists believe that fiscal deficit is the root cause of every illness in the economy. Thus, Fiscal deficit can be harmful to welfare for several reasons, such as: it can lead to inefficient allocation of resources and can crowd out the private investment. Although high fiscal deficit is injurious for the economy as it increases poverty but if it increase is due to development expenditure it can help reduce poverty in the long run through increase in productivity and employment (Mehmood and Sadiq, 2010).

Evidently, it is disappointed to note that despite the several fiscal measures introduced since 1986, and given the prominence of fiscal policy in macroeconomic management in Nigeria, economic growth over the years has not accelerated yet poverty remained widespread and pervasive, particularly in the rural areas. Fiscal policy is still widely recognized as a potent tool for enhancing growth, redistributing income and reducing poverty (though the Nigerian experience is tending to suggest otherwise). Consequently, the major question that really thrilled and spurred the mind of the researcher is that how fiscal policy management of the government could effectively affects the poor to the extent of reducing the abject poverty in Nigeria? Is there any long run economic relationship between government fiscal policy and poverty reduction or economic growth generally? This study therefore aims at giving an empirical analysis of the impacts of Nigerian fiscal policy implementations and how it can address the seeming endemic poverty challenges in the country.

The rest of the paper is structured as follows: section two the empirical literature reviews that are relevance to this study. Section three discusses the adopted theoretical framework and research methodology. Analysis of the empirical results of the estimated model is delineated to section four, while chapter five presents the conclusion and policy recommendations.

2. LITERATURE REVIEW

In the Keynesian model, increase in government expenditure (on infrastructures) leads to higher economic growth. Contrary to this view, the neo-classical growth models argue that government fiscal policy does not have any effect on the growth of national output. However, it has been argued that government fiscal policy (intervention) helps to improve failure that might arise from the inefficiencies of the market. This section therefore discusses relevant empirical literature on the linkage between government expenditure and economic growth.

The seminal work of Barro, (1990) opened new ground for the investigation of the impact of fiscal policy (government expenditure) on economic growth and development. In line with this, Barro and Sala-i-Martin (1992), Easterly and Rebelo (1993), and Brons, et al (1999) emphasized that government activities influence the direction of economic growth. Similarly, Dar Atul and Amir Khalkhali (2002) pointed out that in the endogenous growth models, fiscal policy is very crucial in predicting future economic growth. Greatly, efforts have been made by many scholars and writers on how to reconcile or establish the nexus between fiscal policy and poverty reduction or economic growth in Nigeria and any other part of the world. For instance, Adeoye, (2003) used time series data on Nigerian economy for the period of 1970-2002 to examine the impacts of public expenditures on the growth of Nigerian economy. The major findings from his study were that public sector investment by the government crowd out private investment which impacts the economy negatively by the way of increasing poverty. The author established a fragile relationship between investment expenditure and the level of national output.

Some other empirical works like Laudau, (1983) examined the effect of government (consumption) expenditure on economic growth for a sample of 96 countries, and discovered a negative effect of government expenditure on growth of real output. Komain and Brahmasrene (2007) similarly examined the association between government expenditures and economic growth in Thailand, by employing the Granger causality test. The results revealed that government expenditures and economic growth are not co-integrated. Moreover, the results indicated a unidirectional relationship, as causality runs from government expenditures to growth which indicates that there is positive effect of government spending on economic growth.

Olugbenga and Owoye (2007) investigated the relationships between government expenditure and economic growth for a group of 30 OECD countries during the period 1970-2005. Their regression results showed the existence of a long-run relationship between government expenditure and economic growth. In addition, the authors observed a unidirectional causality from government expenditure to growth for 16 out of the countries, thus supporting the

Keynesian hypothesis. However, causality runs from economic growth to government expenditure in 10 out of the countries, confirming the Wagner's law. Finally, the authors found the existence of feedback relationship between government expenditure and economic growth for a group of four countries.

Folster and Henrekson (2001) studied the relationship between government expenditure and economic growth for a sample of wealthy countries for 1970-95 period, using various econometric approaches. The authors submitted that more meaningful (robust) results were generated, as econometric problems were addressed. In India as well, Ranjan and Sharma (2008) examined the effect of government development expenditure on economic growth during the period 1950-2007. The authors discovered a significant positive impact of government expenditure on economic growth. They also reported the existence of cointegration among the variables. Al-Yousif (2000) indicated that government spending has a positive relationship with economic growth in Saudi Arabia. On his part, Ram (1986) studied the linkage between government expenditure and economic growth for a group of 115 countries during the period 1950-1980. The author used both cross section, time series data in his analysis, and confirmed a positive influence of government expenditure on economic growth.

In Saudi Arabia, Abdullah, (2000) analyzed the relationship between government expenditure and economic growth (*vis-a vis* poverty reduction). The author reported that the size of government was very important in the performance of economy. He advised that government should increase its spending on infrastructure, social and economic activities. In addition, government should encourage and support the private sector to accelerate economic growth. Donald and Shuanglin, (1993) investigated the differential effects of various forms of expenditures on economic growth for a sample of 58 countries. Their findings indicated that government expenditures on education and defense have positive influence on economic growth, while expenditure on welfare has insignificant negative impact on economic growth.

Niloy et al (2003) used a disaggregated approach to investigate the impact of public expenditure on economic growth for 30 developing countries in 1970s and 1980s. The authors confirmed that government capital expenditure in GDP has a significant positive association with economic growth, but the share of government current expenditure in GDP was shown to be insignificant in explaining economic growth. At the sectoral level, the authors find that government investment and expenditure on education are the only variables that had significant effect on economic growth, especially when budget constraint and omitted variables are included. Erkin,(1988) examined the relationship between government expenditure and economic growth, by proposing a new framework for New Zealand. The empirical results showed that higher government expenditure did not hurt consumption, but instead raised private investment that in turn accelerated economic growth.

Similarly, Mitchel, (2005) argued that the American government expenditure has grown too much in the last couple of years and has contributed to the negative growth. The author

suggested that government should cut its spending, particularly on projects/programmes that generate least benefits or impose highest costs. In Sweden, Peter, (2003) examined the effects of government expenditure on economic growth during 1960-2001 period. The author emphasized that high government spending might slowdown economic growth. Devarajan (1996) studied the relationship between the composition of government expenditure and economic growth for a group of developing countries. The regression results illustrated that capital expenditure has a significant negative association with growth of real GDP per capita. However, the results showed that recurrent expenditure is positively related to real GDP per capita. Liu Chih-HL, et al (2008) examined the causal relationship between GDP and public expenditure for the US data during the period 1947-2002. The causality results revealed that total government expenditure causes growth of GDP. On the other hand, growth of GDP does not cause expansion of government expenditure. Moreover, the estimation results indicated that public expenditure raises the US economic growth. The authors concluded that, judging from the causality test Keynesian hypothesis exerts more influence than the Wagner's law in US.

In Nigeria, many authors have also attempted to examine government expenditure-economic growth relationship. For example, Oyinlola (1993) examined the relationship between the Nigeria's defence sector and economic development, and reported a positive impact of defence expenditure on economic growth. Fajingbesi and Odusola (1999) empirically investigated the relationship between government expenditure and economic growth in Nigeria. The econometric results indicated that real government capital expenditure has a significant positive influence on real output. However, the results showed that real government recurrent expenditure affects growth only by little. Also, the study by Ogiogio, (1995) revealed a long-term relationship between government expenditure and economic growth. Moreover, the author's findings showed that recurrent expenditure exerted more influence than capital expenditure on growth. Akpan, (2005) used a disaggregated approach to determine the components (that include capital, recurrent, administrative, economic service, social and community service, and transfers) of government expenditure that enhances growth, and those that do not. The author concluded that there was no significant association between most components of government expenditure and economic growth in Nigeria.

Lastly, Folorunsho and Olayeni (2006) examined the growth effects of public expenditure and investigated the causality pattern between economic growth and public expenditure for the period of 1970-2003. The results indicated positive relation between public expenditures and economic growth. The study also found that the share of capital expenditures in GDP correlated positively with economic growth while the growth effect was not significant. The study concluded that a unit increase in capital expenditure of the government in Nigeria increased the level of GDP by 3 percent, while the impact of recurrent expenditure was insignificant.

3. THEORETICAL FRAMEWORK AND METHODOLOGY

3.1 Theoretical Framework

The framework for the study has its basis on the Keynesian and endogenous growth models. The Keynesian model states that expansion of government expenditure accelerates economic growth. Although, endogenous growth models do not assign any important role to government in the growth process, authors like Barro (1990) and Easterly and Rebelo (1993) emphasized the importance of government (activity) policy in economic growth. Moreover, some authors focused on the components of government expenditure that are productive or unproductive (Kneller, et al (1999), while others submitted that composition of government expenditure might exert more influence compare to the level of government expenditure (Nijkamp, 2004).

Drawing from the views of the neo-classical, Atoloye (1997) reiterates that the progress in these indicators are also determine by a stable macro-economic environment and with the right combination of factors of production most especially labour and capital. Thus, the standard neo-classical model begins from the premise of a fixed technological co-efficient and elasticity of labour and capital that can be altered depending on the combination of the two factors. The state of evolution of technology alters the value of the constant co-efficient at any point in time. The capital component is made up of the stock of human and physical capital. The general production function is put as:

$$Y = A^u K^\alpha L^{1-\alpha} \quad 3.1$$

Where:

Y = Gross Domestic Product K = the stock of human and physical capital

L = unskilled labour used in production

$1-\alpha$ = the parameters that represent technology

A = constant reflecting the initial static endowment of capability

u = the rate of evolution of technology

As a poverty reduction mechanism higher technological capabilities will permit greater amount of output from any given level of input, while the increase in output permitted by improve technology will go a long way to increase standard of living of the people and thereby reduce poverty. Atoloye (1997) further stated that economic growth enhancing strategies such as import substitution and export-led growth strategies are also important for poverty reduction. For instance, the emphasis on export-led growth is in the pursuit of the international competitiveness which makes it possible for a country to control its domestic production process, increase productivity and generate surpluses which are transmitted across its national borders in return for foreign exchange. The maintenance of the tempo in addition to development of adequate human capital would help to accelerate and sustain income level and enables man to take control of his environment and pave the way for sustainable poverty reduction.

According to FOS (1996) the economic growth approach is based on the assumption that economic deprivation caused by lack of access to property, income, assets, factors of production

and finance are the root cause of all poverty and that non-economic causes of poverty are only secondary arising from the primary economic causes. Attention is therefore focused on rapid economic growth as measured by rate of growth in real per capita or per capita national income, price stability and declining unemployment, among others. All these are to be attained through proper harmonization of monetary and fiscal policies. Furthermore, FOS stated that the approach could work through trickle-down effects, which holds that as economic growth continues the effects will progressively trickle down to the core poor and most disadvantaged in the society.

3.2 Model Specification

In specifying the model, emphasis is placed on whether the nation's economic growth has any significant influence on poverty reduction following the framework of Barro and Sala-i-Martin (1995) and Grootaert, Kanbbdur and Oh (1995) methods of analysis that uses a time subscript (t). We therefore model the relationship between poverty reduction and economic growth as follows:

$$POVRATE = f(GCEXP, GREXP, GBD) \quad 3.2$$

Equation 2 can be written in a linear regressive form using Time series econometric framework as:

$$POVRATE_t + \beta_0 + \beta_1 GCEXP_t + \beta_2 GREXP_t + \beta_3 GBD_t + \varphi \quad 3.3$$

Where:

$POVRATE$ = The poverty rate in Nigeria which is the rate of the number of people (population) living in poverty based on the National household survey by Nigerian bureau of statistics.

$GCEXP_t$ = this is government capital expenditures at a given period of time (a year).

$GREXP_t$ = This is government recurrent expenditures at a given period of time (a year)

GBD_t = This is government Budget fiscal budget deficit.

φ = the error term which handles other random disturbance terms and exogenous variables which are not included in the model.

β_0 = is the autonomous or intercept Variable of the geometric plane of the regression model

β_1 to β_3 are the coefficients of the regressors or the parameter estimates of the model that stands for the speed of convergence or divergence of economic growth in Nigeria through the use of the fiscal policy variables stated in the model.

Theoretically, we expect on a priori ground that positive values will be shown by the β_1, β_2 and β_3 indicating convergence of economic growth towards poverty reduction, while a negative value indicates a divergence. Hence $\beta_1 > 0, \beta_2 > 0$ and $\beta_3 > 0$.

3.3 Error Correction Model

We proposed to estimate the model in equation (3) in its dynamic form using error correction model to be able to establish significant relationship between the fiscal policy variables stated in the model and the poverty reduction. Thus, the purpose of ECM is to feature both the short run and long run cointegration dynamics. Therefore, the ECM model is specified below as:

$$\Delta POVRATE_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta POVRATE_{t-1} + \sum_{i=1}^p \beta_2 \Delta GCEXP_{t-1} + \sum_{i=1}^p \beta_3 \Delta GREXP_{t-1} + \sum_{i=1}^p \beta_4 \Delta GBD_{t-1} + \partial ECM_{t-1} + \varepsilon_t \quad (3.4)$$

where; *ECM* is the error correction model's residual variable for measuring the short-run relationship between the endogenous variables and the regressors; $t-1$ indicate the past or lagged values of the Dependent variables and the residual term in the models; ε_t refers to the error term which measures the impacts of other variables that are not included in the model.

Our theoretical expectation here for the error correction and the Autoregressive distributed lag model of equation (4) is that $\beta_1 < 0$. That is the immediate past year poverty rate can negatively affect or determine the present period rate of poverty reduction. Also we expect that β_2 and $\beta_3 < 0$ because the past year value of government capital and recurrent expenditure can significantly and positively determine its present year's impact on the level of poverty reduction in Nigeria. In other word, there is inverse relationship between government expenditures and poverty reduction (as government expenditures increase, poverty rate should reduce). Similarly, we expect that $\beta_4 > 0$ because government budget deficit is potentially harmful to the economy by worsening the foreign reserve as the country will be de-saving instead of improving the economy thereby increasing the level of poverty in the economy. Hence, positive relationship is expected to exist between Government budget deficits and poverty reduction.

3.4 Model Estimation Techniques

The secondary data used for the study were processed using E-view for windows econometric packages. The E-view is preferred to the SSPS because it enables us to have data corrected, that is, the serial correlation in the data will be corrected for any possible autocorrelation and non-stationary of the series in the model. We employed Error Correction Mechanism (ECM) and cointegration approach establishes both the nature of the long and short run relationship of the series of the variables in the model. Thus, OLS is the methodological approach adopted here. This is because it satisfies the criteria of Best, Linear, Unbiased and Efficient Estimator (BLUE). Since the study makes use of time series secondary data, our data analysis involves: (i) checking the temporal properties of the variables in the model via unit root tests in order to determine the stationarity of the variables using Augmented Dickey-Fuller (ADF) tests; (ii) determination of a meaningful long-run equilibrium relationship among the variables, that is, determine if the variables in the equation are cointegrated-this will be done through Engle-Granger's single equation or Johansen's multivariate cointegration test; (iii) estimation of the dynamic (short run and long run) relationship between the variables in the model regression equation for the model (i.e., the error correction model estimated by OLS Variables test, etc.) and (iv) the application of

a series of diagnostic tests to determine the soundness and significance of the empirical model.(i.e. standard error test, correlation coefficient test, t-statistics test, F-test and serial autocorrelation test.). The outcome of the results from the above methods is used subsequently in giving necessary policy recommendation.

4. EMPIRICAL RESULTS AND DISCUSSION OF FINDINGS

4.1 Unit Root Tests

Augmented Dickey Fuller (ADF) test was employed to test for the stationarity or otherwise of the time series used in the model estimation. Non stationarity has mostly been a prominent feature of most time series data (Gujarati, 2004). To verify this, the null hypothesis in ADF which states that the series are non stationary (i.e. the series has unit root) is tested using the ADF and the results are presented in Table 4.1 below:

Table 4.1: Augmented Dickey-Fuller Unit Root Test

<i>Variables</i>	<i>Constant</i>		<i>Remark</i>
	<i>Level</i>	<i>First Difference</i>	
Povrate	-4.058812**	-7.198758**	I(0) and I(1)
Gcexp	3.225765*	-1.465753	I(0)
Grexp	-1.794930	-4.397501**	I(1)
Gbd	-0.849064	-6.880952**	I(1)
ECM term	-4.912492**	-6.900193**	I(0) and I(1)

* denote significance at 5% and 10%, ** denote significance at 1%, 5% and 10%

Source: Author's Computation via Eview 7.1

Note: Detail results of the ADF test are attached in the appendix.

From the result of ADF test in Table 4.1 above, we can deduce that all the variables are integrated at order 1 or I (1) except for poverty rate and the residual term for the Error correction model which are integrated at both level and at first difference. Thus, we reject the null hypothesis of non stationarity of the series and we conclude that the series are stationary, especially at first differencing. Therefore, we can do further analysis in modelling the time series adopted in our specified models for this study.

5.2: Cointegration Results

Having established that the variables are stationary, we proceed to do Johansen and Jeselius (JJ Test) Cointegration test which also conforms the earlier results of the ADF Test. The JJ results is attached as an appendix and summarized in Table 4.2 below:

Table 4.2: Johansen Cointegration test for the series.

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.795890	74.73068	47.85613	0.0000
At most 1	0.513898	27.05775	29.79707	0.1002
At most 2	0.163594	5.417649	15.49471	0.7630
At most 3	0.001945	0.058405	3.841466	0.8090
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.795890	47.67293	27.58434	0.0000
At most 1 *	0.513898	21.64010	21.13162	0.0424
At most 2	0.163594	5.359244	14.26460	0.6960
At most 3	0.001945	0.058405	3.841466	0.8090
Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Author's Computation via Eview 7.1

Note: Detail results of the cointegration test are attached in the appendix.

From Table 4.2 above both the maximum eigenvalue test and the trace test indicate that there are at least two cointegrating equations at 5 per cent significance level among the volatility of fiscal policy variables-Government capital expenditures, recurrent expenditures, Government Budget Deficits and the dependent variable (Poverty rate). Since the long-run cointegrating relation is found among the variables, an estimation of cointegrating vectors and the error correction model using OLS framework was employed to test both the long run and the short run speed of adjustment of the variables in a dynamic model frame work.

4.3 Long Run Regression Estimate Result for Fiscal policy Impacts On Poverty Reduction

The estimated regression results for the error correction model and Autoregressive distributed lag model specified in the proceeding chapter is presented and the results are interpreted based on the coefficient of the determination, a priori expectation and the autocorrelation condition.

4.3.1 Coefficient of the determination

A cursory look at the Ordinary Least Square (OLS) estimate presented in Table 4.3 below revealed that the explanatory power of the model (R-Squared is 0.821716) which is approximately 82.2 % of the total variation in the independent variables as explained by all the explanatory variables in the model. This coefficient of the determination of the model as explained by the regressors is high and it implies that only 17.8 % of the total variations in the dependent variable are explained by other factors outside the explanatory power of the variables included as regressors in the model. In a plane way, the result of the coefficient of the determination indicates that the fiscal policy variables included as regressors or the explanatory variables in the model are significant determinant of poverty reduction in Nigeria for the period of time under study. By implication efficient fiscal policy implementation in terms of judicious use of the expenditure policy of the government will lead to poverty reduction in the country. Similarly after taking care of the loss in the degree of freedom, the results of the Adjusted R-square still show 0.782958 which imply 78.3% of the total variation in poverty reduction as explained by the included explanatory variables in the model. See the summary of the results below.

Table 4.3: Long Run Regression Estimates on Poverty Reduction Model

Variables	Coefficient	t-ratio	p-value	Sign.
Constant	1.537029	0.722128	0.4775	
D(POVRATE(-1))	-0.337913	-2.999515	0.0064	***
D(GBD(-2))	4.62E-05	-2.052473	0.0517	*
D(GCEXP(-1))	0.000111	3.303295	0.0031	***
D(GREXP(-1))	-5.43E-05	-2.694430	0.0129	**
ECM-1	0.537073	3.686769	0.0012	***
R-squared	0.821716	Adjusted R-squared = 0.782958		
F-statistic	21.20149	Prob (F-statistic) = 0.000000		
Durbin-Watson stat = 1.797707				

Source: Computed by the Author, 2012

*, **, *** represent 10%, 5% and 1% levels of statistical significance.

4.3.2. Individual Parameter Estimates

With respect to the behaviours of the explanatory variables in the model, it was observed that the coefficient of the first difference and lagged value of poverty rate value is correctly signed according to the a priori expectation of positive relationship with the current level of poverty rate and significant at 1%. In other word, the higher the proportion of the number of poor population in the previous years, the lower or more difficulty it became to reduce the current year's poverty rate. The result indicate that a unit increase in the previous year poverty rate will lead to a reduction of about 34% in the potency of fiscal policy to reduce the level of the current year's poverty.

In the same vein, the coefficient of a two period lagged value of Government budget deficit is statistically significant at 10% and correctly signed in conformity with the a priori expectation. Thus a unit increase in the past values of government deficit budget has the potency of increasing poverty in Nigeria by about 4.6%. To verify this, the result in Table 4.3 shows the positive correlation between increases in government budget deficit and increase in poverty rate.

Furthermore, the coefficient of government recurrent expenditures shows negative relationship with the level of poverty reduction in Nigeria for the period of time studied in this study. That is to say the parameter of government recurrent expenditure signed correctly according to the a priori expectation and is significant at 5% level of significance. From the table we found that a unit increase in the past value of government recurrent expenditures will lead to a reduction in poverty by 5.2%.

For the value of the coefficient for government capital expenditure, we found from Table 4.3 that it is not significant at 1% but does not signed correctly in conformity with the a priori expectation. It is theoretically expected that a unit increase in government capital expenditures will lead to a reduction in poverty rate. But our empirical results shows that a one unit increase in the past value of government capital expenditures increases poverty rate up to 0.0001% . Although this impact is minutes and insignificant, but it shows that most of the government capital expenditures in Nigeria are not directed toward addressing the poverty level in the country which is usually common at the grass root level in Nigeria. This finding is not different from the negative impact of government capital expenditures on economic growth (proxied by GDP) in Nigeria as found by Oyeranti and Ishola, (2012). By implication, government capital expenditures in Nigeria over the years have little or minimal impact of economic growth in Nigeria and poverty reduction in particular.

Furthermore, the result also indicates that there is no problem of auto correlation in our estimated model because the value of Durbin-Watson which measures the series autocorrelation behaves well as it is still within the critical region of the acceptance zones. That is to say the value of the Durbin Watson from the result is 1.797707 which is approximately 2.0 percent. Thus, our estimation is free from the problem of series autocorrelation in our specified model.

4.3.3. Error Correction Model Estimation

To check for the speed of adjustment of the model from short run to the long run equilibrium state, the result for the error correction term is used. The criteria for decision making is that the higher the value of the coefficient if the ECM term, the faster is the speed of the adjustment of the model from short run to the long run. In the result presented in Table 4.3 above, the coefficient of the error correction term is 0.537073 and is statistically significant at 1% level of significance. The absolute value of this result is that there is a positive value of the speed of adjustment of the model from short run to long run of about 54%. Additionally, we found that although the error correction term does not satisfy the a priori condition of negative value of its

coefficient, but as it is significant at least at 1%, it indicates that the change in the dependent variable (poverty rate) reacts to the cointegrating error of the selected variables in our estimated model for the Nigerian. This finding is however contrary to the submission of Hill and Lim (2008) who maintains that small economies only react to economic conditions in large economies and not vice versa. Thus, this finding still shows that small economies as well react to the basic macroeconomic conditions and variables in the domestic economy.

5. CONCLUSION AND POLICY RECOMMENDATION

Using a multiple regression analysis in the autoregressive distributed lag framework with ECM we include three major components of fiscal policy variables (Government capital expenditure, Government recurrent expenditure and Government Budget Deficit) as regressors and the rate of poverty in Nigeria as the dependent variable, this study explored the potency of fiscal policy in Nigeria in addressing the seemingly endemic poverty scourge. From the analysis, our findings indicate that the level of government capital expenditures in Nigeria does not reduce the level of poverty in the country over the period of time covered by the study.

The value of the level of government recurrent expenditure shows a significant impact on poverty reduction. But it is ideally expected that the capital expenditures of the government on social amenities or social capitals like electricity, fixed Assets that are income generating etc. will greatly help in poverty reduction and increase the welfare of the masses. The budget deficit was found to increase poverty rate in the economy. We particularly found from the result of the ECM that the speed of the adjustment of the model from the short run to the long equilibrium is on the average and yet the economy has not shown signs of much potency of using the selected fiscal policy variables to tackle the menace of poverty in Nigeria. We therefore submit that poverty reduction can be addressed with fiscal policy tools in Nigeria and it is expected that the government should play an adequate role and intensify action in implementing effective fiscal policies to ameliorate the level of poverty conditions in Nigeria.

5.1 Recommendations

Based on the above submission, some important policy variables or issues are proposed here below to guide policy makers and other stakeholders of the Nigerian economy in addressing the scourge of poverty in the country. Firstly, stable macroeconomic policies, such as, sound fiscal policy in conjunction with monetary policies that would create a hospitable climate for private investment and thus promote productivity that the poor and non-poor would benefit from is desirable.

Secondly, profitable government expenditures in ventures that would emphasize on labour-intensive strategy given its ability to reduce poverty by increasing employment and improving the opportunities for productive activities among the poor are necessary because this will lead to an increase in productivity and improve wages of the poorest segments of the society.

Thirdly, efficient and sound legal and regulatory framework that would necessarily ensure that both domestic and foreign investors are effectively protected against sudden and arbitrary changes in the economic environment and the rules of the game is highly recommended here.

Rapt attention of the government in real sector development in Nigeria is necessary. In this regard, there is need for renewed emphasis on government interventions in the nation's economic activities that would help the poor particularly those found in the agricultural and the informal sectors. To achieve this, the government should intensify effort in the provision of more infrastructural facilities and the maintenance and repair of existing ones. Renewed efforts towards the resuscitation of agricultural produce marketing board, intensive research and technological innovations, provision of credit facilities to farmers (to be channelled through micro-finance institutions and cooperative societies) and provision of quality health care services at the grass root levels in Nigeria are necessary conditions for poverty reduction in Nigeria.

Lastly, good governance is highly recommended. When good governance is allowed to thrive civil and economic liberties that are essential for individual initiative and development would be enhanced (Gafar et al, 2011). Similarly, with good governance, the rulers will be able to provide necessary opportunities to the poor including social services, employment, safety nets and security and information that will permit accountability, transparency and openness which in the long run would help increase economic growth and reduce poverty.

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