The Assessment of the Effects of Fiscal Policy on Unemployment and Inflation Reduction: The Case of Nigeria

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Abstract: *The study set out to ascertain the influence of fiscal policy on unemployment and inflationreduction in Nigeria. The dependent variables wereunemployment rate and inflationrate while federal government capital expenditure, petroleum profit tax, company income tax and custom and excise duty were the independent variables. Data was sourced from Central Bank of Nigeria Statistical Bulletin (2014); World Development Indicator (2013); IMF World Economic Outlook (2013) amongst others.The study employed Autoregressive Distributed Lag (ARDL) bounds testing which is based on the estimation of an Unrestricted Error Correction Model. The findings revealed the following among others: federal government capital expenditure (a tool of fiscal policy) in the first and second year does not reduce unemployment rate but it does significantly in the third year. Petroleum profit tax and company income tax do not significantly reduce inflation but only custom and excise duty did. The joint effect of all the tax variables was significant in inflation control. On this basis, the following recommendations were made among others: there is the need for massive capital expenditure in productive ventures in Nigeria, especially on agriculture; effective tax design is imperative so as to capture every individual in Nigeria.*

Keywords: assessment, fiscal policy, inflation, unemployment

I. INTRODUCTION

When the United States of America recently experienced Great Recession in December 2007 to June 2009, it impacted adversely on other countries of the world. Actually, there was a revival of curiosity on the economic impacts of fiscal policy. Hence, it compelled researchers to embark on studies on how government can reduce deficit, which they later gradually drifted to the likely effects of increase in taxes and reduction in government expenditure (Gravelle et al, 2013, Bagaria et al, 2012, Fair, 2010). Events and situations compelled many developing countries to look inward and able to see the loopholes in the operations of their fiscal policies. Nigeria as a developing economy is not left behind. This study is in line with the foregoing issues on restructuring fiscal policy to be able to achieve desirable result.

Nigerian economy over the years is confronted with myriad of economic problems which gradually led to the falling living standard and rise in poverty situation. The application of fiscal policy was expected to help revive the ugly trend. Studies have shown that the economic and social instability and uncertainty do not give room for actualization of positive long term economic progress and advancement and besides, it has high welfare cost implications that impact adversely on the economy (Akanni and Osinowo, 2013, Adefeso and Mobolaji, 2010, Hnatkoyska and Loayza, 2005,Fatasand Mihov, 2003).

Nigeria has been confronted with various crises such as the Niger Delta Militants, incidences of kidnapping in the South East, insurgence of 'Boko Haram' in the Northern Nigeria, boundary dispute between communities, herdsmen brouhaha, most recently is the Niger Delta Avenger and other political cases. In many cases private and public property and lives are lost with associated debilities in the economy.

All over the world, policies are employed to alter the economic, political and social status of an economy. This is because of the guiding principles and intentions of a specific policy. Monetary and fiscal policies are always in use in reviving and repositioning an economy. Kocke et al (00) point out that fiscal policy has the power to affect favourably on aggregate demand, wealth distribution, and ability of a country to produce more goods and services. This is because the major tool of fiscal policy which is taxation has the capability of changing the size and pattern of demand for goods and services. Consequently, increased demand has a way of influencing resources allocation and production of goods and services which in a similar vein affects positively on factor input utilisation, income generation, human capital development and technological innovation . This presupposes that the impact of tax has

the capability to affect labour, saving and investment and consequently influences desirably on the size of resources allocation and productive ability of a country.

The inability to have positive changes with respect to employment generation and persistent low living standard and numerous economic down-turns has compelled one to doubt the effectiveness of fiscal policy application. Given the inability of sufficient diversification of the economy, fiscal policy is lopsided with impact on oil revenue during boom and effective resources allocation is retarded in the period of decline in oil price .This is in line with Baunsgaard (2003) who posits that Nigerian fiscal policy is highly dependent on revenue generation from oil and gas which in turn consequently impact greatly on revenue and expenditure pattern in the entire economy. Odusola (2006) posits that double taxation in Nigeria is a thing of worry as it has adverse effect on productivity and investment.

The oil revenue situation since over 40 years ago has been so volatile and on the increase. There has been continuously and remarkable increase in revenue and expenditure in the country at the period of relatively rise in oil prices as witnessed in 1979-82, 1991-92, and 2000-2002. The situation in the country inthepast years, in recent time and at moment that Nigeria is facingsevere fall in oil prices has not been favourable to fiscal policy operation.The role of government with respect to expenditure and provision of required services is thwarted and the intention of diversification and poverty reduction adversely affected.No matter how beautiful a policy may be if there is lack of favourable environment to execute it, its goals cannot be realised.

Fiscal policy is known to be relevant in revamping and stabilizing a depressed economy as it plays significant role in effective employment of resources, reduction of poverty, control of inflation among others. But various studies have opposed the ability of fiscal policy to counteract and reposition the distortions in the Nigerian economy. For instance Agiobenebo (2003), Gbosi (2008) and Okowa (1997) have shown the inability of fiscal policyto play the needed stabilization role. The government has been making series of expenditure: borrowing internally and externally with operations of various types of taxes, yet the role of tackling the major problem of unemployment and inflation have not been achieved. What could be the cause of this situation?

National Bureau of Statistics (2011) states that unemployment rate was 13.1 in 2006, it rose to 15.7 in 2009, in 2010, it stood at 21.1 and was 23.9 in 2011 while inflation rate has remain two digits retarding the purchasing power of money.For instance, InternationalMonetary Fund (2011), points that the inflation rate in 2000 was single digit of 6.94 and rose to 18.87 in 2001. By 2008 inflation rate was 11.58 and got to 13.72 in 2010, at present, it is over 17 per cent. All these have been notwithstanding the prevailing application of fiscal policy.

Really, Keynes (1980) perception with respect to fiscal policy as essential for tackling real economic problem seems not strictly adhered to by the government. His principle objectives centred on employment creation for all and sundry because of the effect it has in reviving a depressed economy. During the period of favourable oil prices, the Nigeria leaders ignored the intuition of diversification and effective investment in the country that is capable of giving jobs to the unemployed. But at present many scholars have abandoned this noble issue. Just as Tcherneva (2011) posits that modern fiscal policy focuses attention more on income stability, consumption and investment while employment is left to become the outcome of the aspired modern policy. Undoubtedly, Keynes expected immediate and speedy solution to unemployment problems through direct job creation. In Nigeria, adequate attention has not been given to job creation as a panacea for reviving the economy's low living standard. Instead attention is focused on improving the income of the leaders which often bring in more problem than expected.

Disgustingly, Nigerian senators earn higher than senators of developed economies. The increased income of leaders gives rise to increased consumption without a corresponding availability of goods and services; hence inflation persists in the country with the associated adverse effects in the living standard of the poor.

Real sector industrial investment that is capable of pulling up other sectors has been ignored in government budgetary allocation. Major developmental industries are not functional in Nigeria. Power supply which is very essential is insufficiently available. Corruption by government officials have helped to redirect resources earmarked to alleviate poverty in the country. So, poverty situation continuously worsen as many people have lost their jobs due to power and infrastructural deficiency and poor policy prevailing at the moment. Agu et al (2015) point that fiscal indiscipline coupled with unco-ordination of fiscal policy among the various tiers of the government cum weak revenue obtained from high-marginal tax rate that has narrow tax base led to low tax compliance.

In view of the prevailing economic situation in Nigeria that gave rise to persistent high unemployment, high inflation, poor living standard among others in spite of ever existing fiscal policy, it is our intention to empirically examine the effectiveness of fiscal policy in Nigeria with respect to effect on unemployment and inflation reduction from 1980 to 2014 with a view to come up with suitable solutions to this reoccurring problems. On this note, the study is streamlined thus: section two is the conceptual issues and empirical literature, research

method and procedure is the section three, section four is data analyses and results presentationwhile section five is summary of findings, recommendations and conclusion.

Justification of the Study

The uniqueness of this study is that the outcome will assist in re-designing fiscal policy in Nigeria in such a way to improve the activity that can lead to the increased employment of teeming unemployed youths and other resources. Specifically, the study will help in restructuring the tools of fiscal policy such as tax system and federal government capital expenditure in Nigeria with a view to diversify the economy, reduce the existing high inflation rate and also raising the living standard.

Conceptual Issues

Fiscal policy is that aspect of government policy that is concerned with the use of taxation, public expenditure and other financial programmes existing in the annual budget and deciding on how best the collected revenue should be used in order to achieve national goal. Fiscal policy centred on the government's management of the nation's economy by changing the magnitude and composition of taxation and public expenditure done with much regard to their impact on the economy. It is flexible changes in the level, composition and timing of government expenditure and revenue (Anyafo, 1996, Anyanwu, 1993).

In a capitalist and mixed economic system, the activities of the private operator if unregulated usually result to market failure. This is because of the pursuant of selfish interest by private individuals has a way of encroaching or affecting adversely the societal interest. So, government has to plan by inducement, using fiscal and monetary policies to counteract or control activities that can lead to market failure. Undoubtedly, in such individualistic tendency, market failed to enable the attainment of such welfare level that can provide to the society an equitable distribution of societal wealth. Iyoha et al (2003) pointed that the resultant effect of market failure was evident in the Great Depression of the 1930s that led to the emergence of Keynes macroeconomics who advocated the government interference of the economy through the use of macroeconomic policies such as the fiscal policy. Actually, studies have shown that government interference in the economy in the form of expenditure have positive impacts in repositioning an economy toward progress. In his study, Aregbeyen (2007) pinpointed the desirable relationship between the application of the tool of fiscal policy such as government expenditure and economic growth.

In Nigeria, fiscal policy has been used in various ways based on the prevailing economic situation and economic objectives the government wants to achieve. The protagonist view on fiscal policy some decades ago such as Keynes (1936) is relevant today because of its ability to revive a depressed economy. The Great Depression of the 1930s affected the United States adversely. The crash in the stock market, decline in business activity, shocks experienced by banks and farmers coupled with high unemployment ratethenpushed down the real gross domestic product. But Keynes advocated the need for government spending as a way of empowering the economy, which President Franklin Roosevelt'sapplication brought some remarkable changes for a period of time.

Fiscal policy is a veritable tool of the government as it is aimed at directing the economy at the desired state. Nigerian government has at different periods combined fiscal and monetary policies with a view to direct the macroeconomic variables on the path of growth and stability. Unfortunately, Nigerian economy seem not have come to the level of development and growth commensurate to the resources at its disposal. Every year a large resources are earmarked for development and improving resources utilisation in the country, but the high degree of unemployment, high level poverty, especially in the rural areas is highly worrisome. With respect to proper direction and ensuring positive effects, besides monetary policy, fiscal policy is frequently in use. In their perspective, Gray et al (2007) posit that fiscal policy play significant role in lessening or raising demand for outputs of goods and services, and has the power to avoid depression through promotion of spending and counteracting inflation tendency through depressing spending and consumption.

In their view, Omitogun and Ayinta (2007) articulated the relevance of expansionary and contractionary fiscal policy involving the government manipulation of budget deficit and surplus depending on prevailing economic situation such as recession, depression and boom periods. The use of the important tools of fiscal policy such as taxation, government expenditure and borrowing are aimed at attending to the basic needs of the economy. Tcherneva (2011) examined the effectiveness of fiscal policy in United States during crisis of Great Depression. He assessed the administrative actions executed by Bush and Obama. He revealed the inadequacy of contemporary aggregate demand management approach to impact desirably on labour market and so could not achieve definite macroeconomic objectives, such as investment stabilization, the generation and maintenance of full employment and equitable distribution of incomes. The author therefore advocated the reconsideration of the policy effectiveness of alternative fiscal policy approach on the basis that policy targeted on the labour demand gap and not output gap has more power in stabilizing employment, incomes, investment and balance sheets.

Baunsgaard (2003) points the adverse effect of fiscal policy in oil-producing country due to oil revenue uncertainty and instability. He advised the need for factoring in policy formulation regarding the exhaustibility of

natural resources and direct effort at lessening oil revenue volatility that is transmitted to the economy. He revealed that fiscal policy in Nigeria has not been successful because revenue and expenditure have been highly volatile showing fluctuation in oil price.

II. EMPIRICAL LITERATURE

Many scholars in both developed and developing countries have embarked on studies on fiscal policy as indispensable in stabilization and repositioning the economy. But there are variations in findings due to the nature and pattern of economic system. Akinni and Osinowo (2013) studied the effect of fiscal instability on economic growth in Nigeria using descriptive and quantitative method for the period 1970 to 2010 and found that both the real gross domestic product and real total fiscal spending were highly volatile; total fiscal spending was counter- cyclical between 1970 and 1986 and appeared stationary between 1987 to 2010 with real output being relatively unstable.

In their study of the impact of fiscal policy on economic growth during the periods of regulation and deregulation Ogbole et al (2011) employed econometric analysis involving the method of ordinary least square. Gross domestic product was the dependent variable while government expenditure, private investment, inflation rate, and capital flow represented by dummy variable were the explanatory variables. They found differences in the effectiveness of fiscal policy in stimulating growth during and after deregulation. The effect was higher during deregulation than the regulation period. In a similar vein, in their determination of the effect of different components of fiscal policy on the Nigerian economy, Agu et al (2015) used descriptive statistics and also adopted the method of ordinary least square in the multiple regression equation analysis. With gross domestic product as the dependent variable while the independent variables were expenditure on the following: general administration, education, health, agriculture, construction, transport and communication. The study revealed that government expenditure tended to increase higher than revenue generation; investment expenditure far below recurrent expenditure while positive correlation exist between expenditure on government services on economic growth.

Audu (2012) evaluated the causal relationship between money supply, fiscal deficits and exports in analysis of the effect of fiscal policy on the growth of Nigerian economy (1970-2010). Co-integration error correction mechanism and least square employed in determining the impact of money supply, fiscal deficit, and export (explanatory variables) on gross domestic product. The findings revealed a significant relationship between dependent variable and the explanatory variables leading to the conclusion that fiscal policy significantly influences output growth in Nigeria.

Iyeli and Azubuike (2013) empirically examined the effect of fiscal policy variables on Nigeria's growth between 1970 and 2011. The method of co-integration and error correction mechanism was employed in the analysis of real gross domestic product (dependent variable) on federal government expenditure, federal government revenue, inflation rate and capital inflow (the independent variables). The study revealed a long-run equilibrium relationship between economic growth and fiscal policy variables in Nigeria.

In view of all the reviewed studies, none focused on how fiscal policy impacts on unemployment and inflation reduction, which this study intends to examine. The study focuses on the investigation of the influence of fiscal policy on unemployment and inflation reduction.

III. RESEARCH METHOD AND PROCEDURE

The study involves a process of the determination of the effectiveness of fiscal policy tools on few macroeconomic variables. The choice of variables is based on the focus of this study. In this regard we are going to start with the sources of data and scope, model specification, test of time series property and method of data analysis.

Sources of Data and Scope

The required data for this study is time series which is obtained from Central Bank of Nigeria (2014) Statistical Bulletin and data from National Bureau of Statistics (2011).The World Economic Indicators (April 2014) among others. The study covered a period of 1981 to 2014. The reason for the choice of the period is because of visible happenings in the economy with respect to macroeconomic variables, increased poor living standard in spite of the government application of fiscal policy over the years.

Model Specification

Fiscal policy has to do with the government's management of the nation's economy by varying the magnitude and content of taxation and public spending done with much regard to their impact on the economy. The major tools of fiscal policy are amongst others public expenditure and taxation. Fiscal policy aimed at increasing employment of resources and also stabilization of the economy. This presupposes reduction of unemployment and control of inflation among others. Keynes advocated government spending which has the power to create more jobs capable of increasing production and income generation. In this study, we have the conviction that Federal

government capital expenditure (FGCE) has the power of increasing aggregate economic activity leading to reduction of unemployment rate (UER). In addition, it is our belief that taxation (company income tax(cit), petroleum profit tax (ppt) and custom and excise duty (ced) help greatly to stabilise inflation rate (IR) other things being equal. On this basis, the functional form of our model is stated thus:

$$UER = f(FGCE)\text{---}(i)$$
$$IR = f (CIT, PPT, CED)\text{--}(ii)$$

Method of Data Analysis

Considering the nature of our study, it is relevant to employ Autoregressive Distributed Lag (ARDL) bounds testing due to Pesaran and Shin (1999) and further extended by Pesaran, Shin and Smith (2001). This approach is based on the estimation of an Unrestricted Error Correction Model (UECM) which enjoys several advantages over the conventional type of cointegration techniques. First, it can be applied to a small sample size study. Secondly, it estimates to both short and long run components of the model simultaneously; removing problems associated with autocorrelation and omitted variables. Thirdly, the standard Wald of F-statistics used in the bounds test has non-standard distribution under the null hypothesis of no cointegration relationship between the examined variables, irrespective whether the underlying variables are I(1), I(0) or fractionally integrated (Pesaran, et al, 2001). Fourthly, this technique generally provides unbiased estimates of the long run model and valid t-statistics even some of the regresses are endogenous. Lastly, once the optimum lag is appropriately selected, we can estimate the cointegration relationship using OLS method.

The ARDL model is stated as:

$$UER_t = \alpha_0 + \sum_{i=1}^{p} \gamma_i UER_{t-i} + \sum_{i=0}^{p} \beta_i FGCE_{t-i} + \mu_{it} \dots (3)$$

$$IR_t = \alpha_0 + \sum_{i=1}^{p} \gamma_i IR_{t-i} + \sum_{i=0}^{p} \beta_i CIT_{t-i} + \sum_{i=0}^{p} \beta_i PPT_{t-i} + \sum_{i=0}^{p} \beta_i CED_{t-i} + \mu_{it} \dots (4)$$

Where UER = unemployment rate

FGCE = federal government capital expenditure as proxy for fiscal policy

IR = inflation rate; CIT = company income tax; PPT = petroleum profit tax; CED = custom and excise duty.

In order to obtain the cointegrating equation, equations 3 and 4 are transformed into 5 and 6 respectively as follows:

$$\Delta UER_t = \alpha_0 + \sum_{i=1}^{p} \gamma_i \Delta UER_{t-i} + \sum_{i=0}^{p} \beta_i \Delta FGCE_{t-i} - \phi ECT_{t-1} + \mu_{it} \dots (5)$$

$$\Delta IR_t = \alpha_0 + \sum_{i=1}^{p} \gamma_i \Delta IR_{t-i} + \sum_{i=0}^{p} \beta_i \Delta CIT_{t-i} + \sum_{i=0}^{p} \beta_i \Delta PPT_{t-i} + \sum_{i=0}^{p} \beta_i \Delta CED_{t-i} - \phi ECT_{t-1} + \mu_{it} \dots (6)$$

$$ECT_t = Y_t - \alpha_0 - \sum_{i=1}^{p} \gamma_1 \Delta Y_{t-i} - \sum_{i=0}^{p} \beta_i \Delta X_{t-i} \text{ and } \phi = 1 - \sum_{i=1}^{p} \gamma_1 \Delta Y_{t-i} \dots (7)$$

Where

The Bound test procedure used equations 5 and 6 into 7 as:

$$\Delta Y_t = -\sum_{i=1}^{p-1} \gamma_1 Y * \Delta Y_{t-i} + \sum_{i=0}^{p} \beta_i \Delta X_{t-i} - \rho Y_{t-1} - \alpha - \sum_{i=0}^{p} \delta X_{t-i} + \mu_{it} \dots (8)$$

Then we test the existence of level relationship as $\rho = 0$ and $\delta 1 = \delta 2 = \dots = \delta k = 0$

where Δ = difference operator, μ = white noise error term.

On a priori basis, it is assumed that if the federal government expenditure is influencing desirably in the economy, it should be able to reduce unemployment rate. In a similar vein, if taxation as a tool of fiscal policy (proxied by CIT, PPT and CED) is playing its role, it should help in controlling inflation. So, we expect the tax variables to relate negatively with inflation as well as federal government expenditure to relate negatively with unemployment rate.

Unit Root Test for Stationarity

Most time series data exhibit unit (non- stationary) and able to give spurious relationship if used in that state and as such decision made based on the result is like a doctor killing a patient with a wrong prescription. In the view of Nelson and Plosser (1982) most macroeconomic time series variables exhibit unit root property. The unit

root test enables the ascertainment of data stationarity or non-stationarity. In this case, we employ Augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1979; Fuller, 1976) to examine the data stationary status.

IV. RESULTS PRESENTATIONS AND DISCUSSIONS

Unit root tests and the order of integration

Table 1 below presents the summaries of the unit root test results for the series in levels and in first differences. The ADF lag length is selected automatically by Akaike Information Criteria (AIC).The result indicate that apart from UER and IR which are integrated of order zero, all other variables were non-stationary at level form since their p-values were greater 0.05 but became stationary after first difference. Furthermore, the results indicate that the variables are integrated of order zero and one and this enabled the use of the error correction model in the autoregressive framework.

Table 1: Summary of ADF Unit Root Test Results of the Series

Variable	Level ADF Test Stat	1st Difference ADF Test	p-values	Order of Integration	Remarks
FGCE	1.8973	-4.5258**	0.0103	I(1)	Stationary
UER	-4.2339**		0.0113	I(0)	Stationary
CED	0.9539	-3.4852*	0.0351	I(1)	Stationary
CIT	-1.9250	-4.8256**	0.0032	I(1)	Stationary
IR	-3.7232*		0.0351	I(0)	Stationary
PPT	2.8102	-3.3072*	0.0421	I(1)	Stationary

NOTE: * (**) indicates significant at 5% (1%) probability levels
Source: Computed by the Author

The results of the stationarity tests show that most of the variables are non-stationary at level. These results are given in Table 1 above. Having established the vector of variables of concern, the order of integration and stationarity of all the series was conducted using the Augmented Dickey-Fuller (ADF) principal of establishing unit root. The ADF test was conducted on variables in order to determine their stationary nature and those found non stationary were differenced to get rid of the stochastic trend, a phenomenon associated with time series data.

Bounds Cointegration Testing

The optimal lag length was ARDL (3, 3) and ARDL (3, 2, 0, 1) for model 1 (unemployment) and 2 (inflation rate) respectively. This was selected automatically from Eviews 9.0. The condition for testing the bound cointeration is that the variables be integrated of order one or zero. Since the unit root result in table above showed that the variables are integrated of order one and zero, we proceed to test for bound cointegation. The decision rule is to reject the null hypothesis of no long run relationships if the F-statistic is greater than the upper critical bound at 5% level. The result of the cointegration bound is presented in table below:

Table 2: ARDL Bounds Cointegation Test Result

Model	Test statistics	Value	Lower bound	Upper bound	k
1 (UER)	F-statistic	6.19	4.94	5.73	1
2 (IR)	F-statistic	1.72	3.23	4.35	3

Source: Computed by the Authors using Eviews 9.0

From the table above, the null hypothesis of no long relationship is rejected for model 1 since the f-statistic of 6.19 is greater than the upper critical bound of 5.73 while that of model 2 is accepted since the F-statistic of 1.72 is less than the upper critical bound of 4.35. This result implies that there is a long run relationship between unemployment and fiscal policy whereas there seems to be no long run relationships between inflation rate and fiscal policy in Nigeria.

Dynamic model Results

Table 3: The ARDL Model for Unemployment Rate (model 1); ARDL (3, 3)

	Dependent Variable UER			
Variables	Coefficient	Std. Error	T-statistics	Probability
Constant	2.801148	1.542268	1.816252	0.0824
UER(-1)	0.739697	0.167021	4.428775	0.0002
UER(-2)	0.376122	0.252789	1.487885	0.1504
UER(-3)	-0.565266	0.265619	-2.128110	0.0443
FGCE	0.002246	0.002656	0.845880	0.4063
FGCE(-1)	0.004882	0.003681	1.326193	0.1978

FGCE(-2)	0.013354	0.003913	3.412374	0.0024
FGCE(-3)	-0.018087	0.004304	-4.202109	0.0003
	R-squared = 0.888493 Adj R-Squared = 0.854556 F-Statistics = 26.18061 F-prob = 0.0000			

Source: Computed by the Authors using Eviews 9.0

Table 4: Results of Diagnostic Tests

	F-Statistics	Probability
Breusch-Godfrey LM test for autocorrelation	1.257788	0.3272
HarveyHeteroskedasticity	1.252093	0.3164
Ramsey RESET Test	0.04334	0.0.9481
Normality Test	4.318349	0.115420

Source: Computed by the Authors using Eviews 9.0

Discussion on Results I

The results reported in Table 3 clearly show that federal government capital expenditure at lagged three (FGCE (-3)) has a negative and significant impact on unemployment rate in Nigeria. Specifically, a naira increase in government expenditure will reduce unemployment rate by 0.02 after three years. This is in line with the a priori expectation that expansionary fiscal policy will reduce unemployment rate with some time lag. The coefficients of FGCE, FGCE(-1) and FGCE(-2) are all positive implying that federal government capital expenditure which was used to proxy fiscal policy will worsen unemployment rate at the first and second years. This can be explained by the fact that certain capital projects (construction of good roads, quality schools and hospital) that would create jobs to the citizen will take some time before completion and hence the desired impact does not happen instantaneously.

The coefficient of multiple determinations (R^2) and its adjusted are 0.888 and 0.854 respectively. This suggests that the model was well fitted and that about 88.8% of the variations in unemployment rate situation in the country is explained by changes in government capital expenditure. Interestingly, F-statistic of 26.18 implies that the overall regression is highly significant.

The results of the diagnostic tests were also presented in table 4. The emphasis was on testing the presence or absence of serial correlation in the residuals generated from the models, Ramsey model specification test, heteroskedasticity test and stability test as well as the normality test.

The serial correlation tests of the residuals were based on the Breusch-Godfrey LM test for autocorrelation. The estimated model Result from the second order tests indicates no evidence of serial correlation in all the models. Also, the Ramsey reset test result indicates no evidence of omitted variable problem in all the results and the Harvey Heteroskedasticity test shows no evidence of heteroskedasticity in model. In the same vein the normality test shows that the residual is normality distributed.

In order to get the parsimonious model, we estimated the ARDL–ECM. The result is presented below:

Table 5: Parsimonious ARDL-ECM for Unemployment Equation

	Dependent Variable UER			
Variables	Coefficient	Std. Error	T-statistics	Probability
D(UER(-1))	0.189145	0.175750	1.076215	0.2930
D(UER(-2))	0.565266	0.265619	2.128110	0.0413
D(FGCE)	0.002246	0.002656	0.845880	0.4063
D(FGCE(-1))	-0.013354	0.003913	-3.412374	0.0024
ECM_{t-1}	-0.449447	0.214901	-2.091418	0.0472

Source: Computed by the Authors using Eviews 9.0

From table 5, we notice that the coefficient of the error-correction term (ECM_{t-1}) is negative and significant. This is what we would expect if there is co-integration and long run relationship between unemployment rate (UER) and fiscal policy proxied by federal government capital expenditure (FGCA). The magnitude of this coefficient implies that about 45% of any disequilibrium between UER and FGCE is corrected within one year. Specifically, the ECM term suggests that it will take at least two years for fiscal policy to achieve its desired goal of reducing unemployment in Nigeria. The ARDL-ECM results also shows that a change in federal government capital expenditure at lagged one is negative and significant as expected.

Table 6: The ARDL Model for Inflation Rate (model 2); ARDL (3, 2, 0, 1)

Variables	Dependent Variable IR			
	Coefficient	Std. Error	T-statistics	Probability
Constant	-59.40788	72.68887	-0.817290	0.4229
IR(-1)	0.839459	0.179268	4.682693	0.0001
IR(-2)	-0.558280	0.204574	-2.728990	0.0126
IR(-3)	0.399033	0.194353	2.053135	0.0527
LOG(CED)	36.20533	27.47332	1.317836	0.2018
LOG(CED(-1))	-118.4841	46.89435	-2.526618	0.0196
LOG(CIT)	-15.42528	8.736739	-1.765565	0.0920
LOG(PPT)	-15.17499	16.68753	-0.909361	0.3735
LOG(PPT(-1))	30.02427	16.70990	1.796795	0.0868
	R-squared = 0.695406 Adj R-Squared = 0.564866 F-Statistics = 5,327148 F-prob = 0.0008			

Source: Computed by the Authors using Eviews 9.0

Table 7: Results of Diagnostic Tests

	F-Statistics	Probability
Breusch-Godfrey LM test for autocorrelation	2.257788	0.6272
B-P-GHeteroskedasticity	0.945511	0.5085
Normality Test	2.405334	0.300392

Source: Computed by the Authors using Eviews 9.0

Discussion or Result II

The results shown in Table 6 clearly show that custom and excise duty (CED) has a negative and significant impact on inflation rate in Nigeria. At the beginning of the period increase in custom and excise duty will bring about a rise in inflation rate, though not statistically significant but thereafter inflation will fall. The implication of this result is that at the first period of increase in custom and excise duty, importers will shift the incidence of the tax completely to the buyers by increasing the price of the commodity and hence there will be a rise in inflation. But after one year, this increase in prices will lead to low demand relative to supply and hence a fall in general price level. Also, company income tax (CIT) has a negative but insignificant impact on inflation rate in Nigeria. In the same vein, petroleum profit tax has a negative and insignificant impact on inflation in Nigeria.

The coefficient of multiple determinations (R^2) and its adjusted are 0.695 and 0.565 respectively. This suggests that the model was moderately fitted and that about 69.5% of the variations in inflation rate in the country are explained by changes in CED, CIT and PPT. Interestingly, F-statistic of 5.327 implies that the overall regression is highly significant.

The results of the diagnostic tests were also presented in table 7. The emphasis was on testing the presence or absence of serial correlation in the residuals generated from the models, heteroskedasticity test and stability test as well as the normality test.

The serial correlation tests of the residuals were based on the Breusch-Godfrey LM test for autocorrelation. The estimated model result from the second order tests indicates no evidence of serial correlation in all the models. Also, the Breusch-Pagan Godfrey Heteroskedasticity test shows no evidence of heteroskedasticity in model. In the same vein the normality test shows that the residual is normality distributed.

V. SUMMARY OF FINDINGS

(i)   Federal government capital expenditure impacts desirably on unemployment reduction three years after the application of fiscal policy. This finding conforms to that of Agiobenebo (2003), Gbosi (2008) and Okowa (1997) that pointed out the inability of fiscal policy to play the needed stabilization role. It takes some time for fiscal policy to impact on the economy due to the lags in fiscal policy. In the first and second year of such spending, the expected increase in employment that is unemployment reduction is a mirage. The regression equation is well specified and well fitted as shown by coefficient of determination and there is no serial correlation on the basis of diagnostic tests. The ECM showed that it takes at least two years for fiscal policy to reduce unemployment in Nigeria after policy execution.

(ii)   Custom and excise duty significantly play a role in reducing inflation unlike petroleum profit tax and company income tax. However, the joint effect of all the tax variables (Petroleum profit tax, company income tax and custom and excise duty) plays significant role in reducing inflation as shown by the probability of the F-statistic. The regression equation is well fitted as shown by the coefficient of correlation and coefficient of determination. There is absence of serial correlation in the model used as shown by the diagnostic tests.

Recommendations

In view of the findings with respect to the influence of fiscal policy on unemployment and economic stability in Nigeria, we make the following recommendations:

(i)   There is the need for massive capital expenditure in productive ventures in Nigeria, especially on agriculture. Nigeria is still agrarian economy as at the moment. Efforts should be focused on establishing integrated agriculture in virtually the entire local government in the country. This requires the federal government collaboration with state, local and multinational agents. This will quickly create employment as articulated by Keynes so as to tackle unemployment, promote economic growth and poverty reduction.

(ii)   Fiscal policy lags need to be sufficiently addressed and it is also essential to adequately monitor the implementation and execution of fiscal policy. In other words, budgetary allocation and actual spending of allocated revenue should coopt morally upright individuals who may be government oficial and/or private individual to ensure that any capital expenditure is channelled strictly to the sector intended. This is to guard against fund diversion and corruption. Proper forecast of the economy at all time is necessary in view of lags in fiscal policy..

(iii)   Taxes should not be restricted to registered companies. The self employed, drivers and trycylists/motrcyclists among others scattered here and there should not be exempted from taxation. Effective tax design is imperative so as to capture every individual in Nigeria as it is obtainable in advance countries like United States of America where virtually tax is charged on everything without any delay. Such a braod based tax will help to impact on people's disposable income when the need arises so as to ensure inflation control and economic stability.

(iv)   It is also needful to diversify the economy by developng other sectors such as solid mineral, agriculture and manufacturing so as to reduce excessive importation and have more goods available in order to counteract inflation at all time. Besides, adequate environment is needed to encourage both domestic and foreign investment in Nigeria.

VI. CONCLUSION

The study has investigated the role and influence of fiscal policy on unemployment reduction and inflation countrol in Nigeria. The outcome of this study has shown the ineffectiveness of fiscal policy in urgently addressing relevant macroeconomic variables over the years which has contributed greatly to economic instability and hightening poverty situation refected by high unemployment rate in Nigeria. The finding of the study also presupposes low federal government capital expenditure in consideration of the large population of the country and as such could not reduce unemployment rate timely and adequately. The aggregate capital expenditure and gross domestic product of Nigeria is low in view of the population and this is due to ineffectivenes of fiscal policy application. This is in line with Agu et al (2015) who posit that government investment expenditure is far below recurrent expenditure. The high remuneration of government official, especially the National House of Assembly usurps a large aspect of the total federal government expenditure, hence paltry sum allocated to capital and productive expenditure. A positive change is needed to improve the economy for better.

Limitation of the study

The study is restricted to the Nigerian economy using few fiscal policy tools such as federal government capital expenditure and some aspects of taxation within the period 1981 to 2014.This is because of the happening in the economy over the years in spite of various policy reforms, programmes and strategies, and yet the country is still experiencing economic instability and massive unemployment.

Directions for further research

Researchers are encouraged to work on the following: (i) Is there any relationship between fiscal policy and corruption in Nigeria? (ii) Does Nigerian economy responds to poverty alleviation with the use fiscal policy tools? (iii) Comparative analysis of fiscal policy operation in Nigeria and South Africa.

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