

## Fiscal Policy Tools, Employment Generation and Sustainable Development in Nigeria

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**Abstract:** This study investigates the impact of fiscal policy instruments on employment generation in Nigeria within the periods of 1980-2015. The study used the Augmented Dickey Fuller test to estimate the stationarity level, Engel Granger cointegration test for long-run relationship and ordinary least square for long-run estimates. The findings show that government spending and manufacturing output had negative impact on unemployment rate in Nigeria. It suggests that government spending and output from manufacturing industry reduce unemployment rate in Nigeria. However, tax revenue and agricultural output have direct impact on unemployment rate in Nigeria. The findings suggest that government expenditure has the potential of creating more jobs if they were expended on appropriate capital projects that are capable of facilitating employment creation and linking rural-urban centres smoothly and not encouraging migration. Manufacturing sector also has the prospect of alleviating jobless growth, likewise the agriculture sector if policies are targeted at raising their outputs.

**Keywords:** Tax; government expenditure; unemployment rate; agriculture; manufacturing

**JEL Classification:** E62; H30; H50, J64.

### 1. Introduction

Unemployment has been one of the greatest challenges facing the Nigerian economy despite the continuous and substantial efforts by government that are growth driven in order to tackle the crisis. The effort of government at various levels has not yielded desired result as the problem of unemployment continues to persist in the country. A glance at the data of unemployment and output growth in Nigeria revealed a positive relationship suggesting the existence of jobless growth. This however negates the Okun's (1962) law that an increase in output by 3% will reduce unemployment by 1% using the case of United States. An example of the Nigerian jobless growth is the strong real income growth that was recorded at a rate of 6% or 6.5% since 2005

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whereas unemployment continue rise annually from 11.9% in 2005 to 19.7% and 24.7% in 2009 and 2013 respectively. (Aganga, 2010; Ogunmade, 2013)

Over the years, fiscal policy instruments (government collected tax and expenditure) had been one of the policies employed by the Nigerian government to tackle the problem of unemployment. Evidence has revealed that the fiscal operations in the country geared towards a deficit budget financing over the last three decades where government expenditure exceeds revenue collected through tax. Despite government involvement towards reducing unemployment rate through huge government spending, it has not generated desired outcomes. Unemployment has been identified as one of the major problems facing the Nigerian economy where a large proportion of her citizens are poor. Evidence had shown that majority of the Nigerian population are living below the poverty line. The poverty headcount of people living below \$1.90/day to the total population has increased from 45.27% in 1985 to 57.06% and 63.5% in 1992 and 1996 respectively and later reduced to 53.46% in 2003 and also rises to 53.47% in 2009 (World Development Indicator, 2016). The same database reported that for those living below \$3.10/day, poverty level rises from 70.64% in 1985 to 76.15% and 81.04% in 1992 and 1996 correspondingly and later reduces to 78.51% in 2003 and 76.46% in 2009.

This study attempts to investigate the efficiency of fiscal policy in Nigeria, and most especially on employment generation. We intend to unravel the empirical relationship between fiscal policy instruments and unemployment. The novelty in this study is its effort to evaluate the impact of fiscal policy tools on employment level in the rural and urban areas and the whole of the Nigerian economy. This would enable the study to determine employment response in Nigeria to government policy instruments. The paper seeks to empirically explore how government intervention policy through tax and spending that are growth oriented will enhance output growth and be able to create more employment in the country. Other sections of this paper are organized into four parts. The second section provides brief literature review on the relationship between fiscal policy, output and unemployment. The methodology is presented in the third section. Section four discusses the results while the last section concludes and proffers policy suggestion.

## 2. Literature Review

The theoretical framework of this study is based on the Okun's law (1962) which argued that the movement between output and unemployment is not one for one. Okun (1962) found that for unemployment rate to reduce by 1%, output rise by 3% using the United States as an hypothetical example. Unemployment is considered to be less volatile than output for two reasons. The first one is that firms would prefer tasks performed by workers to vary rather than lay off some of the worker in a period

where output falls. The reasons are: (a) the cost to train and hire new set of workers when things come back into place and (b) the occurrence of underemployment also requires increase in output for employment also to rise. The second is that countries that have strong labour laws would find it difficult to lay-off workers in a period where output falls. A country with flexible labour law will have Okun coefficient will be smaller. Blanchard (2006) said the value varies over time because the relationship between output and unemployment depends on law, technology, demographics and preferences. (Sanusi, 2012)

Empirical studies on the nexus between fiscal policy and unemployment abound both in the developed and developing countries. However, the study only considered those that are directly relevant to this current study. The studies are discussed below. For panel studies, Holden and Sparrman (2013) examined the effect of government purchases on unemployment in 20 OECD countries within the period of 28 years, 1980-2007. The findings revealed that an increase in government purchases which equals one percent of GDP reduced unemployment by about 0.3 percentage point in the same year. This effect was observed to be greater in downturns than in booms, and also greater under a fixed exchange rate regime than a floating regime.

Leigh and Neil (2009) examined the effects of government spending on unemployment in Australia. Using OLS and instrumental variable approach, they found that an increase in government expenditure on road-building reduces unemployment. Gatti & Vanbourg (2009) identify the determinants of unemployment and analyze the way they react to labour market institution in 18 OECD countries<sup>1</sup>. The result indicated that when labour market is deregulated and weakly coordinated, boosting financial market as well as reducing banking concentration and intermediate credit tends to reduce unemployment. However, when labour market is highly regulated and strongly coordinated, employment can only be increased by fostering intermediate credit. (Gatti & Vanbourg, 2009)

In Nigeria, Arewa and Nwakahma (2013) examined the relationship between government expenditures and macroeconomic variables within the periods, 1981 and 2011. The set of macroeconomic variables considered are gross domestic product (GDP), consumer price index and unemployment. The study found that there is long-run relationship between government expenditure and the specified macroeconomic variables using the Johansson multivariate co-integration test. The results revealed that an increase in capital expenditure improves economic bliss, while recurrent expenditure is detrimental to growth. Austin and Ogbole (2014) examined the impact of public sector spending on macroeconomic variables in Nigeria within the periods of 1970-2010. The study employed ordinary least square and Johansen co-integration to establish the relationships. They also used Granger causality test to

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<sup>1</sup> Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom and United States.

establish the causal relationships between government expenditure and other explanatory variables like GDP, unemployment, inflation, and balance of payment. The results showed that public sector was more effective though marginally in stimulating economic growth in the period of regulation and more effective in reducing unemployment and enhancing balance of payment. It was observed that the public sector was effective in the period of deregulation in maintaining price stability. The result from causality test showed that there is causal flow from government expenditure to balance of payment but no causal flows to GDP, inflation rate and unemployment.

Using primary data obtained through the use of interviews, Danjuma and Bala (2012) examined the role of governance in employment generation in Nigeria. The result revealed that unemployment rate in Nigeria created tension and hatred between the people and leads to communal clashes that resulted in prostitution, armed robbery, child trafficking and the emergence of militants groups such as the Niger Delta militant and the deadly Boko Haram sect. This however contributes to insecurity of lives and properties in the country.

Furthermore, Elizabeth (2013) examined the relationship between fiscal deficit and macroeconomic aggregates in Nigeria. The study spans from 1980 to 2010. The Ordinary Least Square was employed to estimate the long-run coefficients of parameters while the long-run relationship was established using Engle Granger cointegration procedure. Empirical findings showed that fiscal deficits did not significantly affect macroeconomic output. The result also shows a bilateral causality relationship between government deficit and unemployment. Obayori (2016) investigated the impact of government capital and recurrent expenditure on unemployment rate in Nigeria from 1980 to 2013. Using the Johansen cointegration and error correction model, findings showed a long run relationship between fiscal policy and unemployment. The study concludes that fiscal policy is an effective tool used to reduce unemployment rate in Nigeria.

A research study by Ayinde (2014) investigated the effect of unemployment and poverty on agricultural output growth in Nigeria. The study spanned within the period 1980-2011. The causality test result showed that a uni-directional causal relations from poverty to agricultural output; unemployment to poverty; and agricultural output growth to unemployment. It was also found that there exist a long run relationship between unemployment rate, poverty and agricultural output in Nigeria. The findings from long-run estimates reported an indirect relationship between poverty and agricultural output while unemployment reported a direct relationship. Using both long-run and short-run estimates, Ewubare and Obayori (2015) examined the impact of agricultural and industrial development on unemployment rate in Nigeria within the time periods of 2000 and 2012. The short-run estimates revealed that the output growth of two sectors reduced unemployment

rate. In the long-run, it was only the industrial sector output that reduces unemployment rate while the agricultural sector output does not. The result of the causality test showed that a one way directional causality running from the outputs of both sectors to unemployment rate. The study concludes that the consistency from the sectors' output growth would alleviate unemployment rate in Nigeria.

### 3. Empirical Modelling and Estimation Strategies

The study adapts the Okun's law to establish the relationship between fiscal policy and unemployment in Nigeria. In line with Okun's law, changes in unemployment rate are regressed on output growth to show the relationship between output and unemployment. This was considered appropriate by Barreto and Howland (1993) since the main idea is to predict unemployment given the output level. The model is specified as:

$$UNEM_t = \alpha_0 + \beta GDP_t + \mu_t \quad (1)$$

Where  $UNEM$  is the natural logarithm of unemployment rate,  $GDP$  is the natural logarithm of real output,  $\alpha_0, \beta$  are parameters,  $t$  is time, and  $\mu$  is the error term.

The study incorporates fiscal policy instruments (tax revenue and government expenditure) into the model to establish how government intervention towards reducing unemployment rate in Nigeria within the periods, 1980-2015. The study also decomposed output growth into two, that is agriculture and manufacturing output growth. These are however incorporated into the model, which is stated as:

$$UNEM_t = \alpha_0 + \beta_1 TAX_t + \beta_2 GEXP_t + \beta_3 AGO_t + \beta_4 MAN_t + \mu_t \quad (2)$$

Where  $UNEM$  is national unemployment rate,  $TAX$  is tax revenue,  $GEXP$  is government expenditure,  $AGO$  is agricultural output,  $MAN$  is manufacturing output,  $\alpha_0, \beta_{1-4}$  are parameters,  $t$  is time, and  $\mu$  is the error term.

The novelty of this study is not just to examine the impact of tax and government spending on the national unemployment rate but also to know the effectiveness of government policy on rural and urban unemployment. The model (2) was also tested on both rural and urban unemployment. The models are stated as:

$$RUNEM_t = \phi_0 + \phi_1 TAX_t + \phi_2 GEXP_t + \phi_3 AGO_t + \phi_4 MAN_t + \varepsilon_t \quad (3)$$

$$UUNEM_t = \theta_0 + \theta_1 TAX_t + \theta_2 GEXP_t + \theta_3 AGO_t + \theta_4 MAN_t + e_t \quad (4)$$

Where;  $RUNEM$  is rural unemployment rate,  $UUNEM$  is urban unemployment rate,  $GEXP$  is government expenditure,  $TAX$  is tax revenue,  $AGO$  is agricultural output,

$MAN$  is manufacturing output,  $\phi_0, \theta_0, \varphi_{1-4}, \vartheta_{1-4} \alpha_0, \beta_{1-4}$  are parameters,  $t$  is time, and  $\varepsilon, e$  are the error terms. The a priori expectation provides expected signs and significance of the values of the coefficient of the parameters under review on the part of the empirical evidence and theoretical assertions. All, the selected indicators are theoretically expected to reduce unemployment rate, excluding tax revenue which is expected to worsen it. The study used Augmented Dickey Fuller test to test the stationarity level of the indicators, Engel Granger cointegration test for long-run relationships and ordinary least square method for long-run estimates. Diagnostic tests such as serial correlation, normality, functional form and heteroskedasticity tests also conducted to affirm the suitability of least square method. The data used is mainly secondary, which are sourced from the Central Bank of Nigeria (CBN) statistical bulletin, volume 26, 2016. The period spanned from 1980 to 2015.

## 4. Empirical Result and Discussion

### 4.1 Analysis of Preliminary Statistics

The summary descriptive statistics of unemployment rate (rural, urban and national), tax revenue, government expenditure, agricultural output and manufacturing output are shown on Table 1. The summary statistic indicated that the average value of rural unemployment rate (RUNEM), urban unemployment rate (UUEMP) and national unemployment rate (NUEMP) were 7.32%, 11.4% and 8.96% implying that the unemployment rate grew at an average rate of 7.32%, 11.4% and 8.96% in rural area, urban area and the entire states of the Nigerian economy respectively. The mean rate of tax revenue (TAX) and government expenditure (GEXP) in Nigeria were 3.25% and 8.79% respectively. It implies that tax revenue (TAX) and government expenditure grow at an average value of 3.25% and 8.79% respectively annually between 1980 and 2015. Also, the average values of agricultural output (AGO) and manufacturing output (MAN) stood at 32.6% and 6.20% respectively.

**Table 1. Summary Statistics**

	<b>RUEMP</b>	<b>UUEMP</b>	<b>NUEMP</b>	<b>TAX</b>	<b>GEXP</b>	<b>AGO</b>	<b>MAN</b>
Mean	7.3194	11.431	8.9611	3.2519	8.7900	32.625	6.2022
Maximum	19.800	29.600	24.700	8.3600	17.860	48.570	10.440
Minimum	1.6000	3.2000	1.8000	1.5000	5.1500	20.240	2.4100
Std. Dev.	5.0480	7.1174	6.3529	2.0453	2.6156	6.6425	2.5896
Skewness	0.9300	1.0264	0.9431	1.3115	1.4981	-0.0572	0.1192
Kurtosis	2.9596	3.2882	2.9982	3.3408	5.9023	2.7576	1.7518
Jarque-Bera	5.1989	6.4455	5.3369	10.494	26.102	0.1077	2.4221
Probability	0.0746	0.0399	0.0694	0.0053	0.0000	0.9476	0.2980
Obs.	36	36	36	36	36	36	36

Source: Authors' computation (2017)

Table 1 further indicated that the standard deviation of rural unemployment rate (RUNEM), urban unemployment rate (UUEMP), national unemployment rate (NUEMP), tax revenue (TAX) and government expenditure (GEXP) stood at 5.05%, 7.12%, 6.35%, 2.05% and 2.62% correspondingly. It means that annual deviation of rural unemployment rate, urban unemployment rate, national unemployment rate, tax revenue and government expenditure from its long-mean were 5.05%, 7.12%, 6.35%, 2.05% and 2.62% every year. Also, the deviation of agricultural output (AGO) and manufacturing output (MAN) from its long-run mean are respectively 6.64% and 2.59% respectively.

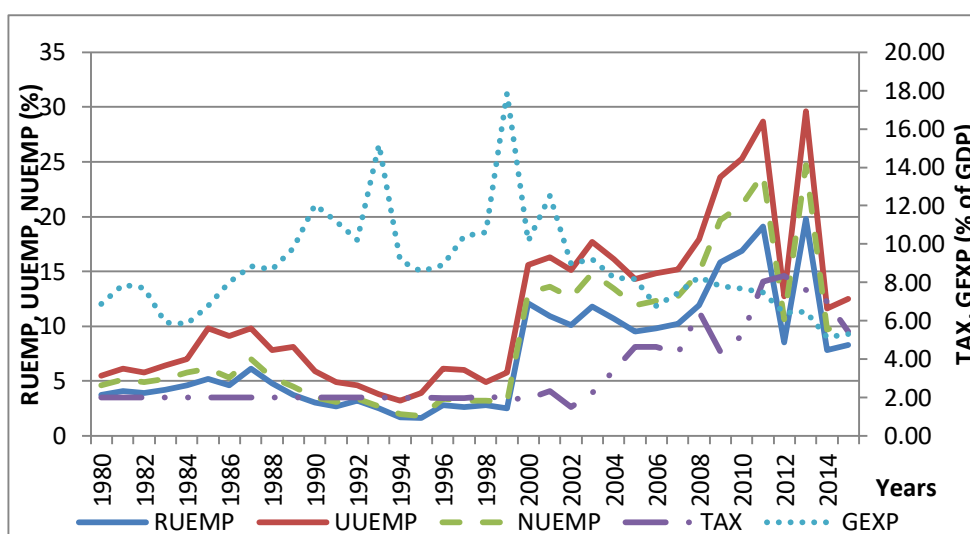
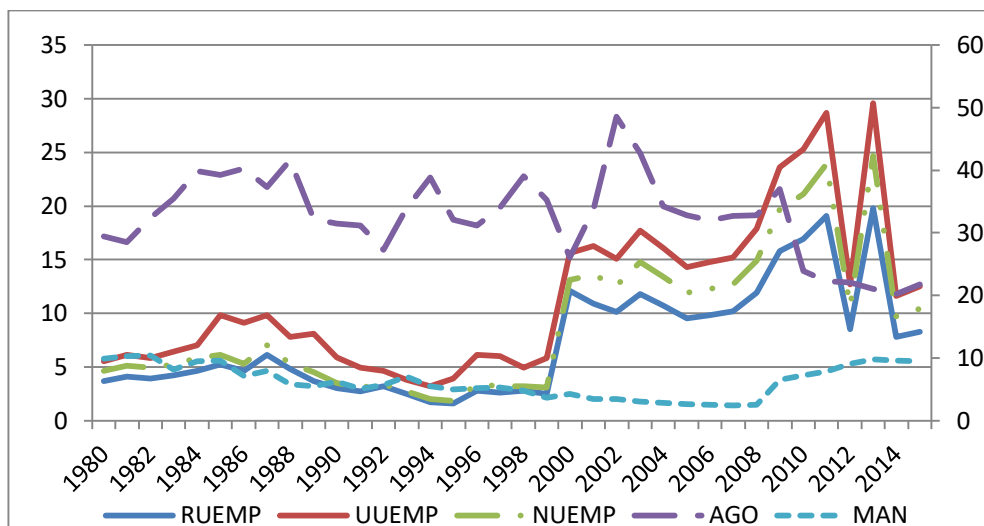


Figure 1. Tax, Government Expenditure and Unemployment rate

Similarly, the time series plot of tax revenue as a percentage of GDP (TAX), government expenditure as a percentage of GDP (GEXP), rural unemployment (RUEMP), urban unemployment (UUEMP) and national unemployment (NUEMP) were presented on Figure 1. The series of all unemployment indicators follow the same pattern. The level of unemployment in urban centres is high implying high rural-urban migration in Nigeria. A closer look at tax and government expenditure to the size of the economy trend indicated a cyclical growth pattern throughout the periods. Figure 2 indicates that agriculture output growth in Nigeria has not been consistent and indicating varying rate of growth. Although, the agriculture output growth peaked at 48.57% in 2002 which marks the early stage of the fourth republic after the long military rule, and Nigeria recorded minimum growth in the sector in 2014 at the rate of 20.24% which indicates the dwindling output in the sector to the oil sector.



**Figure 2. Unemployment rate, agriculture and manufacturing output**

The stationary test results of the incorporated times series variables in the regression model expressed previous chapter is presented in Table 2 using the Augmented Dickey-Fuller (ADF) unit-root test.

The test result indicated that the time series variable, rural unemployment rate (RUNEM), urban unemployment rate (UUEMP), national unemployment rate (NUEMP), tax revenue (TAX), government expenditure (GEXP), agricultural output (AGO) and manufacturing output (MAN) were found not to reject the null hypothesis “no stationary” at level. But after several iterations based on the number of lag length and differencing, the series were found to reject the null hypothesis at first difference.

**Table 2. ADF Unit Root Test Results [Trend and Intercept]**

Variables	ADF Stat at level	Critical Value	ADF Stat at first diff.	Critical Value	Remarks
AGO	-3.01867 (0.1417)	1%: -4.2436	-6.3961 (0.0000)	1%: -4.2627	Integrate of order 1
		5%: -3.5443		5%: -3.5530	
		10%: -3.2047		10%: -3.2096	
MAN	-0.8475 (0.9509)	1%: -4.2436	-7.0499 (0.0000)	1%: -4.2529	Integrate of order 1
		5%: -3.5443		5%: -3.5485	
		10%: -3.2047		10%: -3.2071	
GEXP	-3.1385 (0.1135)	1%: -4.2436	-10.0159 (0.0000)	1%: -4.2588	Integrate of order 1
		5%: -3.5443		5%: -3.5485	
		10%: -3.2047		10%: -3.2071	
TAX		1%: -4.2436	-5.9802	1%: -4.2627	



	-1.9488 (0.6080)	5%: -3.5443 10%: -3.2047	(0.0001)	5%: -3.5530 10%: -3.2096	Integrate of order 1
NUEMP	-2.2332 (0.4562)	1%: -4.2733 5%: -3.5578 10%: -3.2124	-10.5386 (0.0000)	1%: -4.2588 5%: -3.5485 10%: -3.2071	Integrate of order 1
RUEMP	-2.2036 (0.4717)	1%: -4.2733 5%: -3.5578 10%: -3.2124	-10.4486 (0.0000)	1%: -4.2733 5%: -3.5578 10%: -3.2124	Integrate of order 1
UUEMP	-2.2577 (0.4436)	1%: -4.2733 5%: -3.5578 10%: -3.2124	-10.7180 (0.0000)	1%: -4.2588 5%: -3.5485 10%: -3.2070	Integrate of order 1

Source: Authors' computation (2017)

Note: \* significant at 1%; \*\* significant at 5%; \*\*\* significant at 10% Mackinnon critical values and are shown in parenthesis. The lagged numbers shown in brackets are selected using the minimum Schwarz and Akaike Information criteria.

This indicates that the first-difference of those series is *mean reverting* and stationary. This means that rural unemployment rate (RUNEM), urban unemployment rate (UUEMP), national unemployment rate (NUEMP), tax revenue (TAX), government expenditure (GEXP), agricultural output (AGO) and manufacturing output (MAN) are integrated of order one. Although, econometric literature has indicated that linearly combining or regressing a non-stationary and stationary series on non-stationary time series might yield spurious regression and render estimated parameters inefficient. Thus, this argument prompts the cointegration test to examine if the linear combination of our considered economic variables yields stationary residual.

#### 4.2. Cointegration and Long-run Estimates Results

The long-run relationship between tax, government expenditure and unemployment rate in Nigeria between 1980 and 2015 was examined using the Engle-Granger cointegration technique and the test results are shown on Table 3.

**Table 3. Engle-Granger Cointegration Results**

Series	ADF Test at Level		Decision
	Intercept	Critical Value	
$ECT = u = RUEMP - \left( \begin{array}{l} \phi_0 + \phi_1 TAX + \phi_2 GXEP_t \\ + \phi_3 MAN_t + \phi_4 AGO_t \end{array} \right)$	-4.7642*	-4.2436	Cointegrated
$ECT = u = UUEMP - \left( \begin{array}{l} \theta_0 + \theta_1 TAX + \theta_2 GEP_t \\ + \theta_3 MAN_t + \theta_4 AGO_t \end{array} \right)$	-5.0586*	-4.2436	Cointegrated
$ECT = u = NUEMP - \left( \begin{array}{l} \alpha_0 + \beta_1 TAX + \beta_2 GEP_t \\ + \beta_3 MAN_t + \beta_4 AGO_t \end{array} \right)$	-4.7748*	-4.2436	Cointegrated

Source: Authors' computation (2017)

Note: \* significant at 5%. The lagged numbers shown in brackets are selected using the minimum Schwarz and Akaike Information criteria.

The cointegration result presented in Table 3 indicated that the estimated residual (i.e. ECM) from the empirical model was found to be stationary at level. This indicates that the null hypothesis “no cointegration” was rejected at 5% significance level. This implies that there exist long-run relationships among the variables considered respectively with the models of rural unemployment, urban unemployment and national unemployment in Nigeria between 1980 and 2015. Thus, there is long-run relationship among tax, government expenditure and unemployment rate in Nigeria. The cointegrating equation was estimated using the ordinary least square (OLS) method and the long-run estimates were presented in Table 4.

The table indicated that government expenditure and manufacturing sector have negative impact on rural, urban and national unemployment rate in Nigeria. The signs follow theoretical expectation. In terms of magnitude, a 10% change in government expenditure and manufacturing sector reduce rural unemployment rate by 1.83% and 3.7% respectively. The reductions as a result of 10% changes from government expenditure and manufacturing sector to urban unemployment were 1.74% and 4.8% and, to national unemployment were 2.3% and 4.4% correspondingly. Manufacturing sector was found to have significant impact on rural, urban and national at 10%, 5% and 5% significance level.

**Table 4. Estimated Regression Models**

Variables	Unemployment		
	Rural	Urban	National
C	1.63429 (8.1160)	0.1319 (11.310)	0.5946 (9.9629)
TAX	1.9093 (0.4634)*	2.8537 (0.6457)*	2.4918 (0.5688)*
GEXP	-0.1827 (0.3004)	-0.1741 (0.4187)	-0.2288 (0.3688)
MAN	-0.3702 (0.1927)***	-0.4759 (0.2079)**	-0.4431 (0.1593)**
AGO	0.1035 (0.1376)	0.1993 (0.1917)	0.1540 (0.1689)
<b>R-squared</b>	0.5392	0.5498	0.5616
<b>Adjusted R-squared</b>	0.4797	0.4917	0.5050
<b>F-statistic</b>	9.0677	9.4656	9.9263
<b>Prob(F-statistic)</b>	0.0001	0.0000	0.0000
<b>Durbin-Watson stat</b>	1.6282	1.7467	1.6283

*Source: Author's computation (2017)*

Note: \*, \*\*, \*\*\* denote 1%, 5% and 10% significance level respectively.

However, tax revenue and agricultural sector have direct impact on rural, urban and national unemployment rate in Nigeria. A 1% decrease in tax revenue and agricultural sector increase rural unemployment rate by 1.9% and 0.1% respectively. More so, a 10% changes in tax revenue and agricultural sector increase urban unemployment by 2.9% and 0.2% and national unemployment by 2.5% and 0.15% correspondingly. The effect of tax revenue on rural, urban and national unemployment rate was significant at 1% significance level.

In addition, the F-statistic result indicated that all the incorporated fiscal policy instruments are simultaneously significant at 5% critical level. Thus, the adjusted R-squared result reveals that 48.0%, 49.2% and 50.5% of the total variation in rural, urban and national unemployment rate respectively is accounted by changes in tax revenue, government expenditure, manufacturing and agricultural sectors during the review period. The Durbin-Watson values is higher than the value of coefficient of determination, therefore, the models are not spurious.

### 4.3. Diagnostic Tests

The estimated model is tested for heteroscedasticity, serial correlation, functional form misspecification, parameter stability and normality. The results from these tests are reported in Table 5. The results revealed that the models passed the serial correlation, normality test and Ramsey RESET tests, indicating that the error terms are uncorrelated, normally distributed, and the models are not mis-specified.

However, the heteroskedasticity result reported that error terms do not have same variance. Thus, the results on average were satisfactory for the models.

**Table 5. Diagnostic Test Results**

<b>Rural Unemployment</b>	
<b>Serial Correlation:</b> 0.9995 [0.3804]	<b>Normality Test:</b> 2.1855 [0.3353]
<b>Functional Form:</b> 1.6334 [0.1128]	<b>Heteroskedasticity Test:</b> 2.7301 [0.0469]
<b>Urban Unemployment</b>	
<b>Serial Correlation:</b> 0.5304 [0.5940]	<b>Normality Test:</b> 1.3502 [0.5091]
<b>Functional Form:</b> 1.5760 [0.1255]	<b>Heteroskedasticity Test:</b> 4.7141 [0.0043]
<b>National Unemployment</b>	
<b>Serial Correlation:</b> 1.0302 [0.3696]	<b>Normality Test:</b> 1.6860 [0.4304]
<b>Functional Form:</b> 1.6677 [0.1058]	<b>Heteroskedasticity Test:</b> 3.3525 [0.0216]

*Source: Authors' computation (2017)*

Note: The value on parenthesis [] is the probability value

## 5. Conclusion

This study examines the empirical relationship between tax, government expenditure and unemployment rate in rural, urban and the whole of the Nigerian economy. The following problems addressed are: What roles had government generated tax and expenditure played in creating massive employment in rural, urban and the whole country? Is there any role for government policy instrument to alleviate the problem of unemployment amidst the growth potentials of the country? The study employed the least square method to evaluate the relationship. Prior to this, the unit root test was estimated using the augmented Dickey Fuller test while the long-run relationship was conducted using the Engel-Granger cointegration test.

The result suggests that government spending and output from manufacturing industry reduce unemployment rate in rural, urban and the whole of the Nigerian economy. In addition, the positive relationship between urban unemployment and agriculture output was in tandem with Ayinde (2014) that the high wage rate paid prevalence in industries attracts workers in the urban centers while the agriculture sector is given lesser attention. This encourages rural-urban migration as rural dwellers seek greener pasture in urban centres. The high coefficients of our parameters reported in the urban centres further buttressed the point. However, high urban labour has positive influence on agriculture outputs but not significant. Likewise, the national unemployment rate deteriorates the output level of agriculture sector. This is consistent with the findings of Ayinde (2014) and negates the results of Ewubare and Obayori (2015). Nonetheless, government expenditure reduce unemployment rate in Nigeria. Thus, government spending on social and infrastructural facilities such as good road networks, energy supply, good health care

centers, etc. aids outputs towards improving the national output. This invariably reduced unemployment rate in Nigeria.

The findings suggest that government expenditure has the potential of reducing of reducing unemployment if they were expended on appropriate capital projects that are capable of facilitating employment creation and linking rural-urban centres smoothly and not encouraging migration. It further suggests that manufacturing sector has the prospect of alleviating joblessness, likewise the agriculture sector if policies are targeted at raising their outputs.

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