Fiscal Policy and Employment Dynamics in Nigeria

Abstract: This paper set out to investigate the effect of fiscal policy on employment dynamics in Nigeria between the periods 1991 to 2020 using secondary data sourced from the Central Bank of Nigeria statistical bulletin. The Augmented Dickey-Fuller test was used to determine the stationarity of the variables while ARDL model and the ARDL long run Bounds test were used to estimate the short and long run relationships amongst the variables. The VECM was employed to determine the speed of correction of disequilibrium. The results reveal that the variables are co-integrated and the VEC indicated a speed of over 88% in correcting disequilibrium in the short run. Government capital expenditure, with a positive and significant impact does not exhibit the desired effect on employment in the short run. However, in the long run, it exerts a negative and significant impact on the rate of unemployment and this does agree with apriori expectation. Government revenue expenditure in the long run has a positive and significant impact on unemployment indicating its ineffectiveness in controlling unemployment. In the short run though, its impact is negative though not significant. Government revenue however, has a negative and significant impact on unemployment rate both in the short run and long run. This suggests that government decision on tax has capacity to impact the state of employment in Nigeria.

Key words: Unemployment, Capital, Recurrent, Infrastructure, Revenue, Tax, Expenditure.

Introduction

Fiscal policy refers to governments spending and taxation decision in an economic period. Therefore, the two main aspects of Fiscal policy are taxation (revenue) and spending (expenditure) made by government.

The objectives of fiscal policy are not different from the macroeconomic policy generally pursued by governments. These main economic objectives include: high level of employment, stable prices, rapid...
growth of the economy and favorable balance of payments position. Fiscal policy is solely controlled by the government through its annual budgeting process and as such is tainted with politics.

John M. Keynes proposed the idea of government intervention through fiscal policy to stimulate the growth of the economy in tackling the effects of the great depression of the 1930s. The view is held therefore that government spending is an important instrument in spurring growth in the economy and therefore has capacity to positively impact the goal of full employment in the economy. Through fiscal policy of government, it can play a key role in enhancing the level of employment.

Alex and Ebieri (2014) opined that through the manipulation of the revenue and expenditure components of its budget, government plays a pivotal role in the economy through fiscal policy. Through this process it targets its set objectives.

Government spending is have dual impact on the employment front. First, expenditure on infrastructure projects creates jobs in the construction process while the existence of such infrastructure creates an enabling environment for private businesses to thrive. These businesses generate job opportunities directly and indirectly through service and other feeder companies. The critical role government’s fiscal policy should play in ending the high unemployment levels is clear, more so in the emerging economies.

Unemployment is a challenge in most emerging economies. In Nigeria the problem has bedeviled the economy for long while. The lack of employment opportunities due to the folding-up of companies in the industrial sector due to various reason ranging from lack of requisite infrastructure, like electricity, insecurity, multiple taxation and other, lack of development and adequate investment in other sectors beside Oil and Gas has narrowed employment prospects for Nigerians. According to Adawo et al (2012), describes the situation where employable persons, requisite skills and qualifications and capacity can’t find work, though they are willing to work and do seek work.

Onoh (2007) identified various forms of unemployment as follows; (i) Cyclical unemployment- mass unemployment caused by general deficiency of aggregate demand, (ii) Structural unemployment- when a shift in demand due to a change in taste cause’s a company’s product to lose demand and thus job cuts arise, (iii) Unemployment due to labor saving technological innovations that make workers redundant without further training, (iv) Seasonal unemployment- affects jobs in Tourism, Construction and others that are seasonal and (v) Residual unemployment- unemployment due to disability.

In Nigeria the government continues to make huge expenditure both of capital and recurrent nature, most of which is funded through borrowings. Despite the quantum of spending, unemployment rate seems to be rising. The continuous use of fiscal policy tools does not seem to have created the Keynesian expectation. Some scholars have posited that no theory seems to work in the Nigerian context, the purpose of this work is to test whether or the Keynesian preposition is applicable to the Nigeria system. The most potent fiscal policy instrument for reactivating an idle economy and creating both the opportunity and environment for creating new jobs is government expenditure. There is no consistency in the findings of empirical works as to the effect of government spending on job creation. This study aims to investigate the dynamics of Fiscal Policy on employment, looking at the impact of expenditure and revenue.

Theoretical Literature

John Maynard Keynes in his General Theory of Income, Output, Employment and Interest (1936) proposed government intervention as a counter-cyclical measure. He proposed that government expenditure can contribute to economic growth positively by reversing a downturn. He postulated that government intervention in the market place through its expenditure was the only way to achieve full employment.
The expectation on the effect of fiscal policy is rooted in the belief of Keynes that the government can regulate and control the economy through its taxation and expenditure decisions. Fiscal policy is viewed as a veritable tool to achieve and sustain full employment through the mechanism of public expenditure and revenue interplay and its ability to maintain required equilibrium through its influence on supply of goods, and services and effective demand.

In a depression, fiscal policy response, through government expenditure on infrastructure and public works, would aid in increasing demand which will stimulate output. Also, government intervention by granting subsidies to producers of essential commodities or making welfare payments to the unemployed can bolster consumer spending. Government can also deploy another fiscal policy tool, taxation. By lowering taxes, more income is let in the hands of the people and this will stimulate consumption and investment (Dewett & Navalur, 2012)

**Empirical Review**

There are a number of empirical studies on the dynamics between employment (unemployment) rate and fiscal policy both in the developed and developing countries. We will review a few of these in this section.

Okunola, (2021) in this study, focused on the 15 member states in Economic Community of West African States (ECOWAS) investigated the association between employment dynamics and fiscal policy from 1990-2019. Based on the Keynes’ theory, the variables used in the model were employment, government expenditure, and tax revenue. The study employed the Autoregresseddistributedlag (ARDL) in response to the stationarity of the variables. The evidence showed that in the long-run, both government expenditure and tax revenue are significant in determining employment level in ECOWAS; while government revenue has a negative significant effect on employment, tax revenue has a positive significant effect on employment. It concludes that government expenditure showed no effectiveness in tackling unemployment and as such emphasis should be on tax (revenue) in the attempt to arrest unemployment in the ECOWAS region.

Olanipekun & David (2020) in this paper investigated the effects of government spending on unemployment and poverty in Nigeria. Government spending which was measured at federal level was broken into its components as independent variables. The study period covered 1980-2017 and the model was estimated using the ARDL. The result indicated that capital expenditure on economic services and social services could be used to reduce unemployment.

Kingsley & Ordu (2019) examined the effect of public revenue and public expenditure on the actualization of Nigerian macroeconomic objectives within period 2015-2017. Content analysis and thematic analysis were employed for the analysis of the study. The study found that despite the growing deficit in government budgeting and the increase in both revenue and expenditure over the period under review, macroeconomic objectives were not achieved. The data revealed rising unemployment rates, rising and high inflation rates and unsteady economic growth. These are contrary to the postulations of Keynesian theory.

Nwaeze (2019) aimed at empirically establishing the relationship between government spending and reduction in unemployment. The study used the various components of government expenditure, obtained from CBN Statistical Bulletin, as independent variables while the Error Correction Model, Johanson Cointegration test and Granger causality test were employed to test the model. From the results, expenditure on Administration had a positive and statistically significant impact on unemployment while exhibiting a causality from expenditure on administrative expenses. Expenditure on economic services and unemployment was observed to have a negative relationship while the direction of causality was
from government expenditure on economic services. The impact of Expenditure on social and community service was negative and exhibited a weak causal influence on unemployment.

Ewubare & Maeba (2018) in this study examined public expenditure and employment in Nigeria from 1980 to 2017. The objectives of the study are to evaluate the effect of public expenditure in construction and transport sectors on employment rate in Nigeria. Secondary data from CBN bulletin from 1980-2017 were employed. The co-integration and ECM methods were used for the analysis. The results indicated the existence of a long-run relationship or equilibrium among the variables. The ECM result showed that the short-run error has been adjusted to long-run equilibrium relationship. Suggesting that, in the long run, public expenditure has capacity to address the country’s employment shortfall.

Olukayode & Olorunfemi (2018) this study investigated the impact fiscal policy instruments on employment generation in Nigeria within the periods of 1980-2015. The study tested for the existence of a long run relationship between the variables using the Engel Granger cointegration test while the ordinary least square for estimation. The results indicated that government spending had a negative impact on unemployment and manufacturing output had negative and significant impact on rural, urban and national unemployment rate in Nigeria meaning that they reduced unemployment rate. Also, there is long-run relationship among tax, government expenditure and unemployment rate in Nigeria.

Abubakar (2016) in this study investigates the effect of fiscal policy shocks on output and unemployment in Nigeria under the Keynesian framework by employing the Structural Vector Auto regression (SVAR) methodology to analyse annual series on the relevant variables for the period 1981-2015. The variables were shown to possess long run association, using the Johansen Cointegration Test. The study found that shocks in public expenditure and revenue had positive long lasting effect on output though that of revenue was lower. On employment, the results revealed that revenue shock was negative and short lived. The need for government expenditure to be targeted on productive expenditure and expand its revenue base through an effective and efficient tax system was highlighted.

Obayori (2016) in this paper investigates fiscal policy, using both capital and recurrent expenditure, and unemployment in Nigeria. The study used annual data from 1980 to 2013. Using the Johansen-Juselius co-integration to test for long run relationships and the ECM method for model estimation, study identified long run equilibrium relationship among the variable. The parsimonious ECM result reveals a negative and significant relationship between the fiscal policy variables, Government Capital and Recurrent Expenditure, and unemployment in Nigeria. Also a long run relationship between fiscal policy and unemployment, as depicted by both the sign and the statistical significant of the coefficient of the ECM, was reported. It concluded that fiscal policy is effective in reducing unemployment rate in Nigeria.

Examining data from 1970 to 2013, Egbulonu & Amadi (2016) found a long run relationship between unemployment rate and fiscal policy instruments examined in the study. Government expenditure and debt stock exerted a negative effect on unemployment rate but tax revenue exhibited a positive relationship with unemployment. The implication of the result suggests that increase in tax rates would increase unemployment in Nigeria.

In the Netherland, Umut (2015) used a VAR technique to investigate the effect of fiscal policy shocks on unemployment rate and found fiscal policy had a significant impact on unemployment. The work suggests that unemployment responds to both contraction and expansionary fiscal policies in line with Keynesian theory.

Austin & Ogbole (2014) examined public sector spending and macroeconomic variables in Nigeria for a period of 1970-2010. The test examined the presence of causal relationships between government expenditure and GDP, unemployment, inflation, and Balance of payment (BOP) using Granger causality test. Also, the existence of a long run relationship was examined using Johansen co-integration test while
OLS was used to estimate the model. Causal flow was established from public expenditure to unemployment.

Examining the impact of government spending on unemployment and poverty rate in Nigeria from 1981 to 2011, Nwosa (2014) found that government budget impact on unemployment rate was negative and insignificant. This meant that budgets in the country have not been able to address the full employment goal of fiscal policy. Ordinary Least Squares estimator was used in estimating the model.

Mahmood & Khalid (2013) using data from 1980 to 2010 also found the existence of long-run association between the fiscal variables and unemployment in Pakistan. The study adopted the cointegration technique.

Anthanasios (2013) using the SVAR methodology examined the relationship between unemployment, growth and fiscal policy in Greece. The study found the effect of cuts in government purchases and consumption to be sizeable on unemployment and output but found the impact of government investment of lesser extent. Interestingly increase in Tax rates increased unemployment and was found to reduce output.

Looking at data of 20 OECD countries from 1980 to 2007, Holden and Sparrman (2013) found a positive relationship between government purchases and unemployment. The study observed 0.3 percent reduction in unemployment for every increase in government purchase amounting to one percent of GDP. The result affirms the impact to be more pronounced during periods of economic downturn and fixed exchange rate regimes than during floating exchange regimes.

Estache & Garsous (2012) examined the impact of government expenditure on infrastructure on job creation in developing economies using content analysis. They found a direct linkage between investment in infrastructure and employment in the industrial sector. The investments had an indirect effect on other sectors.

Abdullahi & Kardi (2012) examined the role of governance in employment generation in Nigeria. The study analyzed primary data and data from the National Bureau of Statistics and other international organizations. It concluded that investment in education and skills development would help train the teeming youth population get gainfully engaged.

Using data from 1976 to 2010 in Pakistan, Mehmood & Sadiq (2010) examined the relationship between government expenditure and unemployment rate using an error correction modeling technique. The study revealed that a negative relationship exists between government expenditure and unemployment rate in Pakistan.

Abdullahi (2010) in examining the impact of government expenditure on employment generation in Nigeria for the period 1980-2014, used the Vector Error Correction Model. The results indicated that government spending on transport and education had a positive and significant effect on employment while that on agriculture and road construction reported a negative and insignificant effect.

Methodology.

Research Design

Data for this research was sourced from Central Bank of Nigeria Statistical Bulletin 2020. This research work is design after ex-post facto method using time series data spanning from 1991 to 2020. Total government capital expenditure (TGCEXP), Total government recurrent expenditure (TGREXP) and Total government revenue (TFGREV) are used to as indicators for fiscal policy while unemployment rate (UNEMPR) is the target variable.
The Model

Based on the theoretical underpinnings, the model formulation is that employment is a function of government fiscal policy. Thus UNEMPR = f (TGCEXP, TGREXP, TFREV) ……………………………..(1)

This is transformed into econometrics form by introducing constant, estimation parameter and stochastic term thus:

UNEMPR = β₀ + β₁TGCEXP + β₂TGREXP + β₃TFREV +µₜ……………………………………… (2)

Where TGCEXP = Total Government Capital expenditure
UNEMPR = Unemployment Rate
TGREXP = total Government Recurrent expenditure
TFREV = Total Government Revenue
β₀ = constant
β₁ toβ₃ = Estimation parameters
µₜ = stochastic term

On a priori β1, β2, β3 <0,

Data Analysis Technique

The study adopts econometric tools to analyze the data. The statistical peculiarities of the data was analysed using descriptive statistics. The stationarity of the variables are fundamental to the determination of estimation tools to be employed. The stationarity of the variables are determined using the Augmented Dickey-Fuller unit roots test. The results indicated a mix stationarity between the variables. The ADRL estimator was used for the short run estimation. The ARDL long run and Bounds test was used to establish the existence of co-integration. Finally, econometric diagnostic test was carried out to establish the veracity of the model.

Results and Discussion.

Descriptive Statistics

<table>
<thead>
<tr>
<th>Table 1. Descriptive statistics of the Test variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Skewness</td>
</tr>
<tr>
<td>Kurtosis</td>
</tr>
<tr>
<td>Jarque-Bera</td>
</tr>
<tr>
<td>Probability</td>
</tr>
<tr>
<td>Sum</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Source: E-views output
The data analysed cover a period of 30 years from 1991 to 2020 for the four variables. The result above tells us that average (unemployment rate (UNEMPR) in the period under review is 4.5% while the maximum rate is 9% and the minimum rate is 3.8%. UNEMPR exhibits a positive skewness - a long right tail and is leptokurtic, that is it is slim/long-tailed. The Jarque-Bera statistic reveals that it is not normally distributed. The data for Government Capital expenditure (TGCEXP) has an average total expenditure in the period of N667 (billions) and maximum and minimum capital expenditure of N2,289 and N28. (Billions). TGCEXP is not normally distributed, its leptokurtic and positively skewed. Government Recurrent expenditure (TGREXP) has an average of N2,138 (billions), a maximum of N8,121 (billion) and a minimum of N38 (billions). We can see that expenditure on recurrent items far outstrips that on Capital expenditure over the period under review. The Jarque-Bera statistics indicate that it is not normally distributed. Total Government revenue (TFREV) in the period under review recorded an average value of N4,799 (billions), a maximum of N11,116 (billions) and a minimum of N101 (billions). It has a normal distribution and is platykurtic, having a Kurtosis of 1.5594 which is less than 3. The skewness is close to normal at 0.1861.

4.2. Test of Stationarity

The augmented Dickey-Fuller test was used to determine the stationarity of the variables. The null hypothesis is that the variable has a unit root. The null is rejected if the t-statistic, in its absolute form, is higher than Test Critical values at the 5% significance level and the Prob. Values is lower than 0.05%, that it is, it is significant. The summary of the test results for the dependent and independent variables are presented below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>t-Statistic</th>
<th>Test Critical Value at 5%</th>
<th>Prob. Value</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNEMPR</td>
<td>3.389460</td>
<td>3.004861</td>
<td>0.0227</td>
<td>I(0)</td>
</tr>
<tr>
<td>TGCEXP</td>
<td>5.004237</td>
<td>3.587527</td>
<td>0.0022</td>
<td>I(0)</td>
</tr>
<tr>
<td>TGREXP</td>
<td>4.457679</td>
<td>3.644963</td>
<td>0.0102</td>
<td>I(1)</td>
</tr>
<tr>
<td>TFREV</td>
<td>5.071864</td>
<td>2.971853</td>
<td>0.0003</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Source: extract from e-views computation

The result above indicates that the variables are stationary at levels and at 1st difference. That is they are integrated at levels, I(0) while others are integrated at order I(1). As a result of this mixture we will proceed to estimate the variables using the Auto Regressive Distributed Lag (ARDL) method. We will also utilize the ARDL long run form Bounds Test to ascertain if there is any long run co-integration between the variables used in the model. (Gujarati & Porter, 2008, p. 762).

Determination of Optimal Lag Length

<table>
<thead>
<tr>
<th>Lag</th>
<th>LogL</th>
<th>LR</th>
<th>FPE</th>
<th>AIC</th>
<th>SC</th>
<th>HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-596.4541</td>
<td>NA</td>
<td>4.98e+13</td>
<td>42.88958</td>
<td>43.07989</td>
<td>42.94776</td>
</tr>
<tr>
<td>1</td>
<td>-483.4764</td>
<td>185.6062</td>
<td>4.96e+10</td>
<td>35.96260</td>
<td>36.91417</td>
<td>36.25351</td>
</tr>
<tr>
<td>2</td>
<td>-454.7269</td>
<td>39.01723*</td>
<td>2.16e+10*</td>
<td>35.05192*</td>
<td>36.76475*</td>
<td>35.57555*</td>
</tr>
</tbody>
</table>

Source: E-views 10 Output

Our preferred information criterion is Akaike Information Criterion (AIC), it indicates an optimal lag length of 2.
ARDL Long Run and Bounds Test

We now investigate whether the series are co-integrated and have a long run equilibrium relationship. The ARDL long run bounds test, proposed by Pegaran, Shin & Smith (2001), will be used to investigate the existence or otherwise of co-integration. The Null hypothesis of the test is that there is no co-integration between the variables. The decision rule is to reject the null if the calculated F-statistic is higher than the Test critical value at the upper bound I(1).

Table 4. Result of ARDL long run form and Bounds Test

<table>
<thead>
<tr>
<th>Null Hypothesis: No levels relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
</tbody>
</table>

Source: E-views 10 Output

At 5% significance level, the F-Statistic of 37.81 falls above the 4.23 value of the I(1) bounds thus we reject the null. The result above indicates that there is a long run relationship between the variables. Stated below are the long run coefficients.

Table 5. Long run coefficients of the model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TGCEXP</td>
<td>-1.42E-05</td>
<td>4.62E-06</td>
<td>-3.076818</td>
<td>0.0065</td>
</tr>
<tr>
<td>TGREXP</td>
<td>1.65E-05</td>
<td>1.07E-06</td>
<td>15.45606</td>
<td>0.0000</td>
</tr>
<tr>
<td>TFREV</td>
<td>-5.67E-06</td>
<td>5.27E-07</td>
<td>-10.76087</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: E-views 10 computation Output

The result above indicates that all the independent variables indicating fiscal policy have significant impact on unemployment rate in the long run. TGCEXP has a negative and significant impact on UNEMPR. A one percent change in TGCEXP will drive down unemployment rate by 1.4% in the long run. This is in agreement with the apriori expectation. TGREXP has a positive and significant relationship with unemployment rate. A one percent increase in recurrent expenditure further drives up unemployment rate in the long run. This contrary to apriori expectation but can well explain the Nigerian scenario as government annual recurrent expenditure outstrips its capital expenditure as the graph portrays. Government revenue appears to have the most benefit in the struggle against unemployment in Nigeria. The results show that a one percent increase in revenue would reduce unemployment rate by 5.6% in the long run.

Table 6. ARDL Error Correction Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CointEq(-1)*</td>
<td>-0.887355</td>
<td>0.058372</td>
<td>-15.20169</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: E-views 10 Computation Output

The result of the error correct model in Table 6 above shows the 1 period lag error correction term. The coefficient meets all the required criteria. First, the coefficient of the cointegrating equation is negative at -0.887355. Secondly, it is less than 1 and finally it is significant at the P-value of 0.0000. The result indicates the speed at which disequilibrium in the short run is corrected and adjusted in the long run. The result indicates a high speed of adjustment of 88.7%.
Table: 7. Short Run Estimate

Dependent Variable: UNEMPR
Method: ARDL
Sample (adjusted): 1993-2020

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TGCEXP</td>
<td>7.31E-06</td>
<td>2.84E-06</td>
<td>2.576866</td>
<td>0.0190</td>
</tr>
<tr>
<td>TGREXP</td>
<td>-2.05E-06</td>
<td>2.48E-06</td>
<td>-0.825643</td>
<td>0.4198</td>
</tr>
<tr>
<td>TFREV</td>
<td>-1.65E-06</td>
<td>3.25E-07</td>
<td>-5.068964</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

R-squared 0.990716 Mean dependent var 0.046311
Adjusted R-squared 0.986074 S.D. dependent var 0.017686
S.E. of regression 0.002087 Akaike info criterion -9.233610
Sum squared resid 7.84E-05 Schwarz criterion -8.757823
Log likelihood 139.2705 Hannan-Quinn criter. -9.088157
F-statistic 213.4180 Durbin-Watson stat 2.035416
Prob(F-statistic) 0.000000

The result of the estimation in Table 7 above indicates that the model is a good fit. The adjusted R-squared is 98%. The F-statistic Prob.-value is statistically significant at 0.0000 indicating that the model has overall significance.

The short run result tells us that TGCEXP and TFREV have a significant relationship with the target variable, UNEMPR. TGCEXP has a positive (7.31) and significant relationship with UNEMPR. This suggests that a 1% increase in capital expenditure spending will worsen the unemployment rate by 7.31% in the short run. On the contrary, a 1% increase in revenue will decrease unemployment by 1.65% in the short run. This runs in line with apriori expectation. TGREXP on the other hand has a negative effect on unemployment rate but it’s not significant. Consequently we would reject the null hypothesis H01 and H03. Thus the result confirms that TGCEP and TFREV have a significant effect of the rate of unemployment. Thus in the short run government can manipulate these fiscal policy instruments to manage the unemployment situation in the country.

The model will be subjected to diagnostic test to evaluate its strength. The results are presented below.

Diagnostic Tests

Heteroskedasticity Test

Table 8. Result of Heteroskedasticity Test: Breusch-Pagan-Godfrey

<table>
<thead>
<tr>
<th></th>
<th>F-statistic</th>
<th>Prob. F(9,18)</th>
<th>Prob. Chi-Square(9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs*R-squared</td>
<td>9.320430</td>
<td>0.4082</td>
<td></td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>2.987220</td>
<td>0.9648</td>
<td></td>
</tr>
</tbody>
</table>

The null hypothesis of the Breusch-Pagan-Godfrey heteroscedasticity test is “the model is homoskedastic”. The result above indicates that the P-value of the F-Statistic is not significant at 5%,
thus we cannot reject the null. We conclude that this model has no heteroskedasticity problem. It is Homoskedastic.

**Serial Correlation Test**

This test checks whether the error terms are temporarily independent. That is they are not serially correlated. The null hypothesis states that “There is no Serial correlation problem in the model”. The null is rejected if the P-value of the F-statistic is significant.

<table>
<thead>
<tr>
<th>Table: 9. Result of Breusch-Godfrey Serial Correlation Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
</tbody>
</table>

Source: E-views 10 Computation Output

This result indicates that there is no serial correlation problem in the model.

**Linearity Test**

The essence of this test is to find out if there is a linear relationship between the dependent variable and the independent variables in the model. The Ramsey RESET is employed for this test. The null hypothesis is “There is a linear relationship between the dependent variable and the independent variables. That is the model under consideration is correctly specified. The null is rejected if the P-value of the F-Statistic is significant at 5%.

<table>
<thead>
<tr>
<th>Table 10. Result of Ramsey RESET Linearity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
</tr>
<tr>
<td>t-statistic</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
</tbody>
</table>

Source: E-views 10 Computation Output

From the result the P-value of the F-Statistic is not significant thus we cannot reject the null. We thus conclude that the model is correctly specified.

**Stability Test**

This test is deployed to determine the appropriateness and the stability of the model. The CUSUM (cumulative sum) test is used to determine if the model is stable and is suitable for making long run decision. The decision rule is that if the plot of the CUSUM and stays within the 5% critical bound, the null hypothesis that all parameters are stable cannot be rejected. Graph 5.5.4 below shows the result of the CUSUM test. The plot is within the 5% margin.

**Graph 1. Result of CUSUM Test**

Source: E-views 10 Computation Output
The result of the normality test in Graph 1 indicates that the error terms are normally distributed. The null states that “The error terms are normally distributed”. Since the P-value is not significant, the null cannot be rejected.

The Jarque-Bera result has a P-value of 0.856515 which is not significant therefore we can not reject the null. We conclude that the error has a normal distribution.

Conclusions and Recommendation.

This paper set out to investigate the effect of fiscal policy on employment dynamics in Nigeria between the periods 1991 to 2020 using secondary data sourced from the Central Bank of Nigeria statistical bulletin. The results of the study reveal that government capital expenditure with a positive and significant impact does not exhibit the desired effect on employment in the short run. However in the long run, it exerts a negative and significant impact on the rate of unemployment and this does agree with apriori expectation. Government revenue expenditure in the long run has a positive and significant impact on unemployment indicating its ineffectiveness in controlling unemployment. In the short run though, its impact is negative though not significant. Government revenue however, has a negative and significant impact on unemployment rate both in the short run and long run. This suggests that government decision on tax has capacity to impact the state of employment in Nigeria. The data indicated that recurrent expenditure far outstripped expenditure on infrastructure (power supply, rail system, communication, security infrastructure and the like), this is not good for the economy and the anticipated impact of fiscal policy on the employment challenges of the nation

Recommendation

The results agree with the Keynesian postulation however the evidence suggests that government has to retool its fiscal policy direction and re-channel more funds from recurrent expenditure into specific infrastructure development which will stimulate the private sector production activities. We need to get transportation (land and internal waters) infrastructure right. Also, power supply and other essential communication infrastructure and regulation should receive quick attention. These items have the capacity to open up more business areas. Again given the results on impact of revenue, more income should be left in the hands of the people to drive private investment and enterprise. It is anticipated that government expenditure on development of infrastructural amenities would pay off in improving
industrial production and this has the potential to attract more foreign direct investment. The increase in such business investments is the panacea for the shortage of jobs.

References


