

Do Stabilization Policies Predict Growth in Nigeria?

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Abstract: *This study examined the predictability stance of economic growth in Nigeria using stabilization Policies. The study employed data obtained from the Central Bank of Nigeria Statistical Bulletin for period of 1987 to 2018. After a thorough empirical analysis, it is revealed as follows; that recurrent expenditure, monetary policy rates, saving deposit rates impact significantly on economic growth. That long run relationship exists between economic growth and recurrent expenditure, capital expenditure, monetary policy rates, saving deposit rate, cash reserve rates and liquidity ratio. That means that stabilization policies can predict economic growth in Nigeria. It is revealed that recurrent expenditure and monetary policy rates have unidirectional effect with economic growth. The researchers therefore suggest for policy making that government should consistently harmonize monetary and fiscal policies to achieve stability in the Nigerian economy.*

Keywords: *Stabilization Policies, Economic Growth, Government Expenditure, Monetary Policy Rate, ARDL*

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I. Introduction

Stabilization exerts positive impact on the economic system as well as poses myriad of problems in an economy. Concerns for the soundness of the economy can pose trade-offs in the choice of policy objectives and programme targets and influence the pace with which such objectives can be pursued. In Nigeria and other countries of the world, problems impeding economy growth such as inflation, balance of payment disequilibrium are resolved with monetary, exchange rate and fiscal policies. In selecting the mix of these policies, their implementations for the soundness of the economy should be considered along with the influence of the economy on policy flexibility.

Onoh (2007), the objectives of monetary and fiscal policies are not different from the general objectives of macroeconomic policy of which monetary and fiscal policies constitute an integral part. Each country's economic objectives might differ slightly because of the peculiar nature of the problems to be solved and the environment in which those problems exist. Objectives which are emphasized in one country may not receive the same attention in another. The main economic objectives or goals of a free market economy are mainly; high level of employment, stable prices, rapid growth of gross national product, and favourable balance of payment. It is pertinent to note that monetary and fiscal policies are important bodies of macroeconomic policy framework. They cannot be separated from the macroeconomic policy frame work. The rest of the objectives are equally important and are also achieved through the application of the relevant instruments of macroeconomic policy. Generally, policy instruments are interdependent. To achieve good results monetary and fiscal policy instruments, together with instruments of direct control, have to be applied simultaneously but in varying degrees and directions. It is important that the instruments work harmoniously. If the intention of is to contract money supply, the instrument must be deployed along the line of lowering money supply. For example, open market operations involving the sale of government securities to reduce the quantity of currency in circulation or the level of money supply in order to bring down the rate of inflation should not be countered with deficit fiscal policy, which expands rather than contract money supply.

Researchers and policy makers have deliberated heavily on the relative effectiveness of monetary and fiscal policy in developed and developing countries of the world. However, there has been contrasting opinions on which of the two policies exert greater influence on economic activity (Ajisafe and Folorunsho, 2002). Fiscal policy is thought to stifle economic growth by distorting the effect of tax and inefficient government spending. Therefore, in the light of the above, the question that comes to fore is what has been the effect of fiscal policy on economic growth in Nigeria.

Fiscal policy consists of the manipulation of government finances by raising or lowering taxes or levels of spending to promote economic stability and growth. This role of government sector in economic management is performed through the formulation and implementation of economic policy generally and fiscal policy in particular. It is designed to achieve the objective of price stability, growth, balance of payments equilibrium, full

employment, mobilization of resources and investment. These objectives have influenced government's economic policy design and development efforts in Nigeria since independence.

Different opinions have indeed continued to emerge on how fiscal policy can affect economic activities. The genesis of these controversies has been traced to the theoretical exposition of the different schools of thought namely: the Classical; the Keynesian; and the Neo-classical schools of thought. To the Classical school of thought, fiscal deficits incessantly financed by debt crowds-out private investment and by extension lowering the level of economic growth. As summarized by Tchokote (2001), the classical economists believe that debt issued by the public has no effect on the private sector savings. To them, a deficit financed by increasing the supply of securities, *ceteris paribus* reduces its price and raises real interest rates and this crowds out private investment. In sum, excessive deficit can lead to poor economic performance.

In Nigeria, the result of government role in economic activities and the achievements in economic performance in Nigeria have been mixed. The economy experienced growth in real output in some years and declines in others. But the overall picture is low scoring for the country's development efforts. The economic crisis from the 1980s and early 1990s brought out vividly the distinction between growth and development. The objectives of monetary and fiscal policies in Nigeria are wide-ranging These include increase in Gross Domestic Product growth rate, reduction in the rates of inflation and unemployment, improvement in the balance of payments, accumulation of financial savings and external reserves as well as stability in Naira exchange rate. The policy as well as instruments applied to attain these objectives, however, have until recently been far from adequate undue reliance has been placed on fiscal policy rather than monetary policy in Nigeria (Darrat, 1984).

Fiscal policy is considered an important variable which may determine changes in national income in developing countries like Nigeria. In order to stimulate the economic growth by means of fiscal policy, the country has more instruments. These according to Ebimobowei (2010) include; the financing of direct investments which the private sector would not provide an adequate quantities; the efficient supply of certain public services which are necessary to ensure the basic conditions to display the economic activity and long term investments; and the financing of public activities so as to minimize the distortions to come up with the decisions to spend and invest proper in the private sector.

Monetary and fiscal policies play a key role in the promotion of the main government objective of promoting the welfare of its citizens. It is argued that before monetary policy can produce desired result as maintained by the classical economist, highly integrated and monetized economy and regular information network system are indispensable. He, however, lamented that the Nigerian economy lacks the fundamental, flexibilities (in respect to interest rate, treasury certificates, etc.) which could have aided a much more effective use of monetary policy. He therefore, denounced the classical preference of monetary policy over fiscal policy on the basis of their empirical evidence and predicted that it would only work for a developed economy and suggest where necessary the mixture of both policies for better performance in a developing economy like Nigeria.

As noted by Ajisafe and Folorunso (2002), the monetary rather than fiscal policy exerts a great impact on economic activity in Nigeria and that the emphasis on fiscal action of the government has led to greater distortion in the economy. Fiscal policy in Nigeria has been heavily influenced by oil driven volatility impacting both revenue and expenditure. Since 1970, both revenue and expenditure have been very volatile while increasing over time.

Under ideal and perfectly competitive situations, economic policies for growth or stabilization should be employed in such a way as to equate the marginal productivity of government investment to that of private investment. This has to be so because the equilibrium situation in national income determination implies that resource employed in government investment activities should be as productive as in any alternative employment. The implication of government investment should be equal to the gross rate of interest at which the private investment is undertaken (Olaniyan, 1997). However, a cursory examination of the structure of selected macroeconomic indicators of performance of fiscal policy revealed that the Nigerian situation has been far from ideal.

Fiscal policy in Nigeria has been extremely pro-cyclical with expenditures racking out of control on the upswing of the oil price cycle. This has contributed to the observed deficit bias in the conduct of fiscal policy. One option is to put in place a fiscal policy rule. A fiscal policy rule makes sense in Nigeria, given the complete absence of a tradition of fiscal discipline. Because a fiscal rule commits government to a certain level of conduct in fiscal and budgetary management, it will help begin to build government credibility in fiscal management and over time, promote strong fiscal discipline across all tiers of government. A rule, based on oil prices, will also help address the issue of the vulnerability of all tiers of government to oil price swings and reduce the pro-cyclicality in the budget. This will allow savings to build up financial assets in periods with high oil prices that can be used to finance the desired expenditure programmes when oil prices are low (Kwakwa, 2003).

Phillips (1997) critically analyses the Nigerian fiscal policy between 1960 and 1997 with a view to suggesting workable ways for the effective implementation of Vision 2010. He observes that budget deficits have been an abiding feature in Nigeria for decades. He notes that expect for the period 1971 to 1974, and 1979, there has been an overall deficit in the federal Government budgets each year since 1960 to date. The chronic budget deficits and their financing largely by borrowing, he asserts, have resulted in excessive money supply, worsened inflationary pressures, and complicated macroeconomic instability, resulting in negative impact on external balance, investment, employment and growth. He, however, contends that fiscal policy will be an effective tool for moving Nigeria towards the desired state in 2010 only if it is substantially cured of the chronic budget deficit syndrome it has suffered for decades.

Economists are of the view that, the lack of fiscal discipline is the bane of our economy. In spite of realized revenues being above budgetary estimates, extra budgetary expenditure has been rising so fast and resulting in ever bigger deficit. To say the least, this is a sobering revelation and we must all ensure that the deficit is not only minimized but eventually eliminated.... The practice of financing the fiscal deficit through the banking system, especially the Central Bank's Ways and Means facility, results in rapid growth of domestic liquidity, which in turn, exerts immense pressures on prices, interest rates and exchange rate of the Naira. As an illustration, between 1988 and 1991, an average of 77 percent of the overall deficit was financed by the CBN while in 1992 the deficit had been largely financed by the CBN. As a direct consequence, the monetary and credit aggregates have been exceeding prescribed targets in recent years.

Despite the immeasurable efforts to actualize stability and soundness in the economy through mixture of fiscal and monetary policy tools, they are plethora of policy somersaults with its ripple effects. For example, the great depression of the late 1920s and early 1930s and the unprecedented human suffering resulted from mass unemployment, illiquidity and bankruptcy recorded by many firms. Also the global economic meltdown recorded in 2007/2008. In Nigeria the bank distress of late 1980s and early 1990s where many depositors lost their hard earned money resulting to evaporation of trust and confidence in the banking sector. Recently, the economic recession that plagued the Nigeria economy in 2015 with its lingering adverse effect up to date are evidence of policy somersaults particularly in Nigeria.

With all these unending policy miscalculations and associated economic mayhem crippling economic activities, the researchers are bordered on the real state of events. Hence, the choice of these topic, 'Do stabilization policies predict growth in Nigeria?'

The subsequent sections of this study are organized as follows; section two will take care of review of theoretical and empirical literature; section three addresses the materials and methods of analysis adopted; section four analyses the data, results and interpretation while section five handles conclusion and recommendations for policy making.

II. Literature Review

Theoretical Review

The following theories will be reviewed to enhance more understanding on relationship between structure of public expenditure and economic growth.

Wagner's law of Increasing State Activity: Wagner (1911) was a German political economist who based his law on increasing state activities and historical facts, primarily in Germany. He studied the German economy overtime and observed a correlation growth between national output and the public expenditure in the economy. He expressed the view that there was an inherent tendency for the activities of different layers of government (such as central and state governments) to increase both intensively and extensively. That is, there is a functional relationship between the growth of an economy and the growth of government activities, so that the government sector grows faster than the economy.

Keynesian Hypothesis- Economic Growth Theory: Keynes (1936) argued that these deficiencies that surround demand and the subsequent decline in production and employment could be eliminated through government intervention. This can be done by way of government expenditures on public works that will stimulate the economy to further activities through the multiplier and the accelerator. This new turn in economic event by Keynes formed the new era in economic thinking and policies. The use of fiscal policy therefore, brought into focus the government's active participation in the regulation and manipulation of aggregate economic activities.

Peacock-Wiseman Hypothesis or displacement Effect: In their study of the U.K economy between 1890 and 1955, Peacock and Wiseman (1961) concluded that public expenditure do not increase in a smooth and continuous manner but in jerks or step-like fashion. Peacock and Wiseman's hypothesis is popularly referred to as displacement effect hypothesis. They believe that the pattern of growth of public expenditure in Britain is less regular and quite different from the corresponding pattern of growth in the size of the national output as proposed by Wagner.

Empirical Review

Cameroon (1998) examined the effects of fiscal policy on growth, which focus was on the relationship between public spending and growth through private investment. A derivative of Denison growth accounting model was used in the study to analyze the relationship between Cameroon's fiscal policy and economic growth. Using the ordinary least squares (OLS) technique in estimating the equation that link private investment and growth. The result of the study showed that expenditure especially on education and health crowd-in private investment.

Gregoriou and Ghosh (2007) investigated the impact of government expenditure on economic growth using panel data and discovered that countries with large government expenditure in term of budgetary provisions tend to experience higher economic growth, but the effect varies from one country to another.

Olopade and Olepade (2010) assessed how fiscal and monetary policies influence economic growth and development, using simple regression model of estimation, they found no significant relationship between most of the components of expenditure and economic growth.

Chuku (2010) investigated the monetary and fiscal policy interactions in Nigeria between the periods 1970-2008. Employing vector auto-regression (VAR) model, the result indicated that monetary and fiscal policies in Nigeria have interacted in a counteractive manner for most of the sample period (1980-1994) while at other periods no symmetric pattern of interaction between the two policy variables was observed.

Medee and Nenbee (2011) investigated the impact of fiscal policy variables on economic growth in Nigeria between 1970 and 2009. They employed Vector Auto Regression (VAR) and error correction mechanism (ECM) techniques, and their result revealed that there exist a mild long-run equilibrium relationship between economic growth and fiscal policy in Nigeria for the period studied.

Agu, Idike, Okwor & Ugwunta (2014) studied the impact of various components of fiscal policy on the Nigerian economy, using OLS in a multiple form to ascertain the relationship between economic growth and fiscal policy after ensuring data stationarity. Their findings revealed that total government expenditures have tended to increase with government revenue, with expenditures peaking faster than revenue. Also Investment expenditures were much lower than recurrent expenditures evidencing the poor growth in the country's economy. Hence they revealed some evidence of positive correlation between government expenditure on economic services and economic growth.

III. Methodology

3.1. Sources of data and Tools for analysis

The study employed data; Economic growth (GDP) and Recurrent Expenditure (REXP), Capital Expenditure (CEXP), Monetary Policy Rates (MPR), Saving Deposit Rate (SDR), Cash Reserve Rates (CRR) And Liquidity Ratio (LDR) collected from Central Bank of Nigeria (CBN) from 1987 to 2018 inclusive. In this study, Econometric tools are employed in the analysis and estimation; Descriptive Statistics is employed to describe the variables. Ordinary Least Square (OLS) is employed to examine the global utility of the model. Augmented Dickey Fuller (ADF) unit root test is used to check the stationarity of the variables. Autoregressive Distributive Lag is employed to estimate the model.

3.2. Model Specification

The function model is as follows;

$$\text{Economic Growth} = f(\text{Stabiilization Policies}) \tag{1}$$

$$\text{Economic Growth} = f(\text{Recurrent Expenditure, Capital Expenditure, Monetary Policy Rates, Saving Deposit Rate, Cash Reserve Rates, Liquidity Ratio}) \tag{2}$$

$$\text{GDP} = f(\text{REXP, CEXP, MPR, SDR, CRR, LDR}) \tag{3}$$

While the explicit form in first difference is;

For ARDL Specification;

$$\text{GDP} = b_0 + b_1\text{GDP}_{t-1} + b_2\text{REXP} + b_3\text{REXP}_{t-1} + b_4\text{CEXP} + b_5\text{CEXP}_{t-1} + b_6\text{MPR} + b_7\text{MPR}_{t-1} + b_8\text{SDR} + b_9\text{SDR}_{t-1} + b_{10}\text{CRR} + b_{11}\text{CRR}_{t-1} + b_{12}\text{LDR} + b_{13}\text{LDR}_{t-1} + \epsilon_{t-1} \tag{4}$$

Where, GDP = Economic Growth; REXP = Recurrent Expenditure; CEXP = Capital Expenditure

MPR = Monetary Policy Rates; SDR = Saving Deposit Rate; CRR = Cash Reserve Rates

LDR = Liquidity Ratio

IV. Data Analysis and Results

The researchers decided to start the analysis with descriptive statistics as depicted in Table 1 below;

Table 1: Descriptive Statistics

| | GDP | REXP | CEXP | MPR | SDR | CRR | LDR |
|--------------|----------|----------|----------|----------|----------|----------|----------|
| Mean | 32706.50 | 1527.154 | 505.0195 | 13.81063 | 7.182500 | 8.896875 | 40.47813 |
| Median | 12316.91 | 840.5500 | 394.9983 | 13.50000 | 4.170000 | 7.900000 | 40.25000 |
| Maximum | 127762.5 | 5675.186 | 1682.099 | 26.00000 | 18.80000 | 27.50000 | 64.10000 |
| Minimum | 249.4391 | 15.64620 | 6.372500 | 6.130000 | 1.410000 | 1.000000 | 25.00000 |
| Std. Dev. | 39076.73 | 1680.754 | 438.7163 | 3.749279 | 5.468004 | 6.924826 | 10.53825 |
| Skewness | 1.043797 | 0.888287 | 0.721451 | 0.784331 | 0.848221 | 1.104944 | 0.337036 |
| Kurtosis | 2.753055 | 2.516038 | 2.795312 | 5.192771 | 2.081969 | 3.469889 | 2.197541 |
| Jarque-Bera | 5.892039 | 4.520580 | 2.831821 | 9.691924 | 4.960924 | 6.805867 | 1.464419 |
| Probability | 0.052548 | 0.104320 | 0.242705 | 0.007860 | 0.083705 | 0.033276 | 0.480845 |
| Sum | 1046608. | 48868.94 | 16160.62 | 441.9400 | 229.8400 | 284.7000 | 1295.300 |
| Sum Sq. Dev. | 4.73E+10 | 87572961 | 5966631. | 435.7698 | 926.8712 | 1486.550 | 3442.695 |
| Observations | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

Source: Authors' computation with E-view 10

Table 1 above depicts summary of statistics where GDP has standard deviation (SD) of 39076.73, Jarque Bera Statistic (JBS) of 5.892039 with associated probability Value (P-value) of 0.052548, while REXP, CEXP, SDR, and LDR have standard deviations of 1680.754, 438.7163, 5.468004, and 10.53825 respectively. Jarque Bera Statistics (JBS) of 4.520580, 2.831821, and 4.960924, 1.464419 with P-values of 0.104320, 0.242705, 0.083705, and 0.480845 for REXP, CEXP, SDR, and LDR respectively. This reveals that GDP, REXP, CEXP, SDR, and LDR are normally distributed. MPR and CRR have standard deviations of 3.749279 and 6.924826, also Jarque Bera Statistics of 9.691924 and 6.805867 with P-values of 0.007860 and 0.033276 respectively. This shows that MPR and CRR are abnormally distributed.

The researchers now proceeded to checking the global usefulness of our model by using Ordinary Least Square (OLS) method as shown in Table 2 below;

Table 2: Ordinary Least Square (OLS) method

Dependent Variable: GDP
 Method: Least Squares
 Date: 02/13/20 Time: 21:58
 Sample: 1987 2018
 Included observations: 32

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| REXP | 20.65445 | 1.658947 | 12.45034 | 0.0000 |
| CEXP | -2.861912 | 4.694736 | -0.609600 | 0.5476 |
| MPR | -490.3202 | 306.2083 | -1.601264 | 0.1219 |
| SDR | 420.1593 | 253.5878 | 1.656859 | 0.1100 |
| CRR | 927.0743 | 214.4930 | 4.322165 | 0.0002 |
| LDR | -186.3870 | 118.1871 | -1.577050 | 0.1274 |
| C | 5659.656 | 6900.233 | 0.820212 | 0.4198 |
| R-squared | 0.991905 | Mean dependent var | | 32706.50 |
| Adjusted R-squared | 0.989963 | S.D. dependent var | | 39076.73 |
| S.E. of regression | 3914.932 | Akaike info criterion | | 19.57362 |
| Sum squared resid | 3.83E+08 | Schwarz criterion | | 19.89425 |
| Log likelihood | -306.1780 | Hannan-Quinn criter. | | 19.67990 |
| F-statistic | 510.5859 | Durbin-Watson stat | | 1.472350 |
| Prob(F-statistic) | 0.000000 | | | |

Source: Authors' computation with E-view 10

Table 2 reveals the Ordinary Least Square (OLS) estimated model for the relationship between economic growth and stabilization policies. From the table Durbin-Watson statistics is 1.472350, showing presence of autocorrelation. This is unreliable and cannot be used for further analysis and policy formulation. The researchers proceeded to testing the stationarity of the variables. This procedure is normal in macroeconomic time series analysis to know the most suitable technique for estimating the model. Here, the researchers employed Augmented Dickey Fuller (ADF) unit root test as depicted below;

Table 3: Augmented Dickey-Fuller (ADF) Unit Root Test

| Variables | Lag SCI | ADF Statistic With Prob. Value | CRITICAL VALUES | | | Remarks Stationarity |
|-----------|---------|-----------------------------------|-----------------|-----------|-----------|-------------------------|
| | | | 1% | 5% | 10% | |
| LGDP | 0 | -3.943923(0.0050) | -3.661661 | -2.960411 | -2.619160 | @1(0) |
| LREXP | 0 | -7.712224(0.0000) | -3.670170 | -2.963972 | -2.621007 | @1(1) |
| LCEXP | 0 | -5.844358(0.0000) | -3.670170 | -2.963972 | -2.621007 | @1(1) |
| LMPR | 0 | -6.295263(0.0000) | -3.670170 | -2.963972 | -2.621007 | @1(1) |
| LSDR | 0 | -5.212911(0.0002) | -3.670170 | -2.963972 | -2.621007 | @1(1) |
| LCRR | 0 | -5.091754(0.0003) | -3.670170 | -2.963972 | -2.621007 | @1(1) |
| LLDR | 0 | -5.978978(0.0000) | -3.670170 | -2.963972 | -2.621007 | @1(1) |

Source: Authors' computation with E-view 10

Table 3 shows the ADF unit root test. The result shows that the GDP variable is stationary at level while REXP, CEXP, MPR, SDR, CRR and LDR are integrated at order one. It can also be seen that ADF Statistic of all the variables are more negative than their critical values.

The researchers however have enough evidence to adopt Autoregressive Distributive Lag (ARDL) to estimating the model. The researchers proceed to model selection using Akaike Information Criterion(AIC) as shown below in Fig 1.

Figure: 2 Akaike Information Criterion (AIC)
Akaike Information Criteria (top 20 models)

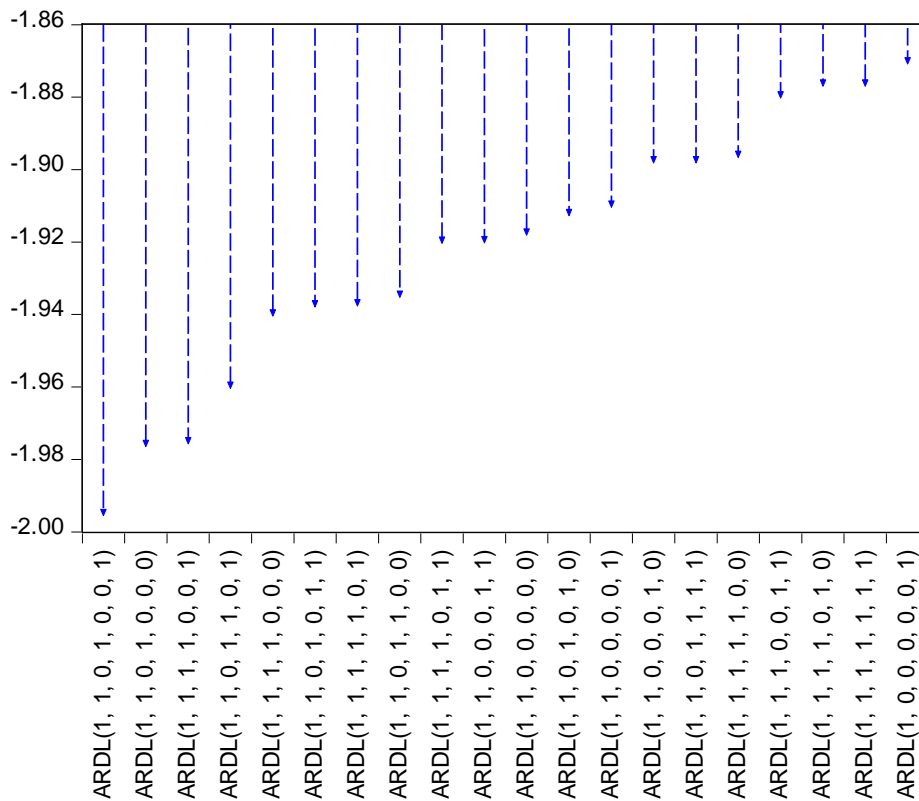


Figure 2 shows the ARDL model selection based on Akaike Information Criterion (AIC). Information criteria select models that minimize their values. From figure 1 above, the best model, according to AIC, is an ARDL (1, 1, 0, 1, 0, 0, 1). This implies that a model that includes on lagged value of the dependent variables as an additional regressor is the best description of researchers' data.

The researchers therefore move to estimating the models with ARDL as shown in table 4 below.

Table 4: Autoregressive Distributive Lag (ARDL) Model

Dependent Variable: LGDP
 Method: ARDL
 Date: 02/14/20 Time: 10:39
 Sample (adjusted): 1988 2018
 Included observations: 31 after adjustments
 Maximum dependent lags: 1 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (1 lag, automatic): LREXP LCEXP LMPR LSDR LCRR
 LLDR
 Fixed regressors:
 Number of models evaluated: 64
 Selected Model: ARDL(1, 1, 0, 1, 0, 0, 1)

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|--------------------|-------------|-----------------------|-------------|-----------|
| LGDP(-1) | 0.791697 | 0.063739 | 12.42100 | 0.0000 |
| LREXP | 0.001629 | 0.080712 | 0.020188 | 0.9841 |
| LREXP(-1) | 0.216837 | 0.094087 | 2.304656 | 0.0315 |
| LCEXP | 0.056257 | 0.039044 | 1.440863 | 0.1644 |
| LMPR | 0.149383 | 0.120807 | 1.236546 | 0.2299 |
| LMPR(-1) | -0.203190 | 0.110359 | -1.841179 | 0.0798 |
| LSDR | 0.171352 | 0.065945 | 2.598389 | 0.0168 |
| LCRR | -0.032610 | 0.029529 | -1.104334 | 0.2819 |
| LLDR | -0.036361 | 0.112451 | -0.323347 | 0.7496 |
| LLDR(-1) | 0.130115 | 0.096151 | 1.353229 | 0.1904 |
| <hr/> | | | | |
| R-squared | 0.998776 | Mean dependent var | | 9.289294 |
| Adjusted R-squared | 0.998252 | S.D. dependent var | | 1.878507 |
| S.E. of regression | 0.078548 | Akaike info criterion | | -1.994521 |
| Sum squared resid | 0.129565 | Schwarz criterion | | -1.531944 |
| Log likelihood | 40.91507 | Hannan-Quinn criter. | | -1.843733 |
| Durbin-Watson stat | 1.613627 | | | |

*Note: p-values and any subsequent tests do not account for model selection.

Source: Authors' computation with E-view 10

From Table 4 shows the estimation results for the preferred model; GDP reinforces itself, hence autoregressive. It can also be added that REXP, MPR and SDR exert significant on economic growth, while CEXP, CRR and LDR insignificantly impact economic growth. Durbin-Watson Statistics (Dw) is 1.613627 indicating no autocorrelation.

Having estimated the model, the researchers then moved to check if long run relationship exist between the dependent and independent variables using Bound Cointegration Test and the speed of adjustment using Error Correction Model Regression as depicted below in Table 5 and 6 respectively;

Table 5: Bound Cointegration Test

| F-Bounds Test | | Null Hypothesis: No levels relationship | | | |
|----------------|----------|---|-----------------------|------|--|
| Test Statistic | Value | Signif. | I(0) | I(1) | |
| | | | Asymptotic: n=1000 | | |
| F-statistic | 17.96471 | 10% | 1.75 | 2.87 | |
| K | 6 | 5% | 2.04 | 3.24 | |
| | | 2.5% | 2.32 | 3.59 | |
| | | 1% | 2.66 | 4.05 | |

Source: Authors' computation with E-view 10

Table 5 above reveals ARDL Bound cointegration Test examining if there is long run relationship in the model. From the bound test, it can be seen that the F-Statistics is 17.964716 and is greater than all the critical values at 1(0) and 1(1) bounds. This reject the null hypothesis of no cointegration, meaning there is long run relationship between economic growth and recurrent expenditure, capital expenditure, monetary policy rates, saving deposit rates, cash reserve rates and liquidity ratio. That means the stabilization variables can predict economic growth.

Table 6: Error Correction Model Regression

ECM Regression
Case 1: No Constant and No Trend

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| D(LREXP) | 0.001629 | 0.058633 | 0.027790 | 0.9781 |
| D(LMPR) | 0.149383 | 0.069049 | 2.163441 | 0.0422 |
| D(LLDR) | -0.036361 | 0.078469 | -0.463375 | 0.6479 |
| CointEq(-1)* | -0.208303 | 0.016382 | -12.71544 | 0.0000 |
| R-squared | 0.605731 | Mean dependent var | | 0.201249 |
| Adjusted R-squared | 0.561924 | S.D. dependent var | | 0.104662 |
| S.E. of regression | 0.069273 | Akaike info criterion | | -2.381618 |
| Sum squared resid | 0.129565 | Schwarz criterion | | -2.196587 |
| Log likelihood | 40.91507 | Hannan-Quinn criter. | | -2.321302 |
| Durbin-Watson stat | 1.613627 | | | |

Source: Authors' computation with E-view 10

As revealed in the result in Table 6 above, error correction equation, CointEq(-1) has expected the negative sign and statistically significant. It can also be seen that 20.8% of errors from the equilibrium can be corrected in the next period, and speed of adjustment is 20.8%. Having concluded and satisfied with estimation of the model, the researchers resorted to run some residual diagnostic test as seen table 7 and 8 below;

Table 7: Heteroskedasticity Test

Heteroskedasticity Test: ARCH

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 0.051522 | Prob. F(1,28) | 0.8221 |
| Obs*R-squared | 0.055101 | Prob. Chi-Square(1) | 0.8144 |

Source: Authors' computation with E-view 10

Table 7 shows that F-Statistic is 0.051522 with P-value of 0.8221, meaning non rejection of the null hypothesis. The model is not heteroskedastic.

Next is checking if the model has serial correlation as shown below.

Table 8: Serial Correlation LM Test

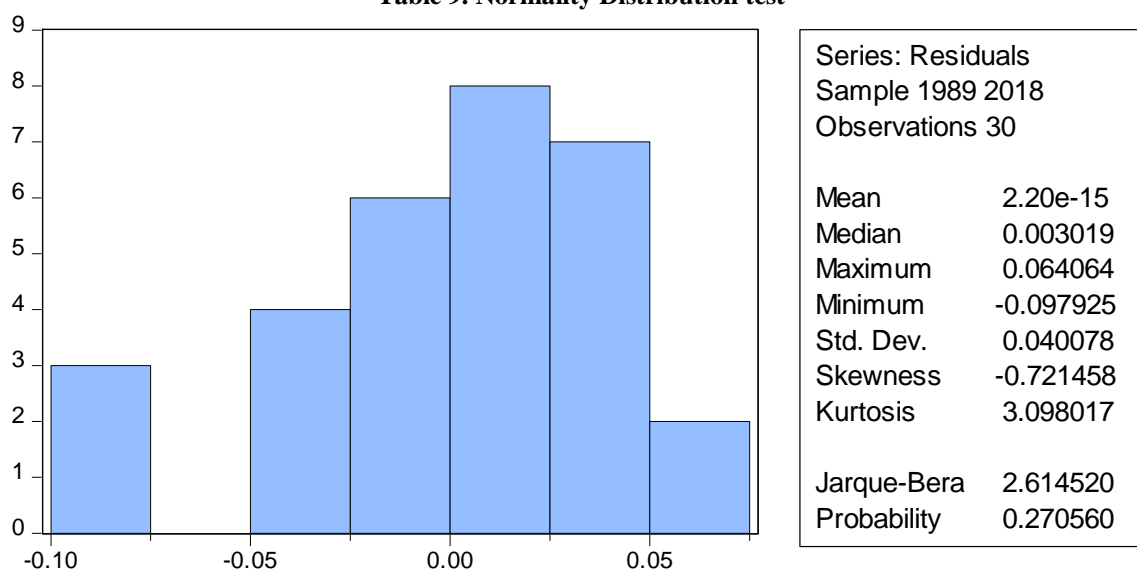
Breusch-Godfrey Serial Correlation LM Test:

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 0.486679 | Prob. F(2,19) | 0.6221 |
| Obs*R-squared | 1.510718 | Prob. Chi-Square(2) | 0.4698 |

Source: Authors' computation with E-view 10

As revealed in table 8, F-Statistic is 0.486679 with P-value of 0.6221, implying non rejection of the null hypothesis. Hence, the model has no serial correlation. Next is the Normality Distribution test as shown below in Table 9;

Table 9. Normality Distribution test



From Table 9 above, it is seen that Jarque-Bera Statistic is 2.614520 with P- value of 0.270560 and Kurtosis of 3, affirming normal distribution.

The researchers then proceeded to check the causal effect of the variables using Pairwise Granger Causality as shown in Table 10 below;

Table 10: Pairwise Granger Causality Tests

Pairwise Granger Causality Tests
 Date: 02/14/20 Time: 10:49
 Sample: 1987 2018
 Lags: 2

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|-----------------------------------|-----|-------------|--------|
| LREXP does not Granger Cause LGDP | 30 | 6.46062 | 0.0055 |
| LGDP does not Granger Cause LREXP | | 0.61560 | 0.5483 |
| LCEXP does not Granger Cause LGDP | 30 | 0.14026 | 0.8698 |
| LGDP does not Granger Cause LCEXP | | 2.04053 | 0.1511 |
| LMPR does not Granger Cause LGDP | 30 | 4.03999 | 0.0302 |
| LGDP does not Granger Cause LMPR | | 1.86077 | 0.1765 |
| LSDR does not Granger Cause LGDP | 30 | 0.07172 | 0.9310 |
| LGDP does not Granger Cause LSDR | | 1.27773 | 0.2962 |
| LCRR does not Granger Cause LGDP | 30 | 0.10228 | 0.9032 |
| LGDP does not Granger Cause LCRR | | 0.34486 | 0.7116 |
| LLDR does not Granger Cause LGDP | 30 | 0.50817 | 0.6077 |
| LGDP does not Granger Cause LLDR | | 0.93986 | 0.4041 |

From table 10 above, it is revealed that recurrent expenditure (REXP) and monetary policy rates (MPR) have unidirectional effect with economic growth.

V. Conclusions and Recommendation

In conclusion, this study ‘Do stabilization Policies Predict Growth in Nigeria?’ affirmed that recurrent expenditure, monetary policy rates, saving deposit rates impact significantly on economic growth. That long run

relationship exists between economic growth and recurrent expenditure, capital expenditure, monetary policy rates, saving deposit rate, cash reserve rates and liquidity ratio. That means that stabilization variables (Policies) can predict economic growth in Nigeria. It is revealed that recurrent expenditure and monetary policy rates have unidirectional effect with economic growth. The researchers therefore suggest for policy making that government should consistently harmonize monetary and fiscal policies to achieve stability in the Nigerian economy.

References

- [1]. Agu, S. U., Idike, A.N., Okwor, I.M.I, & Ugwunta, D. (2014). Fiscal policy & economic growth in Nigeria: Emphasis on various components of public expenditure; Singaporean Journal of Business Economics, and Management Studies, (2),12.
- [2]. Ajisafe, R.A., & Folorunso, B.A. (2002). The relative effectiveness of fiscal and monetary policy in macroeconomic management in Nigeria, *The Nigerian Economic and Financial Review*, 6(1) 147-161.
- [3]. Cameroon, R. (1998). *Banking in the Early Stages of industrialization: A Study in Comparative Economic History*. NewYork: Oxford University Press.
- [4]. Chuku, A. C. (2010). Momentary & fiscal policy interactions in Nigeria: An application of a state-space model with markov switching *Journal of Applied Statistics*,(1), 39-51.
- [5]. Darrat, A.F. (1984). The dominant influence on fiscal actions in developing countries. *Eastern Economic Journal*. 10, 271-284
- [6]. Ebimobowei, A. (2010). The relationship between fiscal policy & economic growth in Nigeria. *International Journal of Economic Development Research and Invest,ment*, 1(2&3).
- [7]. Gregoriou, A., & Ghosh, S. (2007). The impact of government expenditure on growth empirical evidence from heterogeneous Panel. <http://www.brunel.ac.uk/9379/efwps/0701.pdf>
- [8]. Keynes, J. M. (1936). *General theory of employment, interest and money*. Macmillan: London.
- [9]. Kwakwa, V. (2003). A framework for assessing fiscal sustainability: application to Nigeria, third annual monetary policy conference proceedings on issues in fiscal management: implications for monetary policy in Nigeria, 11-12 December 2003. Lagos, Central Bank of Nigeria Publications.
- [10]. Medee, P.N., & Nembee, S.G (2011). Economic analysis of the impact if fiscal policy variables on Nigeria's economic growth. *International Journal of Economic Development Research and Investment*, 2(1), April.
- [11]. Olaniyan, O. (1997). Macroeconomic policy framework for poverty alleviation. NES 1997 Annual Conference, 214-217.
- [12]. Olopade, B.C., & Olapade, D.O (2010). The impact growth and development in developing countries: Nigeria as a case study.
- [13]. Onoh, J.K. (2007). Dimension of Nigeria's monetary and fiscal policies-Domestic and External. Lagos: Astra Meridian Publishers.
- [14]. Peacock, A. T. & Wiseman, J. (1961). *The growth of public expenditure in the United Kingdom*. Princeton: University press.
- [15]. Philips, A. O. (1997). *Nigerian fiscal policy, 1998-2001*. NIAWE Menography Series, No. 17, NISER, Ibadan.
- [16]. Tchokote, J. (2001). *Macroeconomics of fiscal deficits in Cameroon*. Being a Ph.D. Thesis Proposal presented to the Department of Economics. Ibadan: University of Ibadan.
- [17]. Wagner, A. (1911). Staat innationalokonomischer hinsicht, in handworterbuch der staats wissenschaften, 3rd ed, 2(1) Jena: lexis 743-745

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