

Expenditures and Sustainable Performance of Government in Nigeria (1984-2020)

Isiaka Olawale Kabiru

Department of Accounting, Faculty of Economics and Management Sciences, University of Ibadan, Ibadan

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Abstract: This study examines the influence of government expenditures on no poverty objective of sustainable development goals in Nigeria over the period of 1984-2020, using time-series data on capital expenditure, recurrent expenditure, exchange rate, population growth and poverty rate which was estimated via bounds cointegration and error correction model approach. Result shows that actual capital expenditure, budgeted capital expenditure, budgeted recurrent expenditure and population growth are statistically significant in explaining changes in poverty while actual recurrent expenditure and exchange rate are statistically insignificant. The study recommended that Nigeria government should ensure full implementation of actual capital expenditure, strategically manage the exchange rate, increase recurrent expenditure, and ensure reduction in population growth.

Keywords: Capital Expenditure, Recurrent Expenditure, Poverty, Sustainable Development

INTRODUCTION

The major macroeconomic goals in any country of the world are to reduce unemployment, control inflation, price stability, positioning and healthy balance of payment system and sustained economic growth (Emori, 2015). All these macroeconomic objectives are subset of sustainable development goals. In achieving macroeconomic objectives, fiscal policy is a vital ingredient. It involved the use of taxes and expenditures to influence economic activities. Fiscal instruments can help government to regulate demand and supply in the country. One of the main fiscal tools that is used to achieve macroeconomic goals is government budget.

Government budget is a fiscal tool often employed by government in driving the economy (Keynes, 1936; Kolawole, 2016). This position by the Keynesians was because of the frustrations by the classical economists in resolving the macroeconomic problems of the then great depression in the 1930s. Government in both developed and developing countries has taken up crucial roles in economic management which includes but not limited to immediate investment in productions, maintenance of law and order, infrastructural facilities, security and national economic development plans.

Government budget contains both the capital and recurrent expenditures and captured in the budget is to make delivery for development for today and in the future (Lélé, 1991; Stads & Beintema, 2015). For the past 15 years, public sector spending in Nigeria has been geometrically increasing through Ministries, Departments and Agencies (MDA's) interactivities. The forms of growth in output in an economy is determined by the size and structure of government expenditure (Taiwo, and Abayomi, 2011).

Connolly and Li (2016) and Chauke et al. (2015) have argued that the idea of budget is connected with sustainable development because the exposure of sustainability connected ideas is also in the purview of government expenditure. Government expenditures are fiscal instruments adopted by government to grow and sustain the economy (Di-Falco, Feri, Paolo, & Vollenweider, 2018). The question is “what is to be sustained?” and “what is to be developed?”

Sustainability means meeting our needs without compromising the ability of future generations to respond to their needs (Kuhlman and Farrington, 2010) while sustainable performance will be viewed in terms of sustainable development which is about finding healthier ways of doing things, primacy settings and conveying machineries that can ease improvement in an economy at the present and optimism for the next generation (Center for Global

Development).

STATEMENT OF THE PROBLEM

Annually, public sector spending documented in the budget of Nigeria has been increasing from time to time most especially from 2012 to 2019 ranging from 4.8 trillion in 2012, 4.9 trillion in 2013, 4.7 trillion in 2014, 4.45 trillion in 2015, 6.06 trillion in 2016, 7.28 trillion in 2017, 8.6 in trillion 2018 and 8.8 trillion naira in 2019 (Federal Ministry of Finance, 2018). Some public expenditures like on agriculture, defense, education, security, health, construction, transportation, and communication are rising over time. Iheanacho (2016) added that, in Nigeria, government expenditure has continued to increase rapidly, and the increment cut across all sectors of the economy. The continuous rise in government expenditure is aimed as attaining sustainable development which could be a basis of measuring government performance.

According to the United Nations, the components that interact together to produce sustainable development are economic development, social development, and environmental protection (UN General Assembly, 2005). These three components must be harmonized, planned, and implemented together by the government to achieve desired results. Nigeria is a member of United Nations, and the expectation is that the country will plan together and implement together the aspirated goals of sustainable development effective from January, 2016 under the United Nations Development Programme policy guideline and funding programme for the next fifteen years. The Global Goals (CGs) which is commonly referred to as Sustainable Development Goals (SDGs) are structured to end poverty, environmental protection, and ensure people live in peace and opulence. Achieving the seventeen sustainable development goals depends heavily on whether government expenditures as contained in the budget is appropriately, effectively, and efficiently captured and implemented.

Nigeria is also expected to ensure the seventeen goals are achieved on or before 2030. One of the prominent tools for achieving these seventeen objectives is government fiscal policy as it mostly concerns government expenditures. However, despite the rising trend in public expenditures over the years in Nigeria, it is contradictory, controversial, and worrisome to observe that social economic indicators had shown dejected pictures. Even though, economic growth rate averaged 1.9% in 2018 and remained 2% stable in the first half of 2019 (World Bank Data), the rate of poverty, unemployment, illiteracy rate (out of school children) has been on the increase, which makes it unclear on the exact relationship between government expenditure and poverty eradication as a subset of sustainable development goals. Although, empirical literature on this issue have produced inconclusive results (Holden and Sparrman, 2013), the issue is even more worrisome as previous indigenous studies on government spending focused more on government expenditure and economic growth.

However, following the Keynesian's view that government expenditures boost economic growth, the expectation that the rising public expenditures in Nigeria should metamorphose into significant growth and development. This was not the position rather, the country is still ranked among the poorest countries in the world as citizens are living on less than US\$1.25 a day (Poverty & Equity Databank and PovcalNet, povertydata, 2018). In view of the forgoing, examination of government sustainable performance becomes pertinent because, poverty rates, illiteracy rate and low life expectancy rate have been on the increase with significant negative social and economic consequences. However, these are issues that annual government budgets seek to address. In addition, Nigeria has been experiencing disparities between what was budgeted for and what was expended at the end, due to some economic circumstances. This gap could have impacted or created deficiencies in achieving budgets goals (like poverty eradication, quality education and improvement in life expectancy rate). It is to this end; this study seeks to examine the effects of budgeted and actual expenditure on sustainable performance of government in Nigeria.

OBJECTIVES OF THE STUDY

The study objective was to examine the effects of budgeted and actual expenditure on sustainable performance of government in Nigeria.

LITERATURE REVIEW

Conceptual Review

Capital and Recurrent Expenditure

Begg, Fischer & Dornbusch (2003) asserted that in the process of macroeconomic stability, public expenditure is very important because it is a vital fiscal tool which can be used to manipulate or manage the economy. The structure of public expenditure in Nigeria can be broadly categorized into capital and recurrent expenditure. Recurrent expenditure referred to as expenses on administration such as wages, salaries, interest on loans maintenance etc. while expenses on capital project like airports, roads, telecommunication, education, and electricity generation etc., are referred to as capital expenditures.

Capital expenditure usually is viewed as future benefits creating expenditure because there could be some lags between its implementation and when it takes effect on the economy. Recurrent expenditure respectively refers to expenditure on operations, purchase of goods and services, wages, and salaries as well as current grants and subsidies which is usually classified under transfer payments. Recurrent expenditure, excluding transfer payments, is referred to as government consumption expenditure. Capital budget is a part of the national budget showing the proportion of national revenue allocated for the purpose of carrying out projects with life span of more than a year.

Ogujiuba and Ehigiamusoe (2013) stated that capital expenditure project includes the likes of construction of roads, bridges, hospitals, schools, prisons, public administrative buildings, dams, highways, irrigation systems; the purchase of machinery and equipment; and the supply of water, electricity, and transport, health, and educational facilities. Whether recurrent or capital budget, the expectation of a budget is to fulfill the obligation for which it was initiated.

Poverty in Nigeria

Poverty is a global phenomenon which influence different people in different regions, continents and countries in different ways. No country or region is immune from poverty; however, the magnitude varies from country to country or from region to region (Binuyo, 2014). Nigeria, been referred to as Africa giant was because of her endowments and abundance in both human and natural resources, cum her integration with many commanding economies of the world, is still faced with poverty problem.

In Nigeria, the poverty situation has for a fairly long time been a cause for concern to the government (Nwaobi, 2002). It is pervasive, with no geographical boundary. It is visible in the North, South, East and West as well as the rural and urban areas of the country, though the rural dwellers are the worst victims (Osinubi, 2003; Ikwuba, 2011). According to Osinubi, (2003) poverty is the most pathetic feature of the Nigerian society because majority of her citizens are living in a state of destitution. The poverty level in Nigeria continue to increase even as successive governments in Nigeria, both military and civilian introduced and left behind one form of poverty alleviation programme or the other (Binuyo, 2014). Such programmes include: The Nigerian Agricultural and Cooperative Bank of 1972, Operation Feed The Nation of 1976, Directorate of Food, Roads and Rural Infrastructure (DFRR) of 1986, Green Revolution of 1980, Low Cost Housing of 2000, River Basin Development Authorities (RBDA) of 1973, National Agricultural Development Programme (ADP) of 1972, Directorate for Food, Roads and Rural Infrastructure (DFRRI) of 1986, National Directorate of Employment (NDE) of 1986, Better Life Programme (BLP) of 1987, People's Bank of Nigeria (PBN) of 1989, Community Banks Programme of 1990, Family Support programmes (FSP) of 1994 and Family Economic Advancement Programme (FEAP) of 1997, Agricultural Credit Guarantee Scheme (ACGS) of 1977, Rural Electrification Scheme (RES) and Rural Banking Programme (RBP) of 2006, Structural Adjustment Programme (SAP) of 1986, National Economic Empowerment and Development Strategies (NEEDS) in 2004, N- Power programme of 2016, School Feeding Programme of 2016, etc. Sadly, despite all these programmes, over 32 percent of Nigerians still live below the poverty line (World Poverty Clock, 2023).

Forecasts by the World Poverty Clock gathered by Brookings Institute, revealed that more than 643 million people across the universe live in extreme poverty and about two-thirds of the total number is attributable to Africa (Adebayo, 2018). Based on the data captured by the World Poverty Clock in 2018, top 10 African countries with the largest number of people living in extreme poverty include: Zambia (9.5 million), South Sudan (11.4 million), South Africa (13.8 million), Uganda (14.2 million), Kenya (14.7 million), Mozambique (17.8 million), Tanzania (19.9 million), Ethiopia (23.9 million), Democratic Republic of Congo (60.9 million) and Nigeria (86.9 million) people living in abject poverty (Kazeem, 2018). Thus, Nigeria with a population of over 200 million people equally has about 90 million of its population living in extreme poverty; this we can assume to reflect been among the top in ranking of poverty level globally.

Giving the huge money spent by the government in reducing the menace of poverty, the high incidence of poverty in Nigerian is surprising. For example, government total budgeted expenditures increased from 4.8 trillion in 2012 to 4.9 trillion in 2013, 4.7 trillion in 2014, 4.45 trillion in 2015, 6.06 trillion in 2016, 7.28 trillion in 2017, 8.6 in trillion 2018 and 8.8 trillion naira in 2019. These budgetary increment in expenditure include those on education, health, housing, electricity generation and agriculture which are presumed to directly alleviate poverty but reversed was the case.

According to Sanusi (2018), the richest man in Africa is from Nigeria and yet Nigeria is the Poverty Capital of the World. He noted that, in Nigeria, there is a wide inequality margin between the rich and the poor, coupled with lack of infrastructures in the rural areas leading to migration problems caused by citizens quest for greener pastures in other continents. Sanusi (2018) further posited by ascribing poverty problem to mismanagement of resources and misplacement of priorities. Funds meant for education, power, and industrial establishments for the purpose of job creation are recklessly misused. Consequently, instead of achieving the MDGs, Nigeria is presently referred to as the World's Poverty Headquarters (Sanusi, 2018). This then necessitated for further study on government expenditure in poverty alleviation as a function of achieving sustainable development goals for Nigeria.

Theoretical Review on Expenditure

The Wagner's Law/ Theory of increasing State Activities

German economist Adolph Wagne propounded this theory to advance his position on 'principles of rising public expenditures' by examining public expenditure growth trend in line with the public sector. Wagner positioned that as economic grow there are inherent tendency for the activities of the government to grow either intensively or extensively.

Musgrave Theory of Public Expenditure Growth

Musgrave propounded this theory because of changes found in the income elasticity of demand for public services in the scope of per capita income. Musgrave posited that to certain extents the level of countries per capita income determines the income elasticity of demand for public goods and services. He explained there is low demand for public services when we have low per capita income level, according to him, this was because such income is devoted to satisfying primary needs. However, as per capita income starts to rise, the demand for public services starts to rise, thereby forcing government to increase expenditure on them. He further observed that, common to developed economics, the rate of public sector growth tends to fall because basic wants are being satisfied already as a result of high per capita income level.

Peacock Wiseman's Theory

This theory looked at increasing public expenditure from the social-political perspective. It based on the premises that government expenditure increases because of prior expectation by government from citizens in line with the fact that leaders want re-election into political offices, therefore, more infrastructures must be provided to convince electorates that their interests are being catered for by the people they voted for.

The Keynes theory

According to Keynes, in his research of finding the link between public expenditure and economic growth concluded that public expenditure is a function of national income, which implies that public sector expenditure is an exogenous factor and a public instrument for increasing national income. He posited further that, an increase in government expenditure leads to higher economic growth and development. It can be deduced from his position that; public expenditure contributes positively to economic growth. Hence, an increase in the government expenditures is likely to result to employment, profitability, and investment increment through multiplier effects on aggregate demand. As a result, government expenditure supplements aggregate demand, which provokes an increased output depending on expenditure multipliers.

Theoretical Review on Poverty

Neoclassical Theory

According to Neoclassical theory, the role of unequal initial endowments of talents, skills and capital determine individual productivity in generating poverty or not in a market-based competitive economic system. Davis (2007) posited that market failures such as externalities, moral hazard and adverse selection, as well as incomplete information are also viewed as aggravators of poverty. 'Uncertainty' may play major role in poverty creating, because people in poverty are more vulnerable to shocks to well-being (e.g., recessions, sickness, family breakdown).

Keynesian Theory

Keynesian poverty theory revolves round the idea that not only market distortions cause poverty but rather broad underdevelopment cause poverty. Hence Keynes suggested that government intervention at macroeconomic level via fiscal and monetary policy will tackle involuntary unemployment and poverty reduction.

Marxist Theory of Poverty

The understanding of Marxian poverty formulation was largely based on the principle of labour exploitation. Marxian theoretical formulations regard the economy as been polarized into a few rich capitalists and the masses made up of the poor miserable workers. It was argued that technological advancement is cost saving and efficient productivity but it labour disadvantage due to the fact that it will result to workers displacement which will later join the reserved army of the unemployed.

Empirical Literature

Omodero (2019) examine the role of government sectoral expenditure on poverty alleviation in Nigeria. He discovered by concluding that government expenditure on agriculture, building and construction, health and education are insignificant to poverty alleviation in Nigeria. Likewise, Oriavwote, and Ukawe (2018) in their study of Government Expenditure and Poverty Reduction in Nigeria, they concluded that although government expenditure on health has a significant impact on per capita income, the low elasticity indicates that government spending on the health sector has been unable to significantly reduce the level of poverty in Nigeria.

Omari et.al. (2016) investigated the effect of sectoral government expenditure on poverty level in Kenya. The conclusion of their findings was that government budget expenditure influences poverty level in Kenya. Olowa (2012) examined the concept of poverty and methods of measurement used in evaluating poverty. He concluded that inadequate economic growth is the main cause of poverty in Nigeria.

Nwosa. (2014) carried out a study on government expenditure, unemployment and poverty rates in Nigeria and discovered that government expenditure has positive and significant impact on unemployment rate while it has a negative and insignificant impact on poverty rate. The study concluded that despite the rise in government expenditure level, unemployment and poverty rates has been on a steady increase. Agboola, Musa, and Ibrahim (2018) studied relationship between educational expenditure and unemployment rate on economic growth in

Nigeria between 1970 to 2017, it was discovered that there is a positive correlation between educational expenditure, unemployment rate and gross domestic product in Nigeria. Owuru and Farayibi (2016) examine fiscal policy-poverty reduction nexus in Nigeria and discovered that the level of government capital expenditures in Nigeria does not reduce the level of poverty in the country over the period of time covered by the study.

METHODOLOGY

To examine the effects of budgeted and actual expenditure on sustainable performance of government in Nigeria, this research used secondary data gotten from Central Bank of Nigeria (CBN) statistical Bulletins, the World Development Indicator (WDI) and Nigeria Bureau of Statistics between 1984-2020. The model using Cobb-Douglass production function was specified below:

$$Y = AL\alpha K\beta \dots \dots \dots (1)$$

Where, Since the Cobb-Douglass is intrinsically linear, then equation becomes:

$$\ln Y = \alpha + \beta_1 \ln L + \beta_2 \ln K + \dots \ln U_t \dots \dots \dots (2)$$

Where Y is economic growth measured by real GDP per capita, K is the capital stock measured by gross field capital formation and A is the total factor productivity, α determines the share of output that goes to capital and the share that goes to labour.

Assuming the author augment the neo classical cobb-Douglas production by incorporating recurrent, capital expenditure and non-oil revenue as: $A = f(\text{recurrent expenditure, capital expenditure and non-oil revenue})$, whereas L cancel out on both right and left of the equation to arrive at $\ln gdp$ and $\ln gcr$ respectively.

Composite model aggregate output is expressed as a function of government expenditures. Therefore, the Neo-classical Cobb-Douglas production could be rewritten to give the model as; thus, Sustainable Performance $SP = f(\text{Total Government Expenditure} \dots \dots \dots (3)$

$$\ln SP = \alpha + \beta_1 TGE + U_t \dots \dots \dots (4)$$

Disaggregated Model: Knowing that the total government expenditure comprises of capital and recurrent expenditures while sustainable performance was measured by of poverty rate. The equation is further broken down to give the disaggregated exponential equation of the form:

$$\ln(\text{Pov}) = f(\text{RecEx} + \text{CapEx}) \dots \dots \dots (5)$$

For this study, the model below was adopted to examine the objective of the study.

Model 1

$$\Delta \ln \text{POV}_{r,t} = \alpha + \sum_{i=1}^p \beta_{1t} \Delta \ln \text{ARecEx}_{t-1} + \sum_{i=1}^p \beta_{2t} \Delta \ln \text{ACapEx}_{t-1} + \sum_{i=1}^p \beta_{3t} \Delta \ln \text{POP}_{t-1} + \sum_{i=1}^p \beta_{4t} \Delta \ln \text{EXC}_{t-1} + \lambda \text{ECT}_{t-1} + U_t$$

Model 2

$$\Delta \ln \text{POV}_{r,t} = \alpha + \sum_{i=1}^p \beta_{1t} \Delta \ln \text{BRecEx}_{t-1} + \sum_{i=1}^p \beta_{2t} \Delta \ln \text{BCapEx}_{t-1} + \sum_{i=1}^p \beta_{3t} \Delta \ln \text{POP}_{t-1} + \sum_{i=1}^p \beta_{4t} \Delta \ln \text{EXC}_{t-1} + \lambda \text{ECT}_{t-1} + U_t$$

Where A and B represent (Actual and budgeted), POV_r (poverty rate) is a component of sustainable performance which is a measure of a country's living conditions. Poverty rate (POV) was measured by Gross National Income

Per Capita, which is the dollar value of a country's income as captured by world bank development indicator, α is the intercept of the regression line. $\beta_1 - \beta_4$ are the coefficient of components of government expenditures. It is a measure of effects of respective components of government expenditure as contained in the budget while exchange rate (EXC) and Population growth (POP) are control variables. μ is stochastic variable to accommodate the influence of other determinants of sustainable performance i.e., sustainable performance not included in the model. The moderating independent variables are total actual and budgeted government capital expenditure (CapEx) and recurrent expenditure (RecEx).

Method of Data Analysis

The study employs three-prong procedural steps. The first phase consists of pre-estimation evaluation using descriptive statistics method in order to show, describe and summarize the data in a meaningful way and also to know if the data are normally distributed through (Gujarati & Poter, 2009). The second step is the determination of the stability of variables via the use Augmented Dickey-Fuller (ADF) unit root tests. This test of time series data is required because if a time series data is non-stationary, the regression performed on these variables with unit root will be "spurious", "nonsense" or just "dubious" (Phillips, 1987). Thereafter, the bound cointegration test was applied to establish whether there is a long-run or short run relationship between the variables. The third step is the post estimation test to evaluate the reliability of research outputs.

RESULT

Descriptive statistics, unit root test, optimal lag length determination, co-integration test, error correction model, serial correlation and stability test.

Descriptive Results

Table 1: Measures of Central Tendency

	Mean	Maximum	Minimum	Std. Dev.	Skewness	Observation
Poverty rate	260716.6	376747.3	192666.9	66714.07	0.479783	37
Actual Capital expenditure	542.7730	2288.996	4.100100	554.6585	1.200519	37
Actual Recurrent expenditure	1729.975	8121.640	5.827500	2149.896	1.323632	37
Budgeted Capital expenditure	627.6163	2870.000	1.500000	786.1009	1.292579	37
Budgeted Recurrent expenditure	1153.514	4490.000	4.655000	1342.073	0.967925	37
Population growth rate	2.578022	2.680914	2.488785	0.065009	0.086280	37
Exchange rate	108.8754	358.8108	0.766527	100.4451	0.809268	37

Source: Author's Computation, 2021

The above table shows the result of mean, skewness, and other statistical measurements of observations in the data set which lies within the maximum and minimum values indicating high tendency of normal distribution. The result shows that poverty rate, population growth rate, exchange rate, budgeted and actual capital and recurrent expenditure were all positively skewed.

Table 2: Test of Multicollinearity (Variance Inflation Factors)

Variable	Coefficient Variance	Uncentered VIF	Centered VIF	Remark
C	0.402179	3051.817	NA	
ACAPEX	0.001292	310.7158	33.20408	Multicollinearity
ARECEX	0.002230	697.4984	80.15557	Multicollinearity
BCAPEX	0.000711	160.7297	26.78560	Multicollinearity
BRECEX	0.001291	363.3493	43.33174	Multicollinearity
POP	0.063251	3191.900	1.973581	No Multicollinearity
EXC	8.13E-08	13.36165	6.052737	No Multicollinearity

Source: Author’s Computation, 2021

Variance inflation factor is also used to test for multicollinearity nature of data. VIF table shows that all variables demonstrated the present of multicollinearity except for the control variables no multicollinearity.

Table 3: Unit Root Test

At Level						
Variables	ADF test statistics	1%	5%	10%	Order of Integration	Remarks
POVR	-0.47838	-3.6329	-2.9484	-2.61287	----	Non-Stationary
BCAPE X	-2.31107	-3.63941	-2.95113	-2.6143	----	Non-Stationary
BRECE X	-2.71068	-3.63941	-2.95113	-2.6143	----	Non-Stationary
ACAPE X	-2.19238	-3.62678	-2.94584	-2.61153	----	Non-Stationary
ARECE X	-2.61564	-3.6329	-2.9484	-2.61287	----	Non-Stationary
POP	-4.72655	-3.68919	-2.97185	-2.62512	I (0)	Stationary
EXC	1.906810	-3.62678	-2.94584	-2.61153	----	Non-Stationary
At First Difference						
POVR	-4.57438	-3.6329	-2.9484	-2.61287	I (1)	Stationary
BCAPE X	-6.79261	-3.63941	-2.95113	-2.6143	I (1)	Stationary
BRECE X	-6.40142	-3.63941	-2.95113	-2.6143	I (1)	Stationary
ACAPE X	-6.40865	-3.6329	-2.9484	-2.61287	I (1)	Stationary
ARECE X	-8.31895	-3.6329	-2.9484	-2.61287	I (1)	Stationary
EXC	-4.02489	-3.6329	-2.9484	-2.61287	I (1)	Stationary

Source: Author’s Computation, 2021

Above table presents the unit root test result of variables used in the study. Data are transformed into the natural log form. The unit root test result shows series at both level and first difference using Augmented Dickey Fuller method to determine the time series characteristics of variables. It was observed that only population growth rate

was stationary at level while budgeted capital expenditure, budgeted recurrent expenditure, actual capital expenditure, actual recurrent expenditure and poverty rate were all stationary at first difference. This connotes that all variables are integrated of order I (0) and I (1) at 5% significance level. Since variables are integrated of order 0 and 1, performing a bound co-integration test is necessary to establish a short or long –run relationship is the most appropriate.

Table 4: Lag Length Determination

Lag	Logl	LR	FPE	AIC	SC	HQ
0	-192.4693	NA	0.000294	11.73349	12.04774	11.84066
1	36.56296	350.2847	7.88e-09	1.143355	3.657361	2.000703
2	131.5366	106.1470	7.81e-10	-1.560974	3.152786	0.046553
3	243.1265	78.76940*	6.99e-11*	-5.242738*	1.670778*	-2.885031*

Source: Author’s Computation, 2021

The result in Table 4 portrays different lag length criterion (LR, FPE, AIC, SC, and HQ). The Akaike Information Criterion depicting lag order length of (3) for the model was selected. After establishing the lag order length, cointegration test was then carried out.

Table 5: Bounds Cointegration Test

Test Statistic	Value	Signif.	I (0)	I (1)
F-statistic	34.23033	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Source: Author’s Computation, 2021

If the calculated f-statistic is greater than the critical value for the upper bound (1), then we can conclude that there is co-integration but if the calculated f-statistic is lower than the critical value for the lower bound I (0), then we conclude that there is no co-integration, hence no-long run relationship. Therefore, since the f-statistic is greater than the critical value for both upper bound and lower bound then there is co-integration, we then perform error correction model.

Table 6: Error Correction Model (ECM) Result

Variable	Coefficient	Std. Error	t-Statistic
C	0.025390	0.006090	4.168968
D(ACAPEX(-1))	-0.046115	0.012883	-3.579515
D(ARECEX(-1))	-0.014460	0.014672	-0.985574
D(BCAPEX(-1))	0.038734	0.005859	6.611318
D(BRECEX(-1))	-0.028221	0.010013	-2.818412

D(POP(-1))	0.809570	0.197872	4.091385
D(EXC(-1))	-0.000308	0.000232	-1.330579
ECM(-1)	-0.413645	0.084624	-4.888026
R-squared	0.792381	Mean dependent var	0.014156
Adjusted R-squared	0.738553	S.D. dependent var	0.041511
S.E. of regression	0.021225	Akaike info criterion	-4.669630
Sum squared resid	0.012164	Schwarz criterion	-4.314122
Log likelihood	89.71853	Hannan-Quinn criter.	-4.546909
F-statistic	14.72081	Durbin-Watson stat	2.527645
Prob(F-statistic)	0.000000	Mean dependent var	0.014156

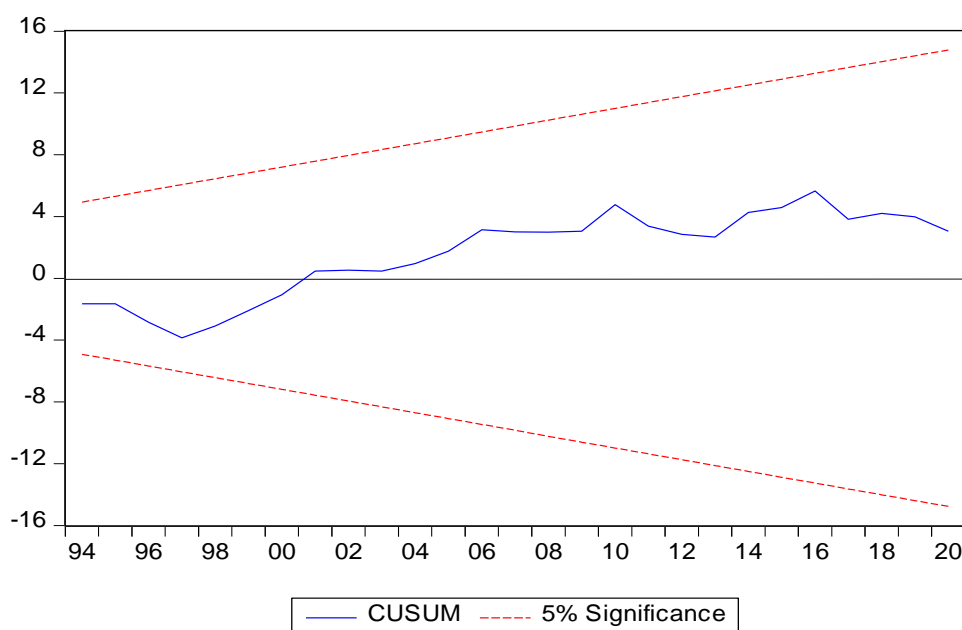
Table 7: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.220027	Prob. F(3,24)	0.1118
Obs*R-squared	7.602811	Prob. Chi-Square(3)	0.0550

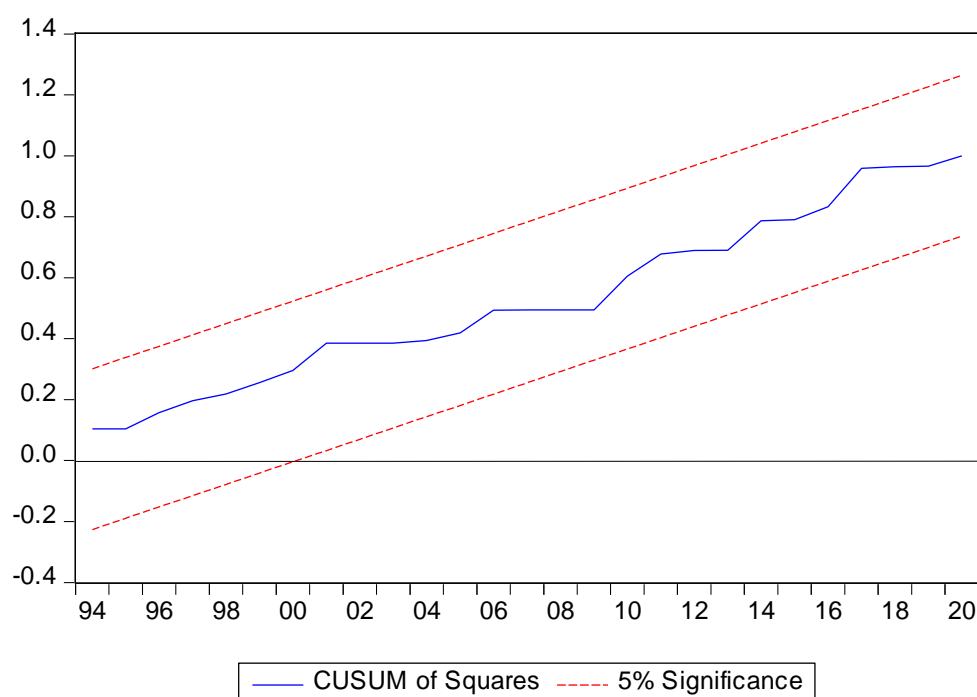
The Serial Correlation Test result shows the probability value i.e., Prob is greater than 0.05 meaning that there was no autocorrelation and invariably indicating that the estimated model result is OK and reliable.

Stability Test for the Composite Model

Cusum Test



Cusum sum of square



DISCUSSION OF RESULT

The result of ECM presented in table 6 above showed the coefficient of the parameter estimates, alongside the standard errors, t-values, and the probability values. The estimation results revealed that the independent variables jointly account for approximately 79.23 percentage changes in dependent variable. The Durbin Watson statistic shows the absence of auto correlation. The estimation results revealed that the variables (Actual capital expenditure, budgeted capital expenditure, budgeted recurrent expenditure and population growth) are statistically significant in explaining changes in poverty while actual recurrent expenditure and exchange rate are statistically insignificant. The result shows the existence of a pronounced feed-back of previous period disequilibrium from the long-run trend. That is, the previous year deviation from long run equilibrium is corrected in the current period at an adjustment speed of 0.41%.

Findings shows that actual capital expenditure was negative but significant at 5% significant level, The t-statistics for ACAPEX is -3.579515; therefore, a percentage increase in actual capital expenditure will lead 0.05% reduction in poverty rate. Actual recurrent expenditure was also negative but not significant at 5% significant level, The t-statistics for ARAPEX is -0.985574; therefore, a percentage increase in actual recurrent expenditure will lead 0.014% reduction in poverty rate. Budgeted capital expenditure was positive and significant at 5% significant level, The t-statistics for BCAPEX is 6.611318. A percentage increase in budgeted capital expenditure will lead 0.04% increment in poverty rate, this result was in line with the findings of Farayibi (2016) who examined fiscal policy-poverty reduction nexus in Nigeria and discovered that the level of government capital expenditures in Nigeria does not reduce the level of poverty in the country over the period covered by the study. Although, he focused on capital budget while this study separated it variables by examining both actual and budgeted capital expenditures and it found out that while the budgeted capital expenditure agreed with Farayibi's findings, actual capital expenditure was statistically and influence poverty reduction in Nigeria. Budgeted recurrent expenditure was negative and significant at 5% significant level, The t-statistics for BRECEX is -2.818412. A percentage increase in budgeted recurrent expenditure will lead 0.03% reduction in poverty rate. This result is in line with Musgrave theory of public expenditure positing that to certain extents the level of countries per capita income determines the income elasticity of demand for public goods and services, indication that and recurrent expenditures improved, per capita income increases, hence, demand for public goods increases. Population growth was positive and significant at 5% significant level, The t-statistics for POP is 4.091385. A percentage increase in population growth will lead 0.81% increment in poverty rate. Exchange rate was negative and insignificant at 5% significant

level, The t-statistics for EXC is -1.330579. A percentage increase in exchange rate will lead 0.003% reduction in poverty rate.

The serial correlation test indicated that the model result is ok and reliable. The CUSUM and CUSUM Square test was used to test for structural change or interaction among variables. For both graphs, the line lies between 5 % boundary which shows the model is stable.

CONCLUSION AND RECOMMENDATION

The study investigated expenditures and sustainable performance of government in Nigeria. Findings show that government expenditures both capital and recurrent were not alone inadequate but cannot end poverty in Nigeria. The statistical evidence shows that government expenditures used in this study does not exert sufficient influence on ending poverty reduction in Nigeria even though capital expenditure shows a little influence on poverty reduction.

Based study findings, the following are therefore recommended:

1. Government should ensure an increase recurrent expenditure either budgeted or actual as findings shows that it will further help to reduce poverty rate.
2. Nigeria government must strategically manage population growth as findings indicated that population growth could further increase poverty rate if not well managed.
3. In line with outcome of this research work and Keynes theory of public expenditure stating that an increase in government expenditure leads to higher economic growth and development, therefore, Nigeria government should ensure full implementation of actual capital expenditure as it will go a long way to create enabling environment resulting to multiplier economic effects leading to poverty reduction.
4. Government must strategically manage the exchange rate as changes in exchange rate will influence the rate of poverty in Nigeria either by increasing or reducing it.

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