GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH IN NIGERIA: AN ARDL ANALYSIS OF SHORT-RUN AND LONG-RUN DYNAMICS

Prof. Jegede C. A
Department of Finance
Faculty of Management Sciences,
Lagos State University, Ojo, Lagos
ayodele.jegede@lasu.edu.ng

Fakunmoju S. K. Ph.D.
Department of Finance
Faculty of Management Sciences
Lagos State University, Ojo, Lagos
segun.fakunmoju@lasu.edu.ng

Ade-Williams Mercy
Department of Finance
Faculty of Management Sciences
Lagos State University, Ojo, Lagos

Corresponding Author: segun.fakunmoju@lasu.edu.ng
DOI: https://doi.org/10.57233/ijamer.v2i1.09

Article Information: Received: 01/28/2026 Revised: 02/20/2026 Accepted: 04/05/2026

To Cite this Article: Jegede, C. A., Fakunmoju, S. K., & Ade-Williams, M. (2026). Government expenditure and economic growth in Nigeria: An ARDL analysis of short-run and long-run dynamics. *International Journal of Accounting, Management and Economic Research*, 2(1). https://doi.org/10.57233/ijamer.v2i1.09

Abstract
The significance of government expenditure in promoting economic activities is key to economic growth. Despite a significant increase in government expenditure in Nigeria over the past decade, there are concerns about the lack of substantial growth and development resulting from persistent low growth despite rising Government expenditure.The study examines the government expenditure components economic performance between 1986 and 2024. Annual data on real gross domestic product (RGDP), capital expenditure (CAPEX), recurrent expenditure (REX), total expenditure (TEX) with inflation (INFR) and exchange rate (EXR) as control variables were collected from the CBN statistical bulletin and World bank development Index between 1986-2024 using Dynamic ARDL cointegration technique. Findings revealed that capital expenditure (CAPEX), recurrent expenditure (REX) and exchange rate (EXR) had a long run negative and signifcant effect on real gross domestic product in Nigeria. Meanwhile, inflation (INFR) had positive effect on economic growth in Nigeria. Furthermore, recurrent expenditure (REX), total expenditure (TEX) and inflation (INFR) had insignificant effect on economic growth in Nigeria at 5% significance level. The study recommended that prioritizing productive government expenditure, such as infrastructure, education, and healthcare that will augment economic performance. Also, promoting efficient capital expenditure by conducting thorough feasibility studies, and monitoring project execution are crucial for maximizing the positive economic impact which in turn enhance economic growth.

Keywords: ARDL, capital expenditure, economic performance, real gross domestic product, recurrent expenditure, Wagner's Law.

1.0 Introduction

Following the Great Depression of the 1930s, which led to the emergence of Keynesian economics, many countries began to acknowledge the critical role of government intervention in stabilizing and managing economic activities. This marked a shift away from the classical economic doctrine that depended solely on the self-regulating mechanism of supply and demand to determine output and employment levels (Backhouse, 2015; Onifade et al., 2020). From the Keynesian perspective, governments can mitigate economic recessions by mobilizing funds through borrowing and reallocating them via public spending programs.

In a related vein, Chude and Chude (2013) argue that government expenditure, through its multiplier effect on aggregate demand, can significantly enhance employment, profitability, and investment. This supports the view that public spending constitutes a crucial policy instrument widely adopted by developing economies to stimulate economic growth and promote equitable income distribution (Okere, Uzowuru & Amako, 2019). In many of these economies, government expenditure is regarded as instrumental in advancing technological progress, building human capital, and expanding infrastructure, all of which are fundamental to long-term economic development. Furthermore, public spending plays a catalytic role by creating a conducive investment climate and incentivizing private sector participation, thereby reinforcing overall economic growth (Okere et al., 2019).

Aluthge, Jibir, and Abdu (2021) posit that government expenditure is a key determinant of economic growth across countries, as it supports the functioning of public administration, social services, and overall economic management. As the scope of government participation in economic activities expands, public spending correspondingly increases. From the Keynesian perspective, such expenditure is expected to exert a positive influence on economic growth, particularly during periods of economic contraction, when governments can stimulate economic activity by borrowing from the private sector and reallocating these resources through public spending initiatives. However, as noted by Ugochukwu and Oruta (2021), although government intervention does not necessarily ensure complete macroeconomic stability, it plays a significant role in moderating the degree of economic fluctuations.

The pursuit of sustained economic performance constitutes a central objective of macroeconomic policy across nations. Ijuo and Andohol (2020) observe that attaining rapid and durable economic growth and development remains a fundamental priority for economies globally, particularly in developing countries such as Nigeria. Similarly, Okpabi, Ijuo, and Akiri (2021) note that economic growth represents the foremost policy objective of governments in developing economies. In this context, the contribution of government expenditure to economic growth has attracted considerable attention in the field of public finance. This issue is especially pertinent for Nigeria, where public spending has exhibited a persistent upward trend over time (Okpabi et al., 2021).

Although governments have become more actively involved in economic management, economies have continued to experience major disruptions, including the oil price crises of the 1970s, the global financial meltdown of 2007–2008, Nigeria's recession in 2016, and the worldwide economic contraction in 2020. Nonetheless, public sector intervention has strengthened the resilience of economies by facilitating quicker recovery from such adverse shocks. Developing economies, which are often marked by low income levels, weak output performance, and high unemployment, are particularly vulnerable to persistent internal and external disequilibria. In addition, these countries frequently contend with inadequate social infrastructure, underdeveloped

human capital, and widespread poverty. In this context, the state emerges as a pivotal institution for addressing and alleviating the broad range of socio-economic challenges facing these nations (Bingilar & Oyadonghan, 2020; Olurin, Omosebi, Soetan & Akintola, 2024).

Even with the expansion of government involvement in economic governance, economies have continued to experience severe disturbances, including the commodity price shocks of the 1970s, the global financial crisis of 2007-2008, Nigeria's recession in 2016, and the worldwide economic slowdown in 2020. Nevertheless, public sector intervention has improved economic resilience by accelerating post-crisis recovery processes. Developing economies, typically characterized by low income levels, fragile productive capacity, and high unemployment, remain highly exposed to persistent macroeconomic imbalances arising from both domestic and external sources. These challenges are further compounded by insufficient social infrastructure, weak human capital formation, and widespread poverty. Within this context, the state assumes a central role in stabilizing the economy and addressing the broad spectrum of socio-economic constraints confronting these countries (Adeyemi & Awogbade, 2022; Bingilar & Oyadonghan, 2020). Though plenty related studies investigate effect of government expenditure on economic growth in Nigeria but they failed to examine the short run and long run influence. Thus, this study aims to address this gap of short run and long run dynamic influenced between government expenditure and economic growth in Nigeria which in turn served as the motivation for this study.

2.0 Literature Review

Government expenditure may be described as the deployment of public revenue derived from taxation, levies, and other income sources to finance government activities. The manner in which public spending is distributed across sectors exerts differential effects on economic growth (Barlas, 2020). Both the composition and effectiveness of government expenditure are critical in fostering a conducive environment for social welfare and business operations, thereby enhancing productivity and economic expansion. Public funds are channeled into key sectors such as education, healthcare, agriculture, energy, defense, debt servicing, capital projects, and social services with the objective of providing public goods that support overall productivity and economic development (Okere et al., 2019; Uremadu & Nwaeze, 2019; Umeh et al., 2022).

In the public finance literature, government spending is broadly classified into recurrent and capital components (Mordi, 2010; Ajibola & Nwankanma, 2013; Monogbe et al., 2016). Recurrent expenditure comprises routine outlays required for the continuous operation of government, including wages and salaries, administrative overheads, transportation and travel costs, utilities, communication services, office maintenance, and other running expenses. Capital expenditure, by contrast, consists of government investments in long-lasting assets such as buildings, roads, bridges, and machinery (Babalola et al., 2015). These expenditure components are further organized into functional categories, notably administration, social and community services, economic and financial services, and transfers, in line with the classification system of the Central Bank of Nigeria (CBN, 2020).

Economic Growth

The concept of economic growth encompasses both efficacy and efficiency of an economic activities output (Adeyemi & Awogbade, 2022). Efficacy refers to the ability to undertake and accomplish actions with the aim of achieving specific outcomes in alignment with predetermined objectives. Efficiency, on the other hand, relates to the optimal utilization of resources to attain desired results. Furthermore, economic growth can be understood as the capacity of a country's

macroeconomic managers to deliver four key services to its citizens: high real GDP growth, low inflation rate, low unemployment rate, and a favorable market environment (Aluthge, Jibir & Abdu, 2021). Economic growth is typically evaluated using a range of indicators, including: Gross Domestic Product (GDP), Unemployment Rate and Inflation Rate. Thus, this study adopted RGDP as indicator for economic growth in this study.

Theoretical Framework

The study anchors on the the Wagner's Law on government expenditure in achieving economic growth.

Wagner's Law on Government Expenditure (1883)

Wagner's Law, first proposed by Wagner in 1883, explores the relationship between public expenditure and the growth of government activities in a progressive state. According to the law, as per capita income increases in industrializing nations, the relative importance of the public sector also grows (Bird, 1971). Wagner argued that an expansion of state expenditures occurs with respect to the administrative and protective functions of the state. This is due to the substitution of public activities for private ones as society evolves. Factors such as population density, urbanization, and the need for economic regulation contribute to this growth. Wagner also predicted a significant relative expansion of expenditures related to "cultural and welfare" sectors, particularly income redistribution and education (Aluthge et al., 2021). The author considered these goods to be "luxury goods" with an income elasticity of demand greater than unity. Furthermore, Wagner recognized that technological changes and the necessary investments in various activities would lead to an increasing number of private monopolies (Cooke, 1958).

While Wagner acknowledged that there are limits to state expansion, the author believed that the proportion of government spending to national income should not be consistently exceeded. the author argued that there should be a balance between individual expenditures to meet various needs. However, the author also acknowledged the difficulty in defining an absolute figure or upper limit for government spending as a proportion of national income (Cooke, 1958, pp. 8). However, in the context of Nigeria, which is an emerging economy with significant developmental needs, Wagner's Law could provide insights into the increasing government expenditure required to meet these demands. It implies that as Nigeria's economy expands and its population demands more public services, government expenditure may naturally rise (Olurin, Omosebi, Soetan & Akinola, 2024). The theory implies that the Nigerian government may increase expenditure to address public concerns and maintain political stability. This can involve adjustments in taxation and a concentration of power over expenditure at the central level. Understanding these dynamics can provide insights into Nigeria's economic performance, as it highlights the interplay between political considerations, government spending choices, and their implications for the overall economy.

Empirical Review and Gap in the Literature

Numerous empirical studies have examined the nexus between public spending and economic growth in Nigeria, and the prevailing evidence suggests that government expenditure is an important contributor to the country’s economic performance. In this regard, Olurin, Omosebi, Soetan, and Akintola (2024) analyzed the influence of public expenditure and inflation on Nigeria’s economic growth using annual data covering the period 1989-2021 obtained from the Central Bank of Nigeria Statistical Bulletin. Employing the Ordinary Least Squares (OLS) method, their findings revealed that both government spending and inflation exert statistically significant

and positive effects on economic growth. Consequently, the authors advocated for increased allocation of resources to the health sector and transfer payments, as well as the maintenance of a single-digit inflation target, in order to foster economic expansion.

In a related study, Aluthge et al. (2021) examined the relationship between government expenditure and economic growth in Nigeria over the period 1970-2019 using time-series techniques. The authors adopted the Autoregressive Distributed Lag (ARDL) framework, together with unit root and cointegration procedures. The results indicated that government capital expenditure contributes positively and significantly to economic growth in Nigeria in both the short and long run. Barlas (2020) empirically analyzed the contribution of government spending on agriculture to economic growth in Nigeria and found evidence of a statistically significant relationship between public agricultural expenditure and economic performance. In a related study, Barshir (2022) examined the influence of public investment in education on economic growth and reported that total education expenditure has a strong and positive effect on economic growth in the long run. These findings collectively highlight the critical role of government spending as an effective policy instrument for promoting economic growth in developing economies.

Bingilar and Oyadonghan (2020) investigated the linkage between public spending and economic growth in Nigeria by decomposing government expenditure into total spending, debt servicing, health expenditure, and education expenditure. Their findings indicated that spending on health was negatively associated with economic growth, while allocations to the education sector were considered inadequate to meet the needs of the growing sector. The study also reported that public expenditure in Nigeria has the potential to stimulate both foreign and domestic investment. Similarly, Yusuf, Babalola, Aninkan, and Salako (2015) assessed the effects of government spending on key sectors of the Nigerian economy over the period 1984-2013 using the Autoregressive Distributed Lag (ARDL) bounds testing approach. The results showed that expenditure on defense exerted a negative effect on economic growth, whereas spending on agriculture contributed positively to growth. In contrast, expenditures on education and on transport and communication were found to have no statistically significant long-run impact on economic growth.

Eberinga and Charles-Anyaogu (2012) examined sectoral government spending in Nigeria presents mixed results regarding its growth effects. While some studies find that expenditure on sectors such as telecommunications, defense, education, and health supports economic growth, others report that certain components of public spending, including capital, recurrent, and education expenditures, may exert a negative influence. Conversely, spending on transport, communication, and health has been shown to contribute positively to growth. Overall, these findings suggest that the impact of government expenditure on economic growth in Nigeria depends largely on its sectoral allocation and efficiency. Abu and Abdullahi (2010) carried out a sector-based analysis employing cointegration and error correction techniques within the frameworks of the Keynesian and endogenous growth theories. Their empirical findings indicated that aggregate capital spending, recurrent expenditure, and public spending on education were associated with a decline in economic growth. In contrast, expenditures allocated to transport and communication, as well as to the health sector, were found to contribute positively to economic growth.

Using data from eight member states of the European Union, Dudzeviciute, Simelyte, and Liucvaitiene (2018) examined the relationship between public spending and economic growth and reported a strong positive association between the two variables. Similar evidence was provided

by Idris and Bakar (2017) as well as Ihugba and Njoku (2017), who also documented that government expenditure contributes positively to output expansion. In the Nigerian context, Chimobi (2016) explored the relationship between government spending and national income and established the existence of a stable long-run equilibrium relationship between fiscal variables and economic growth. Collectively, these studies lend support to the view that public expenditure promotes economic growth, a position that contrasts with the predictions of the neoclassical growth framework.

Conversely, other empirical findings suggest a less favorable or even adverse impact of public spending on economic performance. For instance, Mulugeta (2023), in a study on South Africa, reported a negative long-run relationship between government expenditure and economic growth. Similarly, Ebaid and Bahari (2019), using data from Kuwait, found evidence of a one-way causal relationship running from government spending to economic growth. In Nigeria, Olayungbo and Olayemi (2018) applied a Vector Error Correction Model to data covering 1981-2015 and found that public expenditure exerted a negative and statistically significant effect on economic growth in both the short and long run. Awode and Akpa (2018) obtained comparable results after accounting for structural breaks within an ARDL framework, although their estimates were not statistically significant. These mixed outcomes neither fully validate nor completely refute the predictions of neoclassical growth theory or Wagner's law, particularly given the institutional challenges such as corruption and governance constraints-often faced by developing economies. In response to these divergent findings, some studies have adopted a disaggregated approach by decomposing public expenditure into its major functional and economic components. For example, Oyinlola and Akinnibosun (2013), using the Gregory-Hansen structural break methodology on Nigerian data from 1970 to 2009, found that capital expenditure exerted a positive and significant influence on economic growth, whereas recurrent expenditure showed a negative but statistically insignificant effect.

Ebong et al. (2016) andAbutu and Agbede (2015) employed the Vector Error Correction Model (VECM) to investigate the effects of capital and recurrent expenditures on Nigeria's economic growth over the period 1970-2012. Their findings revealed that infrastructure-related capital expenditure had a positive and statistically significant impact on economic growth in both the short and long term. Similarly, Onifade et al. (2020), using the Autoregressive Distributed Lag (ARDL) approach with data from 1981 to 2017, observed that recurrent expenditure negatively affected national output, whereas capital expenditure had a positive, though statistically insignificant, effect on GDP. These results are consistent with Barro's (1990) endogenous growth model, which posits that productive government spending can enhance output and promote economic growth over both short and long horizons. In addition, Shakirat (2018) examined the impact of government spending on various infrastructure sectors in Nigeria from 1980 to 2016 and found that expenditures on transport and communication, education, and health infrastructure positively and significantly contributed to economic growth. Conversely, spending on agricultural and natural resource infrastructure was associated with a significant negative effect. The study applied Weighted Least Squares and VECM techniques for its analysis.

The review of the existing literature on the relationship between public expenditure and economic growth in Nigeria presents mixed results and evidences. The debate remains inconclusive, partly due to variations in the periods under investigation, stages of countries' development, analytical methods employed, and categorization of public expenditures. Also, this study considered the short

run and long run dynamic which served as empirical gap this study intends to cover. Thus, these gaps identified motivated this study.

3.0 Methodology

The study employed an ex post facto research design, treating the entire Nigerian economy as the population of interest. The analysis was performed using the Autoregressive Distributed Lag (ARDL) technique. Secondary data for the period 1986-2024 were obtained from the Central Bank of Nigeria (CBN) and the World Bank Development Indicators (WDI), with the period chosen based on data availability. The dependent variable in the study is real gross domestic product (RGDP), while the independent variable was Government expenditure proxied with Government recurrent expenditure (REX) and Government capital expenditure (CAPEX). Inflation rate (INFR) and exchange rate (EXR) were included as control variables.

Table 1:
Variables Definition, Abbreviation, and Sources

SN	Symbol	Variable Name	Sources
1	RGDP	Rate of Real Gross Domestic Product	CBN
2	INFR	Inflation rate	WDI
3	CAPEX	Capital Expenditure	CBN
4	REX	Recurrent Expenditure	CBN
5	EXR	Exchange rate	WDI

Source: Authors' Compilation, 2026.

Model Specification

Following Echekoba & Amakor, (2017) model, a dynamic ARDL model was formulated to incorporate the short run and the long run dynamics between government expenditure and economic performance in Nigeria. The linear model is stated below:

$RGDP_t = \beta_{0+} \beta_1 \text{RGDPt}_{-1} + \beta_2 REX_t + \beta_3 CAPEX_t + \beta_4 TEX_t) + \beta_5 EXR_t + \beta_6 INFR_{t+} \mu_t$ eqn 1

The long run specification in log form becomes thus stated:

$\Delta InR\text{GDP}_t = \beta_{0+} \beta_1 \Delta InR\text{GDP}_{t-1} + \beta_2 \Delta InREX_t + \beta_3 \Delta In\text{CAPEX}_t) + \beta_4 \Delta InTEX_t + \beta_5 \Delta EXR_t + \beta_6 \Delta INFR_t) + \mu_t + \gamma \text{ECM}_{t1} + e_t$ eqn 2

4.0 Results and Discussion

Table 2:
Descriptive Statistics

	RGDP	REX	CAPEX	TEX	INFR	EXR
Mean	43807.93	2294.216	704.9094	3190.741	18.06084	137.8190
Median	39951.85	1355.750	535.9500	1978.850	12.70720	128.9370
Maximum	73382.77	9145.200	2522.500	12164.10	72.83550	401.1520
Minimum	21680.20	36.20000	24.00000	60.30000	5.388008	8.038285
Std. Dev.	19819.44	2502.316	633.4044	3293.736	16.36508	106.9853
Skewness	0.248069	1.211774	1.259457	1.125315	2.170086	0.792016
Kurtosis	1.423893	3.691318	4.199868	3.466369	6.633360	2.960799
Jarque-Bera	3.640353	8.468668	10.37949	7.043783	42.71787	3.347592
Probability	0.161997	0.014489	0.005573	0.029544	0.000000	0.187534
Sum	1401854.	73414.90	22557.10	102103.7	577.9468	4410.210
Sum Sq. Dev.	1.220010	1.940008	12437235	3.360008	8302.294	354821.2
Observations	39	39	39	39	39	39

Source: Authors' Computation, 2026.

Table 2 presents a descriptive summary of the exchange rate, inflation, and government expenditure indicators in Nigeria. The average real gross domestic product (RGDP) stands at 43,807.93 billion naira, exhibiting a slightly right-skewed distribution, which reflects the presence of active and growing industries. A standard deviation of 19,819.44 billion naira indicates considerable variation in RGDP across different sectors. Recurrent expenditure (REX) averages 2,294.216 billion naira, displaying a right-skewed and leptokurtic distribution, suggesting significant variability. Capital expenditure (CAPEX) has a mean value of 704.9094 billion naira, also showing a right-skewed distribution with notable variability. The mean total government expenditure (TEX) is 3,190.741 billion naira, following a right-skewed distribution and exhibiting substantial dispersion. The average inflation rate (INFR) is 18.06%, characterized by positive skewness and a leptokurtic pattern. The exchange rate (EXR) averages 137.81 naira per US dollar, showing slight positive skewness and noticeable variability. While RGDP and EXR approximate a normal distribution, CAPEX, REX, TEX, and INFR deviate from normality.

Table 3: Test for Unit Root
Augmented Dicky Fuller (ADF) Unit Root Test Result

Variables	ADF Statistic	Probability Values	5%MacKinnon Critical Values	Order of Integration
RGDP	-2.892091	0.0581	-2.963972	I(1)
CAPEX	-6.507363	0.0000	-3.670170	I(1)
REX	-7.746730	0.0000	-2.963972	I(1)
TEX	-3.057281	0.0427	-3.711457	I(0)
INFR	-4.574304	0.0010	-2.963972	I(1)
EXR	-5.158948	0.0002	-2.963972	I(1)

Source: Authors' Computation**,** 2026.Note: *10%, ** 5% and *** 1% level of significance

The results of the Augmented Dickey-Fuller (ADF) test presented in Table 3 show that the probability values for the variables are below the 5% significance threshold. Moreover, the absolute values of the ADF statistics surpass the 5% Mackinnon critical values. While total government expenditure (TEX) was stationary at level I(0), the remaining variables like RGDP, CAPEX, REX, INFR, and EXR achieved stationarity only after first differencing, indicating that they are integrated of order one, I(1). These outcomes suggest that the variables exhibit a unit root and are non-stationary in their original form, but become stationary after first differencing. Based on these results, it is appropriate to conduct a co-integration test to assess whether a long-run equilibrium relationship exists among the variables.

Co-integration Test

Due to the presence of a unit root in some variables i.e mix integration of I(1) and I(0), a cointegration analysis was conducted to examine long-term relationships. The study employed the Bounds testing approach to account for the mixed integration orders of the data, with the results presented in Table 3.

Table 4:
ARDL F Bounds Cointegration Test Result

Test Statistic	Value	Signif.	Asymptotic: n=1000	I(0)
F-statistic	10.05699	10%	2.26	3.35
K	5	5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

Source: Authors' Computation, 2026.

The cointegration results for the government expenditure model, as presented in Table 4, indicate that the null hypothesis of no long-run relationship among the variables is rejected. This conclusion is supported by the F-statistic value of 10.056, which exceeds the critical I(0) and I(1) bounds at the 5% significance level. These findings confirm the presence of cointegration in the model, justifying the application of a short-run ARDL analysis.

Lag Length Criteria

Table 5:

VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	133.2683	NA	8.33e-12	-8.484557	-8.204317	-8.394906
1	277.8579	221.7040	6.30e-15	-15.72386	-13.76218*	-15.09630
2	335.5578	65.39318*	2.03e-15*	-17.17052*	-13.52740	-16.00505*

Source: Authors' Computation, 2026. * indicates lag order selected by the criterion

From the lag length criteria examined in table 5, the maximum lag length selected by Information Criteria. All information Criteria depicts an optimal lag length of 2 hence, lag length 2 was selected.

Table 6.

ARDL Short run Estimates: dep. Variable= RGDP

Variable	Coefficient	Prob.
C	153.6264 (392.9633)	0.7027
Δ(RGDP(-1))	0.379415** (0.172729)	0.0484
Δ(TEX)	-1.129087 (1.428624)	0.4447
Δ(TEX(-1))	1.133964 (1.449663)	0.4492
Δ(REX)	-1.292281 (1.603547)	0.4360
Δ(REX(-1))	-2.965249 (1.861584)	0.1372
Δ(CAPEX)	3.614814*** (1.480004)	0.0310
Δ(CAPEX(-1))	-2.789471 (1.596357)	0.1061
Δ(INFR)	-11.06767 (15.50092)	0.4889
Δ(INFR(-1))	25.05241 (16.00171)	0.1434
Δ(EXR)	-24.12119*** (10.62270)	0.0424
Δ (EXR(-1))	15.93295 (10.31478)	0.1484
ECM(-1)*	-0.001246*** (0.000311)	0.0017
R^2	0.784020	
Adjusted R^2	0.631563	
F-statistic	5.142570***	
Prob. Value	0.001221	
DW- stat	2.282030	

Source: Authors' Computation, 2026.

The superscripts ***, ** and * represent the rejection at 1%, 5% and 10% levels of significance, respectively. The symbol denotes a difference operator.

The ARDL short-run results shown in Table 6 provide a detailed understanding of the relationship between government expenditure and economic performance in Nigeria. The model's coefficient of determination (R^2) indicates that approximately 63% of the variation in economic performance is explained by changes in government expenditure and other explanatory variables included in the model. The Durbin-Watson statistic of 2.28, being close to the benchmark value of 2.0, suggests the absence of autocorrelation, thereby supporting the validity of the model specification. The results reveal that past economic performance has a positive and statistically significant effect on current economic performance ($\beta = 0.379$, $p = 0.0484$). This implies that, holding other factors constant, a 1% increase in the previous period's economic performance is associated with an average 0.37% increase in the current period's performance. Total government expenditure (TEX) and recurrent expenditure (REX) in both the current and previous periods were not statistically significant. In contrast, capital expenditure (CAPEX) in the current period shows a significant positive impact on economic performance ($\beta = 3.614$, $p = 0.0310$), suggesting that a 1% increase in CAPEX leads to an average 3.61% improvement in economic performance, assuming other factors remain constant.

Inflation (INFR) in both the current and lagged periods was not significant. Meanwhile, the exchange rate (EXR) in the current period has a significant negative effect on economic performance ($\beta = -24.121$, $p = 0.0424$), indicating that a 1% appreciation in the exchange rate, holding other variables constant, corresponds to an average 24.1% decline in economic performance. The exchange rate in the previous period, however, did not show a statistically significant effect. Additionally, the error correction mechanism (ECM), which reflects the short-run adjustment towards long-term equilibrium, behaves as expected. The ECM coefficient indicates that short-run deviations from equilibrium are corrected at an annual speed of 0.124%, highlighting gradual adjustment dynamics in the Nigerian economy.

Table 7:
ARDL Long run Estimates dep. Variable = RGDP

Variable	Coefficient	Prob.
TEX	25.548	*0.1174*
	(15.610)	
REX	-1.0256	*0.9648*
	(22.967)	
CAPEX	-95.057	*0.0079*
	(32.21)	
INFR	28.627	*0.8856*
	(196.47)	
EXR	-172.97	*0.1559*
	(117.29)	

Source: Authors' Computation, 2026.

The long-run regression results presented in Table 7 illustrate the impact of government expenditure components on economic performance over the long term. The findings show that capital expenditure (CAPEX) has a statistically significant and negative long-term effect on economic performance, with a coefficient of $\beta = -95.05$ and a p-value of 0.0070. In contrast, total government expenditure (TEX), recurrent expenditure (REX), inflation rate (INFR), and exchange rate (EXR) do not exhibit statistically significant effects on long-run economic performance, as

indicated by their non-significant coefficients and p-values. These results underscore the critical role of capital expenditure in influencing long-term economic performance in Nigeria, while suggesting that other variables, including total and recurrent expenditures, inflation, and the exchange rate, have a limited impact on sustaining economic growth over time.

Post Estimation Test

Table 8:

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.456013	Prob. F(2,27)	0.6386
Obs*R-squared	1.208976	Prob. Chi-Square(2)	0.5464

Heteroskedasticity Test: Breusch-Pagan-Godfrey:

F-statistic	0.753882	Prob. F(7,29)	0.6294
Obs*R-squared	5.696367	Prob. Chi-Square(7)	0.5756
Scaled explained SS	24.60030	Prob. Chi-Square(7)	0.0009

Source: Authors' Computation, 2026.

Table 8 was used to assess the presence of autocorrelation in the model. The probability value for the autocorrelation test exceeded 0.05, indicating that the null hypothesis of no autocorrelation cannot be rejected. This suggests that the model does not exhibit autocorrelation. Additionally, the results from both the F-test (Test Statistic = 0.753882, p = 0.629) and the R^2 test (Test Statistic = 5.696367, p = 0.5756) support the acceptance of the null hypothesis, indicating that the model does not suffer from heteroscedasticity.

Stability Test

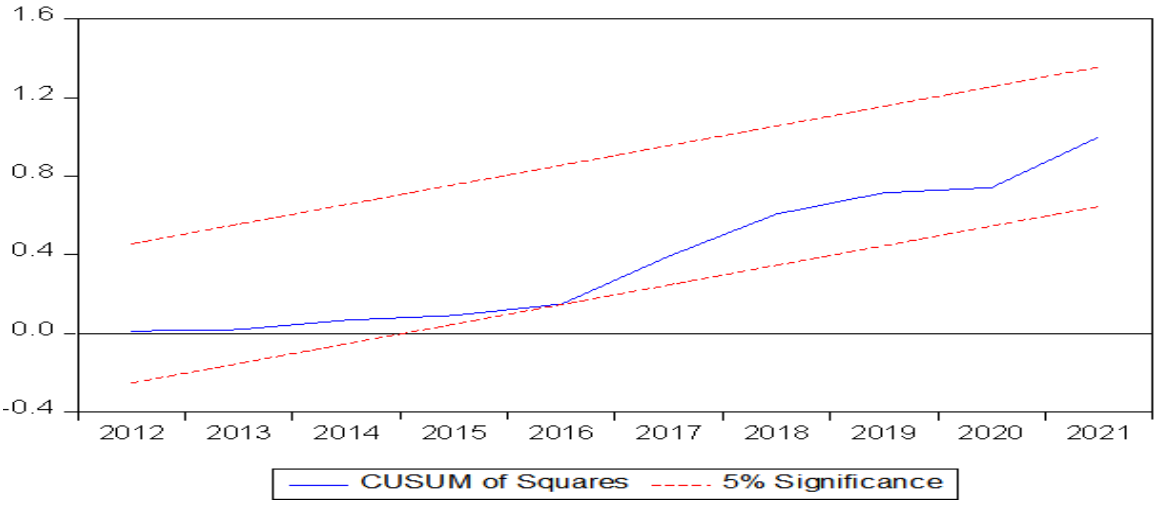


Figure 1 showing the CUSUM result for model stability

From the stability test result, the, the blue lines lie between the 5% red lines in the two figures. This shows that the model is stable and valid.

4.0 Discussion of Findings

The findings suggest that past economic performance significantly influences current economic outcomes in Nigeria, supporting the view that growth in GDP during one period tends to positively affect GDP in subsequent periods. This underscores the lasting effects of favorable economic

factors, such as higher production, consumption, investment, or government spending, on sustaining economic expansion (Onifade et al., 2020). Additionally, capital expenditure (CAPEX) was found to have a positive and significant impact on economic performance. This aligns with the findings of Danladi, Akomolafe, Olarinde, and Anyadiegwu (2015), who argue that investments in modern machinery, technology, and equipment enhance productivity and efficiency across sectors. Such improvements can increase competitiveness, attract investments, stimulate economic growth, and create employment opportunities, thereby reducing unemployment and improving societal welfare.

Conversely, recurrent expenditure (REX), total expenditure (TEX), and the inflation rate (INFR) were not found to significantly affect economic performance in Nigeria. This may reflect inefficiencies in the allocation or execution of recurrent and total government spending, raising questions about the effectiveness of such expenditures in promoting growth (Onifade et al., 2020). The limited impact may also be due to structural challenges in the Nigerian economy, including weak institutions, inadequate infrastructure, limited human capital development, and regulatory constraints (Okere et al., 2019).

Furthermore, the results are consistent with Umeh, Ezudike, and Anyaegbunam (2022), who reported a positive link between government expenditure and economic growth in Nigeria. Increased capital spending, particularly on infrastructure such as roads, bridges, airports, ports, and power plants, can improve connectivity, enhance productivity, and stimulate economic activity (Aluthge, Jibir, & Abdu, 2021). On the other hand, the study found that the exchange rate exerts a significant negative effect on economic performance. This finding aligns with Mahonnye and Tenda (2019), who note that a depreciating currency increases import costs, making imported goods and raw materials more expensive for domestic consumers and firms. Such depreciation can reduce industrial competitiveness, raise production costs, and contribute to inflation, thereby eroding purchasing power and negatively affecting overall economic performance (Akinbonola, 2012).

5.0 Conclusion and Recommendations

Overall, the findings of the study provide evidence that government expenditure long run effect on economic growth in Nigeria. Based on the findings, it can be concluded that government expenditure indicators, particularly capital expenditure, play a significant role in explaining changes in economic growth in Nigeria both in short and long runs. Based on the research findings the study recommends that;

i. The government should promote fiscal discipline and transparency in managing public finances on capital expenditure, this includes effective budgetary planning, expenditure control, and transparent financial reporting which enhance sound economic activities that will increase economic performance
ii. Government should ensure that recurrent expenditure is far cut down and increase capital expenditure and efficiently allocated and effectively implemented by carrying out feasibility studies, monitoring project execution, and addressing corruption and mismanagement of government expenditure cut from recurrent expenditure which in turn will be channel to capital expenditure projects, thus enhance economic performance in Nigeria

References

Adeyemi, B. A. & Awogbade, A. (2022). Fiscal policy and economic growth in Nigeria. *Journal of Taxation and Economic Development, 21*(1), 20-35.

Akinbonola, T. (2012). The Dynamics of money supply, exchange rate and inflation in Nigeria: *Journal of Applied Finance and Banking, 2*(4), 117-141.

Aluthge, C., Jibir, A., & Abdu, M. (2021). Impact of government expenditure on economic Growth in Nigeria, 1970-2019. *CBN Journal of Applied Statistics, 12*(1), 139-174.

Barlas, A.W. (2020). The impact of government expenditure on economic growth in Afghanistan. *Journal of Economics and Business, 3*(2), 729-733.

Barshir, D. (2022). The impact of inflation on economic growth in Nigeria. *International Journal of Accounting & Finance Studies, 5*(2), 81-92. DOI: 10.22158/ijafs.v5n2p81

Bingilar, P. & Oyadonghan, J. (2020). Impact of government expenditure on economic growth inNigeria. *World Journal of Finance and Investment Research, 5*(1), 21–31

Central Bank of Nigeria. (2020). Annual statistical bulletin. Retrieved from https://www.cbn.gov.ng/documents/statbulletin.asp

Chude, N. P., & Chude, D. I. (2013). Impact of government expenditure on economic growth in Nigeria. *International Journal of Business and Management Review, 1*(4), 64-71.

Danladi, J. D., Akomolafe, K. J., Olarinde, O. S., & Anyadiegwu, N. L. (2015). Government expenditure and its implication for economic growth: Evidence from Nigeria. *Journal of Economics and Sustainable Development, 6*(18), 142-150

Echekoba, F. N., & Amakor, I. C. (2017). Impact of government expenditure such as expenditure on general administration, defense, education and health on GDP of Nigeria (1983-2016). *Journal of Social Development, 6*(3), 21-30

Gregory, M. (2014). *Principles of economics (7th ed.).* Stamford, CT: Southwestern Publishing Group.

Gruber, J. (2015). *Public finance and public policy (5th ed.).* New York: Worth Publishers.

Ijuo, O. A., & Andohol, J. (2020). Agricultural exports and economic growth in selected West African Countries. *World Academics Journal of Management, 8*(1), 29-39.

Kaldor, N. (1970). The case for regional policies. *Scott J Polit Econ.* https://doi.org/10.1111/j.1467-9485.1970.tb00712.x

Lequiller, F., & Blades, D. (2006). *Understanding national accounts*. Paris: OECD.

Lovell, C., Jesus, P., & Judi, A. (1995). Measuring macroeconomic performance in the OECD: a comparison of European and non-European countries. *European Journal of Operational Research, 87*(3), 507–18

Mahonnye, N., & Tenda, Z. (2019). Exchange rate impact on output and inflation: A historical perspective from Zimbawe. *African Journal of science, Technology and Development, 4*(2), 23-39.

Monogbe, T. G., Achugbu, A., & Davies N. L. (2016). Macro-economic variable and its behavioural effect on government expenditure in Nigeria: (VECM Analysis) *American Journal of Management Science and Engineering, 1*(1), 1-7

Mordi, N.O. (2010). Macro-economic model of the Nigerian economy. Researchdevelopment, Central Bank of Nigeria. Central Business District Garki, Abuja.

Mulugeta, G. (2023). Effect of public expenditure on economic growth in the case of Ethiopia. *The Scientific World Journal, 9*(1), 1-14. DOI: 10.1155/2023/9305196

Okere, P. A., Uzowuru, L. N., & Amako, J. C. (2019). Government expenditure and economic growth in Nigeria. *International Journal of Economics and Financial Management, 4*(2), 29-29

Okpabi, A. S., Ijuo, A. O., & Akiri, S. E. (2021). Government expenditure and economic growth in Nigeria. *IOSR Journal of Economics and Finance (IOSR-JEF), 12*(1), Ser. II, 28-35. doi:10.9790/5933-1201022835

Onifade, S. T., Çevik, S., Erdoğan, S., Asongu, S., & Bekun, F. V. (2020). An empirical retrospect of the impacts of government expenditures on economic growth: new evidence from the Nigerian economy. *Journal of Economic Structure, 9*(6), 21-42 https://doi.org/10.1186/s40008-020-0186-7

Quan-Hoang, V. (2018). The (ir) rational consideration of the cost of science in transition economies. *Nature Human Behaviour, 2*(1), 5-24.

Taylor, T. (2017). *Principles of Macroeconomics: Economics and the Economy* (4th ed.). Minneapolis: Textbook Media Press.

Tucker, I. (2012). Macroeconomics for Today (8th ed.). Mason, OH: Cengage Learning.

Ugochukwu, S. D., & Oruta, L. I. (2021). Government expenditure and economic growth in Nigeria: A disaggregated analysis. *Traektoriâ Nauki Path of Science, 7*(11), 4022. https://doi.org/10.22178/pos.76-6

Umeh, A. C., Ezudike, C. P., & Anyaegbunam, N. S. (2022). Impact of government expenditure on economic growth in Nigeria: Econometric approach of error correction model. *International Journal of Multidisciplinary Research and Growth Evaluation, 03*(04).82-92.

Yusuf, S. A., Babalola, B. T. A., Aninkan, O. D. & Salako, M. A. (2015). Analysis of impact of sectoral government expenditures on economic growth in Nigeria: Bound test cointegration approach. *European Journal of Business and Management, 7*(12), 29-41.