Impact of Government Recurrent Expenditure on Nigeria's Economic Growth: 1981-2023

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Abstract

Nigeria is a developing economy that has been enjoying slow and volatile growth despite the consistent rise in their recurrent expenditure in government even though this growth has been low, which makes one wonder whether government spending is actually effective in driving economic performance. This paper analyzes how government recurrent expenditure affects the economic growth of Nigeria, between 1981-2023 with Autoregressive Distributed Lag (ARDL) model. The findings reveal that there is a high rate of adjustment, 96 percent of the past disequilibrium was corrected in a year which demonstrates a rapid recovery to the long run stability. The results indicate that frequent spending on agriculture (EGRXA) has a negative impact on economic growth with about 1% rise in EGXA will lead to 2% and 3% reduction in economic growth in the short and long run, respectively. There are also negative, nonsignificant impacts of spending on road construction (EGRXR), inflation (NIFR), and other economic services (EGRXO) on the growth. On the contrary, communication recurrent expenditure (EGRXT) has a positive and significant effect on economic growth in both time horizons, with about 1% rise in EGRT will lead to 2% and 5% rise in economic growth in the short and long run, respectively. The research finds out that composition of recurrent expenditures are important to the growth of Nigeria economy and recommends more recurrent funding on agriculture, maintained investment in communication services and better accountability in other economic service sectors, to boost their contribution to the economic growth of Nigeria.

Keywords: Government Spending, Recurrent Expenditure, Economic Growth, Autoregressive Distributed Lag Model (ARDL), Expo Facto.

1.0 Introduction

In economic growth, government spending is key especially in developing economics like Nigeria. Public expenditure is still among the most important instruments of affecting economic performance as governments around the globe intervene in the economy with fiscal and monetary policies to attain macroeconomic goals (Okere et al., 2019). Public spending is being used to redistribute income, allocate resources to strategic areas, and alter the mix of national output in both the developed and developing countries. This is even more important in the case of developing countries where it is equally accepted that government expenditure is a major contributor to infrastructure growth, human capital building and technological advancements, which are seen to play a vital role in catalyzing economic growth and facilitating the establishment of an enabling environment whereby the private sector can invest. The government spending, which is financed by the revenue generated by taxes, levies, and other means, thus becomes an essential tool to ensure a sustainable growth and more balanced economic results (Assi, et al., 2019; Okere et al., 2019).

The necessity of state intervention in the economic activity was particularly demonstrated during the Great Depression of the 1930s that led to the development of the Keynesian economic theory. Unlike classical opinions on the self-regulating influence of the market forces, Keynesian economics underlines the necessity of conscious government spending to stabilize production, generate demand, and eliminate unemployment (Shaikh, 2009; Backhouse, 2015). Although government spending today takes many different shapes (investment, transfers or consumption), it is still critical to stimulate growth as well as alleviate poverty and enhance welfare in developing economies (Farooq et al., 2023). In line with the Keynesian theory, government expenditure may boost aggregate demand, which in turn supports additional economic expansion and job creation. But, cutting back on government spending might have a negative impact on the economy. The economy is stimulated when the government spends more because it raises demand for goods and services. Higher production levels and employment rates as a result of this rise in demand support economic expansion. Spending by the government can also be very important in lowering unemployment. Redistributing income is another major goal of government spending, which is crucial for lowering poverty and advancing equality (Tenai, 2020).

Government expenditure is classified into capital expenditure and recurrent expenditure. The former includes spending of government on creating or acquiring non-current assets that are permanent in nature. The benefits of capital expenditure are not immediately revelatory, yet they are necessary for the development and growth of the economy. These include the construction of roads, buildings, health and educational facilities, dams, air and sea ports, etc. The recurrent expenditure (hereinafter referred to as government consumptions), on the other hand, is concerned with spending on items consumed for a limited period of time or expenses incurred on a regular basis for the functioning of government machinery. Such items include wages, salaries, consumables like stationery for schools, drugs for health services, national defence, pensions, cost of governance, among others (Andinyanga & Anietie, 2022).

The government's total expenditure, which encompasses both capital and recurrent expenditures, increased at an irregular rate from approximately ₦11.4 billion in 1981 to approximately ₦60.3 billion in 1990 and 12.1641 trillion in 2021 (CBN, 2021).The federal government's spending in Nigeria has been significantly impacted by recurring expenditures, which are a result of factors such as the growth of the civil service and the disproportionate salaries of political office holders, among others. Recurrent expenditure increased from ₦4.8 billion in 1981 to approximately ₦36.2 billion in 1990 and surpassed ₦9.1452 trillion in 2021. Capital expenditures also underwent some changes during these periods, as the total capital expenditure increased from ₦6.6 billion in 1981 to ₦24 billion in 1990 and ₦2.5225 trillion in 2021 (CBN, 2021). There is no doubt that the government spends more on recurrent expenditure than capital expenditure. Basically, to achieve a sustainable level of development, it is expected that the government participate in the provision of some basic public infrastructures that are fundamental to the economy. These public infrastructures include roads, bridges, security, health, water, electricity, school and so on (Okere et al., 2019). The large quantum of funds injected into the economy by the Nigerian government to finance the recurrent and capital expenditure has therefore led to an increase in aggregate money supply without the corresponding stability of the macroeconomic variables (employment/unemployment rate, interest rate, balance of payment, consumer price index, gross domestic product and so on) (Monogbe et al., 2016). Rising government recurrent expenditure is one of the ways the government has used to support economic growth and development (Ekpo et al., 2022).

Over the years, the Nigerian economy has grown unevenly and frequently slowly, much like the economies of many developing nations. The federal government's recurrent spending is

one of the main causes of this rise. Recurrent spending by the federal government, which includes payments for purposes other than capital projects, is also essential for promoting sustainable economic growth (Frank & Kereotu, 2020). According to some perspectives, government spending can be a significant growth engine, while others contend that excessive government spending might hinder economic expansion (Pehlivan et al., 2021; El-Yaqub et al., 2025). This emphasizes the need for a more thorough comprehension of the connection between Nigeria's economic growth and government spending. Some argue that there is no meaningful relationship between government spending and economic growth, while others contend that there is a positive association (Idris & Baker, 2017, Akomolafe & Agunbiade, 2019). Nigerian governments have been investing large sums of money in infrastructure, operating costs, and expenditures in the hope that this will accelerate the nation's economic growth and development. However, current trends indicate that the rate of output growth is outpacing the rate of economic expansion. According to statistics, for instance, the government grew from ₦60.3 billion in 1990 to 12.1641 trillion in 2021 without the economy growing at a rate that matched the increase in government (CBN, 2021). Despite the fact that Nigeria's gross domestic product (GDP) increased by an average of 7% between 1970 and 1979, it experienced an average decline of 0.9% in corresponding periods due to numerous recessions. Instead of experiencing economic growth, the country plunged into recession as a result (Okere *et al.*, 2019).

The impact of government expenditure on economic growth in the Nigerian economy is revisited in this research in light of the competing claims made in the literature that government improve economic growth (Awode and Akpa, 2018, Idris and Bakar, 2017, Ihugba and Njoku, 2017, and Jibir and Aluthge, 2019) but Okere *et al.*, 2019; Farooq *et al.*, 2023; Gukat and Ogboru, 2017; Nurudeen and Usman, 2010; Segun and Adelowokan, 2015; Awode and Akpa, 2018 argued that government spending do not improve economic growth, It is on the basis of the inconclusive results that this study also wants to reinvestigate the impact of government expenditure on Nigeria's economic growth. Lastly, the study was motivated by separate data on government recurrent expenditure. Few studies have only looked at the effects of government capital expenditure and recurrent expenditure. Others, like Gukat and Ogboru (2017), went even further and separated government capital expenditure and recurrent expenditure into administration, economic service, social and community service, and transfer payment. This study, on the other hand, only looks at economic service under recurrent expenditure, which is an area that many scholars didn't pay enough attention to. The study focuses on the impact of public recurrent expenditure on economic growth with disaggregated data only on economic services by looking at the contributions of government recurrent expenditure on agriculture, road construction, communication and other economic services.

The study is structured as follows; section one deals with the introduction while section two, explains literature review and theoretical framework. Section three presents the methodology of the study and section four focus on data analysis, discussion of results. Finally, section five presents the conclusion and recommendations of the study.

2.0   Literature Review

2.1 Conceptual Review

Government expenditure is the sum of all the funds that the government allocates to a variety of services and facilities in order to stimulate economic growth and development, (Jeff-Anyeneh and Ibenta, 2019; Akomolafe & Agunbiade, 2019). Ukwueze (2018) disaggregates or classify public expenditures into subheadings, such as recurrent expenditures and capital expenditures. The recurrent expenditures are expenditures or purchases of stationeries, wages

and salaries of workers, fuel, electricity bills and other bills, interest on loans, and maintenance costs. They are all examples of recurring expenses that the government incurs. The majority of this expenditure is comprised of wages, salaries, and supplements, as well as spending on goods and services and consumption of fixed capital (depreciation) (CBN 2021). Capital expenditures on the other hands, are allocated to initiatives such as roads, airports, health, education, electricity production, telecommunications, and water. Capital expenditures are constructions undertaken by the government on roads, bridges, health centres, schools, military installations and hardware. Capital expenditures, on the other hand, are payments made for the acquisition of intangible assets, stock, property, or fixed capital assets. A prominent example of infrastructure initiatives is the construction of new schools, hospitals, or highways. Although the majority of donor-funded "capital" expenditure relates to projects, it also includes payments on non-capital expenditure (CBN 2021).

Anyiwe and Oziegbe (2020) claimed that economic growth is linked to increasing levels of urbanisation, health, education, technology, and production across all industries. Furthermore, economic growth is defined as the gradual expansion of a nation's capacity to offer a broader selection of economic goods and services to its populace. This process also leads to an increase in national production and income, as it entails the gradual expansion of the economy's productive capacity. Economic growth is a phenomenon in which the national income, population, and real per capita income all significantly and persistently rise over time. The expansion of the system in one or more dimensions is all that's needed to achieve economic progress; no fundamental adjustments are required (Anyiwe & Oziegbe, 2020; El-Yaqub, Akomolafe & Owunnah, 2025). Ukwueze (2018) states that a nation is considered to be economically developed when there is a noticeable and long-lasting growth in its production or per capita income, together with changes in the size of the labour force, consumption, capital, and trade volumes.

2.2 Theoretical Framework

The Keynesian theory of public expenditure was adopted because it is applicable to the issue under investigation. Keynes believed that expansionary fiscal policy would bring about economic growth. Keynes contended that there is a direct correlation between increased government spending and overall demand. The reduction in taxes would increase the after-tax earnings of households, and they are expected to spend the majority of this additional money, thereby increasing overall demand. The Keynesians favoured a higher budget deficit in order to mitigate a recession. In the event that inflation was a concern during an economic expansion, Keynesian thinking favoured the implementation of more stringent fiscal policy measures to mitigate excessive demand. In this scenario, it would be feasible to combat inflation and reduce overall demand by increasing taxes, reducing government spending, and transitioning to a budget surplus.

Consequently, Keynes was opposed to the notion that the government's treasuries should be depleted. He stated that budgetary policy should be contingent upon economic conditions. The Keynesian school of thought posits that governments should operate deficits during recessions and surpluses when inflation is caused by excessive demand. Is it possible for fiscal policy to mitigate economic volatility? The Keynesian theory of fiscal policy was the trend in the field of economics during the 1950s and 1960s. At that time, the majority of economists believed that fiscal policy could be implemented in a manner that would counteract the effects of business cycle fluctuations and have a substantial impact on the economy. However, the mission at hand is more difficult than initially anticipated. To have a stabilising impact on the economy, fiscal policy adjustments must be made at the right time.

2.3 Empirical Review

Chandana, Adamu, and Musa (2020) examined the impact of government expenditure on GDP growth in Nigeria. Their study examined the correlation between economic development in Nigeria and capital and recurrent government expenditure by employing time series data from 1970 to 2019. The investigation implemented the ARDL (Autoregressive Distributed Lag) model. In the co-integration analysis and unit root test, structural flaws are taken into account to make sure the results are reliable. Capital investment does influence economic development, as opposed to recurrent expenditure, which does not influence growth in the short or long term, according to the primary conclusions of the study. Ultimately, the study's results are consistent with the notion that a greater portion of the government's expenditures should be allocated to initiatives that enhance the quality of life for their constituents. Additionally, the government should exercise caution when allocating funds; however, it should allocate funds to initiatives that will contribute to human development and the nation's overall spending practices.

Rehman et al. (2020) worked on the government's expenditure composition and economic growth in Pakistan. The study aimed to ascertain the impact of different government spending components on Pakistan's economic development from 1973 to 2018. They used ARDL, taking into account the findings of the ADF test. According to the study, the impact of public spending, namely spending on R&D, subsidies and other transfers, employee remuneration, and education, on GDP per capita stayed considerable and positive. But the cost of the military and interest on loans has a notable and detrimental impact on Pakistan's per capita productivity. According to the report, the government should increase expenditure on employment, R&D, and education in command to hasten the nation's economic growth. Okere *et al.* (2019) investigated the impact of Nigerian government expenditures on GDP growth. The primary objective of the investigation is to ascertain the extent to which Nigeria's economic growth is influenced by government expenditures, which spans the years 1981–2016 with the error correction model (ECM) technique and Granger causality. The Granger Causality findings demonstrated a bidirectional causal relationship between economic growth and government expenditure on services and administration. Economic development and community services are causally related, but only in a single manner. The government ought to increase budgetary deductions in such sectors in a strategic and productivity-focused way.

According to Phiri's (2019) analysis of the impact of military expenditure on economic growth in Nigeria, the current level of defence expenditure does not facilitate growth and development. This was determined through the use of a VAR estimation method. The finding revealed that military expenditure does not translate to economic growth. He suggests that the government reduce defence spending and allocate the funds to other sectors of the economy in order to stimulate growth. Ditimi et al. (2019) equally examined the relationship between the components of government expenditure and economic growth in Nigeria from 1970 to 2018, with a particular emphasis on education, agriculture, health, and transportation and telecommunications factors. The results of the long-term and short-term regression estimates indicated that the most significant impact of government expenditure components on economic growth was on agriculture.

Ebaid and Bahari (2019) found a unidirectional connection between expenditure and economic growth using data from Kuwait and the ARDL estimate approach. In order for expenditure to have an impact on economic growth, they consequently proposed that it must follow a certain pattern of spending. Olayungbo and Olayemi (2018) using Vector Error Correction Model for 1981-2015 Nigerian data established government expenditure have negative and significant impact on economic growth in both short and long runs. This was due to the perceived debt burden has on government spending. They therefore suggest that government should limit its

spending in the economy within the confine of its budgetary revenue and avoid deficit as much they can to forestall the negative effect its spending has on economic growth. Nworji et al. (2018) conducted research that investigated the correlation between economic growth and public spending in Nigeria. Variables that were considered significant indicators of both economic growth and government expenditure from 1970 to 2017 were incorporated into the study. The Ordinary Least Square (OLS) multiple regression model was implemented due to the apparent causal relationship between government expenditure and economic growth. The study's results indicate that capital and recurring expenditure on economic services did not have a substantial impact on economic growth. The impact of capital expenditures on transfers on growth was negligible. Both one-time and ongoing expenditures on social and community services, as well as ongoing expenditure on transfers, significantly contributed to economic growth.

3.0   Methodology

The study used an ex post facto research design to determine the impact of government recurrent expenditure on economic growth in Nigeria. The ex post facto strategy is chosen because it allows the researcher the ability to control the variables, mostly because they have already happened and cannot be altered. One quasi-experimental approach is the ex post facto effect design, which looks at how several independent variables affected the dependent one. The Auto-Regressive Distributed Lag (ARDL) technique was employed in the empirical analysis of this research. It utilised yearly time-series data and covered a 43-year period, from 1981 to 2023. The ARDL bond testing method is employed to investigate the long- and short-term relationship between the independent and dependent variables of the study. As Pesaran *et al.* (2001) developed ARDL. ARDL method is applied to deal with the variables having stationary of series mixture of I(0) and I(1). ARDL model is superior to the other cointegration model and provides reliable results for small sample size (Pesaran *et al.*, 2001). The unit root, ARDL bound test and diagnostic cheeks were carried out as well.

Nature and Sources of Data

The study employs time series data for the period of 1981 to 2023. Data on economic growth proxied by GDP growth rate being the dependent variable and inflation rate being the control variable were sourced from World Bank development indicators (WDI, 2023) while government recurrent expenditure on agriculture, road construction, communication and other economic services.; formed the independent variables. They were sourced from the statistical bulletin of the CBN 2023.

Model Specification

The study adapted Okere *et.al* (2019) model. Their model is specified as follow:

RGDP = f (ADMIN, ECON, COMTY, TRSF) .... (1)

Expressed in econometric form as:

RGDP = α_0+ α_1ADMIN + α_2ECON + α_3COMTY + α_4TRSF + u................... (2)

Where:

RGDP= Real Gross Domestic Product

ADMIN=Government Expenditure on Administration

ECON= Government expenditure on economic Services

COMTY= Government Expenditure on Community Services

TRSF= Government Expenditure on Transfers

µ= error term

Their model was therefore modified with introduction of inflation rate as control variable, and further disaggregate components of government recurrent expenditure on economics services into agriculture, road construction, communication, and other economics services. Then, also use GDP growth rate as proxied for economic growth. The model is now specified to achieve the objective of this study as follows:

$$NEGR = \alpha_0 + \alpha_1 EGRXA + \alpha_2 EGRXR + \alpha_3 EGRXT + \alpha_4 EGRXO + \alpha_5 NIFR + U \dots (3)$$

Where:

NEGR = Nigeria Economic growth (GDP growth Rate as proxy for economic growth)

EGRXA = Government Recurrent Expenditure on agriculture

EGRXR = Government Recurrent Expenditure on road construction

EGRXT = Government Recurrent Expenditure on communication

EGRXO = Government Recurrent Expenditure on other economics services

NIFR = Nigeria inflation rate

U = error term, α_0= intercept, α_1 α_2 α_3, α_4, α_5 = Coefficients of the model

Therefore, ARDL representation of the relationship among the variables is provided in Eq. (4) as follows:

$$NEGR_t = \gamma_0 + \gamma_1 NEGR_{t-1} + \gamma_2 EGRXA_{t-1} + \gamma_3 EGRXR_{t-1} + \gamma_4 EGRXT_{t-1} + \gamma_5 EGRXO_{t-1} + \gamma_6 NIFR_{t-1} + \Sigma\beta_1 \Delta NEGR_{t-1} + \Sigma\beta_2 \Delta EGRXA_{t-1} + \Sigma\beta_3 \Delta EGRXR_{t-1} + \Sigma\beta_4 \Delta EGRXT_{t-1} + \Sigma\beta_5 \Delta EGRXO_{t-1} + \Sigma\beta_6 \Delta NIFR_{t-1} + \Sigma\beta_7 \Delta ECM_{t-1} + \varepsilon_t \dots (4)$$

where β_2, β_2, β_3, β_4, β_5 and β_6 represent the short-run parameters while the γ_1, γ_2, γ_3, γ_4, γ_5, γ_6 denote the long-run parameters and β_7 represents the error correction mechanism which also speed of adjustment of disequilibrium in previous period to restore equilibrium in current period.

A priori Expectations

The apriori expectation is expected sign that independent variables should have on dependent variable; EGRXA, EGRXR, EGRXT and EGRXO should have positive impact on Nigeria economic growth while NIFR is expected to have negative impact on Nigeria economic growth. It is stated symbolically as; α_1, α_2, α_3, $\alpha_4 > 0$ while $\alpha_5 < 0$.

Variables Measurement

Data on economic growth proxied by GDP growth and inflation rate were measured in percentage while government recurrent expenditure on agriculture, road construction, communication and other economic services were all measured in billions of Naira.

4.0: Results and Discussion

4.1 Unit Root Test

The Unit root results for variables employed in the study are presented in Table 1 as follows:

Table 1: Unit Root Result

Time Series	ADF Statistics at level	Critical Value at level		ADF Statistics at 1st Diff	Critical Value at 1st Diff		Stationary Status at 5%
NEGR	-3.244201	-3.600987	1% level	-10.82942	-4.198503	1% level	(0)
		-2.935001	5% level		-3.523623	5% level	
		-2.605836	10% level		-3.192902	10% level	
EGRXA	-4.148049	-4.192337	1% level	-7.448236	-4.205004	1% level	(0)
		-3.520787	5% level		-3.526609	5% level	
		-3.191277	10% level		-3.194611	10% level	
EGRXR	-2.727497	-4.192337	1% level	-8.234120	-4.205004	1% level	(1)
		-3.520787	5% level		-3.526609	5% level	
		-3.191277	10% level		-3.194611	10% level	
EGRXT	-4.439581	-4.198503	1% level	-5.218947	-4.198503	1% level	(0)
		-3.523623	5% level		-3.523623	5% level	
		-3.192902	10% level		-3.192902	10% level	
EGRXO	-4.218183	-4.192337	1% level	-6.892115	-4.205004	1% level	(0)
		-3.520787	5% level		-3.526609	5% level	
		-3.191277	10% level		-3.194611	10% level	
NIFR	-4.025612	-4.198503	1% level	-6.554905	-4.205004	1% level	(0)
		-3.523623	5% level		-3.526609	5% level	
		-3.192902	10% level		-3.194611	10% level	

Source: E-view Version 10.0 Output, 2025.

Stationary result is reported in Table 1, that all the variables (NEGR, EGRXA, EGRXT, EGRXO and NIFR) are stationary at level; I(0) except EGRXR that is stationary at first difference I(1) at 5% level of significance. They result shows that the variables employed in the study are mixed order of integration which inform the use of ARDL.

4.2 ARDL Bound Test Results

Table 2 shows the ARDL bound test for long run relationship among the variables as follows:

Table 2: ARDL Bound Test Results

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	8.081588	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: E-view Version 10.0 Output, 2025

Based on the result optimum lag selection, the ARDL bound Test is used to estimate long run relationship among the variables. The result shows that there is long run relationship among the variables because the F-statistics test for co-integration is 8.081588 is greater than all the critical values at both I(0) and I(1) as contain in Table 2.

4.3 ARDL Short Run Analysis

After the model is estimated the sort run impact of independent variables on dependent variable is represented in Table 3 as follows:

Table 3: ARDL Short Run Regression (Dependent Variable: NEGR)

ARDL Error Correction Regression

Dependent Variable: D(NEGR)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(EGRXA)	-0.019288	0.007285	-2.647642	0.0130
DLOG(EGRXT)	0.022759	0.007241	3.143256	0.0038
DLOG(EGRXT(-1))	-0.005932	0.006188	-0.958542	0.3457
DLOG(EGRXT(-2))	-0.015075	0.005683	-2.652852	0.0128
LOG(EGRXR)	-0.010482	0.008250	-1.270584	0.2140
EGRXO	-0.000111	8.05E-05	-1.376057	0.1793
NIFR	-0.042520	0.031168	-1.364230	0.1830
CointEq(-1)*	-0.953254	0.115366	-8.262898	0.0000
R-squared	0.701793	Adjusted R-squared		0.667712

Durbin-Watson stat	2.373254

Source: E-view Version 10.0 Output, 2025

The report of ARDL short run analysis is presented in Table 3 with the impact of estimated coefficients on dependent variable. The ECM result correctly signed with negative and significant impact on NEGR. This result is line with apriori expectation. This can be explained further that the speed of adjustment is 95% which implies that about 95% disequilibrium in previous period is restored into equilibrium current period. This speed is very fast and quick to restores any disequilibrium in short run to equilibrium in the long run.

Based on the behaviour of the estimated coefficients; it shows that independent variables have both positive and negative impact of on dependent variable. In other words, EGRXA and EGRXT have a negative and a positive significant impact on NEGR, respectively for the period under reviewed. EGRXT conformed with a priori expectation because is expected that rise in EGRXT should lead to rise in EGRXR while EGRXA did not conform with a priori expectation because is expected that rise EGRXA should lead to rise in NEGR but reverse is the case. To further illustrate this, 1% rise in EGRXA and EGRXT will lead to 2% fall and rise in NEGR in the short run, respectively.

However, EGRXT, NIFR and EGRXO have a negative insignificant impact on NEGR, respectively with about 1% rise in EGRXT and NIFR will lead to 1% and 4% fall in NEGR, respectively while ₦ 1 rise in EGRXO will lead to ₦ -0.000111 fall in NEGR.   On the final note in Table 3 is the coefficients of determination (R^2) measure the proportion of variability in the NEGR that is accounted for independent variables. The R^2= 0.701793 presents a model that is positively strong between NEGR and independent variables. Therefore, the model is a good fit since about 70% of changes in the NEGR are due to changes in explanatory variables, while 30% of changes in the NEGR are due to influence of external factors not reflected in the model. Base on the rule of thumb, DW is 2.373254 which implies that there is no autocorrelation in model because the value is close to or around two approximately. By implication, the estimated parameters are valid and good for policy making.

4.4   Long-Run Estimation

The long-run impact of independent variables on dependent variable is estimated as in Table 4 as follows:

Table 4: Long-Run Estimation Results (Dependent Variable: NEGR)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(EGRXA)	-0.034414	0.010285	-3.345945	0.0023
LOG(EGRXR)	-0.010996	0.008624	-1.275139	0.2124
LOG(EGRXT)	0.055594	0.011278	4.929385	0.0000
EGRXO	-0.000116	8.13E-05	-1.430305	0.1633
NIFR	-0.044605	0.032275	-1.382047	0.1775
C	0.058917	0.012950	4.549422	0.0001

Source: E-view Version 10.0 Output, 2025

The Long run estimation is reported in Table 4 with the impact of EGRXA, EGRXR, EGRXT, EGRXO and NIFR on NEGR. The results show that EGRXA and EGRXT have a negative and a positive significant impact on NEGR, respectively with about 1% rise EGRXA and EGRXT on average will lead to 3% and 5% reduction in NEGR, respectively. On the other hand, EGRXR has a negative insignificant impact on NEGR with 1% rise in EGRXR on average will lead to about 1% fall in NEGR. Finally, on Table 4 contains negative insignificant impact of EGRXO and NIFR on NEGR with 1% rise in NIFR on average will lead to 0.4% reduction in NEGR while ₦1 rise in EGRXO on average will lead to ₦-0.000116 fall in NEGR.

4.5 Diagnosis Checks

Stability Test

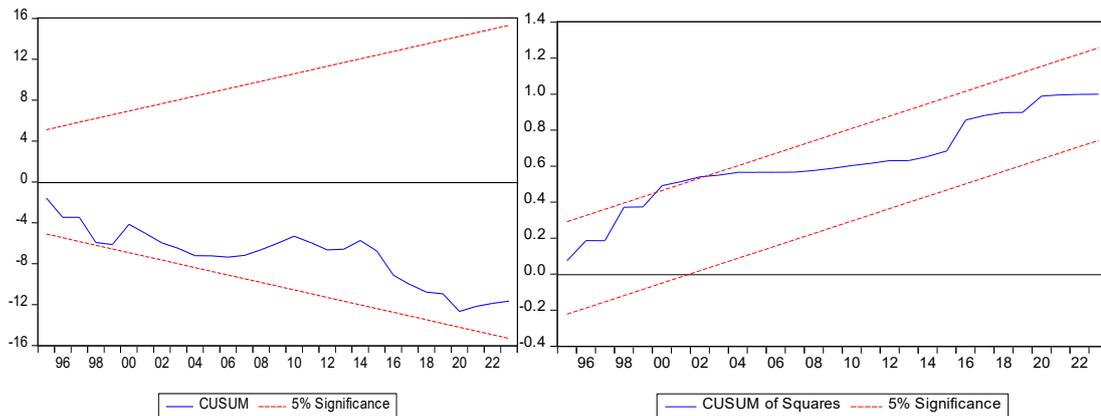The test for stability is shown in Figure 1

Figure 1: CUSUM and CUSUM of squares, Source: E-view Version 10.0 Output, 2025

Testing for stability of the model is very paramount to determine the validity of the parameters used in the study; it is on this CUSUM and CUSUM of squares are used to test for stability of the model which is reported in Figure 1 the plot of the CUSUM and CUSUM of squares statistics for the ARDL model reveal that CUSUM and CUSUM of squares stay within the critical 5% bounds which show the stability of the ARDL model over the period of investigation. The result of ARDL can be relied upon and good for policy making. The result also informs us that there is no structural break for the period under review.

4.6 Residual Diagnostic Check

The residual diagnostic check is presented in Table 5 as follows:

Table 5: Residual Diagnostic Check

Test Statistics	Assumption	Probability
Breusch-Godfrey	Serial Correlation	0.2419
Breusch-Pagan-Godfrey	Heteroskedasticity	0.8862
Jargue Bera	Normal Distribution	0.2942

Source: E-view Version 10.0 Output, 2025

Autocorrelation heteroskedasticity, and normality tests are reported in Table 5 with insignificant probability values of 0.2419, 0.8862, and 0.2942, respectively. This reveals the absence of serial correlation heteroskedasticity, and non-normality assumptions suggesting that the estimated model is valid and useful for policy implication.

4.7 Discussion and Policy Implications

The results estimated are for both long run and short run with a view to provide policy makers with options to make appropriate decision for the overall performance of the economy either in short run and long run. Economics services of Government Recurrent Expenditure on agriculture (EGRXA) have negative significant impact on Nigeria economic growth (NEGR) both in the short run and the long run. In other words, increase in government recurrent expenditure on agriculture has not in any way improves economy activity either in long run or short run. In fact, the more government increase overhead expenditure on economics services, economic growth is retarded which does not conform with a priori expectation and the study of Ditimi, *et. al*; 2019 who discovered that government expenditure improves economy activities via agriculture but Chandana, Adamu & Musa (2020) finding revealed that government recurrent expenditure has no significant impact on NEGR. This could be as result of corruption and embezzlement of public funds by government officials and wrong or poor implementation of government policies.

However, government recurrent expenditure on road and construction (EGRXR) has a negative significant impact on NEGR both in short run and long run. This implies that increase in government recurrent expenditure on economic services has negative influence on the economy which should have positive impact on the economy. This does not confirm with a priori expectation that government spending on economic services promote growth. This finding is line with Chandana *et al*; 2020 and Onifade, *et al* (2020) but Ditimi *et. al*; 2019 but has contrary result. Furthermore, Economics services of Government Recurrent Expenditure on transport and communication (EGRXT) has positive significant impact on NEGR in short run and long run respectively. The finding conform with a priori expectation in both in short run and the long run with a view that if government increases overhead spending on communication will result to positive and impact significant impact on economic activities both in the short run and the long run through payment of workers' salaries and staff training because investment in human capital through training will improve productivity of workers and also have multiplier effect on economy because workers will be empowered through wages and salaries received to buy goods and services from other sectors of the economy. The finding collaborates Ditimi, *et. al*. (2019), and Iheanacho, (2016).

Additionally, Economics services of Government Recurrent Expenditure on other economics services (EGRXO) has negative insignificant impact on NEGR both in short run and long run. This is one of the components of government recurrent expenditure on economics that its impact neither felt significantly both in short run or long run. Government investment on EGRXO government overtime has no meaningful impact on the economy. This also could be possible due to corruption and embezzlement that have eaten deep into the system. This finding was supported by Chandana, *et.al*, 2020 who investigated impact of government expenditure on GDP growth in Nigeria. Finally, Nigeria inflation rate (NIFR) has negative insignificant impact on NEGR in short run and long run. This implies that low inflation rate will improve economic growth. Even though, there is increase in government expenditure for long period of time, in the presence of high inflation, purchasing power will be reduced and eventually, growth will be retarded which does agree with theoretical justification that low inflation promotes growth.

5.0 Conclusion and Recommendations

The study concluded that the increase in government economic services and recurrent expenditure on agriculture over time have not translated into economic growth. In a situation where proper monitoring and adequate attention are not given in the way and manner in which government resources are allocated to the sector, the situation becomes worrisome, and there is a tendency for embezzlement and misappropriation of resources by government officials that will eventually retard growth. Furthermore, economic services of government recurrent expenditure on road construction (EGRXR) and economic services of government recurrent expenditure on other economic services (EGRXO) have not been effective over the period under investigation, which calls for the government to exercise caution before pumping more funds into this particular sector. Finally, the study concluded that government expenditure has a significant impact on Nigeria's economic growth, and the economic services of government recurrent expenditure on communication (EGRXT) is the most productive and effective component of government recurrent economic services expenditure, with a positive and significant impact on Nigeria's economic growth (NEGR) in both the short and long run.

Recommendations

The following are recommended base on the findings:

i.   Government through budget and allocation office should deliberate allocate more resources for recurrent expenditure on economics services on agricultural sector with a view to strengthen the productive activities in the sector and every resource allocated to the sector should be monitored and accounted for.
ii.   Government spending on recurrent expenditure on communication should be sustained and increased in order to enhance productivity.
iii.   Government through ministry of budget and economic planning should supervise and scrutinize every activity under the ministry of works especially on road construction and cut excessive spending in the sector.
iv.   Government through ministry of budget and economic planning should cut recurrent expenditure on economics services on other economics services and channel such unproductive expenditure towards agricultural sector and road construction sector in order to enhance movement of agricultural products from rural areas to where the products are needed.

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