

## Exploring Fiscal Policy and Diversification Effects on Nigeria's Long-Term Economic Growth

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### Abstract:

#### Purpose:

This study investigates the long-term impact of fiscal policy and economic diversification on Nigeria's economic growth, with a focus on understanding their interrelationships and effectiveness in driving sustainable development.

#### Methodology:

Using time-series data from 1983 to 2024, the study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach to examine both the short- and long-run dynamics among key fiscal variables, diversification indicators, and real GDP growth.

#### Findings:

Empirical findings reveal a significant long-run relationship between fiscal policy instruments, particularly government expenditure and tax revenue—and economic growth. The results highlight the importance of strategic fiscal management and the need to accelerate diversification policies to reduce reliance on oil revenues and promote inclusive development.

#### Implication:

The study recommends that fiscal authorities adopt more growth-oriented expenditure frameworks and broaden the revenue base by enhancing non-oil sectors such as agriculture, manufacturing, and services. This research contributes to the policy discourse on fiscal sustainability and structural economic reform in Nigeria.

## INTRODUCTION

Nigeria, as Africa's largest economy and a leading oil producer, faces unique economic challenges and opportunities. Over the decades, Nigeria's economy has been heavily reliant on its oil sector, which has shaped much of the country's fiscal and economic policies. Crude oil exports have historically contributed significantly to Nigeria's GDP, government revenue, and foreign exchange earnings, accounting for over 70% of total export revenues and more than 50% of government income (Central Bank of Nigeria [CBN], 2021). However, the over-dependence on oil has created substantial vulnerabilities. The country's economic trajectory has been marked by periods of growth, driven largely by the fluctuations in global oil prices, but also by substantial downturns, often triggered by oil price volatility, global economic downturns, and internal structural weaknesses (Ajakaiye & Fakiyesi, 2009).

Nigeria's reliance on the oil sector has hindered the development of other key sectors of the economy, including agriculture, manufacturing, and services. The failure to diversify the economic base has made the country highly susceptible to global commodity price shocks, which often lead to fiscal deficits, inflation, and a decline in foreign reserves. Despite significant efforts to address this imbalance, the country continues to grapple with economic volatility linked to oil price fluctuations. In this context, fiscal policy, which includes government spending, taxation, and investment strategies, plays a critical role in stabilizing the economy and steering it toward long-term growth (Okonjo-Iweala & Osafo-Kwaako, 2007).

Nigeria's experience with economic diversification has been fraught with challenges. Despite a series of diversification initiatives aimed at reducing the oil sector's dominance, the agricultural and manufacturing sectors

have not developed at the expected pace. A combination of policy inconsistency, poor infrastructure, corruption, and a lack of access to finance for small- and medium-sized enterprises (SMEs) has stifled diversification efforts. Nevertheless, there is growing recognition that diversification is essential for long-term economic growth. Without it, Nigeria's future economic stability remains at risk, particularly in an era of fluctuating global oil prices and increasing global competition in the digital economy (Ajakaiye & Fakiyesi, 2009).

In response to these challenges, various fiscal policies have been proposed and implemented over the years. For example, the Nigerian government has sought to increase investment in agriculture through initiatives like the Agricultural Transformation Agenda, which aimed to boost food production and export. Similarly, efforts to enhance industrial growth through the National Industrial Revolution Plan and the promotion of small- and medium-sized enterprises (SMEs) have been critical elements of the policy agenda (Okonjo-Iweala & Osafo-Kwaako, 2007). However, the success of these initiatives has been mixed, and much of the Nigerian economy remains underdeveloped outside the oil sector.

This study seeks to explore the effects of fiscal policy on Nigeria's economic diversification and its long-term growth. While diversification is critical for reducing dependence on oil, it is unclear whether fiscal policies have effectively supported this transition. The study will investigate the ways in which government policies, both in terms of fiscal spending and taxation, have impacted diversification efforts in sectors such as agriculture, manufacturing, and services. Furthermore, the study will analyze the relationship between fiscal policy and long-term economic growth, assessing whether current fiscal frameworks are conducive to achieving the goal of economic diversification.

**Statement of the Problem.** Nigeria's economic growth trajectory has long been characterized by volatility, heavily influenced by fluctuating oil revenues and inconsistent fiscal policies. Despite numerous reform efforts and policy frameworks aimed at diversifying the economy, the country remains overly dependent on oil exports, which makes it vulnerable to external shocks and global commodity price swings. Fiscal policies intended to stabilize and stimulate the economy often lack efficiency and long-term strategic focus, resulting in a limited impact on sustainable growth.

**Economic Diversification.** Economic diversification, according to Le-Yin Zhang (2003), is the process by which a wide variety of economic outputs are produced. The diversification of markets for investments or the diversification of income sources away from domestic economic activities (that is, income from foreign investment) can also be referred to by this term. Diversification does not necessarily mean specialization; rather, it means directing resources toward the most advantageous alternate applications. Economic diversification is "the process of shifting an economy away from a single inc source toward multiple sources from a growing range of sectors and markets," according to the United Nations Framework Convention on Climate Change (2019). It has historically been used as a tactic to promote positive economic growth and development.

One tactic to shift the economy from relying on a single source to several sources of information dispersed throughout primary, secondary, and tertiary sectors involving sizable segments of the population is economic diversification. Enhancing economic performance has always been the goal in order to achieve sustainable growth. For instance, increasing resilience to changes in extra-regional economic activity, decreasing susceptibility to sudden losses resulting from the volatility of product prices on the global market, generating employment opportunities, reducing poverty, and truly escaping the vicious cycle of poverty that most African nations are currently experiencing.

One of the main benefits of diversification is that it reduces the risk of loss; if one investment does well during a given time period, other assets may do better over that same time period. Concentrating all of your wealth on a single investment kind lowers the possibility of losing your investment portfolio. By making investments in many sectors that might respond differently to the same event, it also seeks to maximize return. The majority of investing professionals concur that diversification is the most crucial factor in achieving long-term financial goals while lowering risk, even though it does not ensure against loss.

**Fiscal Policy.** In order to impact government revenue and expenditure and accomplish macroeconomic goals that monetary policy also aims to accomplish, fiscal policy uses tools like taxes, budgets, and quotations. Raheem, Kareem, Aflabi, and Bashir (2013). It alludes to adjustments in government spending and taxation. There are two primary levels of government spending, sometimes known as public spending and taxation: national and local. Governments spend money on a number of things, such as education, health care, transportation, defense, interest on national debt, and benefits (for the retired, unemployed, and disabled).

Fiscal policy refers to the government's plan for spending and taxation in the relevant period. It involves the use of public finance or expenditure, taxes, borrowings and financial administration to further our national economic objectives.

**Theoretical Framework.** The relationship between fiscal policy, economic diversification, and long-term economic growth in Nigeria is explored through several key economic theories. These include Keynesian Theory, Endogenous Growth Theory, Structural Transformation Theory, Resource Curse Hypothesis, and Theories of Diversification. Each theory offers insights into how fiscal strategies and diversification efforts can impact Nigeria's economic trajectory, but they also have inherent assumptions and criticisms.

**Keynesian Theory of Fiscal Policy.** The Keynesian theory of fiscal policy suggests that government spending and taxation play a vital role in influencing aggregate demand and, consequently, economic growth. According to Keynes (1936), during periods of economic downturn or stagnation, active fiscal intervention through increased government spending can stimulate demand, create employment, and lead to economic expansion. For Nigeria, where oil price fluctuations often trigger economic volatility, the role of fiscal policy in stabilizing growth is crucial. Keynesian models argue that well-targeted fiscal policies can help mitigate external shocks, such as oil price declines, by boosting other sectors of the economy (Ajakaiye & Fakiyesi, 2009).

## METHODS

**Research Design.** The research design of the study used both descriptive and analytical techniques. The descriptive method analyzed developments in Nigeria's macroeconomic policy dynamics and diversification using descriptive tools like basic tables. The analytical approach estimated the pertinent equations using a variety of econometric techniques within the context of multiple regression modeling.

The basic relationship between the independent and dependent variables was established using this design. The unit root and cointegration relationship between the variables were examined in the study. Utilizing the Augmented Dickey-Fuller (ADF), the unit root was examined. The Error Correction Model (ECM) was used to estimate the short-term dynamics and long-term equilibrium among the variables.

**Model Specification.** The theoretical underpinning of this study is rooted in theories of fiscal policy, economic growth, and diversification. Keynesian economics highlights the role of government intervention in stimulating demand and stabilizing the economy, especially in times of external shocks. Endogenous growth theory emphasizes the role of human capital, technological innovation, and policy decisions in driving long-term growth. Structural transformation theory advocates for a shift from agriculture-based economies to more industrialized and service-driven economies. In light of these theories, the study aims to examine how fiscal policy can both promote diversification and foster a more resilient and diversified economy in Nigeria.

Thus, this research is crucial for understanding the interplay between fiscal policy and economic diversification in Nigeria, offering policymakers valuable insights on how to design effective fiscal frameworks that will facilitate economic transformation, reduce dependence on oil, and support long-term growth.

The study used the Herfindal index of diversification (DIVX) and the neoclassical growth theory to investigate the relationship between fiscal policy and economic development and diversification in Nigeria between 1983 and 2024. The Herfindal index was chosen because it thoroughly examines every sector of an economy to

ascertain whether it offers a healthy level of competition or is on the verge of becoming dominated by one or a small number of sectors. The Herfindal diversification index is:

It should be emphasized that the goal of economic diversification is to boost economic growth and increase the economy's resistance to external shocks caused by reliance on a single export revenue source (Arasomwa 2020). Thus, the neoclassical growth theory, which highlights the role of labor and capital in the growth process, serves as the theoretical foundation upon which this study is built. Our baseline neoclassical model has the following shape since the neoclassical model and the Cobb-Douglas production function fundamentally share the same structural form:

$$\text{for } Y_t = A_t K_t^\alpha L_t^\beta$$

Where A is the total factor productivity or efficiency metric, and Y is the output.

K = Capital Stock

L = Workforce

$\alpha$  = Capital Output Elasticity

$\beta$  = labor's output elasticity

We endogenizing the Solo residual or total factor productivity in line with the postulations of the endogenous growth theory by augmenting the entire framework to incorporate other variables relevant to the present study. Specifically, a is expanded to include a hybrid of other monetary (M), fiscal (F), and trade (T) variables influencing economic growth and diversification in Nigeria. Thus,

$$A = f(M, F, T)$$

Where M, F, and T represent monetary policy variables, fiscal policy variables and trade policy variables, respectively. The Mundell-Fleming framework is further strengthened by the emergence of endogenous growth theories and models (e.g., Romer, 1986; Barro, 1991), which suggest that other endogenous factors like macroeconomic policies (inflation, interest rate, GDP, government spending and tax, trade policies etc.), political stability, market distortions, human capital and education, etc., can also affect economic diversification and growth. Renelt (1991), for example, has attempted to integrate exogenous forces with endogenous factors in explaining economic diversification across countries. In this study, the augmented Solow neoclassical model is used.

Incorporating equation (5) into (4) transforms (4) into:

$$Y_t = M, F, T K_t^\alpha L_t^\beta$$

Equation 6 is the augmented version of the neoclassical model. However, since the study is not on economy-wide output but on the effect of fiscal policies and diversification in Nigeria, we modify equation 3.6 to include the diversification index also as an independent variable represented as:

$$Y_t = f(F, K_t^\alpha L_t^\beta, DIVX)$$

Macroeconomic Policy Equation. Equation 7a above is the functional form of the fiscal policy and economic diversification-growth model. The model is expanded in equation (3.8) to accommodate key variables of fiscal policy. It should be noted that;

$$F = f(\text{TAX}, \text{GEXP}, \text{DMD})$$

Substituting the above sub-equations into equation 3.7 to account for the general macroeconomic policies we have:

$$Y = f(\text{TAX}, \text{GEXP}, \text{DMD}, \text{GFCF}, \text{LF}, \text{DIVX})$$

Equation 8 says that Nigeria's growth can be explained by the key fiscal policy and diversification variables on the right-hand side of the equation. The econometric specification of equation (8) is of the form:

$$Y = \pi_0 + \pi_1 \text{TAX} + \pi_2 \text{GEXP} + \pi_3 \text{DMD} + \pi_4 \text{GFCF} + \pi_5 \text{LF} + \pi_6 \text{DIVX} + \varepsilon_t$$

Presenting equation 3.15 in its log-linear form:

$$Y = \pi_0 + \pi_1 \text{TAX} + \pi_2 \ln \text{GEXP} + \pi_3 \ln \text{DMD} + \pi_4 \ln \text{GFCF} + \pi_5 \ln \text{LF} + \pi_6 \text{DIVX} + \varepsilon_t$$

$$\pi_3 < 0; \pi_1, \pi_2, \pi_4, \pi_5, \pi_6 > 0$$

The Federal Ministry of Finance (FMF), the National Planning Commission (NPC), publications from the International Monetary Fund (IMF) and the World Bank (IBRD), the Central Bank of Nigeria (CBN) Statistical Bulletin (Various Years), the National Bureau of Statistics (NBS) Various Years, and other pertinent journals and publications were the primary sources of the pertinent data used in this study. These are reputable and well-known sources of published data that are appropriate for information purposes.

**Model Estimation Technique.** The estimation technique/method that was used in the above model is both descriptive and analytical. The analytical technique is the multiple regression analysis of the ordinary least squares methodology. However, the precise empirical model for estimation is the ARDL model.

The OLS approach was selected due to its best linear unbiased estimator (BLUE) characteristics, as is customary in the literature. The fact that most economic series are typically believed to be non-stationary is another factor in the decision to use this method. When we say "non-stationary," we imply that the variables do not have a constant mean over time or a strong trend over time, and as a result, using the least squares technique directly may produce erroneous findings. Because of this, the majority of OLS regressions provide statistically erroneous results that are challenging to understand in a theoretical setting. Additionally, it uses fewer data points, making it user-friendly. The explicit form of the equations, with reference to the ARDL model, is as follows:



$$\begin{aligned}\Delta Y_t = & \beta_0 + \beta_1 \ln Y_{t-1} + \beta_2 \ln TAX_{t-1} + \beta_3 \ln GEXP_{t-1} + \beta_4 \ln DMD_{t-1} + \beta_5 \ln GCF_{t-1} \\ & + \beta_6 \ln LF_{t-1} + \beta_7 \ln DIVX_{t-1} + \sum_{i=0}^k \lambda_1 \Delta Y_{t-1} + \sum_{i=0}^k \lambda_2 \Delta \ln TAX_{t-1} + \sum_{i=0}^k \lambda_3 \Delta GEXP_{t-1} \\ & + \sum_{i=0}^k \lambda_4 \Delta \ln DMD_{t-1} + \sum_{i=0}^k \lambda_5 \Delta \ln GCF_{t-1} + \sum_{i=0}^k \lambda_6 \Delta LF_{t-1} + \sum_{i=0}^k \lambda_7 \Delta DIVX_{t-1}\end{aligned}$$

To determine whether the variables in the provided model have a long-term relationship, however, the cointegration test was employed. As was already indicated, the cointegration test used in this study was the ARDL, also known as the bound test. Two critical values—the upper and lower critical bounds—are computed at a certain level of significance. The limits test is used to determine whether cointegration exists, regardless of whether the regressors are I(0) or I(1) vs the alternative hypothesis. The following are the F-statistics.:

$$:\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \dots \beta_n = 0$$

$$:\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \dots \beta_n \neq 0$$

This test used the F-statistic (Bounds test). If the computed F-statistics is greater than the upper bound critical value, the null hypothesis of no cointegration is rejected. Similarly, if the lower critical bound value is greater than the F-statistics, then the null hypothesis will be accepted. If this is discovered, then our variables will be said to be co-integrated in the long run.

## RESULTS AND DISCUSSION

**Descriptive Statistics.** The descriptive statistics for the macroeconomic variables included in this study are shown in Table 4.1. Examining the fundamental features of the dataset used for empirical analysis was the primary goal. The mean values for Y, DMD, DIVX, GEXP, GFCF, LF, and TAX were 0.64, 2682.50, 511000000.00, 399.69, 401000000000.00, 39647683.00, 5502.74, and 307.90, respectively, according to the descriptive data displayed in table 4.1. For DIVX, DMD, GEXP, GFCF, LF, and TAX, the variables' corresponding minimum values are 0.270922, 22.22000, -27000000, 4.100000, 7.99, 23651428, and 0.561500, respectively, while their maximum values are 0.820898, 12594.89, 1.93, 1152.800, 2.14, 60698492, 24889.61, and 1207.300.

The skewness and kurtosis values of each variable in the models further strengthened the study. Skewness is a measure of the probability distribution of a real-valued random variable about its mean (Abang, Nwanne, Amaonye, Abang-Samuel; 2025). The histogram's symmetry is measured by its skewness, while its tail form is measured by its kurtosis. The degree to which the variable is near zero is the standard for a symmetrical distribution or skewness. DMD, GEXP, GFCF, LF, and TAX are all favorably skewed, according to a distribution skewness study, whereas Y is negatively skewed.

**Table 1.** Descriptive Statistics Result

	Y	DMD	TAX	GEXP	GFCF	LF	DIVX
Mean	0.641	2682.571	5.11	399.69	4.01	39647683	5502.743
Median	0.692	957.610	2.60	315.20	3.52	38460722	1073.890

Maximum	0.820	12594.89	1.93	1152.80	2.14	60698492	24889.61
Minimum	0.270	22.220	-270	4.10	7.99	23651428	17.690
Std. Dev	0.145	3685.974	5.78	364.20	6.51	10811298	7753.96
Skewness	-0.998	1.462	1.09	0.50	1.46	0.316705	1.253
Kurtosis	3.085	3.855	2.95	1.97	3.67	1.97	3.165
Jarque-Bera	5.989	13.930	7.182	3.09	13.56	2.178	9.474
Probability	0.050	0.001	0.027	0.21	0.00	0.336	0.008
Sum	23.080	96572.55	1.84	14388.97	1.45	1.43	198098.7
Sum Sq.Dev.	0.744	4.76	1.17	4642532.	1.49	4.09	2.10
Observations	40	40	40	40	40	40	40

Source: Authors' computation using E-views 10 (2025)

**Unit Root Test.** The purpose of the unit root test was to determine the variables' statistical characteristics. The Phillips-Perron and Augmented Dickey-Fuller (ADF) tests served as the foundation for the test. With the exception of the diversification index (DIVX), the labor force (LF), and growth output (Y), all of the variables were non-stationary at the first difference, meaning they did not exhibit trend statistically, or  $I(0)$ , according to the results of the statistical test below (table 4.2). It is because, at the 1 or 5% level of significance, their ADF and PP statistic values are both below the crucial table values. The tests strongly support the hypothesis that all the variables are non-stationary, especially of a random walk. Hence, we were unable to accept the alternative hypothesis of stationarity. Following the series' initial differencing, statistical normalcy was attained. Any dynamic specification of the model in the levels of series would be unsuitable and could result in false or nonsensical regression and incorrect inferences since a non-stationary series exhibits a random walk.

**Table 2.** Unit root test results using Augmented Dickey-Fuller (ADF) and Phillips-Perron tests

Variables	ADF			Phillips-Perron		
	Level	1st Difference	Order of Integration	Level	1st Difference	Order of Integration
Y	-3.962863	-	$I(0)$	-3.962863	-	$I(0)$
TAX	-1.853973	-4.459253	$I(1)$	-1.315266	-5.862989	$I(1)$
GEXP	-1.809441	-7.379776	$I(1)$	-1.898378	-7.227267	$I(1)$
DMD	2.073422	-4.748670	$I(1)$	-	-4.773639	$I(1)$
DIVX	-8.107011	-	$I(0)$	-9.215822	-	$I(0)$
GFCF	0.506705	-5.725037	$I(1)$	0.852770	-5.739721	$I(1)$
LF	10.77889	-	$I(0)$	9.719026	-	$I(0)$
ADF test critical test values.						

Level:	1st Difference:
At 5% = -3.552973.	5% = -3.574244
10% = -3.212361.	10% = -3.233456
Phillip-Peron test critical values.	
Level:	1st Difference:
At 5% = -3.544284.	5% = -3.548490
10% = -3.204699.	10% = -3.207094

Source: Authors' computation using E-views 10 (2025)

**Granger Causality Test.** To ascertain the nature of the causal relationship between macroeconomic policies and economic diversification, the Granger causality test was employed. The outcome, as shown in Table 4.3, indicates that fiscal policy and economic diversification are causally related in a unidirectional manner. Therefore, the alternative hypothesis—that growth and diversification do not grant fiscal policy—was accepted, while the null hypothesis—that fiscal policy (TAX, GEXP, OPEN, and LF) does not grant cause diversification—was rejected. It suggests that fiscal policy grants contribute to Nigeria's economic growth and diversification.

**Co-integration (Bounds) Test.** The results of the co-integration test utilizing the ARDL bounds testing methodology are shown in Table 3. According to the limits test results, the F-statistic value of 3.98 is more than the upper bound critical value of 3.67 at the five percent level of significance. Since the bounds testing procedure also establishes that the calculated F-statistic value has exceeded the upper critical bound value at the five percent significance level, the study accepts the alternative hypothesis, which states that there is a long-run co-integrating relationship among the variables included in the fiscal policy.

**Table 3.** ARDL Bounds Test for Co-integration

Test Statistic	Value	K
F-statistic	3.981482	3
Critical Value Bounds:	I0 Bound	I1 Bound
	Significance level:	
10%	2.37	3.20
5%	2.79	3.67
Decision: There is co-integration		

Source: Authors' computation using E-views 10 (2025)

**ARDL Long Run Estimates of the Fiscal Policy, Economic Diversification – Growth Model.** The empirical result of the long-run estimation of the fiscal policy model using ARDL estimation approaches, as displayed in Table 4.4, suggests that taxes have a positive association with growth, as indicated by its coefficient of 0.076. For every 1% increase in taxes, diversification will increase by 0.076 percent over the long run. The result is not in line with what Apriori would have predicted. Nevertheless, the variable's p-value of 0.022, which is higher than 0.05, indicates that it is statistically significant. Government expenditure (GEXP) and economic growth have a positive long-term association with a coefficient of 0.131; for instance, a one percent increase in GEXP will, ceteris paribus, result in a 0.131 percent increase in economic growth in Nigeria. It aligns with the expectations of Apriori. The variable is, however, not significant at a five percent level of significance since its p-value of 0.251 is greater than 0.05.



The results also show that economic growth and domestic debt (DMD) have a negative long-term relationship. The coefficient for DMD is -0.268. Consequently, for every 1% increase in DMD, growth will fall by 0.208 percent. It is consistent with apriori assumptions. DMD is regarded as statistically insignificant because its p-value of 0.04 is less than 0.05. Nigeria's economic growth is positively connected with its coefficient of economic diversification (DIVX), which has a value of 0.0839. Diversification will rise by 0.0839 percent for every 1% increase in DIVX, which is consistent with apriori predictions. The 0.000 shows that FDI plays a considerable influence in explaining differences in diversification, as evidenced by its p-value being less than 0.005.

**Table 4. ARDL Long-run Estimation**

Variable	Coefficient	Std. Error	T-statistic	Prob.
LOG(TAX)	0.075786	0.078870	6.592947	0.0222
LOG(GEXP)	0.130858	0.109494	1.195114	0.2506
LOG(DMD)	-0.268942	0.128500	-2.092923	0.0438
DIVX	0.083860	0.010937	7.667824	0.0000
C	33.77336	25.70823	1.313718	0.2087

*Source: Authors' computation using E-views 10. (2025)*

**Short run ARDL Estimates of Fiscal Policy, Economic Diversification- Economic Growth Equation.** Table 4.5 displays the fiscal sector model's parsimonious error correction results based on the Autoregressive Distributed Lag (ARDL) technique. According to the short-run dynamics finding, the error correction variable is statistically significant and has the expected negative coefficient, as predicted by theory. With a value of -0.617, it shows that 62% of the systemic imbalance in fiscal policy variables was fixed annually. It indicates a rapid transition from short-term disequilibrium to long-term equilibrium. Since its p-value is less than 0.05, its p-value of 0.011 indicates that it is statistically significant.

According to theoretical Apriori expectations, the current value of diversification was positively impacted by the first, second, and third lags of economic development (Y), according to an evaluation of the short-run coefficients. According to the results, current Y increased by 0.76 percent, 0.60 percent, and 0.407 percent, respectively, ceteris paribus, for every one percent increase in the first, second, and third delays of Y. The variables' low probability levels of 0.0101, 0.0104, and 0.0191 for the first, second, and third lags of Y, respectively, made them statistically significant at the five percent level of significance.

Contrary to what Apriori would have us believe, Tax has a positive and negligible relationship with Y. Its coefficient is 0.038, meaning that a 1% tax increase will result in a 0.038 percent increase in Y. At the five percent significance level, the p-value of 0.786 is likewise not significant. In contrast, the coefficients for the first and second tax delays are -0.065 and -0.692, respectively, which are in line with apriori expectations. It indicates that, ceteris paribus, a one percent increase in the first and second lags of taxes results in a 0.065 percent and 0.692 percent decline in Y in the current period. However, the initial tax lag's p-value is 0.649 and therefore not significant at a five percent significance level; the p-value of the second lag of tax is, however, significant at a five percent level of significance given its value of 0.0002.

In line with Apriori expectations, there is a positive correlation between Government spending (GEXP) and its first, second, and third lags and DIVX. Their corresponding coefficients of 0.070, 0.159, 0.040, and 0.272 indicate that a one percent increase in GEXP and its first, second, and third lags cause a current Y rise of 0.070, 0.159, 0.040, and 0.272 percent, respectively. At the five percent significance level, the p-values of GEXP and its first and third delays are 0.036, 0.043, and 0.001, respectively, and they are all significant. However, because its p-value of 0.571 is more than 0.05, the second lag of GEXP is not significant. Gross fixed capital formation (GFCF)

has a positive correlation with economic growth, as seen by its coefficient value of 0.045. It is consistent with theoretical projections, which indicate that a 1% increase in GFCF will result in a 0.045% increase in diversification.

**Table 5.** Error Correction Result of the Fiscal Sector Equation.

Dependent Variable: D(DIVX)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(Y(-1))	0.755303	0.256686	2.942515	0.0101
D(Y(-2))	0.602927	0.205854	2.928903	0.0104
D(Y(-3))	0.406767	0.154920	2.625649	0.0191
DLOG(TAX)	0.038134	0.138086	0.276164	0.7862
DLOG(TAX(-1))	-0.065290	0.140483	-0.464757	0.6488
DLOG(TAX(-2))	-0.692285	0.137996	-5.016714	0.0002
DLOG(GEXP)	0.070194	0.075044	0.935374	0.0364
DLOG(GEXP(-1))	0.158892	0.071886	2.210333	0.0430
DLOG(GEXP(-2))	0.040597	0.070213	0.578192	0.5717
DLOG(GEXP(-3))	0.272945	0.067072	4.069456	0.0010
LOG(GFCF)	0.044692	0.014987	2.982056	0.0093
LOG(LF)	-2.662637	0.573263	-4.644708	0.0003
CointEq(-1)	-0.616667	0.066179	-9.318214	0.0113
R-squared	0.792681	Durbin-Watson stat		2.162748
Adjusted R-squared	0.661743	F-statistic		3.981482
Prob(F-statistic)	0.00232			

Source: Authors' computation using E-views 10 (2025)

**Diagnostic test (Heteroscedasticity Test, LM Test and Q Test).** A number of diagnostic tests were carried out to see whether the estimated equation was adequate. To determine whether the estimated model was adequate or normal, normality tests like the Breusch-Godfrey serial correlation Lagrange Multiplier (LM) test and Q-statistics were used.

Table 6 provides a summary of the test outcomes. The model's autocorrelation issue was demonstrated by the Breusch-Godfrey serial LM test statistic of 0.426013 and its probability value of 0.4342. The fact that the Chi-square probability value of 0.7315 is more than the 5% significance level supports this. It suggests that there is no autocorrelation in the calculated equation because the residual terms are independent.

According to Table 7, the Q-statistics revealed that the series is white noise. As a result, there is no autocorrelation among the model's residual terms because all of the probability values are greater than the 5% significance level. Additionally, it indicates that the residual's value in one period was unrelated to or independent of the residual terms' value in another. Additionally, it suggested that there was no covariation between the residuals. The conclusion drawn from the many tests conducted indicated that the calculated equation is suitable and behaves properly.

**Table 6.** Diagnostic test

Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.426013	Prob. F (2,13)	0.4342
Obs. R-squared	0.196286	Prob. Chi-Square(2)	0.7315

Breusch-Pagan-Godfrey Heteroskedasticity Test

F-statistic	0.723564	Prob. F(16,15)	0.7362
Obs. R-squared	13.93928	Prob. Chi-Square(16 )	0.6032

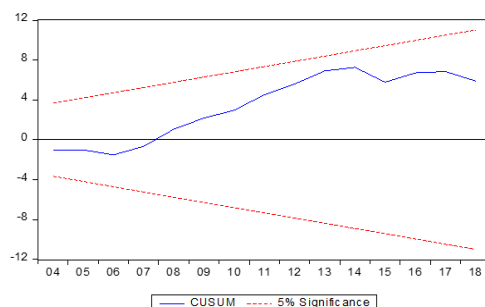
Source: Authors' computation (2025)

**Table 7. Q-Statistic Test for Fiscal Equation**

	AC	PAC	Q-Stat	Prob
1	-0.114	-0.114	0.4593	0.498
2	-0.373	-0.391	0.5107	0.564
3	-0.057	-0.193	0.6336	0.131
4	0.185	-0.010	0.9696	0.138
5	0.158	0.129	0.9817	0.157
6	-0.099	0.034	0.3920	0.211
7	-0.337	-0.272	0.8335	0.464
8	-0.027	-0.221	0.7369	0.100
9	0.359	0.090	0.5482	0.221
10	-0.189	-0.287	0.7243	0.619
11	-0.223	-0.176	0.2815	0.214
12	-0.015	-0.196	0.1828	0.721
13	0.360	0.211	0.3261	0.863
14	0.013	-0.067	0.4272	0.235
15	-0.129	0.046	0.2330	0.276
16	-0.137	-0.053	0.4607	0.736

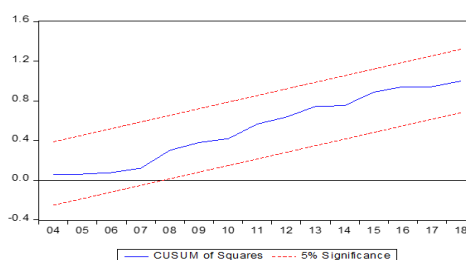
Source: Authors' computation using E-views 10 (2025)

**Stability Test for Fiscal Policy Equation.** Following the estimation of the ECM models, the stability of the parameter was examined using the Cumulative Sum (CUMSUM) and Cumulative Sum of Squares (CUMSUMSQ) tests. The CUMSUM and CUMSUMSQ statistics are both within the crucial boundaries of the  $\pm$  five percent threshold of significance, as shown in Figures 1 and 2. There is a long-term relationship between fiscal policies and economic growth in Nigeria, according to these plots, and the coefficients of the results being estimated are steady over time. Thus, this suggests that the coefficients are undergoing a progressive change.



Source: Arasomwan, Abang, Ayodele and Omang (2024)

**Figure 1.** CUSUM for Fiscal Policy Equation



Source: Authors' computation (2025)

**Figure 2.** CUSUMSQ for Fiscal Policy Equation

Domestic debt has a major detrimental impact on fiscal policies over the long term. The empirical findings corroborated earlier research and were consistent with the claims of the majority of debt/borrowing theories, which hold that public and external debts have similar implications for economic growth and diversification. Stated differently, the relationship illustrates how the outcome has a detrimental impact on Nigeria's economic diversification. It is consistent with what Ayuba and Mohd Khan's (2019) investigation found. Their findings showed that while domestic debt has a favorable impact on the overall amount of government revenue, it has a negative impact on the economy.

This result is consistent with findings by Eze and Ogiji (2013), who found that government expenditure significantly affects manufacturing sector output based on the magnitude and the level of significance of the coefficient and p-value.

## CONCLUSION

The pursuit of sustainable and inclusive economic growth in Nigeria necessitates a deliberate recalibration of fiscal policy and a firm commitment to economic diversification. Over the decades, Nigeria's overreliance on oil revenues has exposed the economy to recurrent cycles of vulnerability, fiscal instability, and missed opportunities for broader development. It has become increasingly evident that without a strong and responsive fiscal framework and a proactive shift towards non-oil sectors, long-term growth will remain elusive.

Fiscal policy must, therefore, be harnessed not merely as a tool for short-term stabilization but as a strategic instrument for structural transformation. Sound fiscal management anchored on prudent expenditure, improved revenue mobilization, and counter-cyclical planning is crucial for creating the macroeconomic environment

necessary for investment, innovation, and productivity. Furthermore, fiscal transparency, accountability, and efficient public spending are foundational for restoring public trust and attracting both domestic and foreign investment into key growth sectors.

**Recommendations.** Based on the findings of the study, the following recommendations are made to boost the economic diversification and growth of the Nigerian economy.

The Nigerian government should prioritize public investment efficiency by allocating more resources to infrastructure, education, and healthcare while strengthening procurement processes to ensure transparency and minimize waste. The government should also prioritize human capital development by increasing investments in education and vocational training and by fostering collaboration between government, academia, and the private sector to drive innovation and skills aligned with emerging industries.

Efforts should be made to strengthen non-oil revenue mobilization by broadening the tax base through the formalization of the informal sector, implementing progressive taxation, and modernizing tax administration with digital innovations to enhance compliance. The adoption of counter-cyclical fiscal policies is also necessary, including the establishment of robust fiscal rules and strengthening the Sovereign Wealth Fund to ensure savings during oil booms and stability during downturns.

Access to finance for SMEs must be facilitated through expanded financial inclusion initiatives, the establishment of credit guarantee schemes, and the implementation of regulatory reforms that ease funding access for startups and small businesses.

To ensure sustainable and inclusive growth, fiscal policy must integrate climate resilience and encourage diversification into green sectors, such as renewable energy and sustainable agriculture, while also addressing regional inequalities across Nigeria.

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