Government Borrowing, Private Credit and Economic Growth in an Emerging Economy

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ABSTRACT

This study examined the relationship between economic growth, government borrowing, and private sector credit in Nigeria over a 53-year period (1972–2024). The analysis utilized time series data on external borrowing, domestic borrowing, total government borrowing, and private sector credit, all obtained from secondary sources. Pairwise Granger causality tests were employed to assess the direction of influence among the variables. The findings revealed a bidirectional long-run relationship between domestic borrowing and economic growth, indicating mutual influence over time. Similarly, a bidirectional long-run relationship was also observed between private sector credit and economic growth, suggesting that credit to the private sector and economic growth reinforce each other. However, the study found a unidirectional long-run relationship from total government borrowing to economic growth, with no reverse causality. Additionally, the results showed no significant relationship between external borrowing and economic growth in either the short or long run. The relationship between aggregate government expenditure and economic growth revealed a one-way association in the long run. Based on these findings, the study recommends that the government should focus on creating a conducive business environment that enables the private sector to thrive and contribute meaningfully to economic development.

Keywords: Public Debt, Private Credit, Economic Growth

INTRODUCTION

Over the years, the traditional responsibilities of governments have included the enforcement of law and order as well as the provision of social amenities. The government directly or indirectly enhances the output of the private sector through the resourceful and effective allocation of limited resources. Notably, these roles have evolved in the modern era to include achieving full employment, maintaining price stability, promoting economic growth and development, ensuring a balanced balance of payments, and fostering equitable income and wealth distribution. In recognition of these responsibilities, many governments around the world place significant emphasis on the quality and performance of their economies. To achieve these objectives, governments typically employ fiscal and monetary policy tools such as taxation and expenditure prioritization to promote economic advancement. One major avenue through which governments raise funds for capital projects is borrowing. Extant literature reveals that it is highly improbable for a nation to consistently run a budget surplus, making the pursuit of public debt almost inevitable (Adom, 2016).

The sharp increase in market-based debts following the global financial crisis has intensified the need for strategic governmental interventions to promote a sustainable and inclusive economic and financial environment. African countries like Nigeria often adopt deficit budgeting strategies to meet their developmental needs. However, the rise in public debt has led to a decline in both domestic and foreign investment, further slowing capital accumulation and economic productivity. In addition, excessive public debt can crowd out physical capital investment and hamper human capital development (Serieux & Samy, 2001). Economic theories suggest that appropriate borrowing can stimulate economic growth by expanding the capacity for productive investment. Developing nations, which typically have low capital stock and limited investment opportunities, often rely on borrowing to accelerate growth. However, in emerging economies, the burden of debt accumulation can destabilize both domestic and foreign investment flows. Although the mobilization of funds through internal and external sources is necessary for accelerating economic growth, persistent increases in government borrowing over the long term may pose serious threats to economic expansion.

The impact of public debt on growth depends largely on how the borrowed funds are utilized. Public debt contributes to economic development when it is used for productive purposes. Conversely, unproductive borrowing not only fails to generate returns but can also harm overall productivity. Therefore, investments made with borrowed funds must generate sufficient revenue to cover both the principal and interest payments (Adebusola et al., 2007). Despite the importance of this issue, there is limited empirical evidence on the extent to which excessive debt hampers potential economic growth. In an effort to expand the role of the private sector in meeting the rising needs of its growing population, the Nigerian government has introduced several initiatives. However, despite increased government spending (both recurrent and capital), private sector credit, and other policy interventions, there is a prevailing perception that these efforts have not translated into meaningful economic growth. Nigeria still ranks among the poorest countries in the world (Isibor, Babajide & Okafor, 2015). Furthermore, macroeconomic indicators such as balance of payments, inflation rate, exchange rate, and per capita income suggest that the Nigerian economy has remained unstable in recent years.

Given these realities, it is essential to examine the impact of private sector lending on Nigeria's economic growth. Several studies have investigated the influence of external borrowing on the development of emerging markets. A significant number of these studies are based on the "debt overhang" hypothesis—where a country's debt service obligations are so burdensome that a large portion of its resources is devoted to repaying foreign creditors, thus placing the country in economic subjugation. This study is distinct from previous research as it incorporates three unique variables into a single model. The primary objective is to determine the relationship between government borrowing, private sector lending, and economic growth in Nigeria.

LITERATURE REVIEW

The Conceptual Review
Economic Growth

Nnadi and Falodun (2005) defined economic growth as the procedure by which the creative aptitude of an economy upsurges over a specified period, resulting to a increase in the level of the national income. Once there is economic growth, it manifests in the form of an upsurge in revenue echelons, an enlargement in the labour force, an upsurge in the entire capital stock of the nation and a advanced volume of trade and consumption. The structural change in the economy takes the form of increase in manufacturing undertakings accompanied by economic development. It happens if the speed of expansion of real per capital income in the country is more than the speed at which population increases over long duration. It infers upsurge in educational and health sector meaning that   accessibility of aforementioned sectors by high percentage of the population.

Olowofeso, Adeleke and Udoji1 (2015) defined Economic growth is the interminable enlargement productive volume to suit the demand for goods and services, occasioning from enlarged manufacturing size, and advanced throughput (inventions in goods and procedures) which is typically calculated over a given era. In other words, it is the dimension of yearly proportion upsurge in real GDP through a given period of time. There are diverse misconstrue about economic enlargement and conduct of quantification of this subject but the primary definition is in terms of expansion of industrious aptitude of the economy. Real economic expansion can be quantified by real Gross Domestic Product (GDP). Throughput is does not always count in the short run, however, in the elongated term and counts a great deal. In the elongated term economic growth can be resolute principally by the dynamics drivers output. The dynamics of economic enlargement (such as accessibility to loan, work force, echelon of technology, etc.) are dynamics which either enhances the quality of efficiency, or the effectiveness with which inputs are transmuted into outputs. Adubi and Obioma (2009) observed that in almost all of these countries, public expenditure usually accounted for over 20 of goods locally produced in their works of the spending handling in the Nigerian context. Piana (2001) argued that government spending contributes to the effective acquisition of commodities and services, and also generates positive externalities for the economy and society through its various components

Public Debt

External debt is known as funds lending from a channel beyond a nation's border. External borrowing has to be repaid in the currency in which it is on loan is received. Phillips (2007) asserted that outer fund is the funds payable by the government to individuals, governments, and establishment occupier outside its jurisdiction. When it is payable to individuals or establishments resident within the nation, it is called internal borrowing.

Arnone et al (2005) describes foreign borrowing as that percentage of a nation's loan that is gotten from overseas sources such as overseas conglomerates, government or financial establishments. According to Ogbeifin (2007) contended that outside borrowing occurs when there is disparity between national reserves and outlay. As the gap between reserve and outlay widen emerging nations like Nigeria to repetitively borrow for them to remain afloat. Ogbeifin (2007) further defined public the amount the both public and private sectors of a nation is owing non-residents and populace that is ought to pay in hard currency.

Theoretical Framework

Wagner's Theory of Expending Public Activity

This theory is put forward by a German economist in the 19th century. He articulated that as per capita income surge growth is experienced in the ecosystem via speedy suburbanization and upsurge illuminations from the public. This will in enviably lead to a surge comparative portion of public sector throughput. Wagner asserted that the public's subsequent upsurge in the comparative portion of public sector resultant of foreseeable centralization of economic utility is due to rising desires of economic expansion in comparison with an escalating want for government to enhance agriculture and social welfare of the people. In his own opinion towards the end of his analysis, Wagner asserted that in circumstances where market breakdown is apparent, government disbursement must be up scaled in order to stress economic enlargement of the nation

The Wiseman Peacock Displacement Theory

The wise man peacock displacement hypothesis was crafted by Wiseman and peacock (1961). The theory is embedded in and allied to the Wagner's law of expending state theory except with some minor variation. The Wiseman – Peacock theory argument on the ground that assumed a common or idyllic

circumstances of tranquility and economic constancy, there will be a comparative boundary to government expenses. Uncooperatively, there will be an upsurge in government expenses in the period of high volatility and violent setting. These alteration are attained by 'tolerable' perimeters of levy.

It is disputed that during catastrophic and predicament as warfare, deprivation, dearth etc, people do not give attention higher levy and uphold that upsurge in levy perpetually as long as the condition persevered. Thus government spending strenuously seem to be like manacles of upland fragmented by mounts. Wagner assert that industrialization and renovation will amount to relieving public deeds for non-governmental establishments. Whereas all other role of the "fractional government is drifted to non-governmental establishments. Wagner theory, asserted that there will be enlargement of the revenue and "culture and welfare" spending due to upsurge in real income. Wagner, theory elucidated that learning and traditions are two quarters that the authority could further be engrossed in their stipulation. The enlargement in government spending is capable of continuously be documented following provisions have been made to meet the desies of the populace and the community.   The theory explained governments have to disintegrate the supremacy of natural cartels and their actions. The contravention of the cartelistic powers of cooperation like railway cooperation, power holding and water boards. Government has to fund these cooperation with enormous amount.

Empirical Review

Kumar and Woo (2010) studied the influence of government borrowing on economic growth using panel data from thirty-eight developed and emerging markets over the period 1970 to 2007. Their findings revealed that government borrowing has an adverse impact on economic growth. This negative effect was attributed to a slowdown in labour productivity, reduced investment, and sluggish capital stock accumulation. Similarly, Siddique and Malik (2001) examined the relationship between public debt and economic growth in three South Asian countries. Their study revealed an inverse relationship between economic expansion and public debt levels.

Isu et al. (2010) investigated the effect of external borrowing on Nigeria's economic growth using the national identity framework. Their results showed a negative long-run relationship between external debt and economic growth. Utilizing the Vector Error Correction Model (VECM), the study found a one-way causality from external borrowing to growth and a two-way association in the long term. Fenta (2012) assessed the relationship between private sector credit and economic growth in Ethiopia using quarterly data from 1998 to 2010. Applying the Generalized Method of Moments (GMM), the study found a significant long-run relationship between private credit and economic growth.

Naomoi and Rutto (2012) examined the impact of private sector credit on Kenya's economic growth. Their findings indicated that private sector credit has a positive and significant influence on economic performance. Sichula (2012) studied debt overhang in five Highly Indebted Poor Countries (HIPC) within the Southern African Development Community (SADC) using data from 1970 to 2011. The study found a significant negative relationship between public borrowing and economic growth.

Afonso and Jalles (2013), using World Bank data and a neoclassical framework, analyzed 39 years of data (1970–2008) with the Ordinary Least Squares (OLS) method. Their findings showed that the debt-to-GDP ratio negatively affects economic growth. Calderon and Fuentes (2013) explored whether government borrowing impacts economic growth using data from 136 countries between 1970 and 2010. Their results showed that high government borrowing adversely affects growth, though good economic policies can moderate this effect.

Baum, Checcherita-Westphal, and Rother (2013) examined the relationship between public debt and economic growth in the EU over two decades. They found that public debt positively impacts growth in the short run. Herndon, Ash, and Pollin (2013) re-evaluated previous claims by Reinhart and Rogoff using a smoothed regression approach. Their results showed that countries with a debt-to-GDP ratio

exceeding 90% still experienced an average growth rate of 2.2%, contradicting earlier claims of a sharp decline. They found no fixed threshold but noted that higher debt tends to slow growth.

Padoan, Sila, and Noord (2013) analyzed the effects of fiscal policy on economic growth in 28 OECD countries over 52 years (1960–2011), using GMM techniques. The findings suggested that a 1% increase in public debt led to a 12% decline in economic growth. Mercinger, Aristovnik, and Verbič (2014) explored the direct impact of high debt on the economic growth of selected EU countries. Their models revealed a significant nonlinear relationship between debt levels and growth rates.

Eberhardt and Presbitero (2015) studied the link between public borrowing and economic expansion across 118 countries over 42 years. Using OLS, they discovered a probable nonlinear relationship between public debt and economic growth. Korkmaz (2015) examined the impact of private sector credit on economic growth in selected EU countries over seven years using time-series data. The findings showed that private sector credit positively influenced Nigeria's economic growth. Okwu et al. (2016) analyzed the relationship between domestic debt and Nigeria's economic growth over three decades using both descriptive and inferential statistics. The findings indicated that domestic debt positively impacts economic growth.

Igbodika, Jessie, and Andabai (2016) explored the connection between domestic borrowing and Nigeria's economic growth over 25 years. The study employed parametric statistical techniques and found a direct and positive relationship between domestic borrowing and economic expansion. Abula and Ben (2016) assessed the impact of government borrowing on economic growth using secondary data. Their results revealed that government borrowing positively influences Nigeria's economic performance. Selvanathan and Selvanathan (2016) investigated the relationship between public debt and economic growth in 40 selected countries using the ARDL technique. Their results showed that public debt negatively affects economic growth in the long run.

Elom-Obed, Odo, Elom, and Anoke (2017) examined the link between public debt and Nigeria's economic growth over 30 years using the VECM and Granger causality test. Their findings indicated that public debt has a negative effect on economic growth. Karadam (2018) used both longitudinal and cross-sectional data to study the relationship between government borrowing and economic growth in 134 countries over 20 years. The study found that government borrowing positively impacts economic growth. Panagiotis (2018) analyzed the relationship between public debt and the growth of the Greek economy using parametric methods. The study found a positive long-run relationship between borrowing and growth.

Lim (2019) assessed the connection between government borrowing and economic growth in 41 countries over 30 years. The results showed an inverse relationship between public borrowing and economic growth. Caner, Fan, and Grennes (2019) investigated the link between public debt and economic growth using Generalized Least Squares (GLS). Their findings revealed a negative relationship between government borrowing and economic growth. Swamy (2020) studied the relationship between borrowing and economic growth in 49 countries using GMM. The findings indicated that government borrowing is inversely related to growth.

Hameed (2021) assessed the impact of public debt on South Asian economies using cross-sectional data over 24 years. The findings revealed a negative relationship between economic growth and public debt. Manasseh (2021) explored the impact of external borrowing on economic growth in 30 Sub-Saharan African countries using parametric methods over 25 years. The results showed a negative relationship between external debt and economic expansion. Hilton (2021) investigated the bidirectional relationship between government borrowing and economic growth over 20 years using the ARDL approach. The study found an inverse short-run relationship and a one-way long-run causality from economic growth to public debt. Mbali (2021) examined the relationship between government borrowing and economic growth in South Africa over 33 years using cross-sectional data and parametric methods. The results revealed an inverse relationship between borrowing and growth. Chidubem (2023) analyzed

the relationship between government borrowing and Nigeria's economic growth using parametric techniques. The study found no significant impact of government borrowing on economic growth, while external debt was shown to negatively affect economic expansion.

METHODOLOGY

This study employed an ex-post facto research design, which is appropriate for investigations where the researcher makes use of existing data without manipulating the study variables. Since the research focused on analyzing the relationship between government borrowing, private sector credit, and economic growth over a long historical period, this design was deemed suitable. The study relied entirely on secondary data extracted from archival sources. To assess the strength and nature of the relationship between the dependent variable and the explanatory variables, a multiple regression analysis model was employed. The functional form of the model is expressed as GDP being a function of external debt, internal debt, and private sector credit. Mathematically, the model is specified as: $GDP = \alpha + \beta_1 EDEBT + \beta_2 INDEBT + \beta_3 PSC + U$, where GDP represents Gross Domestic Product as a proxy for economic growth, EDEBT denotes external government debt, INDEBT represents internal government debt, and PSC stands for private sector credit. The term α represents the constant intercept, β_1 to β_3 are the coefficients of the explanatory variables, and U represents the error term. The model is structured to examine the long-run and short-run relationships among these variables over the specified period.

In line with the objectives of the study, data were sourced from secondary sources, specifically the World Bank Development Indicators and the Central Bank of Nigeria (CBN) Statistical Bulletin. The study covers the period from 1972 to 2024, offering a robust dataset spanning 53 years. This period was considered adequate to provide a comprehensive insight into the long-term trends and dynamics of government borrowing and its impact on economic growth, as well as the role of private sector credit.

The major variables of interest in this study include Gross Domestic Product, external debt, internal debt, and private sector credit. Gross Domestic Product was measured in constant US dollars to reflect real economic growth. External and internal debts were measured as percentages of GDP to capture their relative magnitudes within the economy, while private sector credit was similarly expressed as a percentage of GDP. These variable measurements and definitions align with standard practices in empirical economic research and were informed by similar studies in the literature. All data used were thoroughly verified for consistency and comparability over the study period.

RESULTS AND DISCUSSION

Table 1.
Variables Definition and Measurement

Variables	Definitions	Measurements	Sources/References
	Dependent variables		
Gdp	Gross Domestic Product	Sum of all goods and services produced in the year	Ukwueze (2012) Oladitan (2016)
	Independent variables		
EDEBT	External debt	Total external borrowing	Ukwueze (2012) Oladitan (2016)
INDEBT	Internal Dbt	Total internal borrowing at end of year	Ukwueze (2012) Oladitan (2016)

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PSC	Private sector credit	money spend by private sector	Ukwueze (2012)

Researcher' Compilation (2025)

Estimation Techniques

This research used the ADF and Philips-Perron (PP) component basis test, panel Johansen co-integration test, VAR mock-up, vivacious ordinary slightest tetragon regression, full bespoke normal least regression and pairwise granger. They are explained in the next session

Unit Root Test

In so remote that instance succession data are employed for analyzing data, it is essential to examine stationary nature of each variable in order find out if they are dynamic or not. To perform a previous analytic test ahead of the evaluation of the mock-up so as to examine the time sequence features of the succession, two normal measures for unit root test were applied. These are the Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests. The motive for this is to outwit or evade the hitch of erroneous outcome that are familiar with non-stationary time succession mock-up.

The unit root examination explain if the suitable point succession yt is well portrayed by an AR(1) with white noise inaccuracy. Numerous fiscal time sequence, nevertheless, have a more intricate vibrant configuration than is incarcerated by a trouble-free AR(1) mock-up. Said and Dickey (1984) augment the basic autoregressive unit root test to hold broad ARMA(p, q) mock-up with unidentified orders and their examination is known to as the amplified Dickey- Fuller (ADF) test. The ADF examination the null postulation that a time sequence yt is I(1) alongside the option that it is I(0), presumptuous that the dynamics in the data have an ARMA arrangement. The ADF test is based on approximation the test

$$y_{t} = \beta' D_t + \varphi y_{t-1} + \varphi_{y-1} + \sum_{t=1}^{p} \varphi_j \Delta_{t-j} + \varepsilon_t \dots\dots (4)$$

Where Dt is a vector of deterministic conditions (steady, inclination etc.). The p lagged dissimilarity conditions, Δyt−j , were used to fairly accurate the ARMA configuration of the inaccuracy, and the worth of p is set so that the inaccuracy εt is in sequence uncorrelated. The inaccuracy expression is also understood to be homoskedastic. The requirement of the deterministic terms is contingent upon on the presumed movement of yt in the alternative postulation inclination stationarity as depicts in the prior section. Underneath the null postulation yt is I(1) which engross that φ = 1.

An alternate creation of the ADF test regression is

$$\Delta y_t = \beta' D_t + \pi y_{t-1} + \sum_{t=j}^{p} \psi j \Delta y_{t-1} + \varepsilon_t \dots\dots (5)$$

The hypothesis θ(1) = 0 again correspondent to
Ho : π = 0 alongside HA : π < 0.

To find out the number of lags, k, we used the standard measures. General-to-specific testing: Begin with kmax and remove irrelevant lags. Approximation probable mock-up and use in sequence criterion. Make sure there is no autocorrelation. From time to time it is convenient to have statistic the null postulation.
$$Y_t = \xi_t + e_t, \dots\dots (6)$$
where et is stationary and ξt is a haphazard walk, .
ξt = ξt−1 + vt, vt ~ IID(0, σ^2_v)
If the variation is zero, σ^2_v
= 0, then ξt = ξ0 for all t and Yt is stationary.

Co-integration Estimation

The trace investigation tests the null proposition of *r* cointegrating vectors together with the alternative hypothesis of *n* cointegrating vectors. This is describe as; the utmost chances   or the utmost Eigen-value statistic, for examination the null postulation of at highest 'r' co-integrating vectors alongside the alternative hypothesis of 'r+l 'co-integrating vectors, is set by: Where is the Eigen values, T is entirety number of annotations. According to Johansen, beneath the null hypothesis both trace and statistics have irregular distributions and assist to give estimated critical principles for the statistics as created by Monte Carlo methods. In a situation where Trace and Maximum Eigen-value statistics defer dissimilar outcomes, the results of trace test ought to be chosen.

Presentation of Result

Table 4.1. The unit root test for the variables at 5% sig level with no trend.

Variable	ADF value (I)PP value (I) ADF value (0) PP value (0)
GDP	-4.19 6 (2.829)* -5.612 (-2.926)* -0.854 (-2.925) -0.420(2.925)
EDEBT	- 7.201 (2.947)* -15.68(-2.925)* -10.439(-2.941)* -6.653 (2.925)*
IDEBT	- 5.111 (2.825)* -21.11(-2.925)* -7.102 (2.928)* -6.185 (-2.925)*
PSC	-7.945(-2.925)* -9.117(-2.925)* -5.812(-2.929)* -1.773 (-2.926)
TDEBT	-13.785(-3.716)* -5.346 (2.925)* -2.40 (2.926) -18.16 (-2.926)*
	The F unit root test for the variables at 5% sig level at intercept.

Source: Researcher's computation

Significance * @5%

From Table 4.1, time sequence of GDP, EDEB, INDEBT, PSC and TDEBT are static at original disparity as portrayed by the real values of ADF and PP larger than the scale at 5% ADF benchmark portentous that the dynamics are unified of 1st order, that is,. I (I). Equally, GDP and PSC are dynamic at level given that the real values of ADF and PP did go beyond the standard set for ADF and PP. To additionally establish the static position of the variables ADF and PP test were performed with inclination. The outcomes for ADF and PP disclose that all variables are not dynamic 1st differential given that the actual value of ADF and PP go beyond the set standard.   The Unit test disclose that there is a amalgamation of I(I) and I(0) of the corresponding regressors, hence the Auto Regressive Distributive Lag (ARDL) testing might be proceeded.

Co-integration

When testing for co-integration, the mock-up with two lags, as proposed by AIC and HQIC. This research selected a Pantula principle to establish the appropriate limits of the mock-up. This research starts by approximating two eccentric mock-up. For these mock-ups this research move from the most restricting, which embraces delimited unvarying to the minimum limiting which comprises a bounded trend in the mock-up.

Table 4.2 Cointegration Rank Test (Trace) model

Hypothesized	Trace stat	0.05	Max	0.05

No. of CE(s)		Critical value	Stat	Critical value
0	104.3773	47.85613	50.60329	27.58434
1	53.77404	29.79707	29.50927	21.13162
2	24.26477	15.49471	22.89862	14.26460
3	1.366150*	3.841466	1.366150	3.841466

Source: Researcher's Computation (2025)

The null hypothesis for this test is that "there is no co-integration among variables". If the standard surpasses trace statistic, we do not retain the null hypothesis, inferring that "there is co-integration among variables". Matching the analogous values for trace value and the benchmark for rank 0,(104.37 and 47.85), we do not accept the null hypothesis. But for rank 3, we do not reject the null hypothesis which infers that the chosen variables are co-integrated and have long-run connection. For rank 3 the trace statistic (1.36) is not up to the set benchmark (3.84) which infers that three co-integrating equations exist less than the critical value (15.49) which infers that at least two co-integrating equations exist

Pairwise Granger
In this segment, the outcome for the analysis of causality are presented and the causation between the variables (if any) and the direction of the association of the arrangements are determined using Granger

Table 4.3 Pairwise Granger

Null Hypothesis: Model	F-Statistic	Prob.
IDEBT does not Granger Cause GDP	5.68063	0.0026
GDP does not Granger Cause IDEBT	6.28633	0.0014
PSC does not Granger Cause GDP	5.80590	0.0023
GDP does not Granger Cause PSC	7.18255	0.0006
IDEBT does not Granger Cause EDEBT	6.87442	0.0008
EDEBT does not Granger Cause IDEBT	8.06581	0.0003
PSC does not Granger Cause EDEBT	9.59491	0.0800
EDEBT does not Granger Cause PSC	0.77574	0.5148
PSC does not Granger Cause IDEBT	12.5896	7.E-06
IDEBT does not Granger Cause PSC	1.51386	0.2265
EDEBT does not Granger Cause GDP	2.29710	0.0931
GDP does not Granger Cause EDEBT	0.87064	0.4648

Source: Researcher's Computation (2025)

The result estimate confirms that at 5% the majority of the variables have two-way associations for GDP. The findings disclosed internal debt (IDEBT) and economic growth has two-way association   as portrayed by p=0.002 and p=0.0014 in the same way. This infers that alteration in economic growth engenders a noteworthy   alteration in internal debt whereas alteration in internal debt also lead to noteworthy alteration economic growth.   The finding also discloses that there is   two-way association between private sector credit (PSC) and economic growth as portrayed by p=0.002 and p=0.0003 correspondingly. This infers that alteration in private sector credit will lead to noteworthy alteration in economic growth (GDP) alteration in economic will engender a noteworthy alteration in private sector

credit. Internal debt also exhibit a two-way association with external debt (EDEBT) as portrayed by p= 0.0008 and p=0.0003. This result infers that alteration in external debt will engender noteworthy alteration in internal debt. Alteration in external debt infers upsurge in internal debt to service it. On the contrary, private sector credit and external debt display one-way association. It discloses that private sector credit has one-way association with external debt as portrayed by p= 0.00008.

Lastly, the outcome revealed there is a one-way assaociation between economic growth and external debt as depicted by p= 0.009. The finding revealed that alteration in external debt will significantly influence economic growth. .

Discussion of Findings

Government borrowing and economic growth have become subjects of concern for governments globally. This research examined the causation between economic growth, external debt, internal debt, total debt, and private sector credit. The results revealed a two-way relationship between internal debt and economic growth in the long run. This outcome supports the bidirectional association found by Aighery (2013) and aligns with the long-term relationship between internal debt and economic growth established by Akanbi (2014). Government internal debt facilitates the uninterrupted flow of funds, which in turn influences economic growth. Similarly, an increase in productive capacity impacts internal borrowing in Nigeria.

The findings also revealed a two-way relationship between private sector credit and economic growth. This result is consistent with the bidirectional association between private sector credit and economic growth reported by Alyunsury and Babalola (2013), as well as Aliero et al. (2013). This implies that loans granted to the private sector significantly influence business activities, thereby impacting economic growth in Nigeria. In the same vein, the private sector and economic growth appear to move in the same direction in Nigeria. Granger causality test results also indicate a bidirectional relationship between internal and external debts. The trends of these variables show that, during the period under study, external debt and internal debt moved in the same direction, indicating that higher external debt was associated with higher internal debt.

Furthermore, the results revealed a one-way relationship between private sector credit and the expansion of the Nigerian economy. This outcome aligns with prior expectations, suggesting that changes in private sector credit significantly influence the expansion of the Nigerian economy.

Lastly, the findings revealed a one-way relationship between external debt and the expansion of the Nigerian economy. This is consistent with the findings of Muritala and Taiwo (2021), who reported a positive relationship between external debt and economic growth.

Recommendation for Policy makers

This research set out to examine the association between government public debt and private sector credit. Based on the findings, the study recommends that policymakers should focus resources on long-term strategies. It also recommends that financial institutions should be strengthened to provide more loans to the private sector with minimal or no barriers.

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