Private Sector Credit and Agricultural Sector Performance in Nigeria

[1)]Naworio, Oyefiebogo. Flourish, [2)] Branch, Ezoneb, [3)] Prof. Andabai, Priye Werigbelegha, Ph.D
Department of Banking and Finance,
Niger Delta University, Bayelsa State.
https://doi.org/10.56201/ijefm.v11.no10.2026.pg178.191

Abstract
The study examines the impact of private sector credit on agricultural sector performance in Nigeria; for the period (1998-2025). Secondary data were used and collected from the Central Bank of Nigeria Statistical Bulletin, 2025. The study used agricultural sector credit, private sector credit, and bank lending rate as the explanatory variables to measure private sector credit; whereas, agricultural sector output was proxy for agricultural sector performance and employed as dependent variable. Hypotheses were formulated and tested using Ordinary Least Square (OLS). The result shows that agricultural sector credit has a significant impact on agricultural sector output in Nigeria. Private sector credit has a significant impact on agricultural sector output in Nigeria. Bank lending rate (BLR) has a significant impact on agricultural sector output in Nigeria. The coefficient of determination indicates that about 74% of the variations in private sector performance can be explain by changes in capital market variables (AGSO, PSC, BLDR) in Nigeria. The study concludes that private sector has a positive significant impact on agricultural sector performance in Nigeria. Therefore, the study recommended that monetary authorities should ensure that credit to the private sector be properly supervised to ensure its proper utilisation for productive manufacturing sector ventures. Despite the bank consolidation exercise well concluded in Nigeria, bank size is still a problem to agricultural sector performance. Higher bank capital based should be imposed on banks to further consolidate bank operations to enable them lend without fear of failure. The policy makers ensure that lending rate be reasonable so as not to deter investors from borrowing in order to embark on viable investment projects in the sector.

Keywords: *Private Sector, Credit, Agricultural Sector, Performance, Nigeria*

Background to the Study

The importance of financial institutions and its impact on agricultural sector performance had occupied central position in the financial economics literature in recent decades (Patrick and Andabai, 2024). However, the impact of private sector credit on agricultural sector growth had been identified as one of the areas in the financial economics literature that can quicken the pace of growth and development in an economy such as Nigeria. Hence, the growth and development of the in any modern economy greatly depends on the efficient and effective intermediation processes. This is in line with the financial intermediation theory by Gurley and Shaw (1967), which explains the role of bank credit in an economy. This theory is supported by the work of Odoguma (2025) who established a positive significant effect of private sector credit on manufacturing sector growth in Nigeria. This can be achieved through efficient and effective savings mobilization from the surplus units to the deficit units of the

sector. Thus, the banking institutions are to perform the complementary role to facilitates the intermediation functions; thus, by extending loan facility to the manufacturing sector in Nigeria. The theoretical literature on financial development and growth had remained controversial, because of different views; supply-leading and demand-following propositions. The supply-leading hypothesis is traceable to the work of Schumpeter (1934) on the role of financial institutions and growth.

The study indicates that financial institutions promote growth in an economy through efficient allocation of loanable funds to the productive sectors. Several scholars such as Gurley and Shaw (1967), Goldsmith (1969), Mckinnon (1973), Mushin and Eric (2000), Dermigue-Kunt and Levine (2008) also supported the proposition that financial development contributes to growth. They posit that an efficient financial market is a necessary requirement for the overall achievement of growth and development in any modern economy. Based on these authors' views, we conclude that the argument behind bank credit promote private sector growth is consistent with the supply-leading hypothesis.

Thus, the advent of financial liberalization policy in 1986 has drastically reduced financial repression in the Nigerian financial system. This is consistent with the financial liberalization theory by McKinnon (1973) and Shaw (1973), which addresses the problems caused by the repressive financial policies in most developing economies such as Nigeria. This corroborates the work of Modebe, and Ugwuoke (2021), which shows a positive significant effect of private on economic growth in Nigeria. The study concludes that provisions of financial services stimulate the productive sectors such as: manufacturing, oil and gas, agriculture, construction, communication, solid minerals, real estate, trade, utilities etc.

Empirical investigation on this issue in Nigeria is revealed in the work of Achigbu, 2023). The study posit that the financial system had not sustained an effective intermediation; especially, credit allocation and a high level of monetization in the economy. The Central Bank of Nigeria (2025) also observed that the flow of credit to the real sector did not meet the required targets and, as a result, failed to impact positively on investment, output and domestic price levels. Hence, banking institutions are expected to be one of the major sources of private sector funding that will complement the efforts of the sector in achieving growth and development of the economy. This was established in the work of Branch and Andabai. (2026) which concludes that; business environment remains favourable for the banks to operate; it is capable of boosting real sector investment which ultimately stimulates growth and development in the economy.

Statement of the Problem

Several studies conducted in Nigeria on the impact of private sector credit on manufacturing sector by (Olowe & Ufogbo 2023). The results reveal a positive significant impact of private sector credit on manufacturing sector growth. Unfortunately, in Nigeria, the sector is still struggling under the shackles of under-development as a result of when compared with her counterparts in some developing economy such as Ghana, South Africa etc. The performance of this sector for the past years was characterized by inconsistence evidences of the impact of private sector credit on manufacturing sector growth in Nigeria, despite the increased number of financial institutions in the economy. The work of Cocodia et al. (2026) indicated that the economy had not been effectively stimulated by the private sector credit; because, of inconsistent monetary policies, inability to implement the formulated policies, failure of corporate governance, corruption, economic and political instability in the country. Thus, these problems create a knowledge gap in this study; and, it is against this background that the study investigates empirically the impact of private sector credit on agricultural sector performance in Nigeria.

Research Questions: To what extent does credit to agricultural sector influence on agricultural sector output in Nigeria? To what extent does private sector credit have on agricultural sector output in Nigeria. Bank lending rate does not have on agricultural sector output in Nigeria?

Research Hypotheses: There is no significant impact of Credit to the agricultural sector on the agricultural sector output in Nigeria. Private sector credit does not have a significant impact on agricultural sector output in Nigeria. There is no significant impact of bank lending rate on agricultural sector output in Nigeria.

Conceptual Review

Bank and Credit to Private Sector

Banks by nature of their operations are net liability takers. Their intermediation function derives from their capacity to trade on mobilized funds. Banks through the intermediation process receive deposits from the surplus unit and extend credit to deficit unit for productive economic activities. The work of Yaya (2023) sees credit as the money from the lender to the borrower. Credit is generally, a promise by one party to pay another for money borrowed or goods and services received. However, it is a system by which goods and services are provided in return for differed rather than immediate payment; it may be provided by the seller, or by a bank or finance company. In the context of this study, banks are debtors to the depositors of funds and creditors to the borrowers of funds. Bank credit is therefore the borrowing capacity provided to an individual, government, firm or organization by the banking system in the form of loans (Dieah & Andabai, 2026).). Banks credit can be classified into private and public sector credit depending on whether the money is used by the private sector of the public sector. Private Sector Credit is the total of the financial resources in the form of loans, trade credit, purchases of non-equity securities and other receivables to the private sector.

Sources of Commercial Bank Credit

The most important sources of funds for commercial banks include; paid up capital, reserve funds, accumulated profits and deposits. The word deposit represents the money in the funds of the bank's various deposit schemes. They include: savings deposit, fixed deposit and demand deposit. The deposit funds of commercial banks are collectively described as deposit liabilities. This name quickly reminds one that money in commercial bank's deposit fund is one that the banks are bound to pay to their depositors, their agent or their creditors. The deposit liabilities of commercial banks neither are not permanent funds nor are they fixed. They fluctuate according to the flow of deposits and withdrawals made in the various deposit accounts. Banks lend money all the year round from their deposit liabilities funds (Essien & Amanda, 2018). One needs to understand the behavior of the various deposit accounts I order to appreciate this very important source of bank lending.

Money received in a savings deposit account is money not immediately needed for use by a depositor. In places where people understand the use of current account, and make good use of its facility only, money meant to be saved against the rainy day is deposited in a savings account. This being so, money in a savings account is allowed to rest for a long time in the account. In the Nigerian context, owing to the high level; o f illiteracy and the low level of chequeing habit, much money that could have better been paid into a current account are lodged in a savings deposit account.

If the above statistics are any useful guide in present day Nigeria banking scene, it means that commercial banks in Nigeria can afford to lend about 20% of their total savings deposit and 85% of their total fixed deposit funds for one full year, without anxiety that the depositors

will demand them during one ear period. Money demand (current) deposit account is money that is not fixed for any given period of time. It is money the depositors can request for just on demand. But commercial banks do not always have to meet their current account customer's drawings in cash.

Cheques presented over the counter are paid in cash, while cheques paid into accounts are paid through the clearing system. In which case, physical cash is not handed out in settlement to the payees or endorsee of such cheques. The researcher also found out that about 54.55% of total drawings from current account during that period of survey were taken in cash in some branches of commercial banks in Lagos. The remaining 45.45% of the year total current account drawings was paid through accounts within and outside the very banks in which the accounts were held. This shows that commercial banks need not hold all the un-drawn balances in demand deposit account in cash, as all will not be paid in cash (Essien & Amanda, 2018).

Types of Bank Credit

1. Loan and Advances

A) Overdrafts: These are the most common and simplest forms of credit facilities. They are usually granted for working capital purposes and the amount outstanding is expected to fluctuate over the life of the facilities, depending on the borrower's working capital financing needs, at any material time. Overdrafts permit the borrower to use those amounts required on a day to day basis, thus saving unnecessary interest charges. In accordance with general banking practice, overdrafts are repayable on demand and can be cancelled at the bank's option without prior notice to the borrower (Essien & Amanda, 2018). The overdraft limit is usually communicated to the customer and this limit serves as the bank's reference point in all drawings by the beneficiary Okpalami & Ofoluewa (2017).

B) Advances: An advance is a short-term credit which is granted for a definite period, usually between 30 and 180 days. They are usually granted for specific purposes, for example, payment of various collections, refinancing of maturing loans, project bridging finance, refinancing of letters of credit for project equipment imported etc. The exact maturity date of an advance is normally determined at the onset and this makes it possible for the project to have a lower interest charge on the advance due to the reduced risk (money rate and credit risk) Okpalami & Ofoluewa (2017).

Short-term loans are also used in financing seasonal increases in working capital and also in temporary accommodations of a project capital expenditure needs, and other long-term commitments, pending final negotiation of long-term loan. Most times, short term loans are usually renewed at maturity. Banks predominantly extend substantial amounts of short-term loans to farming, manufacturing, small-scale project etc. Short-term loans may be secured or unsecured. Banks extend secured loans to borrowers who have a high debt/equity ratio, or projects that have not established a record of satisfactory performance and stable earnings or generated enough sales revenue in relation to their capital. Large exposures are also often secured (Essien & Amanda, 2018).

Unsecured loans, although disallowed by banking laws in Nigeria, are granted in exceptional cases to projects that are properly financed, have adequate capital and net worth, competent management, stable earnings, a record of prompt payment of obligations, and a bright future. Unsecured loans, however, often crystallize into bad debts in the Nigerian banking scene.

C) Medium- Term Loans: These constitute important sources of intermediate funds for projects and businesses. Medium-term loans are usually granted for specific purposes such as investments, equipment financing, housing, share acquisitions, agricultural financing, construction etc. A medium-terms loan is a facility with an original maturity of more than one year or a loan granted under a formal agreement (revolving credit or credits) on which the

original maturity of the commitment is in excess of one year. Medium-term loans have maturities of between 1 and 5 years.

A study by Ofoluewa (2022) stated that they are negotiated between a borrower and a lender and are most prevalent in industrial projects characterized by heavy fixed capital requirements. Most of the loans however are made to small projects and businesses which rely on these sources, due to their limited access to the capital market. Medium-term loans provide flexibility for the user and are amortized in fixed instalments on a monthly, quarterly, semi-annual or even annual basis, as the case may be. The interest rates on this type of loan amongst other factors depend on the general level of interest rates prevailing in the market, the amount and maturity of the loan and the credit standing of the borrower. Generally, the interest rates is higher than in ordinary advances or short-term loans due to higher money and credit risks and the fact that it is less liquid (Essien & Amanda, 2018).

The Performance of the Economy

The advent of financial liberalization policy in 1986 has drastically reduced financial repression in the Nigerian financial system. This is consistent with the financial liberalization theory by McKinnon (1973) and Shaw (1973), which addresses the problems caused by the repressive financial policies in most developing economies such as Nigeria. This corroborates the work of Okpalami and Ofoluewa (2024), which shows a positive significant relationship between financial liberalization and real sector growth in Nigeria. The study concludes that provisions of financial services stimulate the productive sectors such as: manufacturing, oil and gas, agriculture, construction, communication, solid minerals, real estate, trade, utilities etc. The Nigerian financial system is still struggling under the shackles of under-development as a result of internal and external variables (political and economic instability, absence of vibrant monetary policies, inability to implement formulated policies, corruption, and policy reversals etc.). Empirical investigation on this issue in Nigeria is revealed in the work of Nzotta & Okereke (2009). They posit that the financial system had not sustained an effective intermediation; especially, credit allocation and a high level of monetization in the economy.

The Central Bank of Nigeria (2023) also observed that the flow of credit to the real sector did not meet the required targets and, as a result, failed to impact positively on investment, output and domestic price levels. Hence, banking institutions are expected to be one of the major sources of private sector funding that will complement the efforts of the sector in achieving growth and development of the economy. This was established in the work of Aliyu and Yusuf (2023) which concludes that when business environment remains favourable for the banks to operate, it is capable of boosting real sector investment which ultimately stimulates growth and development in the economy.

Theoretical Review

Financial Intermediation Theory

This study is anchored on the financial intermediation theory by Gurley and Shaw (1967). The theory explains the role of bank credit in an economy. According to the theory, the business of financial intermediation in any modern economy is to provide a mechanism to draw financial flows from financially exceeding agents to those having a financial need in the economy. A survey of literature about the theories of credit assessment suggests that theories are commonly grouped according to the nature of subject relations between the borrower and lender as portfolio theory, credit market theory and information theory.

Since the 1980s, companies have successfully applied modern portfolio theory to market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit risk remains the largest risk facing most companies, the practice of applying modern portfolio theory to credit risk has

lagged (Margrabe, 2007). Companies recognize how credit concentrations can adversely affect financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. This industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted (Kairu, 2024). The combination of these developments has vastly accelerated progress in managing credit risk in a portfolio context. Traditionally, organizations have taken an asset-by-asset approach to credit risk management. While each company's method varies, in general this approach involves periodically evaluating the quality of credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio's expected losses. The foundation of the asset-by-asset approach is a sound credit review and internal credit risk rating system. This system enables management to identify changes in individual credits, or portfolio trends in a timely manner. Based on the changes identified, credit identification, credit review, and credit risk rating system management can make necessary modifications to portfolio strategies or increase the supervision of credits in a timely manner.

Empirical Review

Akpansung and Babalola (2025) which examines the relationship between banking sector credit and economic growth in Nigeria over the period 1998 and 2018. The causal links between the pairs of variables of interest were established using Granger causality test while a Two-Stage Least Squares (TSLS) estimation technique was used for the regression models. The results of Granger causality test show evidence of unidirectional causal relationship from GDP to private sector credit (PSC) and from industrial production index (IND) to GDP. Estimated regression models indicate that private sector credit impacts positively on economic growth over the period of coverage in this study.

Nzomoi and Rutto (2024) examined the impact of bank credit on economic performance sectoral panel data for Kenya. The sectors considered included Building and Construction (B&C), Electricity and Water (E&W), Manufacturing (Manu.); Mining and Quarrying (M&Q), Transport and Communication (T&C), Wholesale and Retail Trade (WHR) and, Hotels and Restaurants (H&R). The study employed Fixed and Radom effect as well as GMM and found a positive and significant impact of credit on sectoral gross domestic product measured as real value added.

Emecheta and Ibe (2022) investigated the impact of bank credit on economic growth in Nigeria applying the reduced form of vector autoregressive (VAR) technique using time series data from 1998 to 2019. Current gross domestic product (GDP) is the dependent variable and proxy for economic growth while bank credit to the private sector (CPS) to GDP ratio and broad money (M2) to GDP ratio were proxies for financial indicator and financial depth respectively, results from VAR Granger Causality/Block Exogeneity Wald Tests revealed that there is a significant positive relationship between bank credit to the private sector, broad money and economic growth.

Osman (2022) employed the autoregressive distributed lag (ARDL approach to cointegration, on annual time series data from (1997-2019) to investigate the relationship between private sector credit and economic growth in Saudi Arabia for the period covering 1974 to 2012. Six variables were used, mainly GDP, private sector credit (BF) , and the rest other four control variables ,commercial bank's deposits (DS) ,government expenditure (G) , inflation rate (CPI) and open economy (OPE). The study found that there is a long-run relationship between (BF) and economic growth. Moreover, (BF) has positive long and short-run relationship and the elasticity of GDP to the (BF) was (0.054) and (0.068) for long-run and shortrun respectively.

Yakubu and Affoi (2022) examined the impact of the commercial banks credit on economic

growth in Nigeria from 1992 to 2019, using bank credit to the private sector as explanatory variable and gross domestic product as proxy for economic growth. Analyses from ordinary least square revealed that the commercial bank credit has significant positive effect on the economic growth in Nigerian. Noting that the essence recent banking reforms is to enhance banking sector activities including credit extension,

Akpansung and Gidigbi (2014) carried out s study to examine the implications of reforms on sectoral credit allocations and economic growth within 2004 to 2012. The study employed GDP as the dependent variable while the sectorial credit allocations to agriculture, mining & quarrying, manufacturing, communication, and oil and gas were the independent variables. Analytical review showed improved credit allocation to the various sectors under study. The results from ordinary least squares estimating techniques revealed that bank credit to mining & quarrying (MQ) and oil & gas (OG) are statistically significant such that MQ gave positive effect while OG had negative effect on economic growth. However, credit to manufacturing and agriculture are negative but not significant while credit to communication was positive and insignificant. The study concludes that bank credit effect on sector dependent.

Bakare, et al. (2022) used 24-year time serials covering 1990 to 2019 to examine the extent to which banks' credit affects economic growth in Nigeria. The study used credit to the private sector, credit to the public sector and inflation to proxy commercial bank credit while Gross Domestic Product proxied economic growth. Augmented Dickey-Fuller (unit root) test was used to test stationarity which reveals that all the independent variables and dependent variable were stationary at first difference, the trace statistics and maximum engine value test were used to test for co-integration. The result shows that the lagged value of credit to the private sector is positively and significantly influencing economic growth in Nigeria while the lagged value of credit to the public sector shows a positively insignificant relationship with GDP. Olowofeso, et al. (2024) examined the impacts of private sector credit on economic growth in Nigeria using the Gregory and Hansen (2021) cointegration test that accounted for structural breaks and endogeneity problems. The method was applied to quarterly data spanning 2000-Q1 to 2014: Q4, while the fully modified ordinary least squares procedure was employed to estimate the model coefficients. The study found a cointegrating relationship between output and its selected determinants, albeit, with a structural break in 2012Q1. Amongst others, findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was inhibiting growth. Iwedi, et al (2021) examined the impact of bank domestic credits on the economic growth of Nigeria using time series for the period of thirty- three years from 1989 to 2019. The study employed credit to private sector, credit to government sector and contingent liability were used as proxy for bank domestic credit while gross domestic product represents economic growth. The results from LS and Johansson co-integration techniques showed that credit to the private sector (CPS) and Credit to the government sector (CGS) positively and significantly associated with GDP in the short run. The analysis further revealed the existence of poor long run relationship between bank domestic credit indicators and gross domestic product in Nigeria. Belinga, at el (2023) examined the causal relationship between bank credit and economic growth within the period 1988 to 2019. The study measured bank credit development using domestic credit to the private sector and bank deposit and gross domestic product per capita for economic growth, while money supply was a control variable. With VECM with Johansen Co-Integration Test and Wald Test causal analyses, findings showed that there is a unidirectional causal relationship flowing from private sector credit and bank deposit to economic growth.

Mushtaq (2022) developed a model to study the effects of bank credit and bank deposit on economic growth in Pakistan within the period of 1998 to 2019. Results from Johansen test of Co-integration and Granger Causality showed that there is no co-integration or causal

relationship between GDP growth and Deposits in Banks of Pakistan. However, there is short run and long run causality running from GDP growth to bank's lending activities.

Modebe, et al, (2022) carried out empirical studied to determine the impact of bank credit on economic growth of Nigeria for a period covering 1986 and 2012. The study employed Gross Domestic Product as dependent variables while credit to private sector and broad money supply were used as explanatory variables. The analyses were conducted using ADF unit root technique, Johansen and Juselius co-integration test, OLS regression, ECM and granger causality tests. Results showed that long run relationship as well as a negative and significant relationship between GDP and total bank credit to private sector (TBCPS) in the long run. M2 which was used as control variable has a positive and significant impact on GDP at the long run. Further results from the ECM showed that 24.03% of the disequilibrium will be corrected yearly and TBCPS also have a negative and insignificant impact on GDP at the short-run. The result of the granger causality test reviles that causation runs from GDP to TBCPS and not the other way around, a case of unidirectional causality. The result also showed bidirectional causality between TBCPS and M_2. The study concludes that credit has negative effect on growth in Nigeria.

Iheanacho (2016) employed the auto-regressive distributed lag (ARDL) approach to co-integration analysis in order to examine the relationship between financial intermediary development and economic growth in Nigeria within the timeframe of 1981 to 2011. The study represented economic growth with the GDP per capital while four variables were used to proxy for financial intermediary development included domestic bank credit to the private sector, liquid liabilities, deposit money bank assets, and bank deposits. As well four control variables were introduced: international crude oil price, total trade, gross fixed capital formation) and general government final consumption expenditure. All these explanatory variables were expressed in ratio of GDP. Results showed that the relationship between financial intermediary development and economic growth in Nigeria is insignificantly negative in the long-run and significantly negative in the short-run.

Methodology

Research design adopted in this study is the *ex-post facto*. This design was adopted because the study intends to use already established secondary data for the study. The work of Ibenta (2012) stated that e*x-post facto* study or after the fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the research. Thus, the data for the study were collected from source that the research has no ethical and statutory powers to manipulate. Hence, the data were collected and used in their original state.

Model Specification

Multivariate linear regression models are used to test each of the null hypotheses proposed for this study. Thus, based on the formulated five hypotheses, a model is adapted from the work of (Adelebu and Ayeni, 2024) and stated as: GDP = *f*(PSC, AGSC, BLR), Where: GDP = Gross Domestic Product proxy as economic growth.PSC = Private Sector Credit., AGSC= Agriculture Sector Credit

BLR = Bank Lending Rate

The above model is modified in this study by introducing agricultural sector output as proxy for Gross Domestic Product and was employed as dependent variable. Hence, the modified functional model is stated as: $AGSO_t = f(PSC, AGSC, BLR)_t$. The econometric model can be written as: $Ln(AGSO)_t = e_0 + Lne_1PSC_t + Lne_2AGSC_t + e_3BLR_t + \mu_t$, Where: AGSO = Agriculture Sector Output proxy as Agriculture Sector Performance. PSC = Private Sector Credit. AGSC= Agriculture Sector Credit, BLR =Bank Lending Rate, ε = error term.

Elasticity Co-efficient of each variable. μ = Stochastic error term, Ln = The natural log of the variables. Log transformation is necessary to reduce the problem of heteroskedasticity because it compresses the scale in which the variables are measured, thereby reducing a tenfold difference between two values to a twofold difference (Gujarati, 2004).

Data Presentation

The study focused on the impact of private sector credit on agriculture sector performance in Nigeria; over a period of 1998-2025. Data for this study consist of 28-years annual observation period of (1998-2025). The study used annual data, because quarterly data may not be accessed for some of the variables. The study used agricultural sector output as proxy for agricultural sector output and employed as the dependent variable; whereas, Agriculture sector credit, Private Sector credit and Bank Lending Rate and employed as independent variables as indicated on appendix 1.

Descriptive Statistics

Table 1: Descriptive statistics

	AGSO	PSC	AGSC	BLDR
Mean	6786588	5625434	3973546	23.04637
Median	5774600	4869650	3747380	23.64860
Maximum	47.73940	6706645	3633745	45.10000
Minimum	3464700	3403628	23250000	19.53436
Std. Dev.	6.674802	148.6905	5.403850	9.617132
Skewness	0.684952	3.146739	1.067069	0.185586
Kurtosis	3.385932	14.19450	5.256220	2.604247
Jarque-Bera	0.465954	218.7151	12.83540	0.384959
Probability	0.812485	0.000000	0.001612	0.826649
Sum	162.3475	3173.45	596.4000	1486.929
Sum Sq. Dev.	1158.846	685474.4	907.1700	2867.166
Observations	28	28	28	28

Source: E-views 10.1 output

Table 1 shows that agricultural sector output for the period under study had a mean value of 3.794, lending Rate had 23%, Private Sector credit, had ₦56,254.34 and Private Sector credit had 56,254.34, while agricultural sector credit agricultural sector credit had 54,867.04. The Jarque-Bera statistic shows that two of the variables, namely agricultural sector credit 39,735.46 and agricultural sector output were normally distributed while agricultural sector credit and Manufacturing sector output were highly skewed. Furthermore, agricultural sector credit has a mean of 48,696.50 this implies that for the period under review the agricultural sector credit was very high.

Data Analysis

Data for this study consist of 28-years annual observation period of (1998-2025) and were collected from Central bank of Nigeria Statistical Bulletin. The data covers a period of twenty-eight years, from 1998-2025. Thus, multivariate linear regression model is used to test the null hypotheses proposed for the study

Table 2: Ordinary Least Square (OLS) Estimation Results

Dependent Variable: AGSO
Method: Least Squares, Time: 44:21
Sample: 1998-2025
Included observations: 28

Date: 02/10/2026	Coefficient	Std. Error	t-Statistic	Prob.
C	342.3523	0.002346	0.476946	0.000001
LnAGSO	243.4637	0.005735	1.047585	0.000033
LnPSC	1243.434	0.052646	3.857602	0.000053
LDR	326.2589	0.065323	2.231549	0.000009
R-squared	0.742153	Mean dependent var		139.7586
Adjusted R-squared	0.682323	S.D. dependent var		23.74546
S.E. of regression	12.94654	Akaike info criterion		166.0957
Sum squared resid	31434.14	Schwarz criterion		44.85069
Log likelihood	-14.1856	F-statistic		132.8938
Durbin-Watson stat	1.895637	Prob(F-statistic)		0.000000

Source: Author's computation with the use of E-view 10.1

From table 2 the coefficient of determination (R^2=0. 742153) indicates that about 74% of the variations in agriculture sector performance can be explained by changes in private sector credit variables (AGSO, PSC, LDR) in Nigeria. This implies that a significant portion of agriculture sector performance is explained by private sector credit variables. The F-Statistics of (132.8938) which is significant at 5% confirms the impact of private sector credit on agriculture sector performance in Nigeria; over a period of 1998-2025. The influence of the explanatory variables on the dependent variable is statistically significant and this is also confirmed by the F-probability which is statistically zero.

Test of Hypotheses

H_{o1}: There is no significant impact of agriculture sector credit on agriculture sector output in Nigeria. Decision Criteria, Level of significance (α): 0.05 (5%), Decision Rule, Reject H_0: If p- value < 0.05 and accept H_0 if p- value > 0.05, The results on table 2 show that agriculture sector credit have a t-statistic of 1.047585 with a probability of 0.000033 which is lower than the level of significance of 0.05, which means, its effect is statistically significant. The null hypothesis is, therefore, rejected. Thus, agriculture sector credit has a significant effect on agriculture sector output in Nigeria.

H_{o2}: There is no significant impact of private sector credit on agricultural sector output in Nigeria. Decision Rule, Reject H_0: If p- value < 0.05 and accept H_0 if p- value > 0.05, The results on table 2 show that private sector credit has a t-statistic of 3.857602 with a probability of 0.000053 which is lower than the level of significance of 0.05, which means, hence, its impact is statistically significant. The null hypothesis is, therefore, rejected. Thus, there is a significant impact of private sector credit on agriculture sector output in Nigeria

H_{o3}: There is no significant impact of lending rate on agriculture sector output in Nigeria. Decision Rule**,** Reject H_0: If p- value < 0.05 and accept H_0 if p- value > 0.05,The results on table 2 show that lending rate has a t-statistic of 2.231549 with a probability of 0.000009 which is lower than the level of significance of 0.05, which means, hence, its impact is statistically significant. The null hypothesis is, therefore, rejected. There is a significant impact of lending rate on agriculture sector output in Nigeria

F-Test

To find out whether the model is adequate and well specified; we use the F-test, such that F-calculated exceeds F-tabulated at 5% level of significance implying that the model is well specified. Decision Rule, Reject H_0: If p- value < 0.05 and accept H_0 if p- value > 0.05, The results on table 2 show that the impact of Private Sector credit on agriculture sector output in Nigeria has a F-statistic of 132.8938; and, with a probability of 0.00000, which is lower than the level of significance of 0.05, which means, the effect is statistically significant. The null hypothesis is therefore, rejected. That is to say that private sector credit has a significant impact on agriculture sector performance in Nigeria. This is also confirmed by the F-probability which is statistically zero. Thus, the study then concludes that the entire model is well specified that means it is statistically significant

Conclusion and Recommendations

The study concludes that private sector credit has a positive significant effect on agricultural sector performance in Nigeria. This is evident from the results of the various tests shown in the study. Private sector credit has not been a veritable tool to boosting economic growth and development in Nigeria. The major variables of bank credit including private sector credit, bank size and lending rate are not statistically significant inn determining economic growth in Nigeria. Thus, study recommendations that: monetary authorities should ensure that credit to the private sector be properly supervised to ensure its proper utilisation for productive manufacturing sector ventures. The private sector should be encouraged with preference tax policy like infrastructural development. More so, though the interest rate is rightly signed, it was not significant to growth. Effects should be made to monitor the actual rate at which the banks lend to the private sector. Despite the bank consolidation exercise well concluded in Nigeria, bank size is still a problem to agricultural sector performance. Higher bank capital based should be imposed on banks to further consolidate bank operations to enable them lend without fear of failure. The policy makers ensure that lending rate be reasonable so as not to deter investors from borrowing in order to embark on viable investment projects in the sector.

References

Akpansung, A. O. & Babalola (2022). Banking sector credit and economic growth in Nigeria: An empirical investigation. *CBN Journal of Applied Statistics,* 2(2), 51 – 62.

Akpansung, A. O. & Gidigbi, M. O. (2024). Recent banking reforms in Nigeria: Implications on sectoral credit allocation and economic growth. *International Journal of Business and Social Science,* 5(13), 91 – 104.

Aliyu, M. & Yusuf, A. H. (2022). Impact of private sector credit on the real sector of Nigeria. *International Journal of Business and Social Research,* 3(5), 105 – 116.

Amoo, G. B. A., Eboreime, M. I., Adamu, Y. & Belonwu, M. C. (2017). The Impact of Private Sector Credit on Economic Growth in Nigeria. *CBN Journal of Applied Statistics,* 8(2), 1 – 22.

Ananzeh, I. E. N. (2022). Relationship between bank credit and economic growth: Evidence from Jordan. *International Journal of Financial Research,* 7(2), 53 – 63.

Bakare, I. A. O., Akano, I. A. & Kazeem, H. S. (2022). To what extent does banks' credit stimulate economic growth? Evidence from Nigeria. *JORIND,* 13(1), 128 – 139.

Branch, E & Andabai, P. W. (2026). Exchange rate and stock market Performance in Nigeria. *Journal of Accounting and Financial Management,* 12(9); 29-41.

Bencivenga, V. & Smith, B. (1991). Financial intermediation and endogenous growth. *The Review of Economic Studies*, 58(23), 195–209.

Cocodia, S. S, Okalanwo, A & Andabai, P. W. (2026). Deposit money banks credit and economic performance in Nigeria. *International Journal of Banking and Finance Research.* 12(8); 381-393.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association, 74*, 427-31.

Dieah, J. .J & Andabai, P. W. (2026). Banking sector regulations and commercial banks performance in Nigeria. *International of Journal of Economics and Financial Management,* 12(9); 29-41.

Emecheta, B. C. & Ibe, R. C. (2022). Impact of bank credit on economic growth in Nigeria: Application of reduced vector autoregressive (VAR) technique. *European Journal of Accounting Auditing and Finance Research,* 2(9), 11-21.

Esene, R. A. (2018). *Research techniques.* Agbor: Krisbec Publication Limited.

Fry, M. J. (1988). Money, Interest and Banking in Economic Development. London: John Hopkins University Press.

Goldsmith, R. (1969). *Financial Structure and Development*. New Haven City: Yale University Press.

Greenwood, J. & Jovanovic, B. (1990). Financial development, growth and the distribution of income. *Journal of Political Economy*, 98, 1076-1107.

Gross M. D. (2001). Financial Intermediation: A Contributing Factor to Economic Growth and Employment

Haruna, M. A., Yahya, Z. A. & Adamu, N. (2022). Private sector credit and economic growth nexus in Nigeria: An Autoregressive Distributed Lag Bound Approach. *Mediterranean Journal of Social Sciences,* 4(1), 83 – 90.

Iheanacho, E. (2016). The impact of financial development on economic growth in Nigeria: An ARDL analysis. *Economies*, 4(26), 1-12.

Modebe, N. J., Ugwuegbe, S. U. & Ugwuoke, R. O. (2017). The impact of bank credit on the growth of Nigerian economy: A co integration approach. *Research Journal of Finance and Accounting,* 5(10), 87 – 95.

Mushtaq, S. (2016). Causality between bank's major activities and economic growth: Evidences from Pakistan. Munich Personal RePEc Archive. Working Paper No. MPRA Paper No. 69052.

Nnamdi, I. S. (2015). Private vs public sector bank credits and economic growth nexus in Nigeria: Where does efficacy rest? *Research Journal of Finance and Accounting,* 6(3), 226 – 237.

Nwanyanwu, O.J. (2018). An analysis of bank credit on the Nigeria economic growth (1992-2008). *Jos Journal of Economics, 4*, 43-58.

Odufuye, B. M. (2017). Bank credits and its impact on Nigerian economy growth. *International Journal of Development Strategies in Humanities, Management and Social Sciences, 7(3),* 39 – 52.

Patrick, E & Andabai, Priye W. (2024). Commercial bank lending and domestic investment in Nigeria. *World Journal of Finance and Investment Research,* 8(5); 94-105.

Appendix 1:

Private Sector Credit and Agricultural Sector Performance in Nigeria (1998-2025)

Years	Agricultural Sector Output (₦'Billion)	Private Sector Credit (₦'Billion)	Agricultural Sector Credit (₦'Billion)	Lending Rate (%)
1998	1,275.8	238.60	115.35	11.69
1999	1,445.1	316.21	154.06	4.80
2000	1,600.6	351.96	161.93	5.49
2001	1,704.8	431.17	241.60	5.33
2002	1,801.5	530.37	343.17	5.29
2003	2,410.1	764.96	451.96	5.49
2004	2,847.1	930.49	556.01	4.15
2005	3,231.4	1,096.54	655.74	4.11
2006	3,903.8	1,421.66	797.52	4.19
2007	4,753.0	1,838.39	1,316.96	3.83
2008	5,940.2	2,290.62	1,739.64	3.14
2009	6,757.9	3,668.66	2,693.55	3.55
2000	7,981.4	6,920.50	4,118.17	2.84
2001	9,186.3	9,102.05	5,763.51	2.68
2002	10,310.7	10,157.02	5,954.26	2.21
2003	11,593.4	10,660.07	6,531.91	1.41
2004	13,413.8	14,649.28	8,062.10	1.70
2005	14,709.1	15,751.84	8,606.61	2.17
2006	18,018.61	17,131.45	11,936.93	3.38
2007	16,222.81	18,675.47	11,403.22	3.58
2008	17,767.23	21,082.72	11,146.91	3.75
2009	18.567.33	22,092.04	12,893.6	20.55
2010	18,956.46	22,521.93	12,982.7	20.35
2011	19,354.35	23,142.63	12,132.3	16.27
2022	23.567.33	25,761.93	13,982.7	20.35
2023	23,956.46	25,978.66	13,988.3	16.27
2024	25,254.43	27,354.61	15,258.3	16.27
2025	26,454.66	28,382.35	16,273.6	17.26

Source: Central Bank Nigeria Statistical Bulletin, 2025.