Empirical Investigation on Domestic Credit to Private Sector and Rural Development in Nigeria

Evelyn Nwamaka Ogbeide-Osaretin (Ph.D) and Timothy Igbafe Aliu
Empirical Investigation on Domestic Credit to Private Sector and Rural Development in Nigeria

Evelyn Nwamaka Ogbeide-Osaretin (Ph.D)1* and Timothy Igbafe Aliu1

1Department of Economics, Faculty of Arts, Mgt. & Social Sciences Edo State University, Uzaire, Edo State

Corresponding Author’s Emails: iyokevelyn@gmail.com, osaretin.evelyn@edouniversity.edu.ng

Abstract

Purpose: This research sought to investigate the substantial effects of private-sector lending on Nigeria's agricultural output by applying yearly time series data spanning 1981 to 2020.

Methodology: This study used time series design and Ex-post facto to analyse its data. The data were collected directly from Central Bank of Nigeria (CBN) Statistical Bulletin and Annual Reports. The study used the Autoregressive distributed lag method (ARDL) for the analysis. It used the Autoregressive distributed lag model. The study's variables included agricultural productivity, which was utilized as a stand-in for rural development. Credit to the private sector, broad money supply, lending rate, exchange rate, government capital expenditure, and government capital expenditure were the control variables.

Findings: The findings showed that credit share to the private and lending rate hold a considerable negative impact on agricultural productivity in both the short-run and long-run period. Broad money supply, exchange rate, and government capital expenditure have positive and significant influences.

Recommendations: The study, therefore, recommends that by modifying the lending rate structure in the banking sector, a more accommodative monetary policy may foster an environment that is more conducive to investment, in order to boost agricultural production. Also, the Central Bank, in its function as the Federal Government's advisor, should take advantage of this platform to make sure that the nation's infrastructural problems are resolved in order to increase the country's capacity to absorb credit.

Keywords: Agricultural productivity, credit, private sector, rural development.

JEL Classification: C22, G11, Q14, R110
1.0 Introduction

The role of credit in rural development can’t be overstated, particularly in the context of the third world caught in a web of poverty described as the “vicious cycle of poverty”. The cruel cycle of poverty, as defined by Jhingan (2011), is a circular constellation of factors that operate and respond to one another in such a way that impoverishment is self-sustaining. Financial assets shared with private ownership through lending and advances among other channels create a request for remuneration which is often referred to as private credit. The debate over the function of money in an economic expansion is still ongoing, particularly in emerging nations such as Nigeria. Internationally, economies (particularly those of underdeveloped nations) are occasionally subjected to severe financial crashes and capital constraints that have a negative influence on macroeconomic variables and wreak havoc on the financial intermediation process.

As a result, banks’ essential function as factors of mobilizing savings and lending for ventures. To counteract this tendency, central banks throughout the world have begun to use both standard and unconventional credit facilitation measures to infuse liquidity into the banking organization, preventing the economy from entering a recession. Thus, in recent years, Nigerian government officials have implemented a lot of credit or development assistance to boost revenue and employment development at the stable and aggregate stages, as well as the construction of essential infrastructure and overall sustainable development (Yakubu & Affoi, 2016). The Central Bank of Nigeria (CBN) acknowledges companies' requirement for access to credit to function professionally in the face of structural firmness and the private ownership of credit to thrive and prosper. The CBN, like most other apex banks in other developed countries, has commenced major credit injections to support risky sectors of the Nigerian economy due mainly to a lack of credit (Onuorah & Ozurumba, 2017).

Credit to private ownership, including credit to government-affiliated businesses, and credit to private ownership far surpasses credit to the public sector in promoting economic development. World Bank Index (2014) observed that private markets are the brain of productive development since they tend to generate additional productive employment and higher wages. Private ownership investments may assist to enhance fundamental services and circumstances that empower impoverished people – such as health, education, and infrastructure – while the government just provides support in the form of regulation, service supply, and finance. In line with the above, the Nigerian government has put in place a policy to build a strong and inclusive financial sector through the Nigerian Central Bank to accelerate rural development and serve as a development accelerator for other African emerging countries. The average ratio of private ownership credit to output from 2000 to 2005 was 0.45, and more than doubled to 1.03 from 2006 to 2010. This further rose to an average of 1.35 over the 2011-2014 period (Figure 1). Nigeria's domestic credit to private ownership (% of GDP) was 12.13% in 2020 (World Bank Development Indicators, 2021).
However, there has not been an equal level of rural development and reduction in National poverty in Nigeria. For instance, absolute poverty in Nigeria was as high as about 70% (133.62million) in 2017 (United Nations Development Programme, (UNDP), 2019). About 4 in every 10 Nigerians are still living in poverty (Vishwanath, 2021). Agricultural productivity as a measure of rural development has shown that the growth rate has been fluctuating. The growth rate of the agricultural sector grew from 15% in 1983 to 37% in 2002 and then fell continuously to 23% in 2021 (World Bank, 2022). Hence, it is still important to investigate the connectivity between credit to the private sector and the development of the rural area.

Private-sector lending and rural development nexus had been a key topic in economic dialogue throughout the world in recent years, and empirical work on the topic has been inconclusive. The amount of the data, however, seems to point to a beneficial link linking private ownership funding and rural development. However, most of the studies have examined the link between credit to economic growth and economic development (for instance Nakijoba and Selotlegeng, 2019), while others have used RGDP per capita as a measure of the performance of the economy (Mikhail, 2015). For many developing countries, a large part of the labour force is in the agricultural sector which is mainly in rural areas. Hence, rural development is a major channel toward the development of the economy. Therefore, this study deviated from another previous study by examining the link between credit flow and rural transformation. As a result, the objective of this study is to investigate the impact of credit on the private sector in the rural transformation of Nigeria.

2.0 Literature Review

In both developed and developing nations across the world, private ownership typically plays a vital role in economic development. Thus, commercial banks as well as other financial organizations can convert deposits from the excess spending unit to other types of financial assets through various routes. Following the global economic depression of 1930, which had a detrimental influence on economic development and development throughout the world, private ownership has taken a keen interest in financial segment literature (Jan & Syed, 2002).
2.1 Theoretical Framework

A study of the process via which credit supports economic development establishes the link spanning credit and development in theory. The neoclassical development model serves as a foundation for illustrating the influence of credit interventions on economic development by increasing saving, which leads to increased gross domestic venture and capital accumulation (Thiel, 2001). Papaioannou (2007) claims that monetary development influences development via lowering inequality through the course of human capital accumulation, based on a separate class of theoretical models. Furthermore, it gives a framework for evaluating how diverse elements (quality of institution, government policies, or finance) influence an economy's development. According to Burnside and Dollar (2000), policies that impact economic development are likely to alter the amount of help that is spent productively. As a result, they postulated a relationship spanning aid and policy. If similar logic is applied to credit, it is reasonable to believe that credit will boost development under a favorable policy situation. Furthermore, we believe that when limited conditions are favorable, loans will be more development-enhancing. The following equations will be used to examine these claims.

In line with the neoclassical aggregate production function as noted by Papaioannou (2007):

\[ Y_t = AK^\alpha (Lm)^{1-\alpha} \]  

Equation (1) shows output in year (t), aggregate capital stock is \( K_t \); labour force, \( L \) (adjusted for human capital \( m \); and level of technological, \( A \); entering in the Hicks-neutral’s way).

The share capital and quality of adjusted labour is measured by \( \alpha \) and \( 1-\alpha \) respectively.

Stating the production function in its intense form, we have:

\[ y = Ak^\alpha m^{1-\alpha} \]  

Compelling the derivative of (2) with regard to time;

\[ \frac{y}{y} = ak^\alpha / (1-\alpha) m^{1-\alpha} + AA \]  

The production increase per worker is calculated in three sections in equation (3). The first \( ak^\alpha / \) represents investments or capital expanding, the second \( (1-\alpha) m^{1-\alpha} \) represents human capital development via education, and the third \( AA \) represents total factor efficiency, that quantifies the degree of effectiveness with which inputs are blended in the manufacturing procedure. Credit has an indirect influence on development in the aforementioned framework, since it is channeled through the key drivers of economic development. It's reasonable to believe that increasing loan availability would boost investment, which would speed up capital accumulation and economic development.

2.2 Empirical review

Diverse empirical findings on the relationship linking private ownership credit and economic development have been carried out. For instance, Adelakun (2010) applied the Ordinary Least Square technique of estimation to study the association linking financial improvement and economic development in Nigeria. The findings indicated that in Nigeria, there is a significant positive association linking financial development and commercial improvement. The study proposed that the financial sector be developed, particularly promoting financial product diversity.

Al-Malkawi, Hazem, and Abdullah (2012) investigated the link connecting financial development and commercial development in the United Arab Emirates' small open budget (UAE). In their investigation, they employed the Autoregressive Distributed Lag (ARDL)
Bound Testing technique for co-integration. Financial development and economic development have a negative but statistically important relationship, according to the findings. The direction of causation was bi-directional for both variables. Spanning from 1980 and 2006, Ndlovu (2013) empirically evaluated the relationship linking banking segment expansion and economic development in Zimbabwe. The study employed five key variables and three control variables. The study showed a demand-following improvement in the banking segment and commercial development link in Zimbabwe. The study concluded that countries must seek strategies to safeguard their indigenous welfare without impeding development. Thus, to ignite economic mobility, globalization and job creation are required.

Emecheta and Ibe (2014) explored the connection between bank credit and financial development in Nigeria from 1960 to 2011 applying a decreased vector autoregressive (VAR) method. Its outcomes show when there is an important positive relation linking bank credit and financial improvement over the review period. Mba (2015) examined the influence of financial liberalization on Nigerian financial development spanning 1986 and 2011. Long-run estimations of Ordinary Least Squares were his technique of estimation (OLS). Financial emancipation has a detrimental influence on production evolution in Nigeria, according to the study's findings. According to the author, credit to private ownership is being redirected to the purchase and sale of consumables rather than to productive activities that result in higher production. The results of the co-integration analysis demonstrated that the variables studied had a long-term connection. Essentially, the research recommended that commercial banks move their concentration away from government and chosen borrowers and toward true private investors.

Ebiringa and Duruibe (2015) applied a vector autoregression (VAR) pattern to examine the link between Nigeria's banking sector and economic development. The findings revealed that there is no causal link between indices of financial system improvement and economic development. The financial organization was found to play a smaller part in product improvement. However, it was shown that financial increment had a favorable influence on economic expansion in the near term. Mikhail (2015) conducted a relative analysis of local private credit and actual GDP per capita for 24 nations classified by the Organization for Economic Cooperation and Development (OECD) between 1989 and 2013. The study made use of Granger causality tests and the fully modified ordinary least squares (FMOLS). No complete causal relationship linking credit depth and economic development for OECD was found for the advanced nations, but the link was extremely supply-preceding for nations that did not exhibit any sort of linkage. Hence, the study argued against governments relying solely on "bank-based financial development" to fuel economic development.

Applying the Fully Modified Ordinary Least Squares method, Nakijoba and Selotlegeng (2019) explored the private ownership credit-economic development nexus in Uganda (FMOLS). The approach was applied to periodical figures from the first quarter of 2000 to the fourth quarter of 2018. It was discovered that a cointegrating link spanning economic development exists. The error correction method exposed that private ownership credit had a positive and accurately important consequence on economic development. Okorie and Chikwendu (2019) investigated the influence of private sector loans on the private-sector venture in Nigeria. The ARDL method was used to analyze data. It was revealed that private sector credit has an encouraging and large influence on private sector ventures in the short run, but has an encouraging and small impact on private ownership ventures in the long run in Nigeria.
3.0 Methodology

Rural development (captured by agricultural output) being a function of private ownership credit, as well as other control variables, was employed to explore the effect of credit on Nigeria's rural development. Lending to the Private ownership, Broad Money Supply, Lending Rate, Exchange Rate, Bank lending to the Private ownership, and Gross Fixed Capital Formation were applied as control variables for this study.

3.1 Model Specifications

The model used in this study is a small variation of the neoclassical development model presented earlier in the literature review section. The study adopted the Autoregressive distributed lag method (ARDL) which model is specified as follow:

\[ AGRP = F(CPS_t, M2_t, LR_t, EXCR_t, GCEXP_t) \]  

(3.1)

Expressing the method in linear formation, we have;

\[ AGRP = \beta_0 + \beta_1 CPS_t + \beta_2 M2_t + \beta_3 LR_t + \beta_4 EXCR_t + \beta_5 GCEXP_t + \epsilon_t \]  

(3.2)

AGRP = Agricultural Productivity proxies for Rural development

CPS = Credit to private ownership

M2 = Broad Money Supply

LR = Lending Rate.

EXCR = Exchange rate

GCEXP = Government Capital Expenditure.

\( \epsilon_t \) = Stochastic Term

The apriori chances requires that the parametric coefficients in equation (3.2) above have the resulting algebraic signs: \( \alpha_1 >0, \alpha_2 >0, \alpha_3 >0, \alpha_4 <0, \alpha_5 >0 \)

3.2 Sources of Data

The data applied in this work was annual for the duration starting 1981 to 2020. The data was sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin (2021) and Annual Reports of various years. The rural transformation variable was AGRP as the dependent variable. The study used five independent variables; lending to the private ownership ratio, broad money, interest rate, exchange rate, and government capital expenditure. Private credit equals the value of credit by local financial intermediaries.

4.0 Results and Discussion

4.1 Descriptive Statistics

The listed series were tested descriptively to determine if there were normally distributed. The outcome of the descriptive statistic was shown in table 1.

Table 1: Descriptive statistics result

<table>
<thead>
<tr>
<th>Statistics</th>
<th>AGRP</th>
<th>CPS</th>
<th>M2</th>
<th>LR</th>
<th>EXCR</th>
<th>GCEXP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7696.405</td>
<td>5913.868</td>
<td>7321.618</td>
<td>11.30013</td>
<td>100.8726</td>
<td>502.5050</td>
</tr>
<tr>
<td>Median</td>
<td>1761.915</td>
<td>647.6674</td>
<td>1073.889</td>
<td>10.01389</td>
<td>107.0243</td>
<td>315.1968</td>
</tr>
<tr>
<td>Maximum</td>
<td>37241.61</td>
<td>29030.01</td>
<td>36038.01</td>
<td>26.29321</td>
<td>358.8108</td>
<td>2288.996</td>
</tr>
<tr>
<td>Minimum</td>
<td>17.05218</td>
<td>8.570050</td>
<td>14.47117</td>
<td>2.398333</td>
<td>0.610025</td>
<td>4.100100</td>
</tr>
</tbody>
</table>
The data in table 1 indicated that all of the variables' means and medians fell within their maximum and lowest values, suggesting that the variables were very likely to follow a normal distribution. The skewness statistic revealed that the broad money supply (M2), lending rate (LR), the exchange rate (EXCR), government capital expenditure (GCEXP), and agricultural productivity (AGRP) were all favorably skewed. While LR and GCEXP were leptokurtic, indicating when their deliveries peaked relative to the normal distribution, the kurtosis statistics disclosed that they were platykurtic, indicating when their deliveries were flat relative to the normal distribution. Finally, the Jarque-Bera statistic accepted the null hypothesis of not being normally distributed for the other variables at the same critical rate while rejecting them for EXCR at a critical value of 5%.

### 4.2 Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Statistic At Level</th>
<th>ADF Statistic At 1st Diff.</th>
<th>Critical Values</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRP</td>
<td>-2.055792</td>
<td>-3.991906</td>
<td>1% level = -3.615588 5% level = -2.941145 10% level = -2.609066</td>
<td>1(1)</td>
</tr>
<tr>
<td>ΔLnCPS</td>
<td>-0.812327</td>
<td>-4.481485</td>
<td>1% level = -3.615588 5% level = -2.941145 10% level = -2.609066</td>
<td>1(1)</td>
</tr>
<tr>
<td>ΔLnM2</td>
<td>-0.914310</td>
<td>-4.013232</td>
<td>1% level = -3.615588 5% level = -2.941145 10% level = -2.609066</td>
<td>1(1)</td>
</tr>
<tr>
<td>ΔLnLR</td>
<td>-2.887769</td>
<td>-5.221417</td>
<td>1% level = -3.632900 5% level = -2.948404 10% level = -2.612874</td>
<td>1(1)</td>
</tr>
<tr>
<td>ΔLnEXCR</td>
<td>-2.112128</td>
<td>-5.299593</td>
<td>1% level = -3.615588 5% level = -2.941145 10% level = -2.609066</td>
<td>1(1)</td>
</tr>
<tr>
<td>GCEXP</td>
<td>4.024214</td>
<td>-</td>
<td>1% level = -3.670170 5% level = -2.963972 10% level = -2.621007</td>
<td>1(0)</td>
</tr>
</tbody>
</table>

Figure 1: Unit Root Test Results

Source: Author’s Computation from E-views 10
According to the preceding table, GCEXP was stable at points as such integrated at order zero 1(0), which suggests that the Mackinnon critical value for rejecting unit root theories. Additionally, after first differencing, LnAGRP, LnCPS, LnM2, LnLR, and LnEXCR were stationary; as a result, they are combined at order one, I (1). The Auto-Regressive Distributed Lag (ARDL) approximation approach becomes the best choice when variables are integrated at Orders 1(0) and 1(1).

**ARDL Bounds Test**

<table>
<thead>
<tr>
<th>ARDL Long Run Form and Bounds Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample: 1981 2020</td>
</tr>
<tr>
<td>Included observations: 35</td>
</tr>
<tr>
<td>Null Hypothesis: No levels relation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>21.44454</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Value Bounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance</td>
</tr>
<tr>
<td>10%</td>
</tr>
<tr>
<td>5%</td>
</tr>
<tr>
<td>2.5%</td>
</tr>
<tr>
<td>1%</td>
</tr>
</tbody>
</table>

*Source: Author’s Computation from E-view*

**Figure 2: ARDL Bounds Test**

The co-integration of agricultural productivity and independent variables, as shown in Table 4, highlights the applicability of the long-run paradigm. At 10%, 5%, 2.5%, and 1% significance levels, the F-statistic valuations of 4.246360 is more than the upper bound precarious valuations of 2.87, 3.24, 359, and 4.05, respectively. As a result, the null hypothesis that there is no co-integration spanning agricultural production and independent variables is rejected.

**Results of the ARDL Model**

The long run parameters of the ARDL method are calculated, and both in short and long-run outcomes are shown below. This is because agricultural productivity, credit to the private ownership, and other explanatory factors are co integrated.

**Table 2: ARDL Model Results**

**ARDL Cointegrating And Long Run Form**

<table>
<thead>
<tr>
<th>Dependent Variable: D(LNAGRP, 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Model: ARDL(1, 3, 3, 3, 3, 0, 3)</td>
</tr>
<tr>
<td>Sample: 1981 2020</td>
</tr>
<tr>
<td>Included observations: 32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cointegrating Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>D(LNAGRP(-1))*</td>
</tr>
<tr>
<td>D(LNCP5(-1))</td>
</tr>
<tr>
<td>D(LNM2(-1))</td>
</tr>
</tbody>
</table>
\[
\begin{align*}
D(LNLR(-1)) & = -0.448666 & 0.148642 & -3.018441 & 0.0129 \\
D(LNEXCR(-1)) & = 0.313644 & 0.130770 & 2.398441 & 0.0374 \\
D(GCEXP) & = 7.71 \times 10^{-5} & 6.19 \times 10^{-5} & 1.245959 & 0.2412 \\
D(LNCS(2)) & = -0.412158 & 0.230050 & -1.791605 & 0.1035 \\
D(LNCS(-1), 2) & = 1.312407 & 0.403258 & 3.254507 & 0.0087 \\
D(LNEXCR(2)) & = 0.829570 & 0.241316 & 3.437686 & 0.0064 \\
D(LNM2(2)) & = 0.630603 & 0.228680 & 2.757574 & 0.0202 \\
D(LNM2(-1), 2) & = -1.423335 & 0.449676 & -3.165246 & 0.0101 \\
D(LNM2(-2), 2) & = -0.446447 & 0.201366 & -2.217093 & 0.0509 \\
D(LNLR(2)) & = -0.176386 & 0.052339 & -3.370036 & 0.0071 \\
D(LNLR(-1), 2) & = 0.074065 & 0.060589 & 1.222421 & 0.2496 \\
D(LNLR(-2), 2) & = -0.049574 & 0.039643 & -1.250516 & 0.2396 \\
D(LNEXCR(2)) & = 0.211869 & 0.079913 & 2.651247 & 0.0021 \\
D(LNEXCR(-1), 2) & = -0.215986 & 0.098337 & -2.196377 & 0.0528 \\
D(LNEXCR(-2), 2) & = -0.321037 & 0.057362 & -5.596727 & 0.0002 \\
ECM(-1) & = -0.012534 & 0.002971 & -4.219343 & 0.0018
\end{align*}
\]

EC = D(LNAGR) - (-1.5558*D(LNCS) + 2.2592*D(LNM2) -0.3542*D(LNLR)
+ 0.2476*D(LNEXCR) + 0.0001*D(GCEXP) -0.0125*ECM(-1))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LNCS)</td>
<td>-1.555758</td>
<td>0.446271</td>
<td>-3.486127</td>
<td>0.0059</td>
</tr>
<tr>
<td>D(LNM2)</td>
<td>2.259199</td>
<td>0.494210</td>
<td>4.571332</td>
<td>0.0010</td>
</tr>
<tr>
<td>D(LNLR)</td>
<td>-0.354218</td>
<td>0.107089</td>
<td>-3.307684</td>
<td>0.0079</td>
</tr>
<tr>
<td>D(LNEXCR)</td>
<td>0.247619</td>
<td>0.106102</td>
<td>2.333792</td>
<td>0.0418</td>
</tr>
<tr>
<td>D(GCEXP)</td>
<td>6.09E-05</td>
<td>4.87E-05</td>
<td>1.249732</td>
<td>0.2399</td>
</tr>
</tbody>
</table>

Source: Author’s Computation from E-view

Most of the computed coefficients in table 4 above have the predicted theoretical signs. The findings show that agricultural productivity is 1.2% each year closer to long-term equilibrium. The findings showed that, based on the second lag, credit to private ownership has a short-term, negative and important influence on agricultural productivity. Credit to private ownership, however, has a long-term, negative and important influence on agricultural productivity. This outcome is consistent with Okorie and Chikwendu (2019). Additionally, this does not match a priori expectations. The first lag’s findings likewise demonstrated that credit to private ownership had a negative and important influence on agricultural productivity. This can be explained by the possibility that some of the loans and advances made to private ownership were misused or misdirected. Such facilities may also have been used for commercially unsuccessful but socially beneficial projects that don’t add value and don’t raise production.

The case for private ownership in emerging nations has come under scrutiny in light of this very conclusion. So, this is consistent with Okafor and Onwumere (2016). Both in the short and long terms, the money stock has a major beneficial influence on agricultural productivity. This matches the a priori prediction. The lending rate has an adverse and significant influence on agricultural productivity in either the short run or long run which contradicts Aliu's (2022) findings. 1% increases in lending rates result in decreases in agricultural productivity by 4.4% in the short run, although in the long run 1% increase in lending rate results in decreases in agricultural productivity by 3.5%. Government capital spending and exchange rates were discovered to have a favorable and considerable impact on agricultural productivity.
Policy Recommendations

The goal of this study was basically to ascertain the local credit to private ownership in Nigeria; following the results above; credit to private ownership has a significant impact which shows that in the long run, bank credit to agriculture boosts its productivity. The positive and significant impact of the money supply shows the importance of finance to agricultural activities. Increase in lending rate results in low demand for bank credit else the negative relationship spanning lending rate and agricultural productivity. Government capital expenditure is an important indicator that enhances agricultural productivity; this is shown in the evidence of a positive effect. In line with the results, the following recommendations were made.

I. By modifying the lending rate structure in the banking sector, a more accommodative monetary policy may foster a society that is more conducive to investment, which in return boosts agricultural production.

II. Bank, in its function as the Federal Government's advisor, should take advantage of this platform to make sure that the nation's infrastructural problems are resolved to increase the country's capacity to absorb credit.

III. To prevent crowding out of agricultural production and to promote the flow of credit to private ownership, the Bank should maintain constant communication as well as the Government to guarantee balance in budget deficits.

IV. It is important to adopt policies that would develop the financial sector and improve the condition of banks. Additionally, it is admirable that the Central Bank is now committed to gradually lowering the loan rate.

Conclusion

This study tried to scrutinize the substantial effects of private ownership lending on Nigeria's agricultural output by employing yearly time series data spanning 1981 to 2020. It used the Autoregressive distributed lag model. The study's variables included agricultural productivity (AGRP), which was utilized as a stand-in for rural development. Broad money supply (M2), lending rate (LR), an exchange rate (EXCR), government capital expenditure, and credit to private ownership (CPS) (GCEXP). After examining the link spanning credit and rural development in Nigeria, it was completed that credit is a crucial component to take into account since it has a substantial impact on the country's agricultural production. Along with all other the agriculture segment, it can hasten the progress of several critical segments of the economy. Overall, the study's conclusions support those of earlier studies, which indicated that Nigeria's economy might develop significantly if private ownership was given access to financing in key economic areas. The primary source of credit for private ownership is the banking industry, which serves as a crucial conduit for financial intermediation and the mobilization of financial resources for profitable investment.

Conflict of Interest: There is no conflict of interest among the authors

References


OECD Countries. BOFIT–Institute for Economies in Transition Discussion Papers 5


