THE IMPACT OF AGRICULTURAL FINANCING ON NIGERIA'S ECONOMIC GROWTH

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Abstract

This study evaluates the impact of agricultural financing on Nigeria's economy during the period from 1981 to 2022. Specifically, it assesses the impact of (i) credit to the agricultural sector by deposit money banks, (ii) spending on agriculture by the government, and (iii) the Agricultural Credit Guarantee Scheme Fund to the country's GDP. The study used an ex-post facto approach with secondary data and applied correlation analysis, descriptive statistics, unit root test, and ARDL model. Agricultural financing has been found to have an intricate connection with economic growth. Even though credit to farming is linked to more growth, government spending in this area contributes negatively to GDP growth. Importantly, evidence shows that the Agricultural Credit Guarantee Scheme Fund helps to grow the economy. Consequently, the agricultural credit guarantee scheme is found to have enhanced Nigeria's economic growth. Expand, reinforce the scheme, conduct more analysis on the effectiveness of credit distribution and government spending, and propagate agricultural value chains. This provides insight into agricultural financing strategies and how they can help drive economic development in Nigeria.

Introduction

Agriculture contribute significantly on Nigeria's economy because it is made up of the bulk of Nigeria's workers and makes a significant contribution to Nigeria's GDP (Olorunfemi et al., 2023). However, Nigeria's agriculture industry has found itself under a lot of challenges, like low productivity, slow adoption of new farming methods, weak infrastructure, and limited financial access (Ebiafue et al., 2024). These difficulties have hindered sector expansion and development, and with it, hindered the country's overall economic advancement.

One major problem facing Nigeria's agriculture industry is the lack of sufficient funding. In spite of efforts by the government and financial institution such as the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), the Commercial Agriculture Credit Scheme (CACS) and the Agricultural Credit Guarantee Scheme Fund (ACGSF), the sector is still terribly underfunded (Ovwigho & Odemero, 2022). Data obtained from the CBN (2023) indicates that during the last ten years, the percentage of credit provided to the agricultural sector has continuously dropped from the minimum of 10% required. However, farmers' access to inputs, including better seeds, fertilizers, pesticides, and modern farming equipment has been hampered due to lack of funding to increase yields and profitability (Bowman & Zilberman, 2021). In addition, due to limited financial resources, the adoption of new technologies, research and development activities for the advancement of the industry have been hindered and farming businesses have not been able to grow preventing the industry's advancement and efficiency (Pandey et al., 2022).

Some research (Osabohien et al., 2021; Orji et al., 2020) revealed a positive correlation between agricultural funding and economic development in Nigeria, while other research (Usman et al., 2020) reported that there is no significant correlation. The results in these two studies are due to contradicting, that brings out the complexity of the relationship and the need to research further into the variables influencing the role agricultural finance plays in economic development. Agriculture in Nigeria is a key driver of economic growth, alleviating poverty, and ensuring food security, and the closure of the finance gap will enhance its developmental potential. However, the

current finance plans face several obstacles, including limited outreach, bureaucratic impediments, and weak monitoring and evaluation systems (Olorunfemi et al., 2023).

Considering the crucial role played by the agricultural sector in Nigeria's economy and the existing challenges to financing agriculture, there is an urgent need for rigorous research to examine the variables that foster successful financing initiatives and their effect on economic growth. This study seeks to provide further knowledge regarding the relationship between agricultural financing and economic growth in Nigeria.

Literature Review

Theoretical Review

Supply-Leading Hypothesis

Schumpeter (1911) is acknowledged by a number of literary works as the creator of the supply-leading theory. In addition, work by King and Levine (1993), Gurley and Shaw (1967), and McKinnon (1973), among others, integrated the supply-leading hypothesis aspect. According to the theory, financial development promotes growth in two distinct ways: Firstly, a more developed financial sector would increase investment rates by spreading and pooling risk. Second, financial development may enhance investment efficiency by redirecting resources towards the applications that offer the highest return. Financial development positively and significantly affects the productivity of investments.

Ohwofasa and Aiyedogbon (2013) on the basis of the supply leading hypothesis argued that plentiful financial institutions, if properly employed, can enhance macroeconomic efficiency, create and sustain liquidity, mobilize savings for investment, support sound entrepreneurs in various sectors of the economy and redirect resources from older, non-growth producing industries to modern, growth generating industries. Second, the Supply Leading hypothesis demonstrates that efficient use of capital allocation is supported by financial intermediaries, which in turn promotes efficiency and economic development. Agricultural finance is a development strategy of sorts in

several ways because it fosters agricultural investment and the utilization of technologies that are needed to facilitate the sector's growth (Udoka, 2015).

Secondly, one of the main advantages of the supply leading approach is that it forces entrepreneurs to 'dream big' and take the risks as they see their expectation rising and the new possibilities (or perhaps potential alternate) open. It assumes banks, in particular, closely monitor those who borrowed loans. In practice, however, the banking industry is not known for being a proactive watchdog, and the ability of the lending bank to get rid of high risk lenders is more important for its performance than that of this process. The theoretical literature also links creative effort to financial growth. We do not explain how financial development works through productivity.

2.3 Empirical Review

Ezu (2023) looked at how agricultural finance affects the economy of Nigeria. The effect of money from the Bank of Agriculture, commercial banks and the Agricultural Credit Guarantee Scheme on the agriculture sector was particularly examined in this study and their impact on the country's GDP was analyzed. To fulfill the research, secondary data sources were used together with the Granger Causality Test, Breusch-Godfrey serial correlation test and Ordinary Least Squares (OLS) approach. According to the results, lending by the Bank of Agriculture and that by commercial banks to agriculture is closely linked with GDP. Lastly, the study found a strong relationship between GDP and the use of Agricultural Credit Guarantee Scheme Funds, which shows there is a positive and statistically significant relationship between gross domestic product and the fund of the farm loan guarantee plan.

The research by Ndema, et.al (2023) also studied how agricultural financing impacts the local economy in Obudu Local Government Area, Cross River State. The survey research methodology, which utilises a stratified sample strategy along with a questionnaire as the main data source, was used. The targeted group included only farmers and other agriculturalists living within the research

region. In addition, descriptive statistics (frequency and percent tables) were produced, together with computing and analysing the data obtained from the questionnaire. The findings of hypothesis testing using (ANOVA) as the statistical approach revealed that there was some association between agricultural finance and economic performance and between agricultural loan schemes and agricultural sector growth. Moreover, they presented how the credit programmes most commonly used for agricultural financing facilitate the expansion of the agricultural sector, and consequently contributes towards economic performance as evidenced by economic development and economic growth. The report goes on to suggest that the government should help farmers with their operations with annual funding.

Chiogor et al. (2023) looked into the macroeconomic effects of change in agricultural funding using the computable general equilibrium study for Nigeria. The paper focuses specifically on the macroeconomic implications of the agricultural finance changes with respect to economic growth and agricultural production. This research used time series data derived from secondary sources, namely data utilized for the study was gathered from the CBN, NBS and Living Standard Measurement Study (LSMS) from the World Bank, and 2019 Nigerian Living Standard Survey to obtain shares of household income and expenditure covering 2010–2022. The t-test, simulation designs based on the reformatted, improved Social Accounting Matrix For Nigeria, and the economy-wide approach of Computer General Equilibrium model were used. The research further indicates that agricultural finance reforms that lower the agricultural interest rate on loans by 10 and 8 percent have a significant and positive impact on economic development. In addition, the study's findings demonstrate that enhancements in agricultural finance, including reductions in interest rates on loans by 10% and 8%, positively and significantly affect the agricultural production.

In 2022, Kareem et al. analyzed the effects of agricultural finance from the federal government to Nigeria's economic development. The research used time series data from the CBN Statistical

Bulletin. The variables were examined using the Augmented Dickey Fuller unit root test. A diagnostic test was conducted to check for normality of the series and a short run vector autoregressive model together with a single equation cointegration test that rejected cointegration were performed. The research revealed that there exist statistically negligible negative effects of federal government support for agriculture on Nigeria's economic development. The variables were not causally related and an investment from the funds available under Agricultural Credit Guarantee Scheme was positively associated with economic development but not significant. Meanwhile, research revealed that federal government agriculture funding in Nigeria does not have a large impact on its economic development. Therefore, the research proposed that the federal government should provide financing to the agricultural sector in order to have a positive effect on Nigeria's economic development.

Babarinde et al. (2022) relied on the VECM and conducted a VEC Granger causality test to analyze how agricultural financing impacts Nigeria's economic development. The data for 1992 to 2018 come from the World Development Indicators, the CBN and other statistical bulletin. A deep and positive relationship between agricultural financing and the progress of the economy was supported by testing for cointegration. Still, there was no clear relationship between the two variables short-term. Furthermore, interest rates influenced economic growth in one direction, but inflation impacted it in either direction. Although there is testing, the research cannot demonstrate a causal effect of agricultural financing on economic growth during the short run. From the study, it is revealed that in the short term agricultural finance plays a modest role while long term effects are noticeable positive. The study recommends that improvement of Nigeria's agricultural growth is only possible through the convergence of different support platforms other than agricultural credit.

Ogbonnaya et al. looked into how access to agricultural loans influenced the output of farms in Nigeria over this period. The researchers studied the effects of the Agricultural Credit Guarantee

Scheme Fund, changes in money supply, farm lending by commercial banks and domestic credit given to the private sector on agricultural yield. Using the ex post facto research design, the study focused on the Vector Auto-Regression (VAR) method. Along with other pre-estimation tests, the ADF test showed that the variables follow the I(1) model, while the Johansen test suggested that there are no long-run relationships between them. The study also used additional methods such as Variance Decomposition, VEC Granger Causality and residual diagnostics. The study found that every 1% increase in the fund of the agricultural credit guarantee programme increased Nigeria's agricultural production performance by 0.07%, while a 1% increase in commercial bank lending to agriculture increased production performance by 0.04%.Furthermore, the results also indicted that an increase in domestic credit to the private sector of one unit would cause a 2% reduction in agricultural output performance while an increase in the money supply by one unit would lead to a 2.8% improvement in agricultural output performance. The research provides suggestion on how the government could put in place policies that would enhance the stability and financial resources available to farmers in Nigeria.

Mbelu and Ifionu (2022) made analysis from 1981 to 2019 in the context of agricultural financing impact of Nigeria's economic growth. The examination was carried out with a view of identifying long run relationships between key agricultural finance instruments and economic performance; co-integration as well as error correction frameworks were used with the aid of the Granger causality analysis. It was found that the study periods possessed stationary firstdifference time series and a long-term cointegration relationship amongst the variables. The availability of funding through Agricultural Credit Guarantee Scheme Fund and commercial/microfinance bank loans elevated Nigeria's GDP notably and significantly. Granger causality tests results showed that financial interventions herald an increase in production, thus affirming that financial instruments are essential operands of agricultural productivity. Commercial banks are encouraged to be at the fore front by providing efficient access of affordable credit to the agriculture through improved lending offer.

Afolabi and his colleagues (2022) investigated how agricultural funding impacts economic growth in Nigeria by relying on time series data and the ARDL model. Their interest was to research what gains were possible in farming and economic growth if more financial support were added. It was discovered that easier access to financial support for farmers is important for growing Nigeria's economy. The analysis indicated that improved financial access improves the way the industry works and performs. After studying the data, the researchers urged the government to ensure sync between its agencies, ministries, financial bodies, donors and international organizations, as well as maintain clear governance, to aid the sector's growth.

The performance of Nigeria's agricultural sector, according to Obioma et al. (2021), was studied using annual data from the Central Bank of Nigeria's Statistical Bulletin. This study assessed agricultural performance using its share in the GDP, taking interest rate, rainfall, government spending on agriculture and commercial bank loans as independent variables. The study using Johansen cointegration analysis showed there is a long-run equilibrium connection between the variables. This study applied the Vector Error Correction Model (VECM) to examine how soon short-term changes approach the long-term equilibrium. We noted that the Agricultural Credit Guarantee Scheme had a strong positive impact on the growth of agricultural GDP over many years. Essentially, commercial bank loans were a key factor in helping the agricultural sector do well. A large part of the variation in agricultural output was explained by the independent variables, the coefficient indicated. According to the study, more sources should be provided through the Agricultural Credit Guarantee Scheme and supervision should be improved to guarantee how the funds are spent.

Methodology

3.1 Research Design

This study adopts an *ex-post facto* research design

3.2 Model Specification

The effect of agricultural financing on economic growth in Nigeria is studied. According to this, the study models Ogbonnaya et al. (2021). The proposed model for the study is therefore stated as

$$GDPGR = f\ (CAS, GEA, AGS) - - -

During the course of this study, Johansen cointegration technique will be adopted if the variables order of integration are the same and error correction model has been used. But if the variables order of integration are different not higher than order I(1), then, we will employ the ADRL and rely on bound test to determine presence of cointegration. In some instances, multi-cointegration can exist among variables. Engle and Granger propounded the problem of multi\-cointegration, which was subsequently developed by Engsted, Gonzalo and Haldrup (1997). An advance of cointegration test is multi cointegration test, which can allow I(1) and I(2) variables.

3.3.3 Diagnostics Test

Lag selection criteria: Also, Schwarz Bayesian information criterion was utilized to select the appropriate lag length provided that in this study lags are required and to avoid lacking in the pit of misspecification of model because the latter is a consistent estimator.

Heteroscedasticity test: This form of heteroscedasticity may be present in the variables as they are in series. This study tests for the presence of ARCH form of heteroscedasticity.

Autocorrelation test: This test checks if the errors of different observations are-uncorrelated. The test statistic employed is the Breusch Godfrey LM test.

3.4 Source of Data

The data for this study will be drawn from CBN statistical bulletin, 2022 from 1981 to 2022 which will go as far as forty-two (42) years' period.

Results

Table 4.1 Descriptive Statistics

	GDPGR	CAS	GEA	AGS

Mean	3.279675	227.9421	22.14509	3.345374
Std. Dev.	4.802177	388.5323	25.86834	3.935481
Skewness	-1.545608	2.322040	0.903738	0.774835
Kurtosis	8.492932	8.033660	2.497988	2.131435
Jarque-Bera	69.52384	82.08413	6.158229	5.522796
Probability	0.000000	0.000000	0.046000	0.063203
Observations	42	42	42	42

Source: Author's Computation (2025)

The table provides statistical insights into four economic variables: The four variables used are GDP growth rate (GDPGR), credit to the agricultural sector (CAS), government expenditure on agriculture (GEA), and the Agricultural Credit Guarantee Scheme Fund (AGS).

The median GDP growth rate is 2.80% and the average GDP growth rate is 3.28%, which suggests that the observations are as likely to fall above the median as they are below it. A 4.80% standard deviation means that there is a moderate level of spread about the mean. GDPGR is left skewed, as skewness is -1.55 and kurtosis is 8.49, indicating some heavy tails. The Jarque-Bera test statistic of 69.52 with probability of 0.000000 implies that the GDPGR distribution significantly departs from the normal distribution.

The credit to the agricultural sector is heavily right-skewed and has a mean of 227.94 and median of 48.98. The standard deviation with 388.53 also shows the wide dispersion in the data. The CAS distribution has a skewness of 2.32, which makes it highly right skew, and a kurtosis of 8.03, which indicates a leptokurtic distribution with more extreme values. The CAS distribution is nonnormal as indicated by the Jarque-Bera test statistic of 82.08 and a probability of 0.000000.

The government expenditure on agriculture is skewed to the right because the mean (22.15) is higher than the median (8.77). The standard deviation is 25.87, indicating a great deal of variability in the data. With a skewness of 0.90, this suggests a moderate right skew, and a kurtosis of 2.50 means it is close to normal but somewhat platykurtic. Jarque-Bera test statistic of 6.16 and probability of 0.0460 implies a mild deviation from normality.

Mean of AGS is 3.35 and median is 0.89 implying right skewed distribution. It has a moderate dispersion with a standard deviation of 3.94. A skewness of 0.77 implies a moderate right skew, and a kurtosis of 2.13 implies a distribution closer to normal and slightly platykurtic. The value for the Jarque-Bera test statistic is 5.52 and the associated probability is 0.0632, which indicates that the distribution is fairly normal.

Table 4.3 Pairwise Correlation

	LCAS	LGEA	LAGS
LCAS	1		
LGEA	0.73	1	
LAGS	0.72	0.70	1

Source: Author's Computation (2025)

The correlation between independent variables is shown in Table 4.3. The correlation coefficient between CAS and GEA is 0.76, a strong positive correlation; CAS and AGS are also positively correlated and strong with a coefficient of 0.71. GEA and AGS have a coefficient value of 0.70 which is strong and positive. The correlation coefficient between the explanatory variables shows there is no small likelihood or even none at all of multicollinearity between the variables and moves to the unit root test.

Table 4.4 Unit Root Test

A t L				

ev el				
	L G D P G R	L C A S	L G E A	L A G S
t- St at ist ic	- 4. 0 5 3 4	- 0. 8 7 9 6	- 3. 7 3 5 2	- 0. 9 2 1 9
P ro b.	***0 .0 0 3 1***	***0 .7 8 4 7***	***0 .0 0 7 6***	***0 .7 7 1 2***
	*	n 0	*	n 0
At First Difference				
	d(L G	d(L C	d(L G	d(L A

	D P G R)	A S)	E A)	G S)
t- St at ist ic	- 4. 8 7 8 0	- 7. 2 8 6 6	- 6. 3 0 4 6	- 5. 6 7 5 2
P ro b.	***0 .0 0 0 3***	***0 .0 0 0 0***	***0 .0 0 0 0***	***0 .0 0 0 0***
	*	*	*	*

Source: Author's Computation (2025)

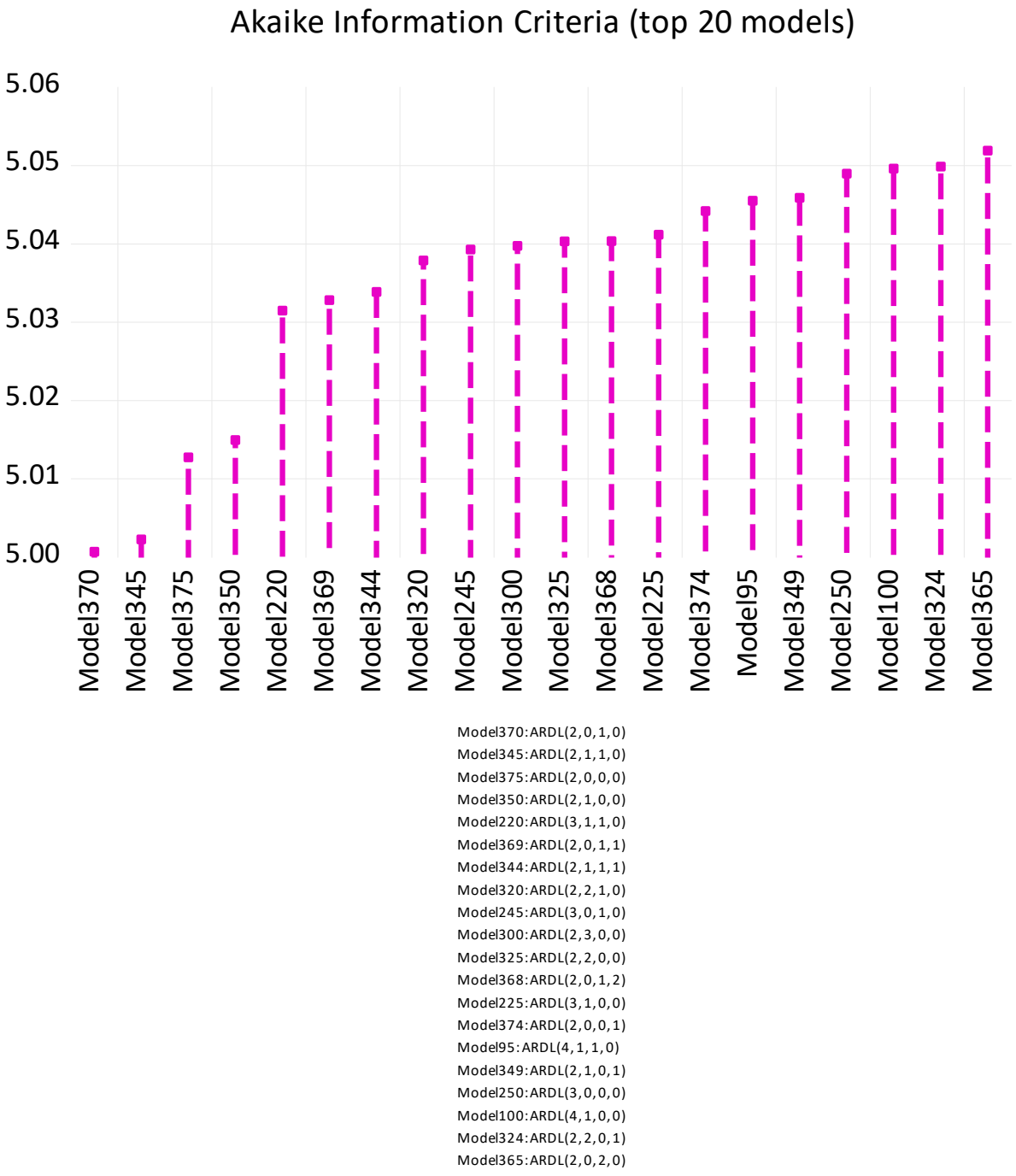
The ADF unit root test examines the stationarity of four variables: GDP growth rate, government expenditure on agriculture, credit to the agricultural sector, and the ACGSF.

At Level: t-statistics of LGDPGR and LGEA (-4.0534 and -3.7352) are significant at the 1% level, implying that these variables are stationary. However, LCAS (-0.8796) and LAGS (-0.9219) were found to be nonstationary with insignificant probabilities (0.7847 and 0.7712).

At First Difference: We then confirm that all variables—d(LGDPGR), d(LCAS), d(LGEA), and d(LAGS) —are stationary, where the t-statistics are –4.8780, –7.2866, –6.3046, and –5.6752, which are significant at the 1% level.

This means that though some of the variables are stationary at level, differencing guarantees stationarity in all of them and thus integrated series may be used for further analysis. The use of autoregressive distributed lag (ARDL) will be associated with stationarity levels where they will be used in determining the long and short run effect generated by the independent variables on the dependent variable.

Figure 4.1 Model Selection



Source: Author's Computation (2025)

The top 20 models, ranked by fit and complexity, are plotted in this figure, displaying their Akaike Information Criterion (AIC) values. A lower AIC is better and denotes that the model is better, balancing

between goodness of fit and simplicity. The best model has the lowest AIC value of Model 370 and the highest among the top 20 is Model 395. AIC values vary narrowly from 5.01 to 5.06, indicating similar levels of fit and degree of complexity among models. Detailed specifications are listed below, while the models are visually compared with vertical lines and markers. The preferred model is 370, but other models may suffice depending on what you need.

Table 4.5 Bound Test

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	9.980611	5%	2.79	3.67

Source: Author's Computation (2025)

The F-Bounds tests for long term relationship of the variables in the model. With a test statistic value of 9.980611, this value is much higher than the corresponding critical values of 5% level; since the F-statistics is greater than the critical values, this means that there is a significant long term relationship among the variables where we reject the hypothesis of no lags in the levels relationship. The finding of this suggests that there exists a significant long run association among those variables.

Table 4.6 ARDL Long Run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCAS	0.241436	0.627348	0.384852	0.7028

LGEA	-0.026192	0.485596	-0.053938	0.9573
LAGS	1.018717	0.463621	2.197306	0.0351
C	2.396263	2.066591	1.159524	0.2546

Source: Author's Computation (2025)

The ARDL long-run model provides the following insights on GDP growth:

Credit to the Agricultural Sector (LCAS): The coefficient is positive (0.241436), signifying possible GDP growth benefits. Yet this effect is statistically insignificant which means it has no significant long term impact.

Government Expenditure on Agriculture (LGEA): It means a small negative coefficient (-0.026192) which indicates a small negative effect on GDP growth. This is also statistically insignificant.

Agricultural Credit Guarantee Scheme Fund (LAGS): The coefficient, 1.018717, is positive and significant in the long run.

To summarize, LAGS is the only factor that stimulates GDP growth in the long term, while other factors have no impact in the long run.

Table 4.7 Error Correction Model

ECM Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDPGR(-1))	0.370155	0.148613	2.490737	0.0180
D(LGEA)	0.775262	0.838748	0.924309	0.3620

CointEq(-1)*	-1.693319	0.226376	-7.480101	0.0000

R-squared	0.679245	Mean dependent var	0.243138
Adjusted R-squared	0.661907	S.D. dependent var	6.488105
S.E. of regression	3.772559	Akaike info criterion	5.565423
Sum squared resid	526.5916	Schwarz criterion	5.692089
Log likelihood	-108.3085	Hannan-Quinn criter.	5.611221
Durbin-Watson stat	2.059719		

Source: Author's Computation (2025)

The Error Correction Model (ECM) regression analysis sheds light on how GDP growth evolves, which facilitates exploration of the predictions produced by the ECM.

However, in the short term, the change from the previous period's GDP growth rate has a positive effect on the current growth rate. This relationship, with a coefficient of 0.370155, is statistically significant (t-statistic: 2.490737,p-value: 0.This implies that economic growth in the present is heavily dependent on past economic growth (0180). The influence of changes in government expenditure on agriculture is lower. While the coefficient for this variable is 0.775262, it is not statistically significant (t-statistic: 0.We fail to find a significant impact of short term agricultural spending from the hypothetical controls test (tStatistic: 0.924309, p value: 0.3620), which means that short term variations in agricultural spending do not lead to significant changes in GDP growth.

In the long term, the error correction term (CointEq(-1)) has a significant negative coefficient of -1.693319 (t-statistic: Additionally, the model can correct deviations and restore equilibrium ($p < 0.0000$, –7.480101).

The model exhibits a rather strong fit with R-squared value of 0.6792 indicating that the model explains roughly 68% of the variability in GDP growth. Then looking at the Adjusted R-squared (0.661907) which takes the predictors into account, it is reliable. Overall, the analysis suggests that past GDP growth is a significant driver of current growth while the model ensures efficient adjustment to maintain long term equilibrium.

Table 4.7 Serial Correlation Test

Date: 08/16/24 Time: 02:50
Sample (adjusted): 1983 2022
Q-statistic probabilities adjusted for 2 dynamic regressors

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob*
		1	-0.041	-0.041	0.0714	0.789
		2	0.021	0.019	0.0907	0.956
		3	-0.170	-0.169	1.4095	0.703
		4	-0.147	-0.166	2.4202	0.659
		5	-0.101	-0.117	2.9055	0.715
		6	-0.005	-0.049	2.9069	0.820
		7	-0.008	-0.071	2.9105	0.893
		8	-0.007	-0.084	2.9128	0.940
		9	-0.026	-0.088	2.9493	0.966
		10	0.113	0.072	3.6684	0.961
		11	-0.068	-0.098	3.9399	0.972
		12	0.175	0.133	5.7673	0.927
		13	-0.023	0.007	5.8010	0.953
		14	-0.133	-0.154	6.9361	0.937
		15	0.007	0.041	6.9390	0.959
		16	-0.011	0.025	6.9478	0.974
		17	-0.100	-0.139	7.6747	0.973
		18	-0.061	-0.122	7.9546	0.979
		19	-0.095	-0.147	8.6762	0.978
		20	0.150	0.092	10.574	0.957

*Probabilities may not be valid for this equation specification.

Source: Author's Computation (2025)

Fieldplots show autocorrelation and partial correlation statistics between 1 and 20 lags. All Q-statistics and the probabilities associated with them are well in excess of the conventional 0.05 level of significance. This suggests that the model manages to pick up the time dependent aspects of the data and there is no systematic correlation between error terms at different time periods

Table 4.8 Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	1.140125	Prob. F(6,33)	0.3614

Source: Author's Computation (2024)

To check for heteroscedasticity, the Breusch-Pagan-Godfrey test, which checks for the presence of non constant variance in the residuals, was conducted. The F value for the test results is 1.140125 and the probability is 0.3614. Thus, we cannot reject the null hypothesis of homoscedasticity.

Table 4.9 Stability Test

Ramsey RESET Test

	Value	df	Probability
t-statistic	0.227591	32	0.8214
F-statistic	0.051798	(1, 32)	0.8214
Likelihood ratio	0.064695	1	0.7992

Source: Author's Computation, 2025.

To verify model misspecification, Ramsey RESET (Regression Equation Specification Error Test) was implemented. This tests whether non-linear combinations of the fitted values provide additional explanation for the response variable. With the probabilities all being these large, i.e. 0.8214, 0.8214, and 0.7992 for the t, F, and likelihood ratio test respectively, we conclude that we cannot reject the null hypothesis that there is no consumer guidance effect. This indicates that the model is probably well specified and that there are no important non linear relationships or omitted variables that would enhance the model fit.

Discussion of Findings

Analysis shows that agricultural factors influence GDP growth differently. The relationship between Credit to the Agricultural Sector and GDP growth is positive but statistically insignificant, showing that more credit to the Agricultural Sector may not guarantee higher economic growth, supporting Ezu (2023). Finally, Government Expenditure on Agriculture is negatively associated with GDP growth, but again, this relationship is not statistically significant, in line with Kareem et al. (2022).

The most significant one is the ACGSF, which is related to GDP growth in a statistically significant positive way. This highlights its potential effectiveness in bringing about the economic growth of a country through the growth of the agricultural sector as mentioned in Kareem et al. (2022).

While highlighting the necessity of credit guarantee schemes, the study also suggests that improvements may be necessary for other agricultural support measures to be significantly impactful on the economy.

Conclusion

This study analysed the effect of agricultural finance on Nigeria's economic growth through credit to the agricultural sector, government expenditure on agriculture, and the ACGSF. According to the findings, although additional agricultural credit was anticipated to stimulate growth, it had no significant impact statistically, implying that augmenting access to credit would not automatically lead to economic benefits.

Government spending on agriculture showed a negative relationship to growth as well, suggesting that such expenditures do not spur economic progress.

On the contrary, the ACGSF was determined to be a major driver of economic growth, with a substantial positive impact. This underscored the role of the scheme in assuring the farmer of financial security and increased the agricultural sector's contribution to the economy.

From these insights, I make the following three recommendations. Next, the ACGSF should be strengthened and expanded through increasing coverage, decreasing interest rates, and making the program more user friendly to small farmers. Secondly, one has to conduct a detailed analysis of agricultural credit and government spending to identify the inefficiencies and improve their effectiveness. Last, agricultural value chains need to be promoted holistically, with component parts like processing, packaging, and marketing emphasized to boost the sector's economic contribution. The measures are aimed at fully unleashing the potential of agricultural financing towards growth in Nigeria.

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