THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Agricultural Financing and Food Security in Nigeria: An Empirical Assessment 1996-2019

Osuji Emmanuel A
Lecturer, Department of Financial Management Technology,
Federal University of Technology Owerri, Nigeria
Nwankwo Dike
Assistant Lecturer, Department of Financial Management Technology,
Federal University of Technology Owerri, Nigeria
Obieche Precious Nkechi
Assistant Lecturer, Department of Financial Management Technology,
Federal University of Technology Owerri, Nigeria

Abstract:
This paper seeks to examine the effect of agric financing on agric productivity in Nigeria for the period 1996 to 2019 and its implications for national food security.   Multiple linear regression model was developed in order to unearth the nature of relationship between the model parameters in the period under review. Agric GDP was used as a proxy for agricultural productivity while agric credit guarantee, government expenditure on agriculture and Commercial banks' credit to agricultural sector served as proxies for agricultural financing. Results show overwhelming evidence that all the regressors have a positive and highly significant effect on agricultural productivity. Consequent upon on the findings of this study, it was recommended that the government should come up with policies aimed at incentivizing private investors and deposit money banks to advance the much-needed credit for the agric sector since government cannot do it all. All these and more if well implemented, will make our dear country Nigeria to achieve the much need food security.
The study is also of the opinion that diligent and painstaking approach should be adopted in the process of implementing such policies so that funds meant for agric sector does not end up in the hands of middlemen who camouflage as the real farmer.

Keywords: *Agricultural productivity, bank credit, agricguarantee scheme, etc.*

1. Introduction

1.1. Background of the Study

Agriculture refers to the practice of farming, including cultivation of the soil for growing crops and the rearing of animals to provide food, wool, and other products while agricultural productivity is the increase in per capita output of agricultural produce (Stamp, 1970). Agriculture can be seen as the cultivation of land and rearing of animals for the purpose of food production for man and animals, as well as raw materials for industries. It involves crop production, livestock and animal husbandry, forestry, fishery, processing and marketing of those agricultural products.

Nigeria as a nation is blessed with so much arable land measuring approximately 81 million hectares. Agricultural land (% of land area) in Nigeria was reported at 77.74 %, according to the World Bank development indicators (2014). Agriculture in Nigeria can be said to be favored by nature because of the abundant natural endowment Nigeria possesses as the soil is rich, the temperature is warm and favors agricultural production and the annual rainfall is very well distributed. Furthermore, there are no extreme natural disasters posing serious threat to lands, crops and other sources of agricultural production.

1.2. Problem Statement

The revenue generated by the agricultural sector in Nigeria has been very low over the years causing many to fear that agriculture in Nigeria might never return to its glory days, especially before the oil boom, when agriculture was the mainstay of the Nigerian Economy. It is an obvious fact that the agricultural sector, just like other sectors of the economy will do poorly without inadequate financial intermediation. The contribution of agricultural sector to the economy has a strong relationship with the financial system. Some studies have shown that there exists a positive relationship between agricultural financing and agricultural output in Nigeria while some others took an inconclusive stand on the matter. However, this study seeks to unearth the relationship that agricultural financing has on agricultural output and hence food security in Nigeria in the period under review.

1.3. Objectives

The general objective of this study is to evaluate the impact of agricultural financing options on agricultural output and by implication, food security in Nigeria. However, the specific objectives are to ascertain the impact of commercial bank agricultural credit availed on agricultural output in Nigeria and the impact of funds availed by the agricultural credit guarantee scheme and the federal government expenditure on agricultural output in Nigeria

1.4. Research Questions

In the course of this study, we intend to find answers to the following research questions:
- Does commercial bank agricultural credit have a significant relationship with agricultural output in Nigeria?
- Does agricultural credit guarantee scheme have a significant relationship with agricultural output in Nigeria?
- Does federal government expenditure on agriculture have a significant relationship with agricultural output in Nigeria?

1.5. Research Hypothesis

Our study shall test the following hypothesis:
- H_{01}: There is no significant relationship between agricultural credit availed by commercial banks and agricultural output in Nigeria.
- H_{02}: There is no significant relationship between funds availed by the agricultural credit guarantee scheme and agricultural output in Nigeria
- H_{02}: There is no significant relationship between federal government expenditure on agriculture and agricultural output in Nigeria.

2. Literature Review

The importance of agriculture to the survival of man cannot be overemphasized. This is because it not only serves as a huge employer of labour but also provides food which is important for the survival of man. In addition, it provides raw materials required by industrial and manufacturing sectors for the production of essential commodities such as shoes, bags, textiles, etc. Despite its importance and potential to catalyze sustainable development in the country, agriculture has suffered from chronic underfunding from both the public and private sectors, leading to a situation where our national food security agenda is greatly being threatened. Suffice it therefore to say that inadequate funding has been a major factor hindering agricultural productivity and food security in Nigeria.

2.1. Concept of Agricultural Financing

According to Murray (2007), agricultural finance refers to the sourcing of funds by farmers and the operation of farm lending agencies in order to protect society's interest in agriculture. Agricultural finance refers to (public or private) resources (in form of equity, gift or loan) for improving social welfare through development of agricultural sector (Shreiner and Yaron, 2001). It encompasses not only government funds but also funds of non-governmental organizations that use matching grants to attempt to promote community and sector development, income equality and local empowerment.

Agricultural finance generally means studying, examining and analyzing the financial aspects pertaining to farm business. This financial aspect includes money matters relating to production of agricultural products and their disposal. According to Lee (2008), agricultural finance entails the acquisition and use of capital in agriculture. It deals with the supply and demand for funds in the agricultural sector of an economy. Also, Tandan (2012) viewed agricultural finance as a branch of agricultural economics that concentrates on the financial resources related to individual farm units.

Furthermore, Nwankwo (2013), maintained that agricultural financing is the process of obtaining funds from off-farm sources for use on the farm, repayable in the future at an agreedinterest rate. Agricultural credit is the major source of financing agriculture in most developing economies (Nwokoro, 2017). Also, agricultural credit is the amount of investment funds made available for agricultural production from resources outside the farm sector (Ayeomoni etal, 2016).

The role of agricultural financing in agricultural development in particular and economic development in general cannot be overemphasized. According to Adetiloye (2012) and Nwankwo (2013), the importance of agricultural financing includes stimulating the economic development through the provision food for the populace, employment for people and also the provision of raw materials for manufacturing sector for the production of commodities such as shoes, textiles, milk and sundry other paper products.

2.2. Empirical Review

Series of studies have been carried out to examine the effect of agricultural financing on agricultural output in Nigeria. For instance, Ibe (2013), analyzed the impact of commercial banks' credit to agriculture on agricultural development in Nigeria between 1980 and 2011. The results revealed that agricultural scheme loan and government expenditure on the agric sector had significant positive relationship with agricultural development while commercial bank credit had no significant positive impact on agricultural productivity. Also, Ihugba etal (2013), investigated the relationship between government expenditure on agriculture and agricultural output in Nigeria and found that agricultural output and total government expenditure on agriculture are cointegrated. Again, Ojeigbe and Duruechi (2015), evaluated the impact of agricultural loans on agricultural gross domestic product in Nigeria and the results showed that

total loan on livestock had significant impact on agricultural GDP in Nigeria. Furthermore, Egwu (2016), examined the impact of agricultural financing on agricultural output, economic growth and poverty alleviation in Nigeria and the results showed that agricultural credit guarantee scheme fund and commercial bank credit positively and significantly impacted on agricultural output, thereby alleviating poverty and inducing economic growth within the period.

In addition, Kareem etal (2013), sought to determine the factors influencing agricultural production in Nigeria and to determine causality between the variables and agricultural output. The results revealed that 95% of the variations in agricultural output were explained by the independent variables. The results further showed that foreign direct investment, commercial bank loan, interest rate and food import have positive impact on agricultural output while GDP growth rate had a negative impact on agricultural output.

Again Adetiloye (2012), in his work examined the effect of credit to agricultural sector and agricultural credit guarantee scheme fund on agricultural productivity and food security in Nigeria between 1978 and 2006. The results showed that credit to the agricultural sector was significant and positive and that Nigeria was food insecure as the import of food is on the upward trend.

Several other empirical studies have laid further credence to the fact that a strong positive relationship exists between agric financing and agricultural productivity in Nigeria. Some of them include Agbada (2015), who analyzed agricultural financing and optimization of output for sustainable economic development in Nigeria and found that a positive relationship exists between agricultural credit guarantee scheme fund and agric output growth in Nigeria. Again, Olorunsola and Bassey (2017), investigated the relationship between agric sector credit and agricultural output in Nigeria The results show no evidence of asymmetry in the impact of agric credit on output growth in the agricultural sector. Furthermore, Ayeomoni and Aladejana (2016), examined the relationship between agricultural credit and economic growth in Nigeria between 1986 and 2014 using the Autoregressive Distributed Lag-Model. Economic growth was regressed on agricultural sector credit, private domestic investment, real exchange rate, interest rate and inflation rate. The results showed that short-run and long-run relationship existed between agricultural credit and economic growth in both short-run and long-run.

Also, Imosi etal (2012), examined the relationship between credit facilities and agricultural productivity in Nigeria between 1970 and 2010. Agricultural output was proxied by agricultural GDP while credit facility was measured by deposit money bank credit to agricultural sector and foreign private investment to agricultural sector. The result of analysis showed that bank credit and foreign private investment to agricultural sector positively and significantly impact agricultural output in Nigeria.

Finally, Udoka, etal (2016), examined the effect of agricultural financing on agricultural productivity in Nigeria between 1970 and 2014. Results showed that agricultural credit guarantee scheme fund, commercial bank credit to agriculture and government expenditure on agriculture have positive and significant effect on agricultural output.

3. Research Methodology

3.1. Research Design & Model Specification

To achieve the research objectives, our study will employ the multiple regression model in order to examine the nature of relationship between agricultural financing and agricultural output in Nigeria. The functional form of the model is expressed as:

AGDP= f (ACGSF, CBCA, GEXPA)

where:
AGDP   =   Agricultural gross domestic product.
ACGSF   =   Agricultural credit guarantee scheme fund.
CBCA   =   Commercial banks' credit to agricultural sector.
GEXPA   =   Government expenditure on agriculture.
However, the standard econometric model is expressed as:
$AGDP = \beta_0 + \beta_1 ACGSF + \beta_2 CBAC + \beta_3 GEXPA + \mu$
Where:
β_0 =   Constant term of the regression model.
β_{1-3} =   Coefficients of the explanatory variables or parameters of the econometric model.
μ=   Random Error term

3.2. Type of Data and Sources

This study used annual time-series data from 1996 to 2019. The data were obtained from secondary sources such as the Central Bank of Nigeria Statistical Bulletin of various years.

3.3. Method of Analysis

This study will employ the Ordinary Least Square (OLS) technique to empirically estimate the models. The choice of this technique was informed by its properties of unbiasedness, efficiency, consistency and sufficiency. The Statistical Package for Social Sciences (SPSS) Software w be used to analyze the data.

The signs and significance of the regression coefficients would be used to explain the nature and influence of both dependent and independent variables in order to determine both magnitude and direction of effect. This study will also make use of the t-test to ascertain the statistical significance of the individual parameter estimates as well as test for

goodness of fit in the model using the R^2 technique. Finally, the F-test will be used to determine the overall significance and reliability of the multiple regression model having considered the joint effect of all parameter estimates.

4. Data Presentation and Analysis

4.1. Data Presentation

In this analysis, Agricultural Gross Domestic Product (AGDP) served as our dependent variable, while Commercial Banks' Credit to Agriculture (CBCA), Agricultural Credit Guarantee Scheme Fund (ACGSF), and Federal Government Expenditure on Agriculture (FGEXPA) serve as the independent variables. The data spanned from 1996-2019 and the Ordinary Least Square (OLS) technique was employed for analysis.

YEAR	AGDP (value in billions of Naira)	CBCA (value in billions of Naira)	ACGSF (value in billions of Naira)	FGEXPA (value in billions of Naira)
1996	1,070.51	33.3	225,519.50	1.59
1997	1,211.46	27.9	242,028.30	2.06
1998	1,341.04	27.2	219,144.20	2.89
1999	1,426.97	31.0	241,839.00	59.32
2000	1,508.41	41.0	361,449.00	6.34
2001	2,015.42	55.8	728,545.40	7.06
2002	4,251.52	59.8	1,050,982.30	9.99
2003	4,585.93	62.1	1,151,015.00	7.54
2004	4,935.26	67.7	2,083,744.70	11.26
2005	6,032.33	48.6	9,366,392.90	16.33
2006	7,513.30	49.4	4,195,099.68	17.92
2007	8,551.98	149.6	4,087,447.94	32.48
2008	10,100.33	106.4	6,497,958.93	65.40
2009	11,625.44	135.7	8,328,565.78	22.44
2010	13,048.89	128.4	7,840,496.63	28.22
2011	14,037.83	255.2	10,028,988.81	41.20
2012	15,816.00	316.4	9,332,484.23	33.30
2013	16,816.55	343.7	9,256,676.80	39.43
2014	18,018.61	478.9	12,456,250.87	36.70
2015	19,636.97	449.3	10,857,380.83	41.27
2016	21,523.51	525.9	8,104,810.63	36.58
2017	19,726.36	484.70	10,472,814.11	38.18
2018	20,295.61	486.63	9,811,668.52	38.68
2019	20,515.16	499.08	9,463,097.75	37.81

Table 1
Source: CBN Statistical Bulletin 2020

4.2. Analysis

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1052.446	659.698		1.595	.129	-339.394	2444.287
	CBCA	23.861	3.757	.576	6.351	.000	15.934	31.787
	ACGSF	.001	.000	.411	4.325	.000	.000	.001
	FGEXPA	25.232	24.899	.070	1.013	.325	-27.299	77.764

Table 2: Coefficients Table

From the regression table above, the regression equation for Agricultural Gross Domestic Product can be established thus:
AGDP = 1052.446 + 23.861CBCA + 0.001ACGSF + 25.232FGEXPA

It can thus be inferred from the above regression model that a unit increase in Commercial Banks' Credit to Agriculture (CBCA) would cause Agricultural GDP to increase by a factor of 23.861, a unit increase in Agricultural Credit Guarantee Scheme Fund (ACGSF) would result in a 0.001 increase in Agricultural GDP, while a unit increase in Federal Government Expenditure on Agriculture (FGEXPA) would lead to an increase in Agricultural GDP by a factor of 25.232. This shows that there exists an obvious positive relationship between Commercial Banks' Credit to Agriculture (CBCA),

Agricultural Credit Guarantee Scheme Fund (ACGSF), and Federal Government Expenditure on Agriculture (FGEXPA) and Agricultural GDP.

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.973[a]	.946	.936	1713.08120	.946	99.087	3	17	.000	1.860
a. Predictors: (Constant), FGEXPA, CBCA, ACGSF										
b. Dependent Variable: AGDP										

Table 3: Model Summary Table
Source: SPSS

From the model summary table above, it can be seen that the model has coefficient of determination (R^2) of 0.946 (94.6%) and an adjusted R^2 of 0.936 (93.6%). This means that the regression model has high explanatory power. The R^2 and adjusted R^2 values indicate that over 93 percent of the variations in the dependent variable are explained by the explanatory variables. In other words, 93.6% of the changes that occurred in the dependent variable was explained by its association with the independent variables, while 6.4% is attributable to external factors that are not captured in the model.

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	872355995.746	3	290785331.915	99.087	.000[b]
	Residual	49889002.544	17	2934647.208		
	Total	922244998.290	20			
a. Dependent Variable: AGDP						
b. Predictors: (Constant), FGEXPA, CBCA, ACGSF						

Table 4: ANOVA Table
Source: SPSS

From the ANOVA table above, the F-value will be used to determine joint significance of the model in terms of its adequacy for forecasting and policy making. The F-statistic has a value of 99.087 with significance of 0.000 ($P < 0.05$).
Since the F-sig has a value less than 5%, we reject the null and conclude that there exists a significant relationship between Agricultural financing and Agricultural output in Nigeria. Thus, the independent variables jointly account for variations in the dependent variable.
By implication, the model is well specified and does not suffer any misspecification bias and the results from the model can be relied upon in making policy decisions

4.3. Testof Hypotheses

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	1052.446	659.698		1.595	.129	-339.394	2444.287
	CBCA	23.861	3.757	.576	6.351	.000	15.934	31.787
	ACGSF	.001	.000	.411	4.325	.000	.000	.001
	FGEXPA	25.232	24.899	.070	1.013	.325	-27.299	77.764
a. Dependent Variable: AGDP								

Table 5
Source: SPSS

Decision Rule: reject the null hypothesis if p-value is less than the level of statistical significance which in this case is 5% (0.05).

4.3.1. Hypothesis One: Federal Government Expenditure on Agriculture
With a p-value of 0.325, we fail to reject the null hypothesis that there is no significant relationship between Government Expenditure on Agriculture and Agricultural Output in Nigeria at 0.05 level.
We therefore conclude that there is no significant relationship between Government Expenditure on Agriculture and Agricultural Output in Nigeria.

4.3.2. Hypothesis Two: Commercial Banks Credit to Agriculture

From the table, we have a p-value of 0.000, which is less than the degree of freedom 0.05 (5%). We therefore reject the null hypothesis which states that there is no significant relationship between Agricultural Credit availed by commercial banks and Agricultural Output in Nigeria.

We therefore conclude that there is a significant relationship between Agricultural Credit availed by commercial banks and the Agricultural Output in Nigeria.

4.3.3. Hypothesis Three: Agricultural Credit Guarantee Scheme

From the table above, it is clear that the p-value of 0.000 is less than the level of significance 0.05 (5%). We therefore reject the null hypothesis which states that there is no significant relationship between funds availed by the agricultural credit guarantee scheme and Agricultural Output in Nigeria. This suggests that there is a significant relationship between funds availed by the agricultural credit guarantee scheme and Agricultural Output in Nigeria.
We therefore conclude that there is a significant relationship between funds availed by the agricultural credit guarantee scheme and the Agricultural Output in Nigeria.

4.3.4. Testing for Joint Significance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	872355995.746	3	290785331.915	99.087	.000[b]
	Residual	49889002.544	17	2934647.208		
	Total	922244998.290	20			
a. Dependent Variable: AGDP						
b. Predictors: (Constant), FGEXPA, CBCA, ACGSF						

Table 6
F-tab = 3.20 (obtained from F-table)

Decision Rule is that estimate parameters are jointly significant if F-cal> F-tab and jointly insignificant if F-cal< F-tab

From the table above, the F-value is 0.000, which is less than the level of significance 0.05 (5%). We therefore reject the null hypothesis which states that there is no significant relationship between Agricultural Financing Options and Agricultural Output in Nigeria. And conclude that there is a significant relationship between Agricultural Financing Options and the Agricultural Output in Nigeria. Hence, the individual variables in the model all jointly affect the model.
We therefore conclude that there is a significant relationship between Agricultural Financing Options and the Agricultural Output in Nigeria.

4.4. Discussion and Implication of the Findings

This research work examined the effect of agricultural financing options on agricultural output in Nigeria using Ordinary Least Square (OLS) technique.

The result of our analyses revealed that all the explanatory variables have positive effect on Agricultural Gross Domestic Product. This implies that the guarantee of funds provided by financial institutions result in improvement of agricultural sector output thereby contributing significantly to gross domestic product and national food security

Also, findings revealed that all three explanatory variables of Government Expenditure on Agriculture, Commercial Bank Credit to Agriculture and Agricultural Credit Guarantee Scheme Fund all have a positive and significant relationship with Agricultural Gross Domestic Product. Our results are also in agreement with the empirical findings of Ewubare, (2016) and Uger, (2013) who found a positive relationship between government recurrent expenditure to agriculture and agricultural sector output.

5. Conclusion and Recommendations

5.1. Summary of Findings

This research work evaluates the effects of financing options for agriculture on agricultural productivity in Nigeria. The study made use of the Multiple Linear Regression Model and results indicate that there exists a positive and significant relationship between agricultural credit guarantee scheme fund and agricultural gross domestic product. Also, commercial banks' credit to agriculture was established to have significantly positive effect on agricultural gross domestic product while government recurrent expenditure on agriculture has positive but insignificant effect on agricultural gross domestic product.

5.2. Recommendations

Based on the findings of our study, the following recommendations are suggested:
- There should be a high degree of transparency and accountability of government spending in the agric sectors of the economy in order to prevent the channeling of public funds into private accounts of government officials and workers.

- Policies aimed at encouraging commercial banks to lend to agricultural sector should be formulated and implemented both by government and regulatory authorities.
- Furthermore, effective agricultural schemes and programs should be established to cater for the financing needs of small scale and low-income farmers especially in rural areas.
- Finally, massive investment on infrastructural facilities in the rural areas should be embarked upon by the government in other to enhance agricultural productivity and food security for the nation.

6. References

i. Adetiloye, K.A. (2012). Agricultural Financing in Nigeria: An Assessment of the Agricultural Credit Guarantee Scheme Fund for Food Security in Nigeria. Journal of Economics, 3(1):39-48
ii. Adewole, J.A., Adekanmi, A.D. & Gabriel, A.O. (2015). An Assessment of the Contributions of Commercial Banks to Agricultural Financing in Nigeria.
iii. International Journal of Advanced Academic Research, 1(2):1-16.
iv. Agbada, A. (2015). Agricultural Financing and Optimizing Output for Sustainable Economic Development in Nigeria: An Empirical Analysis. Journal of Emerging Trends in Economics and Management Sciences, 6(5):359-366.
v. Agunuwa, E.V., Inaya, L. &Proso, T. (2015). Impact of Commercial Banks' Credit on Agricultural Productivity in Nigeria. International Journal of Academic Research in Business and Social Sciences, 5(11):132-139.
vi. Akinleye, S.O., Akanni, K.A. &Oladoja, M.A. (2013). An Appraisal of Agricultural Credit Guarantee Scheme in Nigeria. British Journal of Economics, 1(1):1-14.
vii. Ayeomoni, I.O. &Aladejana, S.A. (2016). Agricultural Credit and Economic Growth Nexus: Evidence from Nigeria. International Journal of Academic Research in Accounting, Finance and Management Sciences, 6(2):146-158.
viii. Chidebelu, C. (2004). External Constraints of Agriculture in Nigeria. Bullion Publication of CBN, October, 7-9.
ix. Egwu, P.N. (2016). Impact of Agricultural Financing on Agricultural Output, Economic Growth and Poverty Alleviation in Nigeria. Journal of Biology, Agriculture and Healthcare, 6(2):36-43.
x. Fashola, M.A. (2001). Macroeconomic Theory: Highlights and Policy Extensions for Less Developed Countries. Lagos: CIP Publishers
xi. Gordon, B.A. (2009). Economic growth and the Structure of Balkan Countries. European Journal of Development, 2(3):223-245
xii. Hopkins, T. (2005). Importance of Agricultural Financing in National Economy:Evidence from Latin-American Countries. Journal of Rural Development and Restructuring, 54(1):765-781
xiii. Ibe, S.O. (2013). The Impact of Commercial Banks' Credit to Agriculture on Agricultural Development in Nigeria: An Econometric Analysis. International Journal of Business, Humanities and Technology, 3(1):85-95
xiv. Ihugba, O.A., Nwosu, C. &Njoku, A.C. (2013). An Assessment of Nigeria Expenditure on Agricultural Sector: Its Relationship with Agricultural Output. Journal of Economics and International Finance, 5(5):177-186.
xv. Imosi, A., Sogules, I. &Itoro, B. (2012). An Appraisal of Credit Facilities on Agricultural Output and Productivity in Nigeria. British Journal of Humanities and Social Sciences, 7(2):24-34.
xvi. Jhingan, M.L. (2007). Macroeconomic Theory. New Dehli: Vrinda Publishers
xvii. Kareem, R.O., Bakare, H.A., Raheem, K.A., Ologunla, S.E., Alawode, O.O. &Ademoyewa, G.R. (2013). Analysis of Factors influencing Agricultural Output in Nigeria: Macroeconomic Perspectives. American Journal of Business, Economics and Management, 1(1):9-15.
xviii. Lee, M. (2008). The Role of Rural Financial Services for Alleviation of Food Security and Poverty. Agriculture and Rural Development, 6(2):28-32.
xix. McKinnon, R.I. & Shaw, E.S. (1973). Money and Capital in Economic Development. Washington: Brookings Institution.
xx. Murray, M.R. (2007). The Impact of Credit and Peasant Productivity and Differentiation in Nicaragua. Journal of Development Economics, 31(5):13-34.
xxi. Nwankwo, O. (2013). Agricultural Financing in Nigeria: An Empirical Study of Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB): 1990-2010. Journal of Management Research, 5(2):28-44.
xxii. Nwokoro, A.N. (2017). Analysis of Banks' Credit and Agricultural Output in Nigeria. International Journal of Innovative Finance and Research, 1(1):5466.
xxiii. Obansa, S.A.J. &Maduekwe, I.M. (2013). Agricultural Financing and Economic Growth in Nigeria. European Scientific Journal, 9(1):168-195.
xxiv. Odu, P.C. (2007). Problems and Prospects in Agricultural Financing and Economic Growth in Nigeria under Economic Deregulation. European Scientific Journal, 9(1):46-58.
xxv. Ojeigbe, J.N. &Duruechi, A.H. (2015). Agricultural Loans as Catalyst for Food Production in Nigeria: Problems and Prospects. Research in World Economy, 6(4):53-64.
xxvi. Ojiya EA, Okoh SA, Mamman AB, Chukwuemeka NJ (2017) An Empirical Analysis of the effect of Agricultural Input on Agricultural Productivity in Nigeria
xxvii. Olorunsola, E. &Bassey, K. (2017). Agricultural Sector Credit and Output Relationship in Nigeria: Evidence from Nonlinear ARDL. CBN Journal of Applied Statistics, 8(1):101-132.
xxviii. Tandan, K. (2012). The Impact of Institutional Credit on Agricultural Production in Pakistan. The Pakistan Development Review, 42:469-485.

xxix.   Uzomaka, A.S. (2011). Impact of Agricultural Financing on Agricultural Productivity in Nigeria. Journal of Management and Social Sciences, 3(4):125 136.
xxx.

Appendix

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	FGEXPA, CBCA, ACGSF[b]	.	Enter
a. Dependent Variable: AGDP			
b. All requested variables entered.			

Table 7

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.973[a]	.946	.936	1713.08120	.946	99.087	3	17	.000	1.860
a. Predictors: (Constant), FGEXPA, CBCA, ACGSF										
b. Dependent Variable: AGDP										

Table 8

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	872355995.746	3	290785331.915	99.087	.000[b]
	Residual	49889002.544	17	2934647.208		
	Total	922244998.290	20			
a. Dependent Variable: AGDP						
b. Predictors: (Constant), FGEXPA, CBCA, ACGSF						

Table 9

Coefficients[a]										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1052.446	659.698		1.595	0.129	-339.394	2444.287		
	CBCA	23.861	3.757	0.576	6.351	0	15.934	31.787	0.387	2.581
	ACGSF	0.001	0	0.411	4.325	0	0	0.001	0.353	2.837
	FGEXPA	25.232	24.899	0.07	1.013	0.325	-27.299	77.764	0.673	1.486
a. Dependent Variable: AGDP										

Table 10