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### Impact of Agricultural Financing on Real Output Growth in Nigeria

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#### Abstract

The study examined the impact of agricultural financing on real output growth in Nigeria. It was established that agricultural financing is the examination and analysis of financial aspect of farm business. The establishment of agricultural financing is aimed at given easy access of fund to farmers in order to enhance greater agricultural output. The study equally adopted some mathematical and econometrics techniques such as ADF for unit root test, ARDL model for long run and short run coefficient, Bound test and Diagnostic test. However, the study revealed that ACGSF & GAE as proxy of agricultural financing have

positive and significant effect on real output growth except CBCFA which recorded negative and insignificant effect on real output growth in Nigeria. Therefore, study concluded recommended that the implementation of agricultural financing schemes should be well monitored by both Government and Non-governmental agencies. Since ACGSF is agricultural scheme, and from the research findings, there were evidence that such schemes have positive impact on agricultural productivity and economic growth.

**Keywords:** Agricultural Financing, Real Output Growth, ARDL Model

#### 1. Introduction

Agriculture is one of the sector that drew the attention of world government in recent years, considering it magnificent contribution to economic development and industrial revolution in terms of raw materials assessment especially in Africa and most underdeveloped countries. However, Awoyemi, Afolabi, & Akomolafe (2017) <sup>[4]</sup>, agriculture is the bedrock of economic growth, development and poverty eradication in developing countries. Agricultural product has been recognized to have industrial value and great potential, increases farmer's income and many other economic agents involved in the processing and marketing of agriculture product. Awoyemi *et al* (2017) <sup>[4]</sup> described agricultural sector as the engine and panacea to economic prosperity. Notwithstanding, Nigeria is blessed with vast arable land for cultivation, mineral, natural and favourable climate that supports agricultural production. But it is disheartening that agricultural sector in Nigeria is far from been developed. Agricultural credit is the major source of financing agriculture in most developing economies (Nwokoro, 2017) <sup>[14]</sup>. Agricultural credit is the amount of investment funds made available for agricultural production from resources outside the farm sector (Ayeomoni & Aladejana, 2016) <sup>[5]</sup>. Agricultural credit can be defined as a device for facilitating the temporary transfer of purchasing power from those who have surpluses to those who are in need of it.

Poor funding or inadequate financing has been identified as one of the principal challenging facing famers and agro-allied entrepreneurs in Nigeria. To this end, (Udoka & Duke, 2016) <sup>[23]</sup>, inadequate funding of the agricultural sector has been recognized as a leading setback for agricultural sector in Nigeria. In an attempt to lessen the cumbersomeness of access to credit by farmer, several programmes and policies measure were instituted. Commonest among them were Green Alternative, Anchor borrower scheme, Agricultural Credit Guarantee Scheme etc. Ihenacho (2016) <sup>[11]</sup> asserted that most of the agricultural programmes targeted to revamp the agricultural sector were literally inexistent. However, in a global recognition, agriculture has been identified as the major component in the achievement of the second millennium development goal to eradicate extreme poverty and hunger. As such, the world government has place so much focus on the development of agriculture across the world. Hence, the motive behind this study is to unveiled hidden wealth, value and potency associated to agricultural activities and the need to give credence to agriculture as an alternative to economy diversification.

Bank loan and advances is essential instrument for the advancement of any country. This implies that the duration of loan facilities to the real sector determine the extent of growth and advancement of a nation. Banks operationally aimed at advancing credit to the real sector but irrespective of the loan disbursed to the real sector, the returns from these sectors have been discouraging considering the amount of fund channeled and supplied (Sogule & Nkoro, 2016) <sup>[21]</sup>. Primus (2019) <sup>[20]</sup>

noted that bank loans and advance is expected to influence the agricultural sector through agricultural produce. He elucidates further that when agricultural project is solely funded by bank, it will in turn result to surplus food supply and also attract new investors into the system. Hence, if sufficient loan facilities are put in place by banks and government, bulky and weighty agricultural productivity that can promote welfare of the citizen can be assured. Hitherto, the limitation facing the banks financial sector in Nigeria is how to adequately channel resources to the real sector. Since Nigeria is not only blessed with oil mineral resources but also with agricultural produce, proper funding of agricultural and manufacturing sector should be priorities man effort to add up to the revenue generated through oil sector.

Obilor (2013<sup>[15]</sup>, cited in primus, 2019<sup>[20]</sup>) noted that deposit money banks favour credit and advances to other sector other than agricultural sector, as a result, banks charges farmers with high interest rate knowing fully well that farmers will not be able to meet up. However, federal government through Agricultural Credit Guarantee Scheme (ACGS) aimed at closing the gap by preparing warrant versus risk in agricultural financing. Nevertheless, the aim of the scheme was unaccomplished Primus (2019)<sup>[20]</sup>. Consequently, Itodo, Apeh, and Adeshina (2012, cited in Primus, 2019)<sup>[20]</sup> agree that Nigeria relies heavily on weighty and heavy importation of fundamental food items and raw materials which simultaneously to increase in poverty rate coupled with increasing unemployment rate. However, effort by government at all levels to support and empower the Agricultural sector is yet to fully manifest. To this effect, Orji, Ogbuabor, Okeke and Anthony-Orji, (2019)<sup>[16]</sup>, agricultural product has been recognized to have industrial value and great potentials, increase farmer's income and many other economic agents involved in the processing and marketing of agricultural product.

In the work of Orji, Ogbuabor, Okeke, and Anthony-Orji (2020)<sup>[17]</sup>, the Nigeria government has over the years implemented many financing policies so as to improve the performance of agricultural sector by making credit accessible to the rural farmers but those policies have not attained their objective of significantly enhancing the development of agricultural sector and generating employment opportunities because the credit institution require from the farmers to have acceptable collateral before they can be granted credit and many of the farmers are rural dwellers who lack property right, making it impossible for them to access credit.

Agriculture has linkage with other productive sector such as the manufacturing sector and it has a high potential of generating employment for the deferent form of skilled and unskilled labour that constitute the labour force Orji *et al* (2020)<sup>[17]</sup>. However, agricultural product serves as a major raw materials and non-oil foreign exchange earnings for the nation. Food items and even some cosmetic product that are usually imported such as sardine and coconut oil can be manufactured in Nigeria through the processing of agricultural commodities thereby increasing output and generating more employment opportunities in the countries (Orji, Ogbuabor, Okeke, &Anthony-Orji, 2019)<sup>[16]</sup>.

However, the adequate provision of funds to finance the agricultural sector is a potent way of achieving agricultural development. Finance is analogous to capital which is needed to be combined with other factor inputs to produce

output. The need for financing agriculture in Nigeria emanates from periodic nature of farming which led to the seasonality and instability in farmers' income; need to settle labour expenditure; need to acquire storage facilities; need to acquire farming equipments and procure factor inputs and the need to settle external financial obligations (Nwokoro, 2017). It is imperative for credit providers, especially financial institutions, to mobilize a tangible fraction of their funds to agriculture in a bid to achieve agricultural development and economic development. Loans and credit facilities are important in agriculture and rural development.

## 2. Conceptual framework

### 2.1 Agricultural financing and economic growth

The important of agricultural financing cannot be undermined. Agricultural financing has the capacity and potency to eliminate the financial challenges facing farmers, paves way for adoption of new technologies to productivity, promote economic development through increased income and improved living standard and helps to unveil talent, capacities, prospects and opportunities, which are catalytic through element of sustained development. Zuberu *et al* (2017)<sup>[25]</sup> stated the role of financial capital as a factor of production to facilitate economic growth and development as well as the need to appropriately channel credit to rural area for economic development of the poor rural farmer cannot be overemphasized. Hence, it implies that finance determines access to all of the resources on which farmers depend. Therefore, Ayeomoni and Aladejana, (2016)<sup>[5]</sup> considered agricultural finance as the mobilization of resource at all level in order to increase production and productivity in agriculture and to enhance productive capacity. Also at the instance of high population growth rate, there is a pressure on low input/output of agricultural system to accelerate increase in food production through finance. On this note, higher level of investment (gross capital formation) should stimulate growing while agricultural productivity is expected to have a positive effect on aggregate economic growth.

### 2.2 Sources of agricultural finance in Nigeria

In this study two basic source of funding available to smallholder farmer for their agricultural activities will be consider. This fund can be obtained from either the non-institutional/informal financial sector or the institutional/formal financial sector.

1. The non-institutional/ informal financial sector is characterized by funds lending activities from corporative societies, otherwise called esusu, borrowing from families or from money lenders (Oluwamyokun, 2018)<sup>[19]</sup>. The non-institutional/informal financial market is dominated by monopolistic money lenders who charge exploitative interest rate. They also make demands of collaterals from the farmer. Such collateral are often personal belongings. The corporative society or credit thrift society from non-institutional/informal finance, otherwise called esus is a form of contributions among people of like minds. The contribution can be daily, weekly, or monthly. The money lender is a form of local bank, though not instituted. They provide finance to the rural dwellers in short notices, but this type of fund is characterized with high interest rate.
2. The institutional/formal source of agricultural finance in Nigeria. Nigeria has the capacity to unleash its potential

agricultural productivity to provide for the high demands of both the local and international market. However, this potential cannot be fully achieved except with adequate financing structure in place (Oluwamyokun, 2018) <sup>[19]</sup>. The provision of structure agricultural finances could be the solution, and these structured funds are often obtained majorly from three sources, which are the government, Banks, and international agencies/countries.

### 2.3 Challenges of the Nigeria agricultural sector

Despite intervention and effort from the Nigeria government, agricultural sector constraint by some challenges which are as follow:

1. Resource shortage: over the years, Nigeria has dealt with very low yield per hectare due to shortage in the supply of input such as seedlings and fertilizers as well as inadequate irrigation and harvesting system, which hinders productivity and yield rate (Taiwo, 2020) <sup>[22]</sup>.
2. Violent conflict: due to the desertification and water depletion in the northern part of Nigeria, nomadic herdsman are now shifting toward the south of the country in search of grazing fields and water for their animals. This has resulted in the violent conflict with crop farmers in the south. Increase in violation in the food production states is causing decline in Nigeria's food production output (Taiwo, 2020) <sup>[22]</sup>.
3. Outdated system of agriculture: outdated methods of agricultural agriculture such as the use of hoes and cutlasses reduces efficiency as these methods are costly and time consuming. Nigeria failure to adopt advanced mechanized systems has reduced the quality of its agricultural product (Taiwo, 2020) <sup>[22]</sup>.
4. Absence of value addition and supply-chain linkages: Nigeria focuses mostly on food production, neglecting the processing and manufacturing segment of the value chain. The chain reaction that arises from shortage of resource, lack of finance for small-scale farmers and inefficient transport system, exacerbate the development of food production along the value and supply chain (Taiwo, 2020) <sup>[22]</sup>.
5. Insufficient supply to meet population growth and food demand: with a population of roughly 200 million people, Nigeria agricultural productivity is insufficient to meet to meet the food demanded of its growing population thus increasing the demand and supply gap in Nigeria (Taiwo, 2020) <sup>[22]</sup>.
6. Lack of access of to finance: although the Nigeria government has provided several facilities through the Central Bank of Nigeria (CBN) such as Anchor Borrower's Programme to help provide small-scale farmers with adequate financing industries still lacks adequate access to finance (Taiwo, 2020) <sup>[22]</sup>.

### 3. Empirical review of the related literature

Series of studies have been carried out to examine the effect of agricultural financing on agricultural output and economic growth in Nigeria. The findings and submissions of previous studies are as follows:

Udoka and Duke (2016) <sup>[23]</sup> examined the effect of Agricultural financing on agriculture productivity in Nigeria between 1970 and 2014. Agricultural output was measured by agriculture GDP and agricultural financing was proxied by commercial bank's credit to agriculture sector,

government expenditure in agriculture, agriculture credit guarantees scheme fund and lending interest rate. The study employed the multiple regression analysis. The result showed that agriculture credit guarantee funds, commercial bank credit to agriculture had positive and significant effect on agriculture output.

In addition, lending interest rate exerted negative but weak effect on agriculture output in Nigeria. In line with this, Agbada (2015) <sup>[1]</sup> analyzed agriculture financing and optimization of output for sustainable economic development in Nigeria. Output is proxied by gross domestic product while agriculture financing is proxied of the endogenous component of agriculture credit guarantee scheme fund namely loan to individual farmers, loan to informal groups, loan to cooperative and loan to companies. The study employed the regression analysis. Ajayi, Nageri and Akolo (2017) <sup>[2]</sup> examine impact of agricultural financing policy and deposit money bank loan on agricultural sector productivity in Nigeria. The study used time series linear regression model employing data covering the period of 1981 to 2015. The result revealed that deposit money bank loan and agricultural finance policy proxy by Agricultural Credit Guarantee Scheme fund (ACGSF) have significant impact on agricultural productivity in Nigeria while lending Rate (LR) shows a significant negative impact on agricultural productivity.

Furthermore, Orok and Ayim (2017) <sup>[18]</sup> investigate the Agricultural credit guarantee scheme fund (ACGSF) on agricultural sector development in Nigeria. The time frame for the study was 1981-2016. The specific objectives were to determine whether ACGSF had a significant relationship with the output of the crop sector, livestock sector, and the fishery sector in Nigeria. The study employs multiple Ordinary Least Square (OLS) techniques to analyse the variables. They found a positive and significant relationship between ACGSF and the agricultural sector development in Nigeria. They also discovered that ACGSF had disbursed more funds and impact greater on crop sector over the livestock and fishery sector. In the same manner, Ikpor, Afam and Eneje (2016) <sup>[12]</sup> examined the impact of agriculture financing on rural economic diversification in Nigeria between 1970 and 2015. The study represented rural economic diversification by the normalized Herfindal Hirschman index (HHI). On the other hands, agricultural financing was captured by the four variables namely percentage budgetary allocation to agriculture sector, bank credit facilities extended to the agriculture sector, interest rate charged on bank loans and demand deposit of bank. The results revealed that budgetary allocation to agriculture, bank demand deposits and bank credit to agriculture had positive impact on rural economic diversification while interest rate charged on loans exerted negative impact on economic growth.

In this effect, Egwu (2016) <sup>[10]</sup> examined the impact of agriculture financing on agriculture output, economic growth and poverty alleviation in Nigeria between 1980 and 2010. Agricultural output was measured by share of agriculture sector in GDP. Also, agriculture financing was surrogated as agricultural credit guarantee scheme fund and commercial bank credit to agricultural sector. The study employed the Augmented Dickey fuller test, Philip-Peron test and Ordinary least square technique. The result showed that agricultural credit guarantee scheme fund and commercial bank credit positively and significantly

impacted agriculture output, thereby alleviate poverty rate and induced economic growth. Comfort and Arigbede (2016)<sup>[9]</sup> examined the effect of agricultural productivity on economic growth in Nigeria. They sought to determine the effect of agricultural productivity on economic growth in Nigeria. They used annual time series data from 2000 to 2014. They study employed the Ordinary Least Square (OLS) method for analysis. The study suggested that there was a long-run relationship between agricultural productivity and economic growth. The variable for the study were the agricultural sector contribution to GDP, gross access to credit/loans on economic growth in Nigeria among other.

Also, Ayeomoni and Aladejana (2016)<sup>[5]</sup> examined the relationship between agricultural credit and economic growth in Nigeria between 1986 and 2014 using Autoregressive Distributed lag-model. Economic growth has regressed on agricultural sector credit, private domestic investments, real exchange rate, interest and inflation. In line with this, Makinde (2016)<sup>[13]</sup> examine the impact of deposit money bank's loan and advances on the growth of mining and quarry manufacturing and the building and construction sector, service sector and agricultural sector from 1986 to 2014. By employing regression analysis, the study found out that unlike mining and quarrying, manufacturing and building and construction sector and service sector which have benefited in a little way from the deposit money bank credit, it has significant positive effect on agricultural sector, implying that agricultural sector has benefited from funds thereby driving economic growth of Nigeria. Bada (2017)<sup>[6]</sup> employed ADF unit root test; Co-integration test; Vector error correlation and causality to assess the relationship between banks' credit to private sector, interest rate, prime lending rate, M2, exchange rate, prime lending rate and agricultural credit guarantee scheme fund were sourced secondarily from CBN annual report. The study empirically disclosed that credit have positive significant impact on Agricultural and Manufacturing sector in Nigeria.

In this regard, Proso (2015) evaluate the effect of deposit money banks on agricultural output in Nigeria, using Ordinary least square regression estimation techniques. They found out that commercial banks credit and government expenditure have positive and significant influence on agricultural productivity while interest rate has negative effect on agricultural output. Sogules and Nkoro (2016)<sup>[21]</sup> used Johansen co-integration techniques to analyze the long run relationship between bank loan and advances and performance of manufacturing sector between 1970-2013 in Nigeria. Evidence from the study showed that long run relationship exist in the model. The short run ECM showed negative significant relationship between bank loan and advances and performance of manufacturing sector. Bernard and Adenuga (2017)<sup>[7]</sup>, employed error correction model and granger causality test to examine the contribution of the agricultural sector to employment generation in Nigeria. The result from their findings showed that over the years the agricultural sector contributes significantly to employment generation in Nigeria.

In line with this also, Ogbeide (2016), conducted a study in three local government area in Edo state, Nigeria on the progress of agricultural employment intervention programs to reduce unemployed youth. Data was generated through qualitative research by carrying out focus group discussion.

The analysis and interpretation of the result was positive recommending further application of the agricultural employment intervention program. Akolo (2017)<sup>[2]</sup> examine impact of agricultural financing policy and deposit money bank loan on agricultural sector productivity in Nigeria. The study used time series linear regression model employing data covering the period of 1981 to 2015. The result revealed that deposit money bank loan and agricultural finance policy proxy by Agricultural Credit Guarantee Scheme fund (ACGSF) have significant impact on agricultural productivity in Nigeria while lending Rate (LR) shows a significant negative impact on agricultural productivity. Agbada (2015)<sup>[1]</sup> analyzed agriculture financing and optimization of output for sustainable economic development in Nigeria. Output is proxied by gross domestic product while agriculture financing is proxied of the endogenous component of agriculture credit guarantee scheme fund namely loan to individual formers, loan to informal groups, loan to cooperative and loan to companies. The study employed the regression analysis. Furthermore, Zakaree (2014)<sup>[24]</sup> examined the impact of ACDSF on domestic food supply in Nigeria, using ordinary least square approach and asserted that the credit scheme had a positive and significant impact on domestic food supply. In the study of Chisasa and Makina (2015)<sup>[8]</sup> on the bank credit and agricultural output in South Africa using co-integration and error correction model (ECM) revealed that credit supply had positive and significant impact on agricultural output in the long run, while ECM result showed that bank credit had negative impact on agricultural output in the short run. In line with study of Anector *et al.* (2016)<sup>[3]</sup> on credit supply and agricultural production in Nigeria: Vector Autoregressive (VAR) approach, they found out that ACGSF had performed poorly in explaining agricultural sector performance while commercial loan to agricultural sector had a significant impact on agricultural production.

#### 4. Data Sources and Methodology

The study used annual time-series data. The data used in this research were obtained from secondary source, mainly the periodic publications of the Central Bank of Nigeria's, statistical Bulleting and World Bank development indicators.

The study used statistical and econometrics method for data presentation and analysis. The statistical methods are: tables, chart, graphs etc. the econometrics method include: Augmented Dickey-Fuller Test (ADF) for unit root testing, Autoregressive Distributed Lag (ARDL) model was adopted to run the regression in order to conduct the long run\short run relationship between the variables. ARDL Bound Test was also to check the co-integration of long nexus among the variable. Granger causality test to determine the causal relationship between the independent and the dependent variables. Diagnostic Test: was conducted for stability, unfitness and reliability of the parameter.

In order to examine the impact of agricultural financing on real output growth in Nigeria; having reviewed some relevant literature across the globe, therefore, the following model is hereby formulated,

$$GDP = F(ACGSF + CBCF + GEA) \quad (1)$$

The mathematical expression of this model is



$$\text{GDP}_t = \beta_0 + \beta_1 \text{ACGSF}_t + \beta_2 \text{CBCFA}_t + \beta_3 \text{GAE}_t + \beta_4 \text{CRGAE}_t \text{ Ut} \quad (2)$$

Where:

GDP = Gross Domestic product i.e., real output growth

F = Function

ACGSF = Agriculture credit guarantee scheme fund

CBCFA = Commercial bank credit facilities to agriculture

GAE = Government agricultural expenditure

CRGAE = Causal relationship between government agricultural expenditure

$\beta_0$  = intercept

$\beta_1 - \beta_3$  = The respective coefficient of the explanatory variables

Ut = Error term of a specified period of term

#### 4.1 A priori expectation

The following are the a priori expectation for the study;  $\beta_1 < 0$ ;  $\beta_2, \beta_3, \beta_4 > 0$ . This implies that, the relationship expressed here shows that BOA which determine the level of credit facilities to farmers is expected to be negatively signed with economic growth. While ACGSF, CBCF, and GEA are expected to have a positive relationship with economic growth; meaning their positive impact will lead to an increase in real output growth which invariably will lead to economic growth.

### 5. Results and analysis

#### 5.1 Unit Root Test

Table 1 shows the stationarity of the variables which were tested using Augmented Dickey-Fuller (ADF) unit root test to ascertain whether or not the variables were stationary or nonstationary at levels and 1st difference.

**Table 1:** Unit Root Test Results (ADF Unit root test)

Variables	Level		Difference		Order of Integration
	t-stats	Prob.	t-stats	Prob.	
GDP	-3.15	0.004	-0.48	0.633	I(1)
ACGSF	-2.03	0.051	1.51	0.140	I(1)
CBACF	-2.98	0.006	2.68	0.012	I(1)
GEA	-3.46	0.002	2.91	0.007	I(1)

Source: STATA 14 output (2022)

All the variables are stationary at levels. However, the variables are stationary at 1<sup>st</sup> difference at 1% level of significance. The null hypothesis is therefore rejected, which implies that the variables do not have a unit root. The results also indicate that the data can be model and forecast. This is the justification for adopting ARDL approach to cointegration. In the case of maximum lag selection, the study followed a general-to-specific lag selection technique, and the maximum dependent and dynamic regressors lags were selected using Akaike Information Criterion (AIC).

#### 5.2 ARDL Estimation Results

This section presents the results of bound test long run coefficients and short run coefficients.

##### Bound test

The study employed bound test in order to check if there is long run relationship between the independent variables and dependent variable.

**Table 2:** Bound test

Null Hypothesis: No long-run relationships exist		
F-statistic	95% Lower Bound	95% Upper Bound
5.342**	3.23	4.35

Source: STATA output (2022)

Note: \*\* Significant at 5% critical value bounds

The result of a co-integration test for the nonlinear specifications is presented in Table 4.3. The result shows that there is evidence of long-run relationship between the independent variables and the dependent variable. In this regards the study estimated coefficient of the error correction term in order to check the impact of the independent variables on the dependent variable in the long run.

**Table 3:** Long Run Coefficients (1, 2, 2, 3)

Variable	Coefficient	Std. Error	t. Statistics	Prob.
GDP (-1)	0.5295	0.1823	2.91	0.009
ACGSF	3.1678	3.020	3.05	0.007
CBACF	-3.4305	2.4989	-1.37	0.185
GEA	1.0139	1.7427	0.58	0.567
Short run Error Correction Model				
ACGSF (D1)	0.6549	1.3895	0.47	0.643
ACGSF(LD)	0.0554	0.8548	0.06	0.949
CBACF (D1)	0.9728	1.2780	0.76	0.455
CBACF (LD)	-1.3612	0.8606	-1.58	0.0129
GEA (D1)	1.4325	0.6919	2.07	0.049
GEA (LD)	0.9769	0.5558	1.98	0.043
GEA (L2D)	-0.6730	0.6586	-1.02	0.319
Const.	0.0254	.4065	2.93	0.008
R <sup>2</sup>	0.6305			
Adj. R <sup>2</sup>	0.4272			
Log likelihood	-27.1685			

Source: STATA Output (2022)

The coefficient of multiple determination ( $R^2$ ) is 0.6305 and an adjusted  $R^2$  of 0.4272. The later indicates that 42.72 percent of variations in the observed behaviour of GDP is jointly explained by the independent variable namely: ACGSF, CBCFA and GAE. This shows that the model fits the data well and has a tight fit. This indicates that the high adjusted  $R^2$  value is better than would have occurred by chance, therefore the model is statistically robust. The goodness of fit of the model as indicated by the adjusted R-squared shows a good fit of the model that the model fit the data well. The total variation in the observed behaviour of GDP is used as a measure of agricultural growth. The a priori expectations about the signs of the parameter estimates are confirmation to economic theory.

The NARDL estimates in Table 3 extricate relationship between GDP, ACGSF, CBCFA and GAE in both the short-run and long-run periods. Furthermore, the estimates in Table 3 specify the asymmetric long run relation between the ACGSF, CBCFA, GAE and GDP. The study shows that on long run with the speed of adjustment of about 0.5295 in absolute value, which indicates about 52% of the adjustment towards the long-run equilibrium per annum. There is a pass-through of ACGSF, CBCFA and GAE to GDP which signified a positive relationship between ACGSF, CBCFA and GAE as proxy for Agricultural financing and Real output growth (GDP) in Nigeria. Also, table 3 shows that ACGSF has positive and significant impact on GDP i.e. Real Output Growth on long run at coefficient value of

0.007. This indicates that on long run if ACGSF increase by 1% all other factors remain constant real output growth would increase by 316.78%. However, the study shows on the long run there is negative and insignificant relationship between CBCFA and real output growth with coefficient value of -3.4305 and probability value of 0.185. The negative coefficient indicates that for each 1% increase of CBCFA would lead to over 343.05% decrease of real output growth (GDP). On the other hand, the study documented that GAE has positive and significant impact on real output growth on long run with positive coefficient value of 1.0139 and probability value of 0.567. More so, the positive implies that other things remain constant 1% increase of GAE would increase real output (GDP) by 101.39%.

## 6. Conclusion

The study examines the impact of agricultural financing on real output growth in Nigeria. It was established that agricultural financing is the examination and analysis of financial aspect of farm business. The establishment of agricultural financing is aimed at given easy access of fund to farmers in order to enhance greater agricultural output. However, from the regression analysis carried out, the result shows that Agricultural Credit Guarantee Scheme Fund (ACGSF), Commercial Bank Credit Facilities to Agriculture (CBCFA) and Government Agricultural Expenditure (GAE) have positive relationship with real output growth in Nigeria. This implies that ACGSF, CBCFA and GAE as a proxy for agricultural financing have positive and significant effect on real output growth (GDP).

## 7. Recommendations

To ensure that agricultural financing enhances output growth in Nigeria as well as agricultural productivity and economic growth, the following recommendations are put forward:

1. The implementation of agricultural financing schemes should be well monitored by both Government and Non-governmental agencies. Since ACGSF is agricultural scheme, and from the research findings, there were evidence that such schemes have positive impact on agricultural productivity and economic growth.
2. It is important that commercial bank credit with low interest rate be made available to famers in order to assist them procure the needed precursor in terms of agricultural facilities. As indication from findings shows that CBCFA has positive impact on agricultural output growth.
3. Agricultural schemes target should be well spell out and design to ensure that the specific objectives are achieved. This can combat unnecessary diversion of resources made for the programmes since they have significant effect on agricultural output and economic growth.

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