



Research Paper

## Impact of agricultural credits on the Nigerian economic growth

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### ABSTRACT

The output of goods and services in the Nigerian economy had been threaten by some external factors and the disbursement mechanism of agricultural credits to farmers. Despite the value of agricultural credits to support output over these years, food supply and the economic growth rate has not been remarkable. This study assessed the impact of agricultural credits on the Nigeria's economic growth rate from 1985-2019. The study sourced data from the Central Bank of Nigeria Statistical Bulletin (various issues). The data employed and analyzed in the study were; real gross domestic product (RGDPGR) for economic growth as the dependent variable against cash crops (CARP), food crop (FORP) and livestock (LISK) that represented the explanatory variables. The Ordinary Least Squares model (OLS) was adopted for the analysis. Moreover, the data were subjected to stationary test, and the Augmented Dickey-Fuller (ADF) was adopted. The results from the ADF unit root showed that all variables were stationary at levels differenced. The least squares results revealed that cash crops and food crops had a positive and significant impact on economic growth in Nigeria, while livestock had a positive and insignificant impact on the Nigeria's economic growth. This study concluded that Nigerian cash crops and food crop constituted significant variables of study that promote economic growth rate. Finally, the study recommends the Central Bank of Nigeria to upsurge the agricultural credits monetary base, and monitor the distribution of seedlings to farmers, while the security units to be more proactive to curb the current insecurity ravaging Nigeria.

**KEYWORDS:** Cash crops, Food crop, livestock, economic growth, Augmented Dickey-Fuller, Ordinary least Squares, Nigeria.

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### I. INTRODUCTION

More than ever before there is the urgent need to diversify the economy away from the dependence on the oil sector to agriculture given the vulnerability of the economy to the current volatility of global oil prices. The economic potentials for agricultural-led growth in Nigeria are enormous considering the vast expanse of arable land estimated around 37million hectares. It is also considered to be a well-diversified agro-ecological condition across the country supported by a huge active population which makes it suitable for the profitable production of various types of agricultural products all year round. This is by no means a walk in the park as availability of resources does not automatically transcend to productivity growth.

Factually, before the urban drift in search of white-collar jobs in the 1970's in Nigeria, agriculture has been the principal economic activity in the country providing a means of livelihood and food security for most of the citizenry. More than 80% of Nigerian farmers are smallholder farmers (SHFs) mostly living in the rural areas and are responsible for 90% of the country's agricultural produce (Oyaniran, 2020). Although, Dercon and Gollin (2014) stated that agricultural output per worker in sub-Saharan economies like Nigeria was a bit low. Each halve of the first two decades of post-independence Nigeria was characterized by contrasting growth fortunes for the agricultural sector. In the 1960's, Nigeria had a thriving agricultural sector such that it was not just self-sufficient in food crop production but a major global producer that leads the export of several cash crops such as groundnut, palm oil, rubber, cotton etc. Indeed, the nascent economy depended substantially on earnings from crops exports to finance and sustain the administrative machinery of governance, source of raw materials for local manufacturing and service industries as well as provision of infrastructural development across the country.

However, the agricultural-led growth trajectory changed in the 1970's with government's preference for the exploration and export of crude oil as the engine of economic growth. The years that followed thereafter was marked with neglect and steep decline in agricultural productivity which resulted in poor performance of the sector in terms of employment and export earnings with obvious negative implication on food CPI and GDP growth. Consequently, the country had to rely on massive food and livestock import in order to feed the growing population thereby increased the demand and supply gap. The Nigeria's aggregate imports between 2016 and 2019 stood at N3.35 trillion quadrupling the agricultural exports of N803 billion within the same period and widen the country's agricultural trade deficit. The downturn in the agricultural sector on the account of persistent poor yield per hectare and declining investment has withered the market dominance of Nigeria in the export of cash crops which it had previously enjoyed global leadership. In the 1960s, Nigeria was the largest palm oil and groundnut producer with global market share of 43% and 47%, but currently it is down to 5<sup>th</sup> and 3<sup>rd</sup> position respectively with the former providing less than 2% of total world production of 74.08 million as identified by United States Department of Agriculture (USDA) in 2019. Also, the country was once ranked second globally after Ghana with an 18% market share of cocoa and currently that figure has reduced to 6.5 percent stepping down to the fourth largest producer of cocoa after Ivory Coast, Indonesia and Ghana.

Agriculture is a critical sector that can guarantee food security, poverty alleviation and overall sustainable growth in any country. The remarkable transformation success story of most Latin and Asian economies is a clear testimony to the strong link between agriculture and economic growth (Diao, Hazell, and Thurlow, 2010). Paradoxically, for Africa's largest economy with an estimated GDP of US\$ 405 billion, poverty and inequality rather than abate continue to rise with 40% of the Nigerians (83 million people) living on \$1 a day and unemployment peaked at 23.1% despite posting one of the highest GDP growth of 7.4% in the world (World Bank, 2019). Much of this growth was largely driven by oil sector which exclusively benefits the rich elite without really trickling down to the millions of people engaged in the agricultural sector.

Despite the dwindling emphasis on agriculture, it is still the largest sector of the Nigerian economy contributing on average 24% to GDP and providing employment to two-third of the entire labor force. Although 60% of the country's arable land is uncultivated, crop production still ranks as the dominant subsector with 88% of total industry size whilst livestock, forestry and fishing accounts for the balance of 12% (Nevin, Oyaniran and Onomia, 2019). For a country with such enormous agricultural potentials the current level of crops and livestock production, export earnings and contribution to GDP is clearly unacceptable. In 2019 for instance, agriculture accounted for less than 2% of total exports relative to crude oil 76.5%.

Besides the myriad of other challenges confronting the agricultural sector the most glaring missing link over the periods was not the absence, but has often been the lack of a deliberate and sustainable agricultural policy by successive administration that adequately and strategically supports disbursement of loans to small-scale farmers. More often than not most small-scale farmers have had to rely more on the informal sources (such as cooperatives, community development associations, thrift associations, family, friends and money lenders) for credit supply which in most cases is grossly inadequate (Akinleye, Akanni and Oladoja, 2003). And this was not much assisted by the financial sector institutions in Nigeria which lend a miserly proportion of the loan portfolios to other sector as compared to the agriculture sector's share of GDP. According to the National Bureau of Statistics (NBS), credit to agricultural sector was 3.26% and 3.36% of total credit to the private sector in 2016 and 2017 respectively. Perhaps as Enyim, Ewno and Okoro (2013) ascribed this to the fact that agricultural lending is considered to be riskier, problem associated and unprofitable compared to other sectors of the economy. Recently, the Nigerian economy has plunged into fair recessions between 2016 and 2017 mainly to the global glut in crude oil prices, the volatility of macroeconomic factors, conflicts such as terrorism and the herdsmen crisis.

The study by Qureshi, Akhtar and Shan (1996) argued that access to agricultural credit has the capacity to remove the financial constraints faced by farmers, as it provides incentives to empower farmers to adopt new technologies which can enhance the achievement of rapid productivity and growth. It plays a catalytic role in strengthening the agribusiness and augmenting the production and supply of scarce raw resources to the industrial sector. Notably, finance is required by the agricultural sector to purchase land, building of warehouses, acquisition of machinery and equipment, seedlings, agro-chemicals, irrigation, payment of wages, etc.

Although several studies on the impact of agricultural credit in stimulating economic growth have elicited and captivated extensive academic debates. However, no study has captured the current episode of the impact of agricultural credits on economic growth in Nigeria taking into account of up-to-date information. In light of this, it becomes necessary to assess the impact of the agricultural credits on economic growth in Nigeria. Thus, this study examined the impact of agricultural credits in cash crops, food crops, and livestock on the Nigerian economic growth given the adverse socio-economic and political conditions agricultural within the periods. It is however pertinent to ask; to what extent did agricultural credit in cash crops, food crops and livestock positively and significantly impact the Nigerian economic growth? Hypothetically, agricultural credits

in cash crops, food crops, did not significantly impact the Nigerian economic growth. Basically, the academia, policy-makers, industrial practitioners, and the general public shall benefit from the findings of this study.

The section two is the literature review and theoretical framework. Section three is the methodology. Section four is interpretation of results, while section five is policy implication, recommendations and conclusion.

## **II. LITERATURE REVIEW**

Agriculture is the art and science of cultivating the soil, growing crops and rearing livestock for the purpose of production of food for man and animals as well as raw materials for industries. According to Egwu (2016) that it involves all the productive endeavors of man in collaboration with nature to cultivate plant and rear animals for a better harvest.

The practice of agriculture which is also known as farming is categorized into four sub-sectors – crop production, fishing, livestock and forestry. In Nigeria, crop production is the largest segment of the agricultural sector followed by livestock accounting for 87.6% and 8.1% respectively. The prevailing system for the production of food crop is subsistence farming which usually involves the use of manual labor and low technical know-how employs about 85 million people in Nigeria (Osabohien et al, 2018). Food (crop) production increases have not kept pace with population growth, resulting in rising food imports and declining levels of national food self-sufficiency (FMARD, 2008). About 60 percent of the ruminant livestock population is found in the country's semi-arid zone and mostly managed by pastoralists (FAO, 2017).

The importance of agriculture in stimulating economic growth is well documented in several conceptual literatures. Whereas, finance is the key catalyst that links agriculture to economic growth, access to finance is at the core of most developmental activities in the agricultural sector. According to World Bank few countries have achieved sustained economic growth without first, or simultaneously, developing their agriculture. The strong links between agriculture credit and overall economic growth is further underscored by the previous study (King and Levine, 1993; Jayaratne and Strahan, 1996; Beck, Levine and Loayza, 2000). Also, Agarwal (2019) stated that access to basic loan is a necessary condition for economic development, as credit provision smooth's consumption and sustains entrepreneurship.

Theoretical literature strongly underpinning the positive effect of credit finance on economic growth dates back to Sassi (2014) about the general assertions made amongst economist that economic growth should be predicated on a well-developed credit system which enhances resources allocation channelled into investment, reducing information and transaction costs and allowing risk management to finance riskier but more productive investments and innovations.

Agricultural loans to crop and livestock farmers in Nigeria are usually obtained from the federal government via the Central of Nigeria (CBN), banks and other financial institutions and development partners such as African Development Bank (AfDB), the Alliance for a Green Revolution in Africa (AGRA), the Food and Agriculture Organization (FAO) and the Bill & Melinda Gates Foundation etc. The federal government is the major source of agricultural loans with deposit money banks (DMBs) in most cases serving as conduit for facilitating the disbursement of these funds to farmers usually at interest rates below market rates with an obligation to repay at a later date.

To facilitate this process, successive government have initiated and implemented several funding and risk management strategies aimed at unlocking financial credit to the agricultural sector in order to spur economic growth. Some of the financial Schemes deployed include: introduction of the mandatory sectoral allocation to agriculture in 1972, the Agricultural Credit Guarantee Scheme Fund (ACGSF) and rural banking Scheme in 1977, the Commercial Agriculture Credit Scheme (CACCS) in 2009, the Agricultural Credit Support Scheme (ACSS), Anchor Borrowers Programs (ABP) in 2015 and Agri-business, Small and Medium Enterprises Investment Scheme (AGSMEIS) in 2017.

In order to deepen the credit market and ensure seamless credit administration, the federal government incorporated the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) in 2000 sequel to the merger of the defunct Nigeria Agricultural Credit Bank, People's bank and the risks asset of Family Economic Advancement Program (FEAP). Also to reduce the risk inherent in agricultural lending the federal government through the CBN established the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) in 2013 as a private-public agribusiness initiative.

Understanding the effects that crops and livestock loan can have on economic growth is of empirical importance. To this end, we evaluate the substantial body of empirical work on the effects of the operation of agricultural loan on economic growth. Contemporary revival of the empirical interest in the finance-and-growth nexus began with the study by Goldsmith (1969) and finds evidence that financial development and economic growth are positively related.

Agunuwa et al (2015) conducted a study to examine the impact of commercial banks' credits on agricultural productivity in Nigeria using the statistical tool of Ordinary Least Squares (OLS) techniques reveals

a positive relationship between commercial banks' credit and agricultural productivity. Similarly, Udih (2014) finds positive impact of bank credit on the economy through improved agricultural production of goods and services. The researcher further stated that adequate funding of agricultural projects will not only promote food security, but also enhance the entrepreneurship performance of our young investors.

Obansa and Maduekwe (2013) employed the granger causality test to ascertain the relationship between agriculture financing and economic growth in Nigeria. The results indicated that there is bidirectional causality between economic growth and agriculture financing; and there is bidirectional causality between economic growth and agricultural growth

Ayeomoni and Aladejana (2016) in an investigation of the Agricultural Credit and Economic Growth Nexus that spanned from 1986 to 2014 provided evidence from Nigeria and concluded that there is a relationship between agricultural credit and economic growth in both short and long run respectively. Thus, economic growth is influenced by dynamic variables such as credit to agricultural sector, real exchange rate, real interest rate, private domestic investment and inflation rate in Nigeria.

Conversely, Olowofeso et al., (2017) used the nonlinear autoregressive distributed lag (NARDL) model they showed no evidence of asymmetry in the impact of credit to output growth in the agricultural sector (positive and negative changes) in the short-run, but that the cumulative agricultural output growth is mostly attracted by the impact of the positive changes in credit to agriculture with a lag of four quarters of the prediction horizon.

Egwu (2016) examined the impact of agricultural financing on agricultural output, economic growth and poverty alleviation in Nigeria. Using ordinary least square regression technique the research findings exhibited significant and long run relationship among the variables of Commercial Bank Credit and Agricultural Credit Guarantee Scheme Fund Loan to Agricultural sector output percentage to gross domestic product the dependent variable, thereby enhancing the economic growth and ameliorating the poverty rate in Nigeria.

To explore the relationship between agriculture credit and economic growth in long-short run, Waseem et al., (2017) employed Johansen Co-integration test and Vector Error Correction Model to analyze time series data on agriculture gross domestic product (AGDP) and Agriculture Credit. The results of their findings suggest that over the period, agriculture gross domestic product is highly responsive to an increase in agricultural credits. A unidirectional causality is running from Agricultural credit to Agricultural Gross Domestic Product.

### III. METHODOLOGY

This study adopted secondary data to measure the impact of Agricultural credits on Nigerian economic growth. The data was sourced from the Central Bank of Nigeria (CBN) statistical bulletin from 1981 to 2019. The data set consisted of the real gross domestic product (GDP) as a proxy for economic growth and agricultural credits includes; Cash crops (CARP), livestock (LISK), and Food crops (FORP). The dependent variable in this study was economic growth represented by real gross domestic product (RGDP), while the set of explanatory variables constituted of cash crops (CARP), food crops (FORP) and livestock (LISK).

Based on the purpose of the study, the Ordinary least squares (OLS) becomes imperative to analyze how the independent variables impact the dependent variable. The model below implies that the last period's value of  $X$  has an explanatory influence on the current value of  $Y$ . Given the objective of measuring the impact of the set of variables in agricultural credits on real domestic product, the functional models were therefore stated as follows:

$$RGDP = f(\text{Agricultural Credits}) \text{-----} \text{eq. (1)}$$

Taking RGDP to be economic growth indicator and agricultural credits to be impacted sectors indicators such as cash crops, livestock, and food crops were analyzed empirically in a linear functional relationship as follows:

$$RGDP = f(\text{CARP, FORP, LISK,}) \text{-----} \text{eq. (2)}$$

And mathematically as follows:

$$RGDPR = \beta_0 + \beta_1 A_1 + \beta_2 A_2 + \beta_3 A_3 + \varepsilon_t \text{-----} \text{eq. 3}$$

Generally, the regression form of eq. 3 can be rewritten in econometric form. Based on this fact, the linear equation is stated thus:

$$RGDPR_t = \beta_0 + \beta_1 CARP_t + \beta_2 FORP_t + \beta_3 LISK_t + \varepsilon_t \text{-----} \text{eq. 4}$$

In eq. 4, all the variables are as stated above and  $\beta_0$  = the constant (the value of the dependent variable when all the regressors are at zero);  $\beta_1$ -  $\beta_3$  were the coefficients of the independent variables and  $\varepsilon_t$  is the noise or error term. The model variables of this study consist of economic growth as a broad dependent variable that can be influenced by the agricultural credits, which serves as independent variables.

**Whereas**

RGDP<sub>t</sub> = Real Gross Domestic Product over time, t

CARP<sub>t</sub> = Cash crops over time, t

FORP<sub>t</sub> = Food crops over time, t

LISK<sub>t</sub> = Livestock over time, t

From the equations above, the *prior* expectations are derived from underlying theoretical relationships between the dependence and each of the employed explanatory variables. These are presented as follows;

a. **Cash Crops:** A rise in cash crops production would translate an increase of the real gross domestic product thereby add value to Nigerian exchange rate that directly raise the economic growth. The sensitivity of less than 5% level of significance concerning cash crops credits is expected i.e.  $\beta_1 > 0$  at less than or equal to 5% level of significance. In this light, CARP was expected to impact Nigerian real gross domestic product.

b. **Food Crops:** Fundamentally, a rise in food production would imply an enhancement of the business opportunities which directly raises the standard of living and thereby increases Nigerian per capita income and also boosting the economy. The yielding sensitivity concerning food crops is expected to be greater than zero, i.e.  $\beta_2 > 0$  at less than or equal to 5% level of significance. Based on this, food crops are expected to impact real gross domestic product.

c. **Livestock:** A high performance in livestock will increase the foreign reserve. This would translate to the availability of raw materials for production and subsequently increases the value of Nigerian currency thereby directly boost the output of goods and services. Accordingly, the sensitivity of growth rate ought to be less than 5% level of significance. So, livestock is expected to be greater than zero, i.e.  $\beta_3 > 0$  at less than or equal to 5% level of significance. For this fact, livestock is expected to impact gross domestic product.

**Operational Measures of study variables**

i. Gross domestic product is employed as our dependent variable in the model. It is the product of valuable goods and services produced in Nigeria. It is measured in Naira.

ii. **Cash Crops:** Cash crops are agricultural products grown to sell for profit. The cash crops activities are not for subsistence purposes. Subsistence cropping is only cultivated to fed family. All cash crops are mainly grown and marketed in the commodity market for revenue purposes. Examples of cash crops includes; tea, coffee, cocoa, rubber, etc. It is measured in Naira.

iii. **Food Crops:** Food crops are plants cultivated for domestic consumption by human or animals. The farmers grown what will be enough for family subsistence needs. Food crops includes; tubers, fruits, vegetable etc. Although, such crops in large scale can also yield revenue to the family members in the domestic market. It is measured in Naira.

**Livestock:** Livestock comprises domesticated animals grown to produce labor and commodities. It produces includes; egg, milk, leather, wool etc. Such commodities yield revenue in the domestic market. It is measured in Naira.

**Inference and Conclusions**

The inferences of this study were based on the outcome of the estimation approaches as well as conclusions drawn on the basis of the tested hypotheses. The choice level of significance for all tests was 0.05 or 5% level. All estimations were conducted using version 10 of the E-views estimation software. The adopted diagnostic and estimation tests is shown in table 1 below:

**Table 1: Summary of Adopted Diagnostic Tests**

S/No	Test Name	Test Function	Decision Rule
1.	Coefficient of Correlation (R <sup>2</sup> )	To measure goodness of fit of the model	The higher the R <sup>2</sup> the better the fit
2.	F-Statistics	To Test the significance of the overall regression	P-value of F-stat less than 0.05 suggests that the model is good enough for analyses/inferences.
3.	Durbin Watson Statistics	To measure first order autocorrelation	DW approximately 2 shows evidence against first order autocorrelation.

Source: Author's Compilation.

**IV. RESULTS PRESENTATION AND DISCUSSION OF FINDINGS**

**Data Presentation**

Data of Real gross domestic product, Cash crops, Food crops, and Livestock from 1981-2019 were presented in table 2 below:

**Table 2: Data Presentation of Real gross domestic product, Cash crops, Food crops, and Livestock from 1981-2019**

YEAR	Real GDP(RGDP)	CASH CROPS(CARP)	FOOD CROPS(FORP)	LIVESTOCK(LISK)
1981	15258	1032.2	7444.7	25147.5
1982	14985.08	580.5	5706.4	21835.9

*Impact of agricultural credits on the Nigerian economic growth*

1983	13849.73	334	8202.6	21789.7
1984	13779.26	280	3606.4	11816.5
1985	14953.91	2081.2	12498	14158.5
1986	15237.99	2112.3	33405.3	25804.4
1987	15263.93	7162	56906.6	29387.9
1988	16215.37	12150.2	77949.9	18480.4
1989	17294.68	10772.8	100013.1	7874.6
1990	19305.63	4085.6	79869.6	4967.3
1991	19199.06	4708	64944.8	4446.9
1992	19620.19	4984.5	766260.7	6056.1
1993	19927.99	1956.9	70252	5505.8
1994	19979.12	5656.4	82072.4	10527.9
1995	20353.2	10987.3	12067.6	18048.5
1996	21177.92	130131	171836.3	28216.9
1997	21789.1	13755.5	187491.6	23404.7
1998	22332.87	6052.8	175764.8	22587.1
1999	22449.41	4920	204058	11952
2000	23688.28	4928	303677	27307
2001	25267.54	17169	605525.7	60415.7
2002	28957.71	13214.4	925734.7	64449.6
2003	31709.41	10961	1015194.6	100486.4
2004	35020.55	18185	1807667.7	190304
2005	37474.94	154830	8039640.1	844882.8
2006	39995.5	67165	3636053.7	368151
2007	42922.41	42331	3533429.7	353487.3
2008	46012.52	190589	4775375.7	1108483.8
2009	49856.1	298369.8	5496286.2	1725801.3
2010	54612.26	99740	5194976.1	1305432.5
2011	57511.04	108529.92	6657657.2	1878263.4
2012	59929.89	408244.06	5979762.9	1878043
2013	63218.72	142288	5668766.6	1883008.3
2014	67152.79	482556	6976104	2342246.9
2015	69023.93	406750	6851874.7	1444012.5
2016	67931.24	444763	5409933.8	1169448
2017	68490.98	520425	3626766.49	768086
2018	69799.94	452535	2424619.94	626244
2019	71387.83	489290	1947389.01	725462.96

Source: Extracted from *Central Bank of Nigeria Statistical Bulletin (Various issues)*

### Data Analysis

#### Philips-Perron Unit Root Test Results

The Results of the Unit Root Test as Presented in Table 3 below:

**Table 3: Philips-Perron Unit Root Test (Summary)**

Differenced Variables	Philips - Perron Test Statistic	Test of Critical Level			Order of Integration	Probability Value
		1%	5%	10%		
D(RGDP)	-9.604873	-3.626784	-2.945842	-2.611531	1(0)	0.0000
D(CARP)	-13.621023	-3.621023	-2.943427	-2.610263	1(0)	0.0000
D(LISK)	-6.467009	-3.621023	-2.943427	-2.610263	1(0)	0.0000
D(FORP)	-7.614726	-3.621023	-2.943427	-2.610263	1(0)	0.0000

*Extracted from E-Views 10.0 and complied by Authors*

From the above results shown in the table 3, the alternate hypothesis that the variables have unit root were rejected at the 0.05 level of significance. This is for the fact that the *Philips-Perron* test statistics were greater than its critical values. Alternatively, its probability values were less than 0.05. Thus, the study can go on to state that there was no unit root among the variables at the first difference, and hence, all variables of the data set were stationary. Therefore, the null hypothesis was accepted.

**The Results of the short run Ordinary Least Squares (OLS) Test as Presented in Table 4 below**

**Table 4: short run Ordinary Least Squares (OLS) Test**

Dependent Variable: RGDP

Method: Least Squares

Date: 04/15/21 Time: 07:21

Sample (adjusted): 1982 2019

Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	19888.23	1618.169	12.29058	0.0000
CARP	0.068166	0.009809	6.949200	0.0000
FORP	0.002269	0.001110	2.044706	0.0489
LISK	0.004193	0.004404	0.952081	0.3480
ECM(-1)	-0.004415	0.188650	-0.023401	0.9815
R-squared	0.884864	Mean dependent var		35202.05
Adjusted R-squared	0.870908	S.D. dependent var		20252.46
S.E. of regression	7276.574	Akaike info criterion		20.74479
Sum squared resid	1.75E+09	Schwarz criterion		20.96026
Log likelihood	-389.1510	Hannan-Quinn criter.		20.82145
F-statistic	63.40450	Durbin-Watson stat		1.937210
Prob(F-statistic)	0.000000			

*Source: Extracted from E-views 10.0 version*

The ECM model is the model with the least information criterion following the Akaike Information Criterion (AIC) and the highest log-likelihood ratio. Hence, the model as shown in table 4 is the optimal model for the test of hypothesis. From the table 4 results,  $R^2$  is 0.884864 represented 88%, approximately indicated total variation in economic growth being the dependent variable which were explained by the changes in the independent variables of cash crops, livestock, and food crops been captured in the study, while approximately 0.12 or 12% can be ascribed to noise or other closed variables not captured in the study. The Durbin-Watson statistic of 1.937210 according to the rule of thumb is approximately 2 which is within range for conclusion that there is absence of autocorrelation.

**Test of Hypothesis**

The hypothesis was rewritten in null and alternative forms to enable the study conduct the test; thus:

$H_0$ : Agricultural credits in cash crops, food crops had no positive and significant impact the Nigerian economic growth within the period, 1981- 2019.

$H_a$ : Agricultural credits in cash crops, food crops had a positive and significant impact the Nigerian economic growth within the period, 1981- 2019.

;

## V. DISCUSSION OF FINDINGS

The reported coefficients, from the estimations in table 4, were 0.068166, 0.002269, 0.004193; std. error of 0.009809, 0.001110, 0.004404, with t-statistics 6.949200, 2.044706, 0.952081, and probability values of 0.0000, 0.0489, 0.3480 respectively for CARP, FORP, and LISK. Refereeing from these results, cash crops and food crops had a positive and significant impact on economic growth in Nigeria, while livestock had a positive and insignificant impact on the Nigeria's economic growth. The decision rule explained the significant level which can be confirmed by t-statistics of CARP and FORP were greater than 1.96, while LISK was less than 1.96. Besides, the probability values of CARP and FORP and EXCHR were less than 0.05 significance level, while that of LISK was greater than 0.05 significance level and as such  $H_0$  was rejected.

The implication of these results is that a unit change in cash crops, food crops had caused 0.068 and 0.002 unit significant impact on Nigeria's economic growth rate respectively whereas, a unit change in livestock had caused 0.004 increase in the output of goods and services in Nigeria with no significant impact. Following from these results, cash crops and food crops were found to be significant variables of study that had impact on the Nigerian economic growth. Also, livestock in itself was non-significant which could be for recent conflict between famers and herdsman.

## VI. CONCLUSION

There are growing literature on the effort of the Central Bank of Nigeria over the years in promoting the agricultural sector on deliberate policies including provision of agricultural credits to small, medium scale famers. However, there is perceived shortage of food and other agricultural produce which has led to unstable price in the domestic market and has adversely caused hardship in Nigerian economy. The study was motivated to assess the impact of agricultural credits in cash crops, food crop and livestock on the Nigeria economic growth. The study revealed that the effort of the Central of Nigeria on agricultural credits yield results but not adequate. The study concluded that agricultural credits in cash crops, food crop and livestock positively grow the Nigerian economy with little growth rate and is not sufficient to the population of the country.

### Recommendation

In the light the above, the study recommended the following:

1. The Central Bank of Nigeria should upsurge the agricultural credits monetary base to farmers. This can be done by expanding and encouraging more farmers and also increasing the sum allotted to individual/cooperative units.
2. The Federal Ministry of agricultural and rural development should also increase and monitor the distribution of seedlings to farmers. Adequate monitoring is necessary to prevent diversions of the inputs that is meant for the genuine farmers to other unidentified group of individuals who may not have knowledge and the use.
3. The Federal government security units should redouble their effort and proactive to curb the current insecurity ravaging Nigeria. The current security situation is threatening lives and property and as such farmers are living with fears going to normal farming. Again, since farmers are facing with these challenges, it becomes difficult to cultivate and harvest crops vice versa.

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