



**EFFECT OF AGRICULTURAL OUTPUT AND FOOD SECURITY ON
ECONOMIC GROWTH IN NIGERIA**

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ABSTRACT

The study assessed agricultural output, food security and economic growth in Nigeria. Time series data for 43 years (1981-2023) was obtained from the CBN bulletin Statistical bulletin (2023) and world bank development indicators. The study used the Auto Regressive Distributed Lag (ARDL) model for the regression. Results showed that the food production index, inflation agricultural expenditure had a positive short run and long run relationship with economic growth. Agricultural output on the other hand had a negative relationship with the economic growth in the long run. For the short run analysis, a 1% increase in the Food Production index (FPRI) will increase the GDP by 0.511% at 5% level of significance. The long run result shows that 1% rise in the FPRI increased GDP by 3.548% at a 1% level of significance. This shows that a rise in the food production index will increase economic growth in a nation with good security. In addition, a 1% increase in the Agricultural Output (AGO) will reduce the GDP by 0.050% but not significant ($P = 0.236$). The Granger causality test revealed no evidence of bidirectional causality between LFPRI and LGDP. Although LFPRI showed weak predictive power for LGDP at the 10% significance level ($p = 0.079$), LGDP did not Granger-cause LFPRI ($p = 0.795$). Furthermore, the results indicated a unidirectional causality running from LGDP to LAGO, as LGDP significantly Granger-caused LAGO ($p < 0.01$), while LAGO did not Granger-cause LGDP ($p = 0.806$). The researchers recommended that Nigeria should reduce her food imports and encourage local food production. The government should also increase the subsidies of inputs to farmers and increase the funding of the agricultural sector which will ensure food security, reduce unemployment, and increase incomes to the people.

Keywords: Agriculture, Output, Food-security, Economy, Growth, Nigeria

INTRODUCTION

The role of the agricultural sector is pivotal in every nation's pursuit in achieving a robust economic growth and development. Several nations are endowed with abundant natural resources with nothing to show for it due to bad and corrupt leadership. Agricultural sector enhances agricultural output and food security as it is a source of livelihood for the growing population in the country. It also serves as a major contributor to the Gross Domestic Product (Orji *et al.*, 2020). It creates a flexible framework that encourages international trade and strengthening of global supply chains. However, the population of people that are starving for food on a global scale is very high. The records of World Health Organization (WHO) and Food and agricultural organization (FAO) confirms it which is the reason why FAO is trying its best to stamp out food insecurity all over the world after they discovered that the figures of the victims of hunger and malnutrition has risen sharply in recent years (Osaghae, 2023). This is why according to the statistics of the World Food Program; hunger affects a fraction of the total population of people on the planet earth. In 2010, FAO pointed it out that that more than a billion of the world's population don't have enough agricultural resources to foster a healthy living (Olabanji *et al.*, 2017). Also, the highest portion of food insecurity exists in the rural areas where agricultural productivity comes from yet they keep purchasing agricultural products rather than selling those products and over two-third of the world's underfed people live in Asia, and a part of Africa (Oyeyemi *et al.*, 2021). Sub-Saharan Africa is the world region with the highest and most concerning hunger levels. While the region's GHI scores have significantly improved over the past two decades, hunger remains serious and progress has virtually stalled since 2016. Out of the 18 countries sampled by Oke (2025), 11 countries, including Nigeria, are in the serious hunger region. In a study conducted by Oke



and Ogundokun (2022), it was concluded that majority of the households in Atiba Local Government of Oyo state were food insecure.

Even though FAO is striving in its mandate to eradicate malnutrition and food insecurity on the global scale to fulfil its mandate of achieving the Sustainable Millennium Development goal (SDG) number two of wanting to achieve a world without hunger, insecurity and malnutrition of people. It has been unable to achieve this because of lack of enough trained personnel and corrupt governments (Matemilola, 2017). Enhancing food security in any country is an assurance against hunger and malnutrition which impedes economic development (Enilolobo *et al.*, 2022). This is why all developed and developing nations should take drastic make efforts to increase their agricultural output which will provide a facelift to their economies. Food security according to the world bank is when people have enough food to live and active and healthy life (WHO, 2020) Food security takes cognizance of the fact that a country might be secure at the national level but will still have some traces of food insecurity at various parts of the country especially in Nigeria where Fulani herdsmen and several terrorists kill or maim several farmers on their farms. This stops the farmers from going to their farms which decreases agricultural output. The opposite of food security is food insecurity and it is still a hindrance to sustainable development in Nigeria as it worsens the health of the people, reduces agricultural productivity, and often reduces the chances of human survival (Bello *et al.*, 2024). All these factors slow down development as the campaign against hunger and malnutrition cannot be fully implemented. (UNICEF. 2025) Most developed and developing countries must formulate policies and strategies to accelerate their food productivity so that a large percentage of its population can have enough access to food in vast amounts with a good decent existence and live healthy and productive lives

The situation in Nigeria is not different as more than 56% percent of the population of about 200million people live under the poverty line (World Bank, 2024) and the poverty figure has risen due to excessive flooding of several farmland and increase in acts of terrorism in some certain parts of the country. Besides being the largest economy in Africa in terms of development and population, Nigeria was still self-sufficient in the aspect of food productivity as it was a major exporter of food to other parts of the African continent in the decades of pre-independence and post-independence before the crude oil discovery changed the agricultural productivity landscape. Nigeria now began to be a net importer of food which was a deviation from its former status of food exporter. If Nigeria can step up her food productivity through an increased agricultural output, it will reduce poverty and become a major revenue earner for the government. Conversely agriculture is defined as the production of plant and animal products for the use of man as agriculture is the mainstay of the Nigerian economy as it is one of the tools in achieving a nation's socio-economic development. The importance of agriculture in transforming an economy cannot be swept under the carpet because it provides food for man and animals and provides raw materials for the industries thus reducing the rate of poverty to its barest minimum (Odoh *et al.*, 2019). Over the years in Nigeria, the contribution of the agricultural sector to the Gross Domestic Product (GDP) has been encouraging. Despite the disruption of the Covid-19 pandemic, the contribution to the GDP rose sharply from N18.3billion to N19.3billion in 2023 which is approximately 24.23% of the total annual GDP (CBN Statistical bulletin 2023). The figure shows the progressiveness of the agricultural sector. (Oyerinola *et al.*, 2017) noted that retrogressive state of the agricultural sector led to its poor economic performance, while rising agricultural output has been the most vital ingredient to successful industrialization in the Nigerian economy (Ideba *et al.*, 2014). Generally, the agricultural sector output contribution to the development of the Nigerian economy in four includes contribution by product, contribution by factor, market contribution from the foreign exchange market (Okorie *et al.*, 2017) In the fulfilment of this, the government is embarking on numerous policies and programmes to strengthen the agricultural sector to increase agricultural output and food security in order to combat poverty in the country.

Nigeria's intentions to diversify her economy from being an oil independent economy to an agricultural economy is long overdue as the agricultural sector can put the nation on a global scale if necessary steps are taken. To aid this transformation, the government needs to fund the agricultural



sector, provide loans to farmers at reduced interest rates, tax reduction and provision of subsidies to farmers in order to boost agricultural productivity and food security

However, (Khan *et al.*, 2024) noted that some factors are limiting the agricultural sector in achieving all these objectives which includes high exchange rates, low wage rates of farm workers, political instability, transportation problems, inadequate infrastructural facilities and so on. All these poses a negative effect on the Nigerian economy as it reduces agricultural productivity, per capita income and consumption, government expenditure and tax revenue therefore a low level of agricultural output and food security cannot lead to a sustainable growth or development.

METHODOLOGY

Study Area

This study is conducted in Nigeria, the most populous country in Africa and one of the continent’s largest economies. Nigeria is located in West Africa and shares boundaries with Niger Republic to the north, Chad to the northeast, Cameroon to the east, and Benin Republic to the west, while the Atlantic Ocean lies to the south. The country has a land area of approximately 923,768 square kilometers and a rapidly growing population estimated at over 220 million people.

Nigeria is richly endowed with agricultural resources and possesses diverse ecological zones suitable for the cultivation of a wide variety of crops and livestock production. The major agricultural zones include the rainforest belt in the south, the Guinea savannah in the middle belt, and the Sudan and Sahel savannahs in the north. These ecological variations support the production of food and cash crops such as cassava, yam, maize, rice, millet, sorghum, cocoa, palm oil, and groundnuts.

According to recent World Bank data, agriculture contributed about 20.35% to Nigeria’s Gross Domestic Product (GDP) in 2024 and accounted for approximately 33.5% of total employment in 2025, underscoring the sector’s strategic importance to economic growth, livelihoods, and food security in Nigeria. (World Bank 2026)

Data Requirement and Sources

The data used for this study consists of data on the Gross Domestic Product, food production index, agricultural output, agricultural expenditure, inflation rate and interest rate for the period covering from 1981 to 2023. The research work makes use of secondary time series data which was collected from World Bank, Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics. The choice for this period was based on data availability. Augmented Dickey Fuller was used to check the statistical properties of the data.

Model Specification

The empirical model for this study can be expressed as

$$GDP_t = f (FPRI_t, AGO_t, AGEXP_t, INFR_t, INTR_t) \dots \dots \dots (1)$$

Since the variables are already logged, GDP stands for the Gross Domestic Product, FPRI is the Food Production Index. AGO denotes Agricultural Output. AGEXP stands for Agricultural Expenditure. INFR stands for inflation rate while INTR stands for interest rate. β_0 represents constant, t stands for time and $\beta_1, \beta_2, \beta_3$ represents the coefficients of the independent variables while the e_t is the error term. A slight modification is still needed to accommodate the indicators which will give birth to the next logged equation which are as follows

$$\ln GDP_t = \alpha_0 + \beta_1 \ln FPRI_t + \beta_2 \ln AGO_t + \beta_3 \ln AGEXP_t + \beta_4 \ln INFR_t + \beta_5 \ln INTR_t \dots \dots \dots (2)$$

Where α_0 is the constant representing the intercept of the model t is the time while β_1 to β_5 are the coefficient of the independent variables

Apriori: we expect $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0$

Estimation Techniques

The study uses the Autoregressive Regressive Distributed Lag (ARDL) developed by Peseran *et al* (2001). The ARDL model is applicable when the order of integration of the series is I(0) and I(1). There is no restriction on the size of the sample as equation 3

$$\Delta \ln GDP = \alpha_0 + \sum_{k=1}^n \alpha_1 \Delta \ln GDP_{t-k} + \sum_{k=1}^n \alpha_2 \Delta \ln FPRI_{t-k} + \sum_{k=1}^n \alpha_3 \Delta \ln AGO_{t-k} + \sum_{k=1}^n \alpha_4$$



$$\Delta \ln AGEXP_{t-k} + \sum_{k=1}^n \alpha_5 \Delta \ln INFR_{t-k} + \sum_{k=1}^n \alpha_6 \Delta \ln INTR_{t-k} + \beta_1 \ln GDP_{t-1} + \beta_2 \ln FPRI_{t-1} + \beta_3 \ln AGO_{t-1} + \beta_4 \ln AGEXP_{t-1} + \beta_5 \ln INFR_{t-1} + \beta_6 \ln INTR_{t-1} + \varepsilon_t \dots \dots \dots (3)$$

In equation 2, β_1 to β_6 are the long run parameters while α_1 to α_6 are the short run parameters. α_0 is the drift component, Δ is the difference operator while the ε_t is the error term. The ARDL bound test is used to know the if there is a long run relationship between the variables and it shows the comparison between the upper bound and lower bound and the F-Statistic. If the F-Statistic is more than the upper bound critical values, the null hypothesis is rejected but if the F-Statistic is smaller than the upper bound, the null hypothesis is accepted which means there is no cointegration among the variables in the ARDL model. The error correlation coefficient that represents the speed of adjustment from the short run equilibrium is given in equation 4 which is as follows.....

$$\Delta \ln GDP = \alpha_0 + \sum_{k=1}^n \alpha_1 \Delta \ln GDP_{t-k} + \sum_{k=1}^n \alpha_2 \Delta \ln FPRI_{t-k} + \sum_{k=1}^n \alpha_3 \Delta \ln AGO_{t-k} + \sum_{k=1}^n \alpha_4 \Delta \ln AGEXP_{t-k} + \sum_{k=1}^n \alpha_5 \Delta \ln INFR_{t-k} + \sum_{k=1}^n \alpha_6 \Delta \ln INTR_{t-k} + \phi ECM_{t-1} + \varepsilon_t \dots \dots \dots (4)$$

Where Δ represents the first difference operator while ϕ is the coefficient of the error term which gives the speed of adjustment in the equilibrium of the long run after shocks in the long run.

Data Presentation and Analysis

The collected secondary data was analyzed using the econometric model of Autoregressive Lag (ARDL) technique of regression analysis. This was because the unit root test was integrated in the order of 0 and 1.

Descriptive Statistics

It tells us the statistical characteristics of the data that was used in the estimation of the time series data such as the Gross Domestic Product (GDP), Food Production Index (FPRI), Agricultural Output (AGO), Agricultural expenditure (AGEXP), Inflation rate (INFR) and Interest rate (INTR). The table below shows the descriptive statistics of the variables used in the study. During the period of study, the average GDP growth rate in Nigeria was 45962.26 which shows an improving economic growth. Even though fluctuations keep occurring which ranges from the minimum of 139.3105 and a maximum of 234425.9. The food production index (FPRI) has a mean of 69.64209 though it has a variability that is significant which is 23.83 minimum and 120.7 maximum which is not even. Agricultural output (AGO) has a mean of 20618.94 with a minimum of 19.53 and a maximum of 112897.9 which is a wide range of the progress of agricultural output during that period. Agricultural expenditure (AGEXP) has a mean of 155.597 with the minimum of 0.29 and a maximum of 947.12 which is a wide range which shows that the government has been spending a lot of money on the agriculture of recent. Inflation rate averaged 19.08047 with the minimum of 5.39 with a maximum of 72.84 which is still manageable. The interest rate (INTR) has a mean of 9.226512 with the minimum of 0.99 and a maximum of 65.36 which is still moderate. The Jarque-Bera statistics shows that all the variables follow a normal distribution of $p > 0.05$ except FPRI that has the value of 0.346031.



Table 1 Descriptive Statistics

	GDP	FPRI	AGO	AGEXP	INFR	INTR
Mean	45962.28	69.6421	20618.94	155.597	19.08047	9.226512
Median	11501.45	69.86	2410.05	38.83	13.01	6.61
Maximum	234425.9	120.7	112897.9	947.12	72.84	65.36
Minimum	139.3105	23.83	19.53	0.29	5.39	0.99
Std. Dev.	62607.66	29.2923	38844.59	228.4128	16.28135	10.45729
Skewness	1.417348	0.01085	1.778228	1.632606	1.867583	3.91104
Kurtosis	4.058115	1.91181	4.255185	5.086449	5.473588	20.82261
Jarque-Bera	16.4029	2.12246	25.48444	26.90167	35.95893	678.7377
Probability	0.000274	0.34603	0.000003	0.000001	0	0
Sum	1976378	2994.61	886614.5	6690.67	820.46	396.74
Sum Sq. Dev.	1.65E+11	36037.7	6.34E+10	2191242	11133.45	4592.907
Observations	43	43	43	43	43	43

Source: Eviews 12

Unit Root Test

The unit root test results in table 2 shows the property of the stationarity of the variables. At levels, only the variables of LAGO and LINTR are stationary at levels while the variables of LFPRI LAGEXP and LINFR are stationary at first difference. Since they are mixture of levels and first difference, this prompted the use of the Autoregressive Distributed Lag (ARDL)

Table 2: Unit Root Test

VARIABLE	LEVEL	ADF		PP		REMARK
		FIRST DIFF.	LEVEL	FIRST DIFF.	LEVEL	
LGDP	0.107	-3.77	-0.685	-3.465		NIL
	-0.996	-0.029	-0.968	-0.034		
LFPRI	-2.087	-3.421	-1.225	-9.717		I(1)
	-0.537	-0.063	-0.892	(0.000)***		
LAGO	-6.432	-3.828	-6.438	-26.07		I(0)
	(0.000)***	-0.026	(0.000)***	(0.000)***		
LAGEXP	-2.555	-10.68	-4.223	-13.74		I(1)
	-0.302	(0.000)***	(0.001)***	0		
LINFR	-3.484	-7.144	-3.294	-9.509		I(1)
	-0.054	(0.000)***	(0.081)***	(0.000)***		
LINTR	-7.715	-12.58	-7.71	-20.27		I(0)
	(0.000)***	(0.000)***	(0.000)***	(0.000)***		

Source: Eviews 12

Cointegration Test

In the F-bound test presented in table 3, the calculated F-statistic of 26.397 is more than the lower and the upper critical bounds at all the significance levels of 10%,5% and 1% respectively as it surpasses the values of 3,3.38 and 4.15 at upper bounds and 2.08,2.39 and 3.06 at the lower bounds respectively. This tells us that the null hypothesis of no cointegration is rejected which confirms that there is an existing long run relationship among the variables therefore the ARDL model is the best model for estimating both the short run and the long run equilibrium relationships in this scenario.

Table 3: F-Bounds Test

Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	26.397	10%	2.08	3
K	5	5%	2.39	3.38
		2.50%	2.7	3.73
		1%	3.06	4.15

Source: Eviews 12 output



RESULTS AND DISCUSSION

Short Run Result

Table 4 shows the short run analysis. For the Food Production index (FPRI), a 1% increase in FPRI will increase the GDP by 0.511% at 5% level of significance which is in line with the apriori expectation. This is not in agreement with Abbah *et al* (2025) where they said that food production index caused a rising and falling with the gross domestic product. This will contribute positively to economic growth as it will reduce hunger and starvation among the people. The coefficient of Agricultural expenditure (AGEXP) showed that a 1% increase in AGEXP will increase the GDP by 0.022% at 10% level of significance which conforms to an apriori expectation. This in in line with Apata (2019). It will have a positive impact on the economic growth because an increase in the government expenditure leads to an increase in the agricultural output for the economy if the funds are well managed (Hussein *et al* 2026). Moreover, a 1% rise in the lagged value of agricultural expenditure will lead to a fall in the GDP by 0.045% at a 5% significance level. This does not conform to the apriori expectation. If the government expenses on agriculture are not well managed by the officials involved, it will lead to a deficit in the GDP which will be disastrous for the Nigerian economy (Ahmed *et al* 2025).

Furthermore, a 1% increase in the inflation rate will increase the GDP in the long run by 0.070% at a 1% level of significance which is against the apriori expectation. This is in conformity with Oyadeyi *et al* (2025) where they opined that inflation rate had a favorable effect on economic growth It is not possible in the Nigerian economy unless the government decides to use restrictive monetary policies through the Central Bank of Nigeria to control the inflation so that it will have a positive impact on economic growth. The coefficient of the error term is -0.279 and it is statistically significant at the level of 1% which means that a long run relationship exists among the variables. This shows that 27.9% of any short-term equilibrium in economic growth is corrected yearly which signifies a fast speed of adjustment towards the stability in the long run.

Table 4: Short Run Regression Result: Dependent Variable GDP

Variable	Coeff.	Std.Error	t-Stat	Prob.
D(LFPRI)	0.511	0.184	12.773	0.01
D(LAGEXP)	0.022	0.011	1.976	0.058
D(LAGEXP(-1))	-0.045	0.013	-3.394	0.002
D(LINFR)	0.07	0.016	4.376	0
CointEq(-1)*	-0.279	0.019	-14.891	0
R-Squared	0.726		Mean dependence	0.078
Adjusted R-Squared	0.696		S.D dependent var.	0.0485
S.E of regression	0.027		Akaike info criter.	-4.2913
Sum squared resid	0.026		Schwarz criterion	-4.0823
Log likelihood	92.972		Hannan-Quinn crit.	-4.2152
Durbin-Watson stat	2.015			

Source: Eviews 12 output

Long Run Result

The long run result in table 5 shows that the 1% rise in the Food Production Index (FPRI) increased the GDP by 3.548% at a 1% level of significance which obeys the apriori expectation. This shows that a rise in the food production index will increase economic growth in a nation with good security. In addition, a 1% increase in the Agricultural Output (AGO) will reduce the GDP by 0.050% which is non-significant as confirmed by (Okonkwo *et al* 2018). This does not conform to the apriori expectation because increase in agricultural output is expected to lead to an increase in the economic growth. A 1% rise in the agricultural expenditure (AGEXP) will increase the GDP by 0.369% at a 1% level of significance which is corroborated by (Aigbovo & Edohen, 2025). This agrees with the expectation of the apriori as agricultural expenditure is an important aspect of economic growth as agricultural sector is the livewire of a nation’s economy. The coefficient of inflation rate revealed that



a 1% increase in the inflation rate will increase the GDP by 0.347% at a 1% level of significance. This was backed up by (Sajid *et al* 2026) This is against the apriori expectation as inflation is expected to cause a fall in the GDP as prices of goods and services are always unstable during the inflationary period.

Furthermore, a 1% increase in the interest rate (INTR) will have a negative impact on the GDP by 0.014% at a zero level of significance (Nwaguru *et al* 2025). This is in line with the apriori expectation as an increase in interest rate will lead to a fall in the standard of the living of the people as people will be using a large percentage of their hard-earned income to settle loans of high interest rates (Chenge 2026). This is inimical to economic growth.

Table 5: Long Run Regression Result: Dependent Variable GDP

Variable	Coeff	Std.Error	t-stat	Prob.
LFPRI	3.548	0.342	10.385	0
LAGO	-0.05	0.041	-1.208	0.236
LAGEXP	0.369	0.06	6.193	0
LINFR	0.347	0.117	2.968	0.006
LINTR	-0.014	0.06	-0.224	0.824
C	-2.964	0.502	-5.909	0

Source: Eviews 12 output

Causal Relationship between Agricultural Output, Food Security and Economic Growth

The third objective of this research is to know the direction of causality between agricultural output and economic growth and food security and economic growth in Nigeria and the Granger Causality test was used in achieving the objective. The result is presented in Table 6 and based on the p-values of the F-Statistic of 0.079 and 0.795, it shows the uni-directional causality running from food production index to economic growth with the feedback from economic growth as only one of them is statistically significant at 1%.

In terms of Agricultural output and economic growth, the p-values of the f-statistics which are 0.806 and 0.000 are also unidirectional which means that only one of them is statistically significant which shows the acceptance of the null hypothesis of no causal relationship between agricultural output and economic growth.

Table 6: Granger Causality Test Result

Null Hypothesis:	Obs	F-Statistic	Prob.
LFPRI does not Granger Cause LGDP	35	2.771	0.079
LGDP does not Granger Cause LFPRI		0.231	0.795
LAGO does not Granger Cause LGDP	35	0.218	0.806
LGDP does not Granger Cause LAGO		11.948	0

Source: Eviews 12 output

Diagnostic Test

The Breusch-Godfrey Serial Correlation LM test was employed to assess the correctness of the function form of the model, detect the serial correlation and to investigate the constancy of the error variance. The F-statistic of the Breusch-Godfrey Serial Correlation LM test is 0.124 with the values of the probability which exceeds the threshold of 0.05. This shows that the null hypothesis of the correct specification of the model and no serial correlation cannot be rejected. This means that the model does not exhibit errors of specifications, autocorrelation or heteroscedasticity which shows that the estimated coefficients are efficient, not biased and is qualified for policy references.

Table 7: Model Specification and Serial Correlation Test
 Breusch-Godfrey Serial Correlation LM test

Null hypothesis: No serial correlation at up to 2 lags			
F-Statistic	0.124	Prob.F(2,28)	0.884
Obs*R-Squared	0.36	Prob.Chi-Square	0.835

Source: Eviews12 output

Stability Test

The results of the Cumulative Sums of residuals (CUSUM) and Cumulative sum of squares (CUSUMSQ) tests are illustrated in figures 1 and 2 below. From the figures, the plotted CUSUM statistic remains in the critical boundaries which is signified by two red lines. This shows that the estimated model is stable over the estimated period. The absence of some deviations beyond the bounds of confidence suggests that the parameters of the model does not show some significant instability, this confirms the regressions estimates reliability for future policy formulations.

Graph of Cumulative Residuals

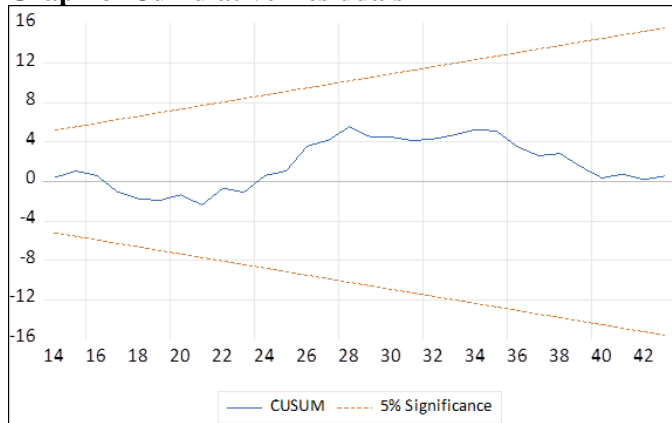
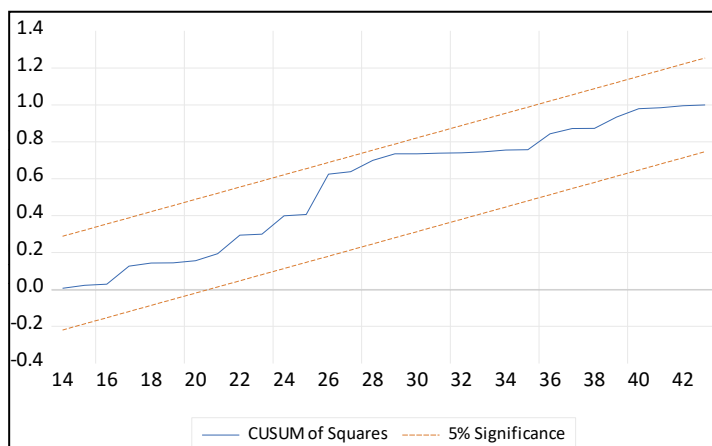


Figure 1: Cumulative Residuals

Source: Eviews 12 output

Graph of Cumulative Sum of Squares



CONCLUSION AND RECOMMENDATIONS

This study looked at the relationship between agricultural output, food security and economic growth in Nigeria using the annual time series data from 1981 to 2023. The Autoregressive Distributed Lag (ARDL) estimation technique was used to assess the short run and long run parameters. The



findings confirmed that in the short run and long run, the food production index (FPRI) and Agricultural expenditure (AGEXP) has a positive impact on the GDP which means that the government should procure modern equipment for farmers to boost the volume of food production which will increase agricultural productivity. Agricultural Output (AGO) is negative in the long run which means that the government should subsidize agricultural inputs to farmers in order to boost agricultural productivity as this will make local food production to gradually replace food imports, create jobs and reduce poverty among the citizens to the barest. Inflation rate (INFR) has a positive impact on the GDP in the short run and long run which means that the government should keep the inflation rate as low as a single digit so that it will not have a negative implication on economic growth. Interest rate had a negative impact on the economic growth in the long run therefore the government should make sure that people get loans at reduced interest rates to enable them take good care of their families and maintain their businesses.

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