# Diversification of The Nigerian Economy; Impact of Agricultural Output On Non-Oil Export in Nigeria

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**Abstract:** *This study investigates the impact of agricultural output on non-oil exports in Nigeria within the framework of economic diversification. Using annual time-series data from 1981 to 2021 sourced from the World Development Indicators and the Central Bank of Nigeria (CBN) Statistical Bulletin, the research applies the Autoregressive Distributed Lag (ARDL) bounds testing approach to assess both short- and long-run relationships among agricultural output, school enrolment, exchange rate, and non-oil exports. Empirical findings reveal a statistically significant and positive long-run relationship between agricultural output and non-oil exports, signifying that improvements in agricultural productivity stimulate diversification and enhance foreign exchange earnings. Conversely, the exchange rate exerts a negative influence, highlighting the sensitivity of non-oil exports to currency fluctuations. The error correction term indicates a strong adjustment mechanism toward long-run equilibrium, suggesting that deviations are corrected over time. The study concludes that agricultural output plays a pivotal role in promoting export diversification and economic stability in Nigeria. It recommends that policymakers should focus on diversifying the agricultural sector to reduce its reliance on traditional crops and explore opportunities in high-value agricultural products. This could involve investing in research and development, promoting modern farming techniques, and providing support to smallholder farmers to enhance productivity and market access, as findings of this research reveals significant negative impact of agricultural output on real GDP*

**Keywords:** Agricultural Output, ARDL, Nigeria, Economic Diversification, Non-Oil Export.
JEL Code: Q10, O55, B17, F10

## Introduction

The global economy has long been characterized by the dominance of certain key sectors, with oil often playing a central role in the growth and development of many nations. However, in recent years, there has been a growing recognition of the importance of diversifying economies away from heavy reliance on a single commodity. This shift in perspective stems from the vulnerability that mono-product economies face in the face of fluctuating commodity prices and global market dynamics (Smith, 2018). Countries around the world have been exploring strategies to diversify their economic base, with a particular emphasis on developing sectors such as agriculture, manufacturing, and services (World Bank, 2020).

In the African context, the imperative for economic diversification is particularly pronounced. Many African nations, including Nigeria, have historically relied heavily on the export of natural resources, such as oil, minerals, and gas, for their economic sustenance. However, the

volatility of commodity markets and the susceptibility to external shocks have highlighted the need for diversification as a means of fostering sustainable economic growth (African Development Bank, 2019). Moreover, the African Continental Free Trade Agreement (AfCFTA) has underscored the importance of intra-African trade and the need for diversified economies to fully exploit the potential benefits of regional integration (United Nations Conference on Trade and Development [UNCTAD], 2021).

Nigeria, as the largest economy in Africa, faces its own set of challenges and opportunities regarding economic diversification. Despite being endowed with vast arable land and a favorable climate, the agricultural sector in Nigeria has long been underdeveloped and neglected in favor of oil production (National Bureau of Statistics [NBS], 2020). However, recent initiatives by the Nigerian government, such as the Agricultural Transformation Agenda and the Anchor Borrowers Program, signify a renewed commitment to revitalizing the agricultural sector and leveraging its potential to drive economic diversification (Central Bank of Nigeria [CBN], 2018). These efforts aim not only to increase agricultural productivity and food security but also to stimulate non-oil exports and reduce the country's dependence on oil revenue (Olomola, 2017).

The impact of agricultural output on non-oil export in Nigeria is multifaceted and warrants careful examination. While agriculture has the potential to contribute significantly to export earnings and foreign exchange reserves, challenges such as inadequate infrastructure, limited access to finance, and inefficient value chains pose significant barriers to realizing this potential (Adeoye & Adetula, 2020). Additionally, the interplay between agricultural policies, trade regulations, and market dynamics further complicates the relationship between agricultural output and non-oil exports (Ojo, 2019). Understanding these complexities is essential for formulating effective strategies to promote economic diversification and sustainable development in Nigeria.

Furthermore, the diversification of the Nigerian economy away from heavy reliance on oil presents both challenges and opportunities for the country's economic transformation. Leveraging the agricultural sector to drive non-oil exports is a promising avenue for diversification, but it requires coordinated efforts from the government, private sector, and other stakeholders to address the underlying constraints and capitalize on the sector's potential (Oluwatayo, 2018). By adopting a holistic approach that addresses the structural, institutional, and policy-related impediments to agricultural development, Nigeria can unlock new sources of growth and prosperity while reducing its vulnerability to external shocks and market fluctuations.

Despite initiatives such as the Agricultural Transformation Agenda (ATA) and the Agricultural Promotion Policy (APP), which aimed to address issues of food shortage and inadequate foreign exchange earnings from agricultural exports, Nigeria continues to grapple with the challenges of being a mono-product economy heavily reliant on oil. The persistence of economic challenges, exemplified by the recent recession, underscores the urgency of repositioning the economy towards a more balanced and diversified structure, with a focus on stimulating growth across multiple sectors, including agriculture and industry (Awoke et al., 2019). Therefore, the research aims to explore the impact of agricultural output on non-oil exports in Nigeria as a crucial aspect of fostering economic diversification and resilience.

## Literature Review

### Conceptual Review

#### Economic Diversification

Economic diversification refers to the expansion of an economy's productive base and export structure away from dependence on a single commodity or sector toward multiple sectors and sources of income (International Monetary Fund [IMF], 2014). In developing economies such as Nigeria, diversification is essential for reducing vulnerability to external shocks, stabilizing export earnings, and promoting inclusive growth (Sachs & Warner, 2001).

In the Nigerian context, diversification involves shifting emphasis from crude oil to agriculture, manufacturing, solid minerals, and services. Scholars argue that diversification anchored on agriculture can generate employment, stimulate industrial development, and improve export performance due to strong sectoral linkages (Oyejide, 2010).

#### Agricultural Output in Nigeria

Agricultural output refers to the total volume of agricultural goods produced within an economy, including crops, livestock, fisheries, and forestry products (Food and Agricultural Organisation [FAO], 2019). Agriculture remains a key sector in Nigeria, contributing significantly to GDP and employing a large proportion of the labor force (National Bureau of Statistics [NBS], 2023).

Historically, Nigeria was a leading exporter of agricultural commodities such as cocoa, groundnuts, palm oil, and rubber prior to the oil boom of the 1970s (Ogen, 2007). However, agricultural productivity declined due to neglect, inadequate infrastructure, limited access to finance, and low technological adoption. Recent policy interventions aim to reverse this trend by boosting output and export-oriented production (CBN, 2022).

#### Non-Oil Exports

Non-oil exports consist of all goods and services exported excluding crude oil and gas. These include agricultural commodities, manufactured goods, solid minerals, and services (CBN, 2021). Agricultural exports constitute a major component of Nigeria's non-oil exports due to the country's vast arable land and agro-ecological diversity.

Non-oil exports are crucial for foreign exchange diversification, balance of payments stability, and economic resilience. Studies indicate that strengthening non-oil exports reduces exposure to oil price volatility and enhances long-term growth prospects (Adedipe, 2004; Osuntogun et al., 2012).

### Theoretical Framework

#### Comparative Advantage Theory

The theory of comparative advantage posits that countries should specialize in producing and exporting goods in which they have lower opportunity costs (Ricardo, 1817). Nigeria's natural endowments—fertile land, favorable climate, and abundant labor—give it a comparative advantage in agricultural production, making agriculture a viable basis for export diversification.

#### Export-Led Growth Theory

The export-led growth hypothesis argues that increased exports drive economic growth through improved resource allocation, technology transfer, and economies of scale (Balassa, 1978). Agricultural exports, as part of non-oil exports, can therefore stimulate growth and diversification in Nigeria.

**Structural Change Theory**

Structural change theory emphasizes the transition from primary commodity dependence to diversified production and export structures (Chenery & Syrquin, 1975). Growth in agricultural output can support agro-industrialization and facilitate Nigeria's transformation toward a more diversified economy.

**Empirical Literature Review**

Several empirical studies have explored the relationship between agricultural output and non-oil export performance in Nigeria, shedding light on the dynamics and determinants of both sectors. Nweze and Nworie (2025) examined the contribution of various non-oil export categories—including agricultural exports—to Nigeria's economic growth using an ARDL model over the period 1991–2022. The study found that agricultural exports have a positive and statistically significant impact on Nigeria's economic growth, highlighting the role of agriculture as a driver of non-oil performance even as the broader economy continues its diversification efforts.

Gold and Yusuf (2025) investigated macroeconomic determinants of Nigeria's non-oil export performance, focusing on exchange rates, GDP, and trade openness using annual data (1989–2022) and ARDL/cointegration techniques. They found that: Exchange rate depreciation enhances non-oil exports, signalling that competitiveness matters for export performance. GDP growth and trade openness positively affect non-oil export performance. Interest rates and fuel prices negatively influence export outcomes. This study provides rigorous econometric evidence on how international economic conditions and policy variables shape export performance, which is closely linked to agricultural and other non-oil export components.

A study by Adetunji and Aminu (2018) found a positive correlation between agricultural productivity and non-oil export earnings, highlighting the pivotal role of agricultural output in driving export diversification and economic growth. Similarly, Oseni et al. (2019) conducted a panel data analysis covering the period 2000-2018 and observed a significant long-run relationship between agricultural output and non-oil export performance, emphasizing the importance of sustained investments in agricultural development to enhance export competitiveness.

In addition to examining the direct impact of agricultural output on non-oil exports, researchers have also investigated the mediating role of institutional factors and policy interventions. Okunlola and Adejobi (2017) conducted a study using a vector error correction model (VECM) and found that improvements in agricultural productivity were positively associated with non-oil export performance, with trade liberalization policies playing a significant mediating role. Similarly, Akinlo and Ayopo (2018) analyzed the impact of trade facilitation measures on non-oil export performance and found that enhancing market access and reducing trade barriers significantly boosted agricultural exports, thereby contributing to overall export diversification efforts.

Furthermore, empirical evidence suggests that the relationship between agricultural output and non-oil export performance is influenced by various contextual factors, including market dynamics, technological advancements, and global trade patterns. A study by Adeleke et al. (2020) examined the determinants of agricultural export competitiveness in Nigeria and identified factors such as access to finance, infrastructure development, and technological innovation as critical drivers of export performance. Similarly, Olagunju and Okoruwa (2018) conducted a survey of Nigerian exporters and found that while agricultural output positively

influenced export earnings, challenges such as inadequate infrastructure and bureaucratic bottlenecks constrained export competitiveness, highlighting the need for targeted policy interventions to address these constraints.

Agriculture has long been recognized as a significant sector in Nigeria, employing a substantial portion of the population and contributing to food security and economic development. However, despite its importance, the sector has faced numerous challenges, including low productivity, inadequate infrastructure, and limited access to finance and technology (FAO, 2021). Ndibe (2022) notes that despite the increase in the agricultural workforce over the years, productivity levels have not matched expectations, pointing to underlying inefficiencies and constraints within the sector.

Government initiatives such as the Agricultural Transformation Agenda (ATA) and the Agricultural Promotion Policy (APP) have sought to address these challenges by focusing on improving productivity, promoting value addition, and enhancing market access for agricultural produce (Awoke et al., 2019). The APP, for instance, targets specific crops and activities for both domestic consumption and export, aiming to boost production and earnings from the agricultural sector (NBS, 2020).

However, achieving sustainable growth in agricultural output requires addressing broader structural issues such as land tenure systems, access to markets, and climate change resilience (FAO, 2021). Adeoye & Adetula (2020) emphasize the importance of supportive policies and investments in research and development to enhance agricultural productivity and competitiveness.

Nigeria's overreliance on oil exports has long been a concern due to the volatility of oil prices and the vulnerability it poses to external shocks (Öztürk & Acaravcı, 2010). In response, the government has implemented various policies aimed at diversifying the export base, with a particular focus on non-oil sectors such as agriculture, manufacturing, and services.

However, the performance of non-oil exports in Nigeria has been mixed, with challenges such as inadequate infrastructure, high production costs, and limited access to finance hindering the sector's growth (CBN, 2018). Christopher, Omoniyi & Olufunke (2014) argue that improving the competitiveness of non-oil exports requires addressing these constraints through targeted interventions in areas such as trade facilitation, export financing, and quality standards compliance.

Furthermore, the importance of non-oil exports for Nigeria's economic growth cannot be overstated, particularly in light of the country's need to diversify revenue sources and reduce dependence on oil revenues (Odunayo et al., 2020). Achieving sustained growth in non-oil exports requires a conducive policy environment, investment in critical infrastructure, and support for small and medium-sized enterprises (SMEs) engaged in export activities (Ojo, 2019).

**Methodology**

This paper makes use of secondary data such that Agricultural output, human capital development and trade openness were extracted from world development indicators (WDI) and CBN statistical bulletin.

**Unit root test**

This study uses Augmented Dickey-Fuller (ADF) to find the order of intergradation and stationarity level of the variables.

**Model specification**

From the related literature regarding this study, the model was adopted from Oyinbo and Rekwot (2014) who studied the relationship between agricultural production and the growth of the Nigerian economy with a focus on poverty reduction. The modified model is given as;

NOE = F(AGR, SE, EXR) (1)

The variables NOE, AGR, SE and EXR, represent Non-oil export is the dependent variable; Agricultural output is the independent variable, while school enrolment and exchange rate represent the control variables, respectively. The study uses Autoregressive Distributed Lag (ARDL) to determine the long-run relationship between these variables. ARDL bounds testing method was offered by Pesaran et al. (2001) and it has number of advantages over other traditional techniques. The technique can be applied in the case variables are I(0), I(1) or are in mixed and therefore, it is appropriate for this study. The models can be expressed as

$$\Delta \ln NOE_t = \beta_0 + \sum_{i=1}^{k} \phi_i \Delta \ln NOE_{t-1} + \sum_{i=0}^{k} \varphi_i \Delta \ln AGR_{t-1} + \sum_{i=0}^{k} \lambda_i \Delta \ln SE_{t-1} + \sum_{i=0}^{k} \delta_i \Delta \ln EXR_{t-1} + \sum_{i=0}^{k} + \theta_1 \ln NOE_{t-1} + \theta_2 \ln AGR_{t-1} + \theta_3 \ln SE_{t-1} + \theta_4 \ln EXR_{t-1} + \varepsilon_t \quad (2)$$

In equation (2), ε represents the error term, t denotes the time trend and Δ indicates the first difference operator. Lag selection is built on the Akaike information criteria (AIC). Moreover, the decision concerning the long run depends on the F-statistic. The null hypothesis that no cointegration among the variables is indicated by $H_0$: $\phi_1 = \varphi_2 = \lambda_3 = \delta_4 = 0$ while the alternative hypothesis is that the variables have long-run relationship, specified as $H_1$: $\phi_1 \neq \varphi_2 \neq \lambda_3 \neq \delta_4 \neq 0$. Pesaran et al. (2001) formulated two critical values; the lower critical bound value (LCB) and the upper critical bound value (UCB). Therefore, a higher value of F-statistic than the UCB implies rejection of the null hypothesis and it is concluded that cointegration exist between the variables. However, a lower value of F statistics than the LCB suggests that null hypothesis cannot be rejected and it is concluded that cointegration does not exist between the variables. Moreover, the estimated dynamic error correction model determines the short run and long run associations between the variables. The significant negative value of the error correction term (ECT) further endorses the presence of long-run relationship.

**Results and Discussion**

This section discusses the findings of the study. For good econometric estimation, there is a need to check the stationarity of the data. Therefore, the unit root test was conducted using ADF tests.

**Unit Root Tests**

The estimation of the ADF is built on Schwarz Information Criterion (SIC) Table 1 depicts the unit root test results of ADF test. The results suggest that some of the variables are stationary at I(0) while others are found to be stationary at I(1). No variable among them are found to be stationary at I(2), hence, the ARDL bound testing method is appropriate as a technique to analyze these variables.

**Table 1: Unit Root Test Using Augmented Dickey Fuller (ADF).**

| Variables | Order of Integration | Augmented Dickey-Fuller Test Critical Values | | | ADF Statistics | Prob. |
|---|---|---|---|---|---|---|
| | | 1% | 5% | 10% | | |
| LNOE | I(1) | -3.610453 | -2.938987 | -2.607932 | -7.467103 | 0.0000*** |
| LAGR | I(1) | -3.610453 | -2.938987 | -2.607932 | -4.009145 | 0.0035*** |
| LSE | I(0) | -3.646342 | -2.954021 | -2.615817 | -3.311197 | 0.0224** |
| LEXR | I(1) | -4.211868 | -3.529758 | -3.196411 | -9.251111 | 0.0000*** |

*, ** and *** represent 10%, 5% and 1% level of significance respectively

**Source: Author's computation using EViews10, 2025**

Table 1 presents the results of the Augmented Dickey-Fuller (ADF) unit root test conducted to examine the stationarity properties of the variables used in the study. The test was carried out to determine the order of integration of each series prior to model estimation. The results show that log of non-oil exports (LNOE) is non-stationary at level but becomes stationary after first differencing. This is evidenced by the ADF statistic of –7.467103, which is more negative than the critical values at the 1%, 5%, and 10% significance levels, with a probability value of 0.0000. Hence, LNOE is integrated of order one, I(1).

Similarly, log of agricultural output (LAGR) is found to be stationary at first difference. The computed ADF statistic of –4.009145 exceeds the critical values at conventional significance levels, with a probability value of 0.0035, indicating stationarity at the 1% level of significance. Thus, LAGR is also integrated of order one, I(1).

In contrast, log of service exports (LSE) is stationary at level. The ADF statistic of –3.311197 is more negative than the 5% and 10% critical values, with a probability value of 0.0224, indicating stationarity at the 5% level of significance. Therefore, LSE is integrated of order zero, I(0).

Furthermore, log of exchange rate (LEXR) is non-stationary at level but becomes stationary after first differencing. The ADF statistic of –9.251111, with a probability value of 0.0000, confirms stationarity at the 1% significance level, indicating that LEXR is integrated of order one, I(1). Overall, the unit root results reveal a mixed order of integration, with variables integrated at both I(0) and I(1). This combination justifies the use of econometric techniques such as the Autoregressive Distributed Lag (ARDL) model, which is appropriate when variables are integrated of different orders but none is integrated of order two.

**Bounds Test**

The bound test result is presented

**Table 2: Bounds Test Result for the Model**

| **Model** | | | | | |
|---|---|---|---|---|---|
| | | | | Bounds critical values [Unrestricted intercept & no trend] | |
| **Model** | F-stats | Lag | Level of significance | I(0) | I(1) |
| **($LNOE_t$ \| $LAGR_t LSE_{TI} EXR_t$)** | 6.422309 | **4** | | | |
| | | | 10% | 2.97 | 3.74 |
| | | | **5%** | 5% | 3.38 |
| | | | 1% | 1% | 4.3 |

The Critical values are obtained from Narayan (2005) table case III. The boldness indicates the level of significance at which the F-statistic exceeds the upper bound.

**Source: Author's computation using EViews10, 2025.**

The results presented in Table 2 shows that the computed F-statistic for Model two. F-statistics 6.422309 is greater than the upper bound value 3.38 at 5% significance level. This shows the presence of long-run relationship among the variables and therefore we could safely reject our null hypothesis of no cointegration exist and accept the alternative hypothesis that cointegration exist that is there is a long-run equilibrating relationship among the variable of interest.

**Estimations of the Long Run Relationships**

**Table 3 Estimations of the Long Run Relationships**

| Dependent Variable, lnNOE | | | | |
|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| **LAGR** | 2.178344 | 0.257801 | 8.449715 | 0.0000*** |
| **LSE** | 0.283119 | 0.186107 | 1.521271 | 0.1477 |
| **EXR** | -9.087320 | 2.174158 | -4.179696 | 0.0007*** |
| **C** | -0.337905 | 0.078766 | -4.289994 | 0.0006*** |

**Source: Author's computation using EViews10, 2025.**

Note***, ** and * Denotes 1%, 5% and 10% significance level respectively.

Table 3 showcases the long-run relationships between the dependent variable, lnNOE (Natural Logarithm of Non-oil Exports), and its independent variables, providing insights into their statistical significance. Notably, the coefficient for LAGR (Natural Logarithm of Agricultural Output) stands at 2.178344, indicating that a one-unit increase in agricultural output corresponds to a 2.178344 unit increase in non-oil exports, signifying a strong positive relationship. This finding aligns with previous research by Okoye, et al., (2017), Adesoji, & Sotubo (2013), Olabanji & Henry (2013). Conversely, the coefficient for LSE (Natural Logarithm of School Enrolment) is 0.283119, although not statistically significant at conventional levels (0.1477), suggesting a less robust relationship between school enrolment and non-oil exports. Furthermore, the coefficient for EXR (Natural Logarithm of Exchange Rate) is -9.087320, indicating a significant negative relationship between the exchange rate and non-oil exports, with a one-unit increase in the exchange rate associated with a 9.087320 unit decrease in non-oil exports.

**Estimations of the Short Run Relationships**

**Table 4 The Error- Correction Model (ECM)**

| Dependent Variable, lnNOE | | | | |
|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| **D(LAGR)** | 1.190905 | 0.320388 | 3.717076 | 0.0019*** |
| **D(LAGR(-1))** | -1.264322 | 0.371241 | -3.405667 | 0.0036*** |
| **D(LAGR(-2))** | -0.491506 | 0.301201 | -1.631818 | 0.1222 |
| **D(LAGR(-3))** | -0.705797 | 0.338685 | -2.083935 | 0.0536* |
| **D(LSE)** | -4.488055 | 0.908220 | -4.941596 | 0.0001*** |
| **D(LSE(-1))** | 3.910093 | 1.100159 | 3.554117 | 0.0026*** |
| **D(LSE(-2))** | 3.509342 | 1.096286 | 3.201119 | 0.0056*** |
| **$ECT_{t-1}$** | -0.983232 | 0.155192 | -6.335569 | 0.0000*** |

***, **and* Denotes 1%, 5% and 10% significance level respectively.

**Source: Author's computation using EViews10, 2025.**

Table 4 presents the results of the Error-Correction Model (ECM) for Model 2, focusing on the dependent variable lnNOE (Natural Logarithm of Non-oil Exports). The coefficients reveal insights into both short-run dynamics and long-run equilibrium relationships between the variables. Specifically, the coefficient for D(LAGR) (First Difference of Natural Logarithm of Agricultural Output) is 1.190905, indicating a statistically significant ($p = 0.0019$) positive relationship between changes in agricultural output and non-oil exports in the short run. Additionally, the coefficient for

ECTt-1 (Error Correction Term Lagged by One Period) is -0.983232, signifying a significant (p = 0.0000) adjustment mechanism towards the long-run equilibrium between non-oil exports and its determinants, with deviations from equilibrium being corrected in subsequent periods.

**Diagnostic Test**

Table 5 presents the results of the post-estimation diagnostic tests conducted to assess the reliability, stability, and validity of the estimated model. The diagnostic checks include tests for serial correlation, functional form misspecification, normality of residuals, and heteroskedasticity, which are essential for ensuring that the estimated parameters are robust and that the model satisfies the classical regression assumptions.

**Table 5 Diagnostic Test**

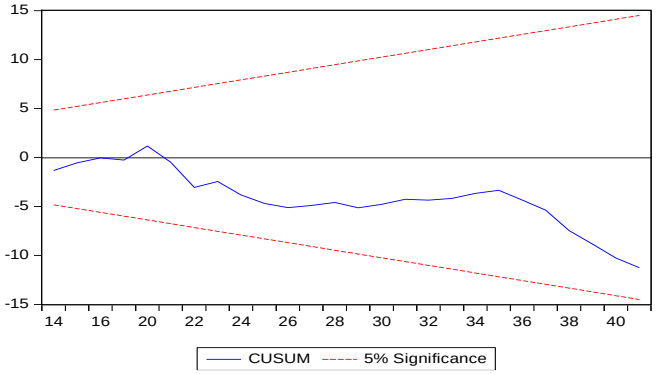
| **Model** | |
|---|---|
| **Test Statistics** | **F Version** |
| A. Serial Correlation | F(2,28) = 5.163 (0.0123) |
| B. Functional form | F(1,29) = 3.18 (0.0255) |
| C. Normality | 0.757 (0.684) |
| D. Heteroskedasticity | F(6,30) = 2.811 (0.0272) |

**Source: Author's computation using EViews10, 2025.**

The result of the diagnostic tests in Table 5 above reveals that the Breusch-Godfrey LM test shows that there is no presence of serial correlation in the model. The Jarque-Bera test shows that the data in the model has been normally distributed. The Heteroskedasticity; Breusch-Pagan Godfrey shows no sign of heteroskedasticity in the model. The Ramsey RESET test shows that the model has been correctly specified. This means that the model is free from serial correlation, heteroscedasticity, functional form and normality problems. As such, this model could produce reliable results.

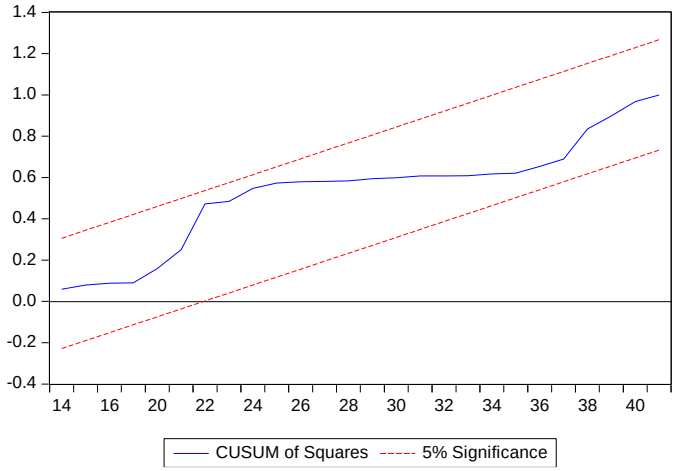
As suggested by Chindo et. al (2018), cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) tests for stability of the model along the studied periods were conducted. It is suggested that for a model to be stable along the sampled period, the residuals line must be within the straight lines of the critical bounds at a 5% significance level. Figure 1 and 2 depict the results. Figures 1 show that the residual lies within the critical bounds at 5% level of significance. This shows that the model is reasonably stable. While figure 2 shows that the residuals lie within the critical bounds at 5% level of significance, which connote the stability of the model.

**Figure 1:**
***Plot of CUSUM.***




The straight lines represent critical bounds at 5% significance level.

**Figure 2:**
***Plot of CUSUMQ of squares.***




The straight lines represent critical bounds at 5% significance level.

**Conclusion and Recommendations**

In conclusion, this research examined the diversification between agricultural output on non-oil export in Nigeria from 1981 to 2021. Utilizing the Solow growth model and endogenous growth theory as theoretical frameworks, the study employed econometric techniques such as the Bound Test and the Autoregressive Distributed Lag (ARDL) approach to analyze these relationships. The findings revealed the presence of long-run relationships among the variables in the model, signifying the existence of equilibrium relationships over time. In the Model, positive long-run relationships were revealed between agricultural output (LAGR) and non-oil exports, despite the negative impact of Exchange Rate (LEXR).

following recommendations were made

1. Policymakers should focus on diversifying the agricultural sector to reduce its reliance on traditional crops and explore opportunities in high-value agricultural products. This could involve investing in research and development, promoting modern farming techniques, and providing support to smallholder farmers to enhance productivity and market access, as findings of this research reveals significant negative impact of agricultural output on real GDP.
2. Enhanced Investment in Education Infrastructure: The finding that school enrollment does not have a statistically significant impact on real GDP suggests a need for further investment in education infrastructure and quality improvement initiatives. Policymakers should prioritize efforts to address barriers to education access, such as inadequate facilities, teacher shortages, and affordability issues, particularly in rural and marginalized communities.

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