

## Impact of Exchange Rate on Economic Growth: Evidence from Nigeria

Dr Christian Gbarawae NWIKINA<sup>1</sup>, Edobot Udo EKERE,<sup>2</sup>

Department of Economics, Faculty of Social Sciences, Rivers State University, Nkpolu-  
Oroworukwo, Rivers State, Nigeria  
georgeteketeke@gmail.com

doi: <https://doi.org/10.37745/gjahss.2013/vol12n23650>

Published March 31, 2024

---

**Citation:** Nwikina C.G, and Ekere E.U, (2024) Impact of Exchange Rate on Economic Growth: Evidence from Nigeria, *Global Journal of Arts, Humanities and Social Sciences*, Vol.12, No.3, pp.36-50

---

**ABSTRACT:** *The effect of the exchange rate on GDP growth in Nigeria from 1985–2021, according to this analysis. The World Bank's World Development Indicator (WDI) and the Central Bank of Nigeria's (CBN) Statistical Bulletin were used as secondary sources of data. The real exchange rate served as a stand-in for the actual exchange rate, while real gross domestic product was used to gauge economic growth. We used the Augmented Dickey-Fuller unit root test to find out how integrated the series was. The bound test was used to test for cointegration. The bound test found that the exchange rate and economic growth are related in the long term. This research used the autoregressive distributed lag technique to estimate the short- and long-term effects of the exchange rate on GDP growth. The ARDL analysis shows that there is a weak negative correlation between the exchange rate and GDP growth. According to the research, trade openness has a small but favorable effect on GDP growth. Furthermore, the research indicated that foreign exchange reserves significantly and positively impacted economic development. There was also a negative and statistically significant relationship between interest rates and GDP growth. The analysis found that the exchange rate did not have a significant role in determining Nigeria's economic development. Given the importance of a stable and predictable exchange rate in boosting economic development, the research suggests that monetary authorities implement a policy primarily aimed at stabilizing exchange rates.*

**KEYWORDS:** economic growth, trade openness, external reserve, interest rate, real exchange rate

---

## INTRODUCTION

Uneven resource endowment in various regions of the globe demands interdependence, which is where the problem of exchange rates comes in. In international trade, nations need goods and services for growth, and they must pay for what they buy and sell in order to settle their accounts. The concept of foreign exchange arose out of the need for a universally recognized means of payment in order to facilitate these kinds of transactions. You may think of the exchange rate as a measure of the relative worth of two currencies. A currency's exchange rate is its value relative to another (Mejekomi, 2010). To expedite the attainment of predetermined macroeconomic objectives, the exchange rate is a crucial macroeconomic variable in the formulation of both broad economic policies and targeted reform programs. Price stability, full employment, income equality, balanced payments, economic growth, and development are all part of Nigeria's macroeconomic agenda (Obansa. et al, 2013). Asinya and Takon (2014) state that the exchange rate is a key macroeconomic variable in modern economies due to its role in determining the relative prices of domestic and foreign goods and services, as well as in ensuring economic stability, external balance, and competitiveness.

So, there have been a lot of passionate discussions in the literature on how the exchange rate affects economic development. For example, according to Fapetu (2013), the impact of currency rates on aggregate supply and demand determines domestic pricing. When the value of a currency drops, import prices rise, and when it rises, import prices fall. When the value of a country's currency drops, the cost of imported inputs might go up, which would drive up the price of locally made items due to greater marginal costs. Uduakobong and Enobong (2015) note that enterprises that compete with imports may respond to price hikes by foreign competitors by raising their own pricing. This might lead to lower economic growth. According to Olawuni (2020), a depreciation would boost exports and decrease imports, while an appreciation would lead to more imports and less exports. Additionally, a transition from imported items to local goods is common when the exchange rate declines. Therefore, it causes a change in the terms of trade, which causes money to flow from nations that import to those that export, slowing down economic development. Thus, the researcher was interested in evaluating the perceived influence of exchange rate changes on Nigerian economic development since, as previously said, the significance of these fluctuations cannot be overstated.

At the same time, despite many and often shifting exchange rates and other macroeconomic measures, Nigeria has failed to capitalise on her economic potential, causing a slow but steady decline in the country's wealth. Additionally, despite several approaches to determining the exchange rate in Nigeria, a reasonable rate for the naira has not been discovered. This is due to the fact that the gaps between the official and parallel markets for currency have only grown wider under the current system, which has also failed to stabilize the exchange rate and keep external reserve levels favorable enough to guarantee balances. Furthermore, Nigeria has not done well in the last several years according to macroeconomic measures such as the balance of payments, import requirements, inflation rate, and national savings.

Something is fundamentally wrong with Nigeria's currency rate management system, according to the unidirectional movements of the exchange rate along the path of depreciation since the introduction of foreign exchange auction sessions in 1986. As a result, the Nigerian economy has been facing a number of issues caused by the naira's fluctuating exchange rate. The inability to foresee the future course of the economy due to variations in exchange rates creates an environment of uncertainty, which in turn causes market failure. Additionally, the Nigerian manufacturing sector has a weak and limited productive base due to increased import expenses caused by exchange rate fluctuations, which is only one of the many issues that the industry regularly faces.

Curiously, the effect of changes in the currency rate on economic development in Nigeria has been the subject of a few empirical investigations. We have found certain gaps based on these investigations. To begin, there is still no universal agreement on the nature of the link between changes in the value of a country's currency and its rate of economic development, and these studies have produced contradictory findings (both positive and negative opinions on the effect of exchange rate variations on economic growth). The second issue is that the studies are either out of date or do not extend beyond the year 2021. Finally, for the purpose of proxying changes in exchange rates, no research has ever used the same collection of variables as this one. In order to fill this knowledge vacuum, this research will analyze the impact of currency volatility on economic development in Nigeria.

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Purchasing Power Parity (PPP) Theory**

In 1918, Swedish professor Gustav Cassel put forth the Purchasing Power Parity (PPP) idea. An economic theory known as Purchasing Power Parity (PPP) posits that a country's currency should have the same purchasing power in another country's currency at a nominal exchange rate that is equal to the ratio of the two countries' aggregate price levels. When two currencies are pegged against one other, the exchange rate is the ratio of their buying power. The theory presupposes that there are situations (like as a long-run tendency) where buying Euros and then using the proceeds to buy a market basket of goods would cost exactly the same amount of, say, US dollars as just buying the basket of goods with those dollars. According to Ohiria et al. (2008), if the buying power of either currency were to decline, the value of that currency on the foreign exchange market would also decline proportionally.

Given the extreme volatility of market exchange rates, it is possible to draw misleading conclusions about the relative levels of production in two countries when comparing their Gross Domestic Product (GDP) measured in their own currencies and converted to each other's. For example, one country may be assumed to have a higher real GDP than the other in one year, but a lower one the following. If, however, PPP exchange rates are used to convert one country's GDP

into another's currency rather than observed market exchange rates, then the erroneous conclusion will not take place. To put it simply, GDP PPP accounts for various living expenses and price levels, often in relation to the US dollar, to provide a more precise picture of a country's output level (Engle & Rogers, 2011). This theory is applicable to this study because, due to the unpredictable nature of exchange rates, it seeks to estimate the exchange rate that would bring the purchasing power of the Nigerian naira to par with that of other countries' currencies.

### **Empirical Literature**

By factoring in the importance of institutional quality, Omoke and Opuala-Charles (2021) investigated the connection between trade openness and economic development in Nigeria. Three measures of trade openness—total trade, import trade, and export trade—were used in the research, which ran from 1984 to 2017. Using the ARDL bounds testing technique, we look for evidence of cointegration among the variables. The data showed that the factors were related over the long term. According to the calculations, export commerce significantly boosts economic growth, and import trade significantly slows it down. Import trade's unfavorable long-term impacts on Nigeria's economic development diminish with improving institutional quality, or governance quality, according to the data. The policy implications of these empirical conclusions for Nigeria are significant.

The impact of foreign direct investment (FDI) on real gross domestic product (RGDP) growth in Nigeria was studied empirically by Giwa et al. (2020). The researchers also looked at how FDI can help developing nations reach Goal 17.3, which is to mobilise additional financial resources from various sources. Findings from the research corroborate theoretical predictions that labor quality influences RGDP positively and significantly. Similarly, RGDP in Nigeria was shown to be significantly impacted negatively by capital intensity. In order to boost the economy via foreign direct investment (FDI) spillover effects, this research suggests that Nigerian policymakers should raise capital intensity as part of their overall strategy.

Using data collected experimentally from 1980 to 2016, Sunday and Ahmed (2019) examined the relationship between trade openness and economic development in Nigeria. Both the short-term and long-term effects of trade openness on economic growth were determined to be unpleasant by the study.

Aidi et al. (2018) used quarterly time series data from 1980Q1 to 2016Q4 to study the correlation between exchange rate volatility and the performance of Nigeria's manufacturing sector. The results demonstrated a negative correlation between exchange rate volatility and manufacturing sector performance in Nigeria, as measured by the manufacturing sector's contribution to GDP. Not only that, but interest and exchange rate were shown to be powerful and statistically significant positive drivers of manufacturing sector performance in Nigeria, whereas trade openness was discovered to have a negative sign, albeit it was not statistically significant.

Using time series data extending from 1986 to 2015, Akinmulegun and Falana (2018) evaluated the impact of exchange rate variation on the development of industrial production in Nigeria. A one-way causal relationship between the exchange rate and industrial production was found by the study. In the early years, industrial production responded positively and significantly to the shock from the exchange rate, but in subsequent years, it responded little and not nearly as significantly to shocks from other factors. While internal shocks do account for most of the variance in output, the study found that innovations in the exchange rate explained more of the variation in industrial output than any of the other related variables (Inflation, Interest rate, and Net Export) when looking at Forecast Error Variance Decomposition (FEVD). The research found that the exchange rate might significantly affect Nigeria's industrial production.

The impact of fluctuating currency rates on GDP growth in Nigeria was studied by Nsofor et al. (2017). Exchange Rate, GDP, Government Expenditure, External Reserve, and Foreign Direct Investment were the variables used in this analysis. These variables were derived from the Statistical Bulletin of the Central Bank of Nigeria, which covers the period 1981–2015. The results demonstrated that the growth of the Nigerian economy is significantly and negatively affected by volatility and FDI. Over the time period considered, the development of the Nigerian economy was positively and significantly influenced by government expenditure and external reserves.

The impact of fluctuating currency rates on Nigeria's GDP growth from 1970 to 2011 was studied by Iyeli and Clement (2017). The results show that in both the trace and Max-Eigen statistics, there are two equations at the 5% level. So, in the long term, oil income and fluctuations in exchange rates both contribute favorably to GDP.

Ugochukwu (2015) used yearly data from 1980 to 2012 in an effort to assess the impact of currency fluctuations on GDP growth in Nigeria. Additionally, the results demonstrate that there is a negative correlation between the two variables in the Nigerian economy over the long term, and that economic growth is severely affected by exchange rate volatility in the short run. Additionally, the outcome shows that FDI slows Nigeria's economic development.

Using yearly data from 1970 to 2011, Uduakobong and Enobong (2015) examined the correlation between changes in the exchange rate and GDP growth in Nigeria. The research found a positive and insignificant association between the exchange rate and economic development in Nigeria using the Ordinary Least Square (OLS) approach and the Granger Causality Test. Furthermore, the data shows that the relationship between the exchange rate and GDP growth in Nigeria is not causative. Because a stable currency rate is crucial to a stable economy as a whole.

The purpose of the research by Emerah et al. (2015) was to identify the connections between Nigeria's GDP, currency rate, imports, exports, and inflation rate. The data showed a positive and statistically significant correlation between GDP, exchange rate, and exports.

The effect of the exchange rate on GDP growth from 1986–2013 was studied by Adeniran et al. (2014). This confirms prior research showing that poor nations benefit more from flexible

exchange rate regimes, since the results showed that the rate of exchange has a favorable effect, but it is not statistically significant (1 0.014,  $t = 1.783$ , Pns). Interest and inflation rates both had a negative effect on GDP growth, but the effect was not statistically significant, according to the results.

Using yearly data from 1970 to 2009, Oyovwi (2012) aimed to assess the impact of currency rate fluctuation on GDP growth in Nigeria. In addition, the results demonstrate that exchange rate volatility has a favorable effect on economic growth in the short term but a detrimental effect in the long run. An rise in oil prices dampens economic development in Nigeria, according to the long-term results. Factory closures and relocations to neighboring nations indicate that the production impact of increased oil prices is evident, but the income effect is not felt.

The relationship between the exchange rate and economic growth has been the subject of much prior study, which this discourse thoroughly reviews. Two hypotheses were reviewed in the theoretical framework. Among them, you may find the Endogenous Growth Model and the Purchasing Power Parity (PPP) hypothesis. Furthermore, there are various gaps that may be seen by observing the empirical investigations that have been evaluated. First, there is still no universal agreement on the nature of the link between the exchange rate and economic growth, and these studies have produced contradictory findings (both positive and negative opinions on the influence of the exchange rate on economic development). The second issue is that the studies are either out of date or do not extend beyond the year 2021. Finally, this study's factors employed to proxy exchange rate are unique compared to the others. In order to fill this knowledge vacuum, this research will focus on the relationship between the exchange rate and economic development in Nigeria. This research will examine the relationship between real gross domestic product (GDP), which is a measure of economic growth in Nigeria, and exchange rate, trade openness, interest rate, and foreign reserves. A forty-year span, from 1985 to 2021, will also be covered by the research. This research will be more relevant and up-to-date as a result.

## **METHODOLOGY**

Using the Augmented Dickey Fuller (ADF), Auto-Regressive Distributive Lag Bound Test, and Error Correction Form model, this study examined the relationship between the exchange rate and economic development in Nigeria. The World Bank's World Development Indicators and the Central Bank of Nigeria's statistics bulletin were used to extract secondary time series data. The response variable is real GDP from 1985 to 2021, and the proxies for exchange rate are trade openness, interest rate, external reserve, and real exchange rate.

### **Model Specification**

A model based on multiple regression was used in this investigation. After establishing a link between the explained (dependent) variable and the independent (explanatory) variable, this

multiple regression model was used to further establish the association. All three versions of the model—functional, mathematical, and econometric—were presented here:

One way to express the model that demonstrates the linear functional connection is as follows:

$$RGDP f(RER, TOP, ERS, INT) \quad (1)$$

The functional form of the model specified above was transformed to a mathematical model as follows;

$$RGDP = \alpha_0 + \beta_1 RER_t + \beta_2 TOP_t + \beta_3 ERS_t + \beta_4 INT_t \quad (.2)$$

The mathematical form of the model specified above was transformed to an econometric model as follows;

$$RGDP = \alpha_0 + \beta_1 EXR_t + \beta_2 TON_t + \beta_3 ERS_t + \beta_4 INT_t + \mu_t \quad (3)$$

The econometric form of the model specified above was transformed to a logarithmic model as follows;

**A Priori Expectation:**  $\beta_1 < 0, \beta_2 > 0, \beta_3 > 0, \beta_4 < 0$

Where:

RGDP = Real Gross Domestic Product, RER=Real Exchange rate, TON = Trade openness, ERS = External reserves, INT = Interest Rate,  $\beta_0$  = the intercept/constant variable  $\beta_1 - \beta_4$  = coefficients of independent (explanatory) variables, t = time,  $\mu_t$  = disturbance term

### Variable Description

**Real Gross Domestic Product (RGDP):** This monetary value of the final output of goods and services produced in an economy in a given period of time, usually a year.

**Exchange Rate:** This is the price for which the currency of one country is exchanged for another country's currency.

**Trade Openness:** This is an economic metric calculated as the ratio of country's total trade (the sum of exports plus imports) to the country's Gross Domestic Product.

**External Reserve:** These are assets held by a Central Bank or other monetary authority, usually in various currencies, mostly the United State dollar, and to a lesser the euro, the pound sterling, the Japanese yen, and used to back it liabilities.

**Interest Rate:** Borrowing costs or ROI, often represented as a percentage, are what this term alludes to. Interest rate dynamics, however, significantly impact economic activity. If interest rates

were to rise, for example, borrowing money would become more costly, which would have a negative impact on investment and consumer spending and, by extension, the economy as a whole.

#### 4.0 Empirical Data Analysis

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

Variables	ADF			Decision I(d)
	Level	1 <sup>st</sup> _diff.	Critical Value at 5%	
	-0.6264	-3.9372***	-2.9484	I(1)
	- 4.0425***	-	-2.9458	I(0)
	-3.0661**	-	-2.9458	I(0)
	-2.4550	-5.5539***	-2.9540	I(1)
	- 3.8423***	-	-2.9458	I(0)

**Note:** Test statistics values are reported. \*, \*\* and \*\*\* denote rejection of the null hypothesis at Significant of 10%, 5% and 1% level. ADF null hypothesis: series is non-stationary

Source: Author’s Computation (2024)

Using the information in table 1, we ran the study's variables through the Augmented Dickey Fuller (ADF) Tests to see whether they were stationary or non-stationary series. According to the findings of the stationarity test, LRGDP and LERS were determined to be stationary at initial difference 1, whereas TON, INT, and LRER were determined to be stationary at level I (0). There is no clear pattern to the variables' integration orders or levels of stationarity of initial differences. All of the variables in model two stayed the same after accounting for the initial difference (1).

#### Co-integration Result

**Table 2: ARDL Bound Test**

Model	Optimal Lag Length	F-Statistics	Cointegration
	(2, 3, 3, 2, 3)	4.499827***	Null hypothesis: No levels relationship
Significant Level	I(0)	I(1)	
10%	2.2	3.09	
5%	2.56	3.49	
2.5%	2.88	3.87	
1%	3.29	4.37	

Note: \*, \*\* and \*\*\* denote significance at 10%, 5% and 1% level, respectively.

Source: Author’s computation (2024)



That the series do not have any kind of long-term link is the null hypothesis that is tested. According to Table 2, the calculated F-statistics of 4.499827 are higher than the critical value of 3.49, which is the upper limit at the 5% level for the I(1) series. After consulting Pesaran et al. (2001), the researchers in this study decided to test for a cointegrating link rather than a lack of one. A cointegrating link among the series is therefore considered a viable solution. This points to the existence of a long-run equilibrium link among the following variables: interest rate, trade openness, external reserves, exchange rate, and real GDP. After confirming cointegration, the research estimated both the static and dynamic models using the ARDL approach.

**Table 3: ARDL Long and Short Run Results**

<b>Dependent Variable:</b>				
<b>Panel I: Long Run Results</b>				
	-3.9874*	2.0750	-1.9215	0.0727
	0.0938	0.0665	1.4101	0.1776
	0.0462**	0.0195	2.3623	0.0312
	-0.5393**	0.2482	-2.1731	0.0451
C	37.1860	13.0581	2.8477	0.0116
<b>Panel II: Short Run Results</b>				
	0.2130	0.1460	1.4585	0.1640
	-0.0208	0.0197	-1.0584	0.3056
	0.0393*	0.0199	1.9787	0.0653
	0.0654***	0.0140	4.6546	0.0003
	0.0005	0.0005	1.0892	0.2922
	-0.0003	0.0005	-0.6690	0.5130
	-0.0010*	0.0005	-2.0530	0.0568
	-0.0008	0.0015	-0.5650	0.5799
	0.0061***	0.0015	3.9869	0.0011
	0.0010	0.0015	0.6766	0.5083
	0.0126***	0.0024	5.1971	0.0001
	0.0039**	0.0017	2.1998	0.0429
	-0.0284***	0.0054	-5.2498	0.0000
$R^2 = 0.7864$		Adjusted $R^2 = 0.6644$		

5Note: \*, \*\* and \*\*\* denote significance at 10%, 5% and 1% level.

Source: Author's computation (2024)

Estimates of the parameters, together with their probability values and coefficients of determination, are shown in Table 3. Both Panel I's presentation of the long-run parameter estimates and Panel II's summary of the short-run parameter estimates are included in Table 4.5.

A real exchange rate coefficient of -3.9874 and a probability value of 0.0727 are shown in Panel I of Table 3. These metrics show that, over the long term, the real exchange rate hinders economic development. Economic growth is 3.9874% slower when the real exchange rate increases by one percentage point, according to these findings. Furthermore, the diminishment of economic growth due to an increase in the real exchange rate is negligible, as shown by the likelihood value of 0.0727.

An increase of 1% in trade openness is linked to a 0.0938 percentage point boost to economic growth over the long term. The calculated probability value of 0.1776 for trade openness suggests that, in the long term, there is no substantial impact of higher trade openness on economic growth. Thus, it follows that, in the long term, changes in trade openness do not affect economic development.

The impact of changes in foreign reserves on GDP growth was a negligible 0.0462 percent. Increasing Nigeria's foreign reserves is good for the country's economy since it boosts growth over time, according to the positive marginal impact. In particular, over the long term, a real GDP gain of around 0.0462 percent is associated with a 1% increase in foreign reserves. Alterations to foreign exchange reserves have a beneficial effect on GDP growth, which is statistically significant at the 5% level.

In the long term, the results showed that interest rates had a negative correlation with economic growth. Theoretically, a negative correlation between interest rates and economic development makes sense; after all, a rise in the cost of capital or borrowing money is supposed to deter private investment and consumer borrowing, which in turn lowers production and aggregate demand. Assuming no change in the real exchange rate, trade openness, or foreign reserves, the study reveals that a 1% rise in interest rates would lead to a 0.5393% drop in long-term production levels. The outcome further demonstrates that interest rates have a substantial negative symmetric effect on economic growth over the long term.

The short-term results showed that the actual exchange rate is two years behind schedule, which is beneficial to economic development right now. There will be a 0.0654% boost to production level after two years of a 1% real exchange rate hike. The correlation between foreign exchange reserves and GDP growth is positive and statistically significant. Both the short-term and long-term effects of changes in foreign reserves on economic growth are supported by this finding. While a 1% increase in foreign reserves stimulates economic growth by 0.0061% in the short run, but only after one year, study comparing the long- and short-run results shows that the marginal impact of external reserves on economic growth is stronger in the long run. On the other hand, data from the first two years of a new interest rate policy shows that, at least temporarily, interest rate adjustments boost economic growth. Interest rate adjustments have a favorable impact on economic development, but this benefit diminishes when interest rate increases become sustained, as shown by the marginal effects of a 0.0126 percent stimulus after 1 year and a 0.0039 percent stimulus after 2 years.

At the 5% level of significance, the study's calculated error correction term was -0.0284. The bound test's finding that the currency rate, trade openness, external reserves, interest rate, and real gross domestic product are all related in the long run is supported by the relevance of the error correction component at the 5% level. An annual correction of 2.84 percent of the short run departure from the long run equilibrium level of economic growth is suggested by the predicted coefficient of -0.0284, which alludes to the model's sluggish equilibrating speed.

### Post Estimation Test

**Table 4: Diagnostic Test Results**

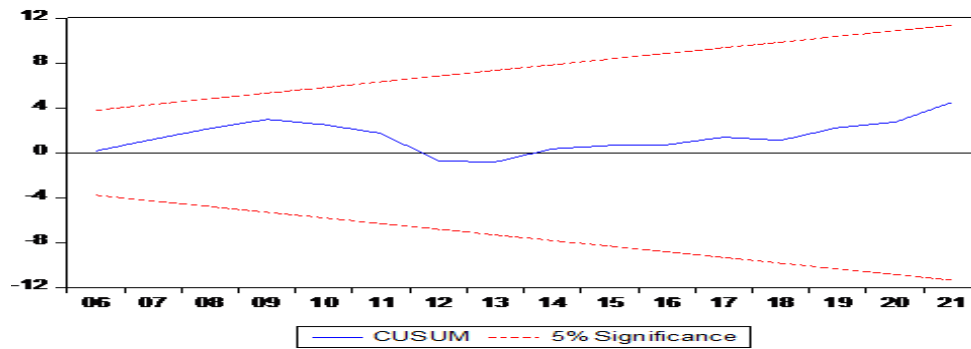
Tests	CLRM Problem	Value	Prob.	Decision
Breusch-Godfrey LM	Serial Correlation	0.6946	0.7066	Serial independence
Breusch-Pagan-Godfrey	Heteroscedasticity	15.8889	0.5317	Constant Variance
Jarque-Bera	Normality	0.7524	0.6864	Normal residuals
Ramsey RESET	Linearity	1.1944	0.2917	Linear Model
CUSUM	Stability	-	-	Stable Model
CUSUM of Squares	Stability	-	-	Stable Model

Note: CLRM stands for classical linear regression model

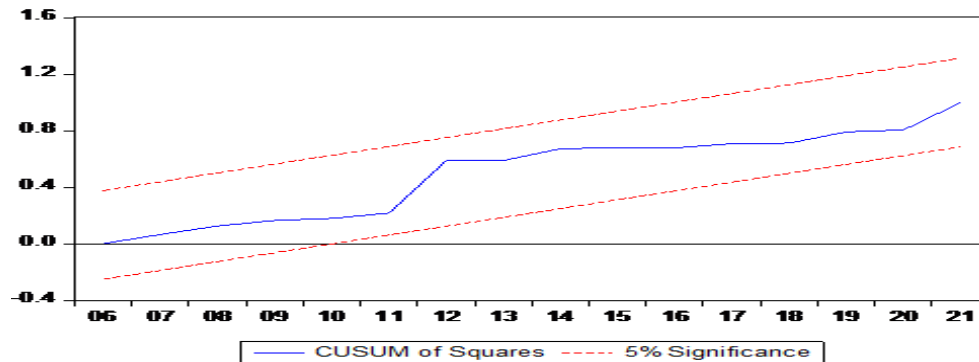
Source: Authors' compilation (2024)

The study's estimated probability was 0.7066 and the Chi-square Breusch-Godfrey LM Test statistic was 0.6946. With a probability value of the Chi-square Breusch-Godfrey LM Test statistics above 0.05, the research failed to reject the null hypothesis of serial independence of the mistakes, indicating that the estimated ARDL model does not suffer from the issue of serial dependency of the errors. Similarly, the study failed to reject the null hypothesis of homoscedasticity of the errors because the probability value of the calculated Chi-square Breusch-Pagan-Godfrey statistics is greater than 0.05. The Chi-square Breusch-Pagan-Godfrey test statistics show that the variance of the errors is constant over time with a probability value of 0.5317. The normalcy test also showed that the estimated model's errors follow a normal distribution. With a probability value of 0.7524, which is more than 0.05, the investigation was unable to reject the null hypothesis of normal distribution of the errors. The research found no statistical significance in the test, as the computed Ramsey RESET F-statistics was 1.1944 with a probability value of 0.2917. Accordingly, the investigation did not find evidence to disprove the null hypothesis, suggesting that the model's linear and functional forms are appropriately defined.

In order to ensure that the estimated coefficients are stable, the study employed the cumulative sum (CUSUM) and cumulative sum of squares (CUSUM of squares) statistics. The results showed that the estimated ARDL model's coefficients are stable, with a plot of CUSUM and CUSUM of squares statistics falling within the 5% critical bounds, suggesting that the series is uninterrupted.



**Figure 4.1: Plot of Cumulative Sum (CUSUM)**



**Figure 2: Plot of Cumulative Sum of Squares (CUSUMSQ)**

### Discussion of Findings

In the long term, the analysis found a positive and statistically insignificant correlation between the exchange rate and economic growth. The marginal impact of changes in the exchange rate on economic growth was found to be -3.9874 in the estimated regression model. This means that for every 1% rise in the real exchange rate, there is a 3.9874% decrease in production. Although the exchange rate has a negligible negative effect on economic development, the fact that it does so goes against economic theory. Since this would have no influence on economic development, it follows that attempting to stimulate the Nigerian economy via exchange rate policy is futile. This conclusion contradicts the findings of Umaru et al. (2018) and Barguelli et al. (2018), who discovered a negative and statistically significant correlation between the exchange rate and economic growth.

The effect of trade openness on economic development in Nigeria was favorable but negligible. Trade openness has an estimated coefficient of 0.0938, which means that a 1% increase in trade openness has a negligible long-term effect on economic growth of 0.0938 percent. Government policies aimed at integrating the Nigerian economy with global commerce have not improved economic development, according to this report. As a result, current trade policies need to be reevaluated. Although Raghutla (2020) and Ejike et al. (2018) discovered a positive and substantial association between trade openness and economic development, our data contradict them. They are in agreement with Oloyede et al. (2021).

With a 1% increase in reserves expected to accelerate economic growth by 0.0462% in the long term, it's clear that foreign reserves have a positive and substantial effect on GDP growth. Consistent with the findings of Nwosa (2017) and Adama, Ohwofasa and Onabote (2022), a favorable correlation between foreign reserves and economic development has been demonstrated. A negative correlation between interest rates and GDP growth was seen during the course of the study's lifetime. An anticipated drop in production level of 0.5393% would result from a 1% increase to the interest rate. This conclusion has important policy implications since it shows that raising interest rates or the cost of capital lowers production. Therefore, lowering interest rates may boost economic growth. Utile, Okwori, and Ikpambese (2018) discovered that interest rates had a negative and negligible effect on economic growth in Nigeria; this conclusion contradicts their findings.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusion**

The purpose of this research was to use yearly frequency data from 1985–2021, with the end goal of determining whether the exchange rate drives economic development in Nigeria. The research used the autoregressive distributed lag (ARDL) technique to determine how the exchange rate affected GDP growth. Economic growth was positively and insignificantly affected by the exchange rate, according to the results. Economic growth was positively and significantly affected by foreign reserves, and negatively and significantly by interest rates, according to the regression findings. Economic growth was shown to be positively and insignificantly affected by trade openness. A key component of economic development in Nigeria is not the currency rate, according to the study's findings.

### **Recommendations**

The study's findings informed the following policy recommendations:

- The central bank should implement measures to stabilize the currency rate, as a stable and predictable exchange rate is crucial for economic growth.

- The government should relax trade restrictions and promote export-led policies to boost economic growth through increased trade integration with global trade.
- The research suggests that in order to enhance the position of the external reserves, it is necessary to allocate foreign currency to growth-oriented economic sectors and promote exports via export promotion policies.
- The research suggests that the monetary authority should lower the interest rate on loans in order to encourage economic development.

## REFERENCES

- Adama, I. J., Ohwofasa, B., & Onabote, A. (2022). Empirical assessment of the impact of external reserves on economic growth in Nigeria. *Investment Management and Financial Innovations*, 19(2), 295-305.
- Barguellil, A., Ben-Salha, O., & Zmami, M. (2018). Exchange rate volatility and economic growth. *Journal of Economic Integration*, 33(2), 1302-1336.
- Ejike, D. C., Arinze, A. S., & Chidi, O. F. (2018). Trade liberalization and economic growth in Nigeria: a cointegration analysis (1980-2015). *IJBM-International Journal of Business Management*, 1(1), 68-81.
- Nwosa, P. I. (2017). External reserve on economic growth in Nigeria. *Journal of Entrepreneurship, Business and Economics*, 5(2), 110-126.
- Oloyede, B. M., Osabuohien, E. S., & Ejemeyovwi, J. O. (2021). Trade openness and economic growth in Africa's regional economic communities: empirical evidence from ECOWAS and SADC. *Heliyon*, 7(5), e06996.
- Raghutla, C. (2020). The effect of trade openness on economic growth: Some empirical evidence from emerging market economies. *Journal of Public Affairs*, 20(3), e2081.
- Umaru, H., Aguda, N. A., & Davies, N. O. (2018). The effects of exchange rate volatility on economic growth of West African English-speaking countries. *International journal of academic research in accounting, finance and management sciences*, 8(4), 131-143.

Global Journal of Arts, Humanities and Social Sciences

Vol.12, No.3, pp.36-50, 2024

Print ISSN: 2052-6350(Print)

Online ISSN: 2052-6369(Online)

Website: <https://www.eajournals.org/>

---

Publication of the European Centre for Research Training and Development -UK

Utile, B. J., Okwori, A. O., & Ikpambese, M. D. (2018). Effect of interest rate on economic growth in Nigeria. *International Journal of Advanced Academic Research*, 4(1), 66-76.