

## **Impact of Exchange Rate on Foreign Trade in Nigeria**

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### **Abstract**

The study assessed the impact of exchange rate on foreign trade in Nigeria from 1981 to 2022, spanning 42 years. Data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and the World Bank Indicator. The analysis employed the Autoregressive Distributed Lag (ARDL) method, because ARDL provides more flexible lag structure than VECM and also makes the interpretation of long-run easier. An ex post facto research design was adopted. This study filled the gap of period left by other scholars. The findings revealed that in the short run, the exchange rate (EXCR) had a negative and significant impact on trade. However, in the long run, EXCR showed a positive and significant effect on trade. The gross domestic product growth rate (GDPGR) had a negative but insignificant impact on exports in the short run, while in the long run, GDPGR had a negative and insignificant impact on trade. The inflation rate (INFL) demonstrated a positive but insignificant impact on foreign trade in both the short and long run. The study recommended in order to remedy the adverse effect of exchange rate in the short run careful measures should be put in place to avert malpractices in the foreign exchange transaction several; to enhance GDP growth rate. Government should encourage local production through tax cuts, grants, subsidies and low-interest loans. Finally, inflation could be curtailed by adopting price control mechanisms to prevent the sharp rise in goods prices, and lowering interest rates to facilitate affordable loans for business expansion and increased productivity.

**Keywords:** Exchange Rate, GDP Growth Rate, Inflation Rate, Interest Rate, Export Foreign Trade, J-Curve

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### **1. Introduction**

Trading between countries (whether developed, developing, or emerging) has to do with more than one currency. The reason why there is exchange of goods, services, or capital occurs that some countries lack absolute or comparative advantages in producing certain goods or services and must rely on imports. The

trade in domestic parlance involved currency exchange or the risks associated with fluctuating exchange rates do not exist. However, when trade involves

multiple countries, currency exchange becomes necessary, making exchange rate fluctuations a significant factor in international trade (Olayungbo et al., 2011; Nwani et al., 2021).

For a country to fully benefit from trade, a stable exchange rate is essential. In Nigeria, exchange rate instability has been a persistent issue, stemming from both domestic and international economic conditions (Nigerian Economic Summit Group [NESG], 2024). Key drivers of this instability include over-reliance on imports, limited foreign exchange earnings due to dependence on crude oil exports, FX market illiquidity, high inflation, and speculative activities (Ani et al., 2024; NESG, 2024). To address these challenges, the Central Bank of Nigeria (CBN) has implemented various policies to control exchange rates since the Structural Adjustment Programme in 1986. These include the Dual Exchange Rate Regime and the Dutch Auction System (both Retail and Wholesale versions), among others (Akintomide, 2021; Ogbonna & Ejem, 2019).

Nigeria's struggle to stabilize its exchange rate is largely due to the composition of its exports, predominantly crude oil. According to the CBN Quarterly Bulletin of 2024, Nigeria's oil exports were valued at US\$31.4 billion, US\$40.8 billion, and US\$57.1 billion in 2020, 2021, and 2022, respectively, while non-oil exports were significantly lower. In contrast, non-oil imports in 2021, 2022, and 2023 were US\$37.1 billion, US\$37.9 billion, and US\$30.8 billion, respectively.

The Nigerian Bureau of Statistics reported that the net import value of agricultural products stood at N1.3 trillion in 2022 and N1.0 trillion in 2023. The net import value of solid minerals was N67.3 billion in 2022 and N53.1 billion in 2023, while raw materials imports increased by 57.1% to N2.2 trillion in 2023 from N1.4 trillion in 2022. Manufactured goods imports surged to N17.6 trillion in 2023 from N10.2 trillion in 2022 (NESG, 2024). These figures cast doubt on the prospects of Naira appreciation seen in parts of 2023.

Exchange rate adjustments led to high inflation, which stood at 33.2% in March 2024. Combined with the removal of fuel subsidies, this placed significant pressure on the Nigerian economy. In response, the CBN tightened monetary policy. In May 2024, the Monetary Policy Rate (MPR) was raised to 26.25%, the cap on the Standing Deposit Facility (SDF) was removed, and the Cash Reserve Ratio (CRR) was maintained at 45%. The CBN also consolidated foreign exchange transactions into the Investors and Exporters (I&E) window to improve FX supply (Afrexim, 2024).

According to Afrexim (2024), recent exchange rate policies have encountered various challenges and achievements. In June 14, 2023, the official exchange rate depreciated by 60%, intensifying market scrutiny. Between July and October 2023, the parallel market rate depreciated by 35%. By the end of February 2024, the Naira fell to ₦1,544: US\$1 in the official market. However, from March to June 2024, the Naira's volatility decreased, closing the second half of the year at ₦1,470:US\$1.

This fluctuation in the exchange rate impacted trade performance, as reflected in the balance of trade data. According to the CBN (2024), Nigeria recorded a negative balance of trade of US\$-21,373.30 million in 2020. By 2021, this negative balance had reduced to US\$-7,874.34 million, indicating a recovery in trade. In 2022, a positive balance of trade of US\$215.04 million was recorded, followed by a further increase to US\$3,550.35 million in 2023. The first quarter of 2024 also saw a positive balance of trade, suggesting that exchange rate unification is boosting trade.

When exports exceed imports, it leads to exchange rate stability, economic growth, a favorable balance of payments, and increased investment. However, studies on the relationship between exchange rates and trade present mixed results. Adesina et al. (2021) and Habanabakize (2020) found a long-run relationship between exchange rates and trade. In contrast, earlier studies by Sweidan (2013) and Bahmani-Oskooee and Wang (2008) reported no significant relationship. Similarly, Ngondo and Khobai (2018) and Bahmani-Oskooee and Wang (2008) observed a negative but insignificant relationship. On the other hand, Mpungose et al. (2023), Ijirshar et al. (2022), Orach et al. (2021), and Chimhore and Chivasa (2021) found a positive and long-run relationship. Some studies, like Ijirshar et al. (2022), indicated a short-run negative impact with weak significance, while Meniago and Eita (2017) suggested that persistent exchange rate volatility might compel exporters to reduce exports.

Within Nigeria, research shows varying results. Akintomide (2021) highlighted that exchange rate reforms could enhance export competitiveness. Conversely, Akanbi et al. (2017) found that exchange rate fluctuations negatively affected non-oil exports. Exchange instability has been a major problem of Nigeria economy which is biting hard and raising the rate of inflation. The monetary authority in order to curtail inflation which is caused as a result of rise in exchange rate will raise the rate of loan interest. But there are few works that have

been done on exchange rate and trade in Nigeria. The available works reviewed which were done in Nigeria are becoming very old. With this the researchers aimed at filling the gap of time left by previous authors and also localizing the research within Nigerian economy. This study therefore aimed to examine the impact of exchange rates on foreign trade in Nigeria using data that previous studies have not covered. The specific objectives are to assess the impact of exchange rates on exports, GDP growth on exports, inflation rates on exports, and interest rates on exports in Nigeria.

## **2. Literature      Review**

### **Short Run vs Long-Run**

Ijirshar et al. (2022) investigated the impact of exchange rates on Nigeria's trade flow from 1986 to 2021, using real GDP, world real GDP, gross capital formation, and foreign direct investment as variables. The Autoregressive Distributed Lag (ARDL) method revealed that exchange rate devaluation negatively affects trade and export in the short run but positively in the long run, supporting the J-curve hypothesis. The over-reliance of oil export at the expense of non-oil products, the long-run positive effect cannot be realistic in the non-oil sector.

Orach et al. (2021) explored the effect of exchange rate volatility on Uganda's trade balance, using variables such as real exchange rate, GDP, foreign direct investment, inflation, and gross capital formation. The study applied Augmented Dickey-Fuller tests, Johansen Cointegration, and a Vector Error Correction Model, finding a long-run relationship between exchange rate volatility and trade in Uganda. Key variables, including the real exchange rate and FDI, were positively related to trade, aligning with Ijirshar et al. (2022) findings.

The study reviewed the work of Yuorkuu et al. (2024), which examined the effects of exchange rate volatility and its transmission pathways on economic growth in post-liberalization Ghana. The proxies used were GDP growth, exchange rate volatility, gross capital formation, and foreign direct investment. Utilizing the GARCH (1,1) and ARDL models, the study found that exchange rate volatility negatively impacts Ghana's economic growth.

In South Africa, Mpungose et al. (2023) revisited the effects of exchange rates on imports and exports from Q1 1994 to Q4 2021. The study used variables such as exchange rate, economic growth, inflation rate, and imports, employing a Vector

Autoregressive model. The findings indicated that exchange rates significantly affect trade terms. The findings of this agreed with that of Ijirshar et al. (2022), and Chimhore and Chivasa (2021). But there was a disagreement in the findings of Yourkuu et al. (2024). Region is the reason why the findings of Mpungose et al. (2023) Yourkuu et al. (2024).

Chimhore and Chivasa (2021) examined the effects of exchange rates on Zimbabwe's exports, using South African exchange rate, GDP, FDI, imports, and South African broad money supply. Multiple regression analysis showed that the South African exchange rate was weakly significant at a 10% level, while the broad money supply was significant at 5%. The study recommended a policy shift away from relying solely on FDI to boost imports.

Meniago and Eita (2017) explored whether exchange rate volatility deters trade in 39 Sub-Saharan African states, using measures like standard deviation, generalized autoregressive conditional heteroskedasticity, and Hodrick-Prescott (HP) Filter. They concluded that the impact of exchange rate volatility on trade depends on the volatility measure used, with exporters likely to reduce exports under volatile conditions.

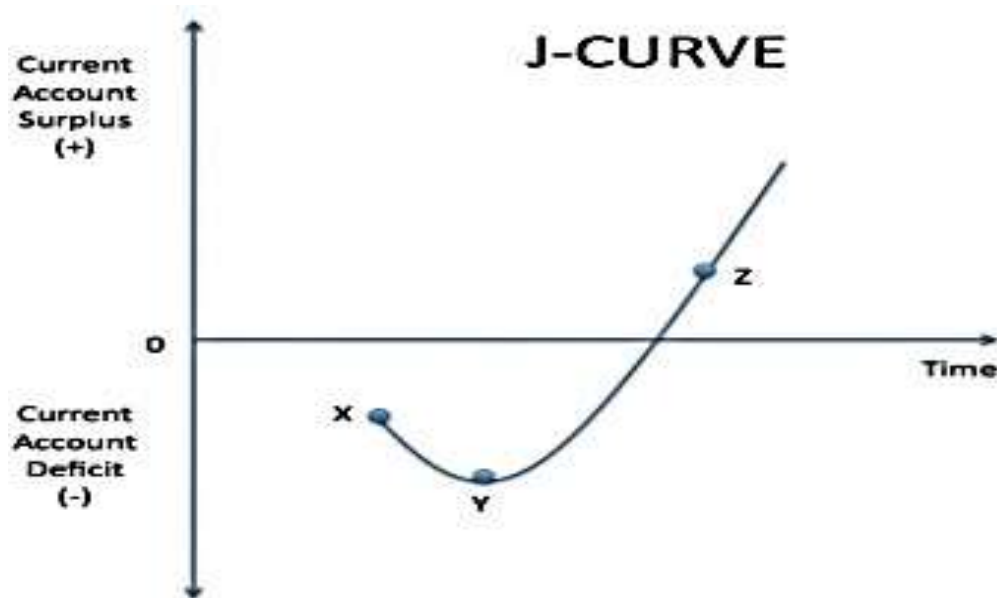
Olayungbo et al. (2011) investigated exchange rate volatility's impact on trade in 40 selected Sub-Saharan African countries from 1986-2005. Using pooled ordinary least squares and the Generalized Method of Moments (GMM), the study found that exchange rate volatility generally enhances trade, though the impact differs significantly between ECOWAS and non-ECOWAS countries.

## **2.1 Theoretical Review**

### **J-Curve Theory**

The J-Curve Theory, introduced by James C. Davis in 1962, posits that following a currency devaluation, a country's trade deficit will initially worsen in the short term before improving in the long term, provided certain conditions are met (Kenton, 2021; Davis, 2024). Akorli (2017) explains, "The J-Curve suggests that after a currency devaluation, a country's current account balance initially deteriorates before improving over time." The recovery will happen to fulfill the Marshal-Lerner condition which states that devaluation of currency will improve balance of trade which means the sum of the elasticity for import and export is greater than one. In simpler terms, Akorli (2017) describes the J-Curve as "a short-run decline and a long-run recovery in the trade balance." The recent

incidence of depreciation of Naira in 2023 indicated that import fall from 58,228.96 to 47,745.80. The oil exportation made the figure of the Nigerian export to be greater than one seeing that the oil sector is contributing up to about 78% of the Nigeria total export. This study is grounded in the J-Curve theory, as the devaluation of the country's currency has led to a worsening trade situation in the short term, with expectations of an upward trajectory in the long run.



**Source:** Akorli (2017)

The curve indicates that when exchange rate is at point X, trade will worsen in the short-run at point Y. But after a long period, trade will take an upward trajectory from point Y and become positive in the long-run at point Z.

### 3. Methodology

The research design adopted for this study is a causal research design. The study conducted the following tests: descriptive statistics test, correlation test, ADF test for stationarity, and Autoregressive Distributed Lag, Bound Test, LM Test for serial correlation, and Variance Inflation Factor. Pasaran et al. (1999) is of the view that ARDL is suitable when there is cointegration as an alternative to VECM because ARDL provides more flexible lag structure than VECM and also makes

the interpretation of long-run easier. GARCH model focuses on time varying, because it deals mostly with risk. GARCH is used for forecasting. Thus, captured time varying volatility; while ARDL models relationship between variables where it combines autoregressive and Distributed Lag. ARDL allows the researcher to test both short run and long run. Therefore, this study chooses ARDL because the focus is to determine the effect of exchange rate on trade in short run and long run.

The model specified for this study was patterned after the model formulated in the work of Ijirshar et al. (2022). The model specified by Ijirshar et al. (2022) was

$$\ln T BAL_t = \alpha_0 + \alpha_1 \ln REER_t + \alpha_2 \ln RGDP_t + \alpha_3 \ln WRGDP_t + \alpha_4 \ln GFCF + \alpha_5 \ln FDI_t + U_t \dots (i)$$

For the purpose of this study, the model was modified as follows:

$$EXPORT_t = f(EXCR, GDPGR, INFL, INTR) \dots (ii)$$

$$EXPORT_t = \beta_0 + \beta_1 EXCR_t + \beta_2 GDPGR_t + \beta_3 INFL_t + \beta_4 INTR_t + \mu_t \dots (iii)$$

Where:

EXPORT = Export of goods and service for year

EXCR = Exchange rate

GDPGR = GDP growth rate

INFL = Inflation rate

INTR = Interest rate

$\beta_0$  = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$  = coefficient of the independent variables

$\mu$  = Stochastic Error Term

t = period

**Table 1: Comparison of Model specification**

| S/N | Original Model                                                                                                                                   | Modified Model                                                                            | Variable Dropped      | Variables Adopted  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------|--------------------|
| 1   | $\ln TBAL_t = \alpha_0 + \alpha_1 \ln REER_t + \alpha_2 \ln RGDP_t + \alpha_3 \ln WRGDP_t + \alpha_4 \ln GFCF + \alpha_5 \ln FDI_t + \mu t + ut$ | $EXPORT_t = \beta_0 + \beta_1 EXCR_t + \beta_2 GDPGR_t + \beta_3 INFL_t + \beta_4 INTR_t$ | TBAL, RGDP, GFCF, FDI | EXPORT, INFL, INTR |

**Source: Researchers' (2024)**

The reasons for adopting the followings: Inflation rate was adopted because whenever exchange rate is depreciated, the prices of goods and services increase; are adopted because in attempt to regulate the circulation of money government raise interest rate to make cost of borrowing high. EXPORT was taken while TBAL was dropped because the research focused on seeing how exportation is improved after long time of devaluing currency.

**Table: 2 Variables Definitions**

| S/N | Variable | Definition                                  | Source     |
|-----|----------|---------------------------------------------|------------|
| 1   | EXPORT   | Export of goods and service for year in USD | CBN        |
| 2   | EXCR     | Exchange rate in percentage                 | CBN        |
| 3   | GDPGR    | GDP growth rate in percentage               | World Bank |
| 4   | INFL     | Inflation rate in percentage                | CBN        |

**Source: Researchers' Compilation (2024)**

#### 4. Data Analysis and Interpretation

**Table 3: Descriptive Statistics**

| EXPORT   | EXCR     | GDPGR     | INFL     |
|----------|----------|-----------|----------|
| 6227897. | 115.7410 | 3.046473  | 18.94662 |
| 1906839. | 115.2551 | 3.449434  | 12.94178 |
| 27251572 | 425.9811 | 15.32916  | 72.83550 |
| 7502.500 | 0.610025 | -13.12788 | 5.388008 |
| 7243131. | 119.1411 | 5.319457  | 16.45496 |

**Source: Authors' Compilation (2024)**

The table above presents the mean values for export, exchange rate, GDP growth rate, inflation rate, and interest rate from 1981 to 2022. The median indicates the midpoint of the data, while the maximum and minimum represent the highest and lowest values, respectively. The standard deviation measures the degree of dispersion from the mean, highlighting how much the values deviate from the average.

**Table 4: Correlation Analysis**

|        | EXPORT  | EXCR    | GDPGR   | INFL |
|--------|---------|---------|---------|------|
| EXPORT | 1       |         |         |      |
| EXCR   | 0.9019  | 1       |         |      |
| GDPGR  | 0.1745  | 0.1469  | 1       |      |
| INFL   | -0.3022 | -0.2900 | -0.2074 | 1    |

**Source: Authors' Compilation (2024)**

Table 4 is a correlation table that shows the relationship between one variable with another. The table showed that all the variables are strongly correlated.

**Table 5: Stationarity Test Summary**

| Variables | ADF       | t-statistics | Probability | Order of Integration | Remark       |
|-----------|-----------|--------------|-------------|----------------------|--------------|
| EXPORT    | -3.050466 | -2.935001    | 0.0385      | I(0)                 | Stationary   |
| EXCR      | 4.212042  | -2.936942    | 0.0019      | I(1)                 | Stationarity |
| GDPGR     | -3.203694 | -2.936942    | 0.00271     | I(0)                 | Stationarity |
| INFL      | -3.770580 | -3.012363    | 0.0104      | I(1)                 | Stationarity |

**Source: Authors' Compilation (2024)**

In the table 5, the variables integrate at level and first difference. The order of integration guarantees the adoption of Autoregressive distributed Lag Model.

**Table 6: ARDL Short-Run and Long-Run Coefficient**

| Short-Run                                                                                                                 |             |                   |             |          |
|---------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|-------------|----------|
| Variable                                                                                                                  | Coefficient | Std. Error        | t-Statistic | Prob.*   |
| EXPORT(-1)*                                                                                                               | -0.213192   | 0.074920          | -2.845585   | 0.0078   |
| EXCR                                                                                                                      | -29411.59   | 12846.37          | -2.289486   | 0.0290   |
| GDPGR**                                                                                                                   | -11537.86   | 48886.62          | -0.236013   | 0.8150   |
| INF**                                                                                                                     | 167.0013    | 12700.52          | 0.013149    | 0.9896   |
| EXPORT(-1)*                                                                                                               | -0.213192   | 0.074920          | -2.845585   | 0.0078   |
| C                                                                                                                         | 53349.45    | 470762.3          | 0.113326    | 0.9105   |
| Long-Run                                                                                                                  |             |                   |             |          |
| Variable                                                                                                                  | Coefficient | Std. Error        | t-Statistic | Prob.    |
| EXCR                                                                                                                      | 85899.70    | 18447.93          | 4.656332    | 0.0001   |
| GDPGR                                                                                                                     | -54119.49   | 225624.7          | -0.239865   | 0.8120   |
| INF                                                                                                                       | 783.3364    | 59606.61          | 0.013142    | 0.9896   |
| C                                                                                                                         | 250240.9    | 2208333.          | 0.113317    | 0.9105   |
| EC = EXPORT - (85899.7031*EXCR -54119.4872*GDPGR + 783.3364*INF - 437105.5558*DEXCR + 6305567.4678*DGDGPR + 10330174.9848 |             |                   |             |          |
| R-squared                                                                                                                 | 0.978496    | F-statistic       |             | 156.7349 |
| Adjusted R-squared                                                                                                        | 0.972253    | Prob(F-statistic) |             | 0.000000 |
| Durbin-Watson stat                                                                                                        | 1.520061    |                   |             |          |

**Source: Authors' Compilation (2024)**

In the short run, the coefficient of  $D(EXCR)$  is -29411.59, indicating that a 1% increase in the exchange rate leads to a -29411.59 increase in EXPORT. This suggests that currency depreciation negatively impacts EXPORT in the short run. However, this effect is statistically significant as the probability value of 0.0290 is below the 0.05 threshold. The GDP growth rate (GDPGR) has a positive coefficient of -11537.86, implying that a 1% increase in GDP growth leads to 11537.86 decreases in EXPORT. The variable has a negative coefficient and statistically insignificant, with a probability value of 0.8150. Inflation (INFL) shows a positive coefficient of 167.0013, indicating that a 1% increase in inflation leads to a 167.0013 increase in EXPORT. However, this result is not statistically significant at the 0.05 level. The constant term 53349.45 represents the EXPORT value when all independent variables are zero. The probability value of 0.9105 indicates that the exchange rate has an insignificant negative impact on EXPORT in the short run.

In the long run, EXCR has a coefficient of 85899.70, suggesting that a 1% increase in the exchange rate leads to 85899.70 increase in EXPORT. This positive impact is statistically significant, with a probability value of 0.0001, indicating strong significance relationship. GDPGR in the long run has a coefficient of -54119.49, indicating that a 1% increase in GDP growth leads to a 54119.49 decrease in EXPORT. This negative relationship is not statistically significant, as evidenced by the probability value of 0.8120. INFL, with a coefficient of 783.3364, suggests that a 1% increase in inflation leads to a 0.9896 increase in EXPORT. This positive impact is not statistically significant, with a probability value of 0.9896. The constant term 250240.9 represents the value of EXPORT when all independent variables are zero, but it is not statistically significant (Prob. > 0.05).

The model indicates that the exchange rate significantly impacts EXPORT with a positive effects in the short run and in the long run. Other variables show less consistent and statistically insignificant effects. The R-squared value of 0.978496 indicates that approximately 98.96% of the variation in EXPORT is explained by the independent variables, demonstrating a good fit for the model. The Adjusted R-squared of 0.972253, which accounts for the number of independent variables, remains high, suggesting the model's robustness. The Durbin-Watson statistic of 1.5200615, close to 2, suggests minimal autocorrelation in the residuals. The high F-statistic with a low p-value confirms the overall significance of the model,

indicating that EXCR, GDPGR, and INFL collectively have a significant impact on EXPORT.

**Table 7: Bound Test**

| Test Statistic    | Value    | Signif. | I(0) | I(1) |
|-------------------|----------|---------|------|------|
| Asymptotic:n=1000 |          |         |      |      |
| F-statistic       | 17.53041 | 10%     | 1.99 | 2.94 |
| K                 | 6        | 5%      | 2.27 | 3.28 |
|                   |          | 2.5%    | 2.55 | 3.61 |
|                   |          | 1%      | 2.88 | 3.99 |

**Source: Authors' Compilation (2024)**

The F-statistic value of the Bound test is 17.53041 which is greater than 3.49 at the upper bound I(1) at 5% significance level. This makes the acceptance of the null hypothesis that there is a long-run relationship between exchange rates and export in Nigeria.

**Table 8: Variance Inflation Factor**

|          | Coefficient | Uncentered | Centered |
|----------|-------------|------------|----------|
| Variable | Variance    | VIF        | VIF      |
| EXCR     | 72175138    | 8.451511   | 4.297183 |
| GDPGR    | 1.05E+10    | 1.665052   | 1.246307 |
| INF      | 1.05E+09    | 2.804883   | 1.189462 |
| C        | 1.35E+12    | 5.790577   | NA       |
| EXCR     | 72175138    | 8.451511   | 4.297183 |

**Source: Authors' Compilation (2024)**

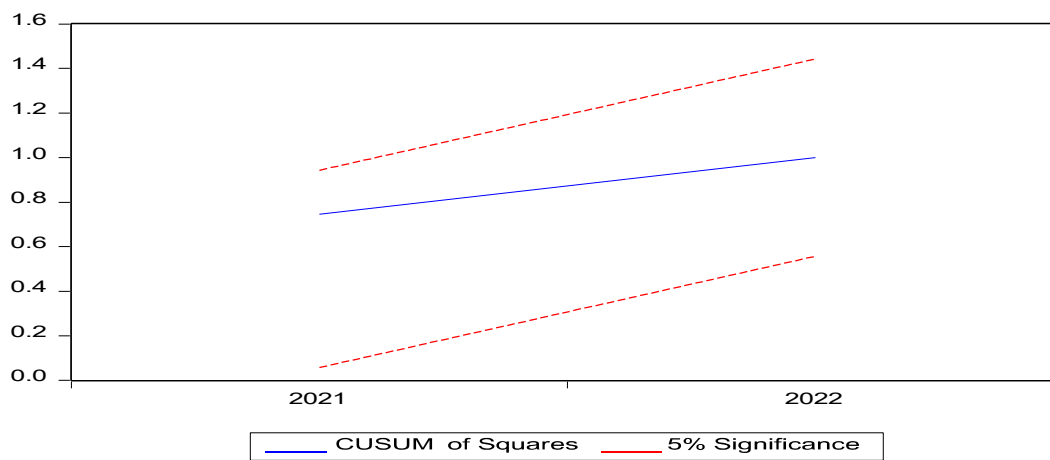
Generally, a VIF value greater than 10 indicates a high degree of multicollinearity. In this case, no variable has a high VIF for EXCR, suggesting a weak correlation between EXCR and other independent variables.

**Table 9 Diagnostics Test**

| Specification                           | Stat(p-value)    | Conclusion                     |
|-----------------------------------------|------------------|--------------------------------|
| Durbin=Watson<br>(Autocorrelation)      | 1.520061         | No significant autocorrelation |
| Bruesch-Godfrey<br>(Serial Correlation) | 2.678322(0.1122) | No serial correlation          |
| Bruesch-Godfrey<br>(Heteroscedasticity) | 1.699987(0.1313) | No Heteroscedasticity          |

**Source: Authors' compilation (2024)**

In order to the strength of the model, the following diagnostics tests were conducted. There is insignificant autocorrelation which has been tolerated. Since Durbin Watson is not the only diagnostic test, further diagnostics test such as serial correlation was conducted and found absence of serial correlation; heteroscedasticity test was also conducted and the null hypothesis of the absence of heteroscedasticity was accepted. The CUSUM test revealed that the model is stable within the significance boundaries.



**Figure 1:** CUSUM Graph

**Source:** Authors' compilation (2024)

### Discussion of Findings

This study examined the impact of exchange rates on foreign trade in Nigeria from 1981 to 2022, using variables such as exchange rate, GDP growth rate, inflation rate, and interest rate. Four hypotheses were developed to investigate the relationship between exchange rates and foreign trade in Nigeria. The findings revealed a long-term relationship between exchange rate and foreign trade, consistent with the works of Ijirshar et al. (2022), Orach et al. (2021), Akanbi et al. (2017), Nyeche (2024), Ogbonna and Ejim (2020), and Yuorkuu et al. (2024), who also identified long-term relationships. In the short run, the study found that exchange rate has an insignificant effect on foreign trade, with a negative coefficient. This suggests that currency depreciation reduces exports in the short run, aligning with Ijirshar et al. (2022), who found that currency depreciation negatively impacts trade in Nigeria in the short run. Nyeche (2024) also found the exchange rate to be insignificant in the short run, although the effect was positive. The findings of this study diverge from Nyeche's due to the focus on economic growth rather than trade. Ogbonna and Ejim (2019) similarly reported an insignificant short-run impact of exchange rate. However, this study disagrees with Yuorkuu et al. (2024) regarding short-run significance, although they align on the direction of the coefficient. Nigerian export is largely dominated by oil exportation which made up of more than 60 of the total export. Over several years the oil sector has continuously dominated. Since export is dominated by oil and

trade is done in US Dollar instead of Naira, which made the effect of export on exchange rate to be insignificant.

Inflation rate was found to have a positive significant impact on trade in the long run, supporting the J-Curve theory, which suggests that a country's trade deficit worsens initially following currency devaluation, but improves in the long run (Akorli, 2017; Kenton, 2021; Davis, 2024). This finding aligns with Ijirshar et al. (2022), Orach et al. (2021), Adejoke et al. (2024), Nyeche (2024), Yuorkuu et al. (2024), and Mpungose and Eita (2023). The study concluded that in the long run, exchange rate can increase exports by 880,417.96 units. However, it partially disagrees with Akanbi (2017), who found a negative long-run significance of exchange rate volatility on non-oil exports, and Yuorkuu et al. (2024), who reported a negative long-run impact. Ani et al. (2024) also found exchange rate to be negatively insignificant in the long run, contrasting with this study's findings.

The study found that GDP growth rate (GDPGR) is statistically insignificant in both the short and long run, which is consistent with Orach et al. (2024), who found GDP to have a negative insignificant impact on exports in Uganda. Inflation showed a positive but insignificant impact on exports in both the short and long run, implying that price increases do not significantly boost export volumes. This result aligns with Adejoke et al. (2024) and Ogbonna and Ejim (2020), who found inflation to have an insignificant long-run impact.

Lastly, the study found that interest rate negatively impacts exports in both the short and long run. High loan interest rates constrain business profitability and hinder productivity, preventing businesses from scaling up for export. This finding is supported by Ogbonna and Ejim (2020), who found that interest rates have a significant impact on trade.

## **5. Conclusion and Recommendations**

This study found that the exchange rate has a significant impact on exports in the short run and long run. This indicates that while currency depreciation may negatively affect businesses and the populace significantly in the short term, economic activities are expected to improve over time as exports increase. The depreciation makes Nigerian goods cheaper when valued in foreign currency, this will boost export volumes. However, the study emphasizes that the growth in exports following currency depreciation is primarily driven by increased activity in the real sector rather than merely higher prices of goods. Due to lack of

attention given to the real sector the GDP growth rate is insignificant. The cause of low growth rate in GDP is as a result of dominance of the oil export at the expense of the real sector. Export is increased as a result of devaluation of national currency but volume of finished product produced in the currency is decreasing. This study also stresses the importance of focusing more on the non-oil sector rather than relying heavily on crude oil exports. The study established that in the long run, the exchange rate could increase exports by 85899.70 units.

The study makes the following recommendations:

1. To reduce the adverse effect of exchange rate adjustment, careful measures should be put in place to avert malpractices in the foreign exchange transaction such that volume of exchange rate transaction will be realistic.
2. To accelerate trade growth, which will affect the GDP growth rate, government should implement measures to support local production, such as tax cuts, providing grants, subsidies and offering low-interest loans to the manufacturing sector as well as creating enabling environment for foreign direct investment. Also, simplifying the process of obtaining export licenses is also crucial. When the taxation is reduced the companies will leverage on it and increase productive to help export as the tax cut will increase the level of capital inflow which will increase investment and production thereby expand export speedily. This will reduce the adverse effect that exchange rate devaluation will have on trade in the short run.
3. Price Control Mechanisms: The government should adopt a price control mechanism to prevent the unchecked rise of goods prices. Establishing a transparent agency to monitor commodity prices and penalizing offenders will help stabilize raw material costs, leading to more reasonable production costs and increased business growth. Looking at the situation of Nigerian economy, price control should be maintained over market efficiency as market efficiency could throw many into abject poverty and make the cost of living too high for low-income earners to survive.

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