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Exchange Rates and Export Performance in Nigeria

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Abstract

This study examined the short-run relationship between exchange rate dynamics and export performance in Nigeria using annual time-series data covering the period 1995–2024. Specifically, the study investigated the effects of the official Naira/US dollar exchange rate, Bureau De Change (BDC) exchange rate, and maximum lending interest rate on export performance. Secondary data were obtained from publications of the Central Bank of Nigeria. The variables were transformed into logarithmic forms where appropriate and analyzed using the Augmented Dickey-Fuller (ADF) unit root test, Johansen cointegration test, VAR lag selection criteria, and Ordinary Least Squares (OLS) estimation technique. The unit root results revealed that the variables were integrated of order one (I(1), while the Johansen cointegration test indicated the absence of a long-run equilibrium relationship among the variables. The VAR lag selection criteria suggested a zero-lag structure, thereby making dynamic VAR estimation inappropriate. Consequently, the study employed OLS estimation on the stationary differenced variables to examine short-run effects. The findings revealed that the official exchange rate exerted a positive but insignificant effect on export performance, whereas the BDC exchange rate and maximum lending interest rate exerted negative but insignificant effects on exports. The study concluded that short-run exchange rate movements did not significantly explain export performance in Nigeria during the study period. The study recommended export diversification, exchange rate stability, moderate lending rates, and structural reforms aimed at improving productive and export capacities in Nigeria.

Keywords: Exchange Rate, Exports, Bureau De Change, Interest Rate, Short-Run Dynamics, Nigeria.

Introduction

Exchange rate fluctuation seem to have become one of the most critical macroeconomic issues influencing export performance in developing economies. Theoretically, depreciation of the domestic currency is expected to make exports cheaper and more competitive abroad, thereby stimulating export growth, while appreciation tends to reduce export demand by making domestic goods more expensive for foreign buyers (Paul Krugman & Maurice Obstfeld, 2021). The exchange rate, which represents the value of the domestic currency relative to foreign currencies, plays a central role in determining the competitiveness of a country's exports in the global market. Exchange rate dynamics have long been recognized as a critical factor influencing trade performance, particularly in economies like Nigeria, which rely heavily on exports of raw materials for foreign exchange earnings to thrive (El-Yaqub, Usman, Musa, & Ismail 2024). When a country's exchange rate appreciates relative to that of another country, product prices increase, making imports cheaper, which can reduce the country's exports and increase imports (Lioudis, 2024). From 2010 to 2023, Nigeria experienced economic events that significantly impacted its exchange rate regime and export performance. These include the global oil price crash of 2014, the devaluation of the naira, and the economic challenges brought about by the COVID-19 pandemic (Magaji, Musa, Temitope & El-yaqub, 2022). The period also saw efforts by policymakers to stabilize the exchange rate and promote export diversification, but these measures were met with varying degrees of success (Adeola & Ayodeji, 2023; Emmanuel, 2024).

In the Nigerian economy, persistent exchange rate instability has been identified as a major constraint on export growth, especially in the non-oil sector. According to Alesinloye, Adegboye, and Oladipo, (2024), exchange rate instability increases the cost of imported inputs required for production, thereby reducing the price competitiveness of Nigerian exports in global markets. This situation has continued to weaken the effectiveness of export-led growth strategies aimed at diversifying the economy away from oil dependence (Alesinloye, Adegboye, & Oladipo, 2024). Earlier, Umaru, Abdullahi, and Sani, (2023) has shown that movements in the exchange rate influence export performance by altering relative prices, production costs, and profit expectations of exporters. In particular, while currency depreciation may improve export competitiveness by making domestic goods cheaper in international markets, excessive volatility tends to create instability that discourages long-term export planning and investment decisions (Umaru, Abdullahi, & Sani, 2023).

Recent empirical studies in Nigeria show mixed outcomes regarding this relationship. For instance, Lawal, James, Linus, Yonkor, Kpazhin and Ezeduru, (2025) found that exchange rate fluctuations significantly affect export performance between 2012 and 2024, although the effect varies across short-run and long-run periods. Similarly, Gelle, Musa, & Ibrahim, (2025) observed that exchange rate volatility has a significant but unstable effect on Nigeria's non-oil exports

over the period 1990–2024, largely driven by macroeconomic instability and weak diversification. Okoh and Nwakwanogo (2024) further reported that exchange rate variation significantly influences agricultural export performance in Nigeria, especially through cost and price transmission effects.

Other recent Nigerian studies also emphasize the effect of exchange rate volatility on the manufacturing and emerging sectors. Alesinloye, Oke, and Salako, (2024) found that exchange rate volatility significantly affects manufacturing export performance, although the impact is often short-lived due to structural inefficiencies in production systems. Similarly, Kamo, Eze, and Danladi, (2024) show that exchange rate volatility has significant effects on trade flows in Nigeria's emerging industries, including services and ICT-related exports. These findings collectively suggest that exchange rate movements influence export performance in Nigeria.

Exchange rate instability introduces risk and uncertainty into international trade transactions. It discourages exporters from entering long-term contracts, increases hedging costs, and reduces the reliability of foreign demand. Recent evidence indicates that persistent volatility in Nigeria's exchange rate has contributed to fluctuating export earnings and limited diversification of the export base beyond crude oil, despite various policy reforms aimed at promoting non-oil exports (CBN, 2024; World Bank, 2024; Oyadeyi, 2024).

Despite several policy interventions, including exchange rate liberalization and export promotion strategies, Nigeria's export performance remains below potential. This persistent weakness reflects the combined effect of exchange rate instability and structural constraints in production, infrastructure, and competitiveness (Gold & Yusuf, 2025).Therefore, understanding the true nature of the exchange rate–export relationship remains essential for designing effective macroeconomic and trade policies in Nigeria.

The central problem of this study is the persistent uncertainty and mixed empirical evidence regarding the effect of exchange rate fluctuations on export performance in Nigeria. This raises concerns about whether exchange rate policy alone can effectively drive sustainable export performance.

The broad objective of this study is to examine the effect of exchange rate fluctuation on export performance in Nigeria - specifically, using the fluctuations in the Nigeria/US official exchange rate and the parallel exchange rate as regressors and value of exports to measure export performance in Nigeria. Overall, this study contributes to ongoing debates by providing updated empirical insights on how exchange rate fluctuations influence export performance in Nigeria, particularly in the context of persistent currency volatility, structural constraints, and the country's drive toward export diversification and sustainable economic growth.

Exchange rate

Exchange rate is used in this study to mean the relative rate which a country's currency can be exchanged for another.

Recently, it is a widely accepted belief that chronic distortion in the real exchange rate has been a major source of slow growth in Africa and Latin America, while economical macroeconomic, trade and policies of exchange rate have encouraged growth in Asia (World Bank, 1984; Edwards, 1988; Ghura and Grennes, 1993 & Yotopoulos 1996).

According to Baldwin, Skudelny and Taglioni (2005), exchange rate disequilibrium values are conclusively shown to possess negative link with trade. Some authors, however, argue that under the existence of forward exchange markets, uncertainty in exchange rate are often completely covered in order that there is no impact of uncertainty of exchange rate on trade (Ethier, 1973 and Baron, 1976).

Exchange rate fluctuation

Mordi (2006) defines the exchange rate as the price of one currency expressed in terms of another. As one of the key macroeconomic variables affecting international trade, the exchange rate determines how many units of a good or service a foreign currency can obtain. According to Mishkin (2016), two main types of exchange rate regimes exist: fixed and floating. Under a fixed regime, the value of a country's currency is pegged to another major currency. While this system provides stability, it requires government intervention to maintain the peg and often compels governments to draw on reserves. In contrast, under a floating regime, the value of a currency is determined by market forces of demand and supply, without direct government interference.

On instability of exchange rate, Nnanna (2002) links instability of exchange rate in Nigeria to adverse monetary policy outcome, inflation, rate of interest and growth in money supply; and therefore the failure of monetary policy was linked to fiscal dominance within the economy. Aliyu (2009b) proved that exchange rate significantly influence imports significantly than exports due largely to the mono-cultural nature of Nigeria's exports and limitless and diversified nature of its imports. According to a study by the CBN (2007) using crucial variables; terms of trade (TOT), nominal effective exchange rate (NEER) and lagged real exchange rate findings suggest that the three variables accounted for 22, 55 and 99 percent of variations within the dependent variable (TOT) respectively.

Export performance

Export performance is an important metric for assessing a nation's economic health and its ability to compete internationally, especially in an era characterized by trade liberalization. The ability to export more is viewed as a key catalyst for sustained economic growth (Zapata, Arrazola, & Hevia 2024). The role of exports in any economy cannot be overstated, as they have far-reaching impacts. Duru and Ezenwe (2020) identify exports as one of the essential elements for economic transformation, capable of driving sustainable economic growth in developing countries. Owamah and Chukunalu (2025) note that exports significantly contribute to growth by generating government revenue and supplying foreign exchange, which can be used to enhance infrastructure and improve the country's attractiveness to

investors. Nigeria's export sector performance significantly shapes the economy due to the country's active participation in international markets. However, over the years, the country's global trade performance has been constrained by several factors, prompting the government to adopt various policies at different times to boost exports. According to Egor et al. (2023), these factors include the cost of doing business, import tariffs, inflation, infrastructure challenges, and exchange rate fluctuations. Despite successive policy interventions aimed at fostering export diversification, Nigeria's non-oil export performance has persistently remained below optimal levels (Gold & Yusuf, 2025).

Exchange rate fluctuation and export

Generally, the mechanism through which movement of exchange rate affects non-oil exports in Nigeria might be both from the demand and supply channels. The supply side effects are associated with the very fact that exchange rate volatility could affect input prices. This makes some producers to reduce output and in the face of volatile exchange rate, makes the exports less profitable. It also adversely affects investment indirectly by causing producers' cost to increase.

Exchange rate fluctuations refer to variations in a currency's value over time, influenced by a range of macroeconomic factors and policy measures (Mamman, Ahmed, & Sabo, 2025). These fluctuations remain a major macroeconomic challenge, with substantial effects on national economies, especially those highly exposed to global markets and commodity trade. In Nigeria, they create uncertainty for exporters, affecting international trade and economic stability in multiple ways. Exchange rate volatility can significantly influence export costs, alter price competitiveness in global markets, and impact the profitability of firms operating in the export sector (David, Bognet, Akutson, Birat, Maisamari, & Sheyin, 2024).

This underscores the necessity of stabilizing the exchange rate, as frequent fluctuations undermine export sector performance and diminish investor confidence. To enhance export performance, Nigeria requires policies that minimize exchange rate variations and promote a competitive trade environment. Measures such as diversifying export products, improving foreign exchange management, and strengthening industrial capacity can help reduce the negative effects of this volatility.

Theoretical framework

The **Clark (1973) model** provides the foundational explanation for the impact of exchange rate volatility on international trade. Clark posits that exchange rate uncertainty, arising from continuous fluctuations in currency values, affects the behavior of risk-averse exporters. According to the model, exporters are primarily concerned with maximizing profits while minimizing risks. When exchange rates are highly volatile, exporters face uncertainty regarding future earnings, as export proceeds are denominated in foreign currencies while production costs are incurred domestically. This uncertainty discourages export activities, leading to a reduction in export volume. Thus, the model establishes a **negative relationship**

between exchange rate volatility and export performance. In contrast, a stable exchange rate environment enhances predictability and encourages export expansion.

Empirical review

Numerous studies have been carried out to probe in to the relationship between exchange rate movement and export performance in different countries.

Lawal, James, Linus, Yonkor, Kpazhin, and Ezeduru, (2025) investigated the impact of exchange rate fluctuations on Nigeria's export performance between 2012 and 2024 using Annual time series data on exchange and exports. The study employed the Vector Error Correction Model (VECM). Evidence from the analysis shows that exchange rate fluctuations have mixed effects on exports in the short run and are statistically insignificant. However, in the long run, there is a negative and statistically significant relationship between the two variables

Gold and Yusuf, (2025) explored the effect of exchange rates, fuel prices and other macroeconomic indicators on Nigeria's non-oil export performance. The study utilises annual data from World Bank Development Indicators and Nigeria's Central Bank Statistical Bulletin (1989–2022) and employs the Autoregressive Distributed Lag (ARDL) model to analyse short- and long-run relationships, complemented by the Fully Modified Ordinary Least Squares (FMOLS), Dynamic Least Squares (DOLS), and Canonical Cointegrating Regression (CCR) methods to ensure robustness of the estimates with Granger Causality Tests. The estimations revealed that the exchange rate significantly influences non-oil exports, with depreciation enhancing export performance. GDP and trade openness also contribute positively to non-oil exports, whereas interest rates and fuel prices have adverse effects.

Choga and Mashao (2025) investigated the effect of exchange rate volatility on agricultural exports in South Africa using the Exponential Generalized Autoregressive Conditional Heteroskedastic (EGARCH) model. The study covered quarterly data from the first quarter of 2013 to the first quarter of 2024. The study found that exchange rate volatility exerts a significant negative effect on South Africa's agricultural exports. Specifically, depreciation and instability in the exchange rate reduced export performance, indicating that exchange rate uncertainty discourages agricultural trade and lowers exporters' profitability. The findings further revealed that interest rates negatively influenced agricultural exports, while investment and trade openness had positive effects on export performance. This suggests that agricultural exports in South Africa are influenced by a combination of macroeconomic factors beyond exchange rate movements alone.

Hong Nga, Hoang An, Thi Kim Loan, and Cuong, (2024) examined the impact of exchange rate changes on Vietnam's export-import dynamics during a transitioning exchange rate regime. Utilizing the Autoregressive Distributed Lag (ARDL) model, the findings indicate that global income and import levels are crucial in bolstering exports, assuming other variables remain constant. Additionally, the study uncovered that the real effective exchange rate (REER) and money supply significantly influence import patterns, with a central exchange

rate mechanism enhancing export volumes by approximately 0.14% compared to a fixed peg system.

Khan, and Ahmed, (2024) investigated the influence of fluctuations in exchange rates on the export performance of Bangladesh. The analysis is based on annual data obtained from reputable sources such as the World Development Indicators (WDI) for the period spanning from 1981 to 2022. Autoregressive Distributive Lag (ARDL) bound testing approach is used to estimate the long-term as well as short-term relationship between the independent variables and dependent variable. The exports serve as the dependent variable, while the real exchange rate, gross capital formation (as a proxy for investment), inflation, and real interest rate are considered as the independent factors. The study's findings suggest that Bangladesh's exports are negatively impacted by exchange rates over the long and short terms.

Okoh, and Nwakwanogo, (2024) studied the effect of exchange rate variation on the export of agricultural produce in Nigeria. This study adopted the VAR estimation technique in ascertaining the nexus between exchange rate variation and the export of agricultural produce in Nigeria. The data covered a period of 35 years 1986–2021. The analysis began with a descriptive statistic, unit root test and a co-integration test to ascertain the suitability of the data that entered the model. Thereafter, the VAR estimation technique used in estimating the model for this study. The variables of the model include: AGRXPT, EXRV, TOPEN, AGRFIN and AGREMP. The results show that EXRV, TOPEN, AGRFIN and AGREMP exert a positive effect on AGRXPT.

Okogor, Orubu, and Ezi, (2023), examined the effect of exchange rate volatility on Nigeria's exports to its top five trading partners over the period 1995–2020 using the Autoregressive Distributed Lag (ARDL) approach. Relying on the standard export demand function, the researchers incorporated variables such as exchange rate volatility, gross domestic product, and population to determine their effects on real exports in both the short and long run. The empirical findings revealed that exchange rate volatility had mixed effects on Nigeria's exports depending on the destination country. Specifically, naira depreciation increased exports to France and Spain in the short run and further stimulated exports to France, Spain, and India in the long run. Conversely, exchange rate volatility reduced exports to China and the United States in the short run, while its long-run effect on India was statistically insignificant. The study also established that GDP and population are significant determinants of Nigeria's export performance in both the short and long run.

Osei-Gyebi (2022) examined the effect of exchange rate fluctuations on Ghana's trade balance using the Vector Error Correction Model (VECM). The study was motivated by persistent instability in Ghana's exchange rate and concerns about its implications for international trade performance. Using time-series data on exchange rates, exports, imports, and other macroeconomic variables. The empirical findings revealed a negative relationship between exchange rate fluctuations and international trade variables, indicating that increased exchange rate instability adversely affected Ghana's trade balance. Specifically, exchange rate volatility was found to reduce the competitiveness of exports while simultaneously increasing

uncertainty in international transactions. The VECM results further confirmed the existence of a long-run equilibrium relationship among the variables, suggesting that exchange rate movements significantly influence trade performance over time.

Innocent, Eze, Saleh, Uzoechina, Ebenyi, and Chukwuka (2022) investigated the impact of exchange rate volatility on exports in Nigeria using quarterly data spanning from 2005Q1 to 2020Q4. The study employed the Autoregressive Conditional Heteroskedasticity (ARCH) model together with the nominal effective exchange rate to measure exchange rate volatility, while the Autoregressive Distributed Lag (ARDL) Bounds testing approach was used to examine both the short-run and long-run effects of exchange rate volatility on exports. The empirical findings confirmed the existence of exchange rate volatility within the Nigerian economy during the study period. Furthermore, the results revealed that exchange rate volatility exerted a negative and statistically insignificant effect on exports, implying that fluctuations in the exchange rate discouraged export performance, although the effect was not strong enough to be statistically significant. The study attributed this outcome to the unstable nature of Nigeria's foreign exchange market and the structural weaknesses affecting export production.

Ekanayake, and Dissanayake, (2022) Analyzed the effects of real exchange rate volatility on the United States' exports to BRICS. It focuses on the top 20 export products (defined by the 2-digit Harmonized System codes) from the United States to Brazil, Russia, India, China, and South Africa, and uses quarterly data for period from 1993Q1 to 2021Q2. The specified panel regression model was first estimated using three estimation methods, namely, the Panel Least Squares, the Panel Fully Modified Least Squares (FMOLS), and Panel Dynamic Least Squares (DOLS). In addition, to estimate the short-run and long-run effects of real exchange rate volatility on exports, it also uses the method of the Autoregressive Distributed Lag (ARDL) approach to co-integration analysis and error-correction models. According to our findings, the levels of foreign economic activity have a positive effect on exports while the real exchange rate has a negative effect on exports. In addition, exchange rate volatility has a negative effect on exports in the long run in all five countries. However, the effects of exchange volatility are found to yield mixed results in the short run regardless of which measure of exchange rate volatility was used.

Ahmad, Ali, and Hussain (2021) examined the impact of the exchange rate on Pakistani exports using time series data from the period 1980 to 2018. Unit root and Phillips Peron test were used to check the stationarity of the variables while the ARDL model was applied to verify the relations between variables. The findings of the study demonstrated that the exchange rate has negative and insignificant relations with Pakistani exports. Exchange rate appreciation hurts the trade balance of Pakistan.

Methodology

This study adopted an **ex-post facto research design**. The ex-post facto design was considered appropriate because the study relied on historical macroeconomic time-series data which

cannot be manipulated by the researcher. The design enables the examination of the short-run relationship between exchange rate dynamics and export performance in Nigeria using already existing secondary data. The study specifically investigated how changes in the official exchange rate, Bureau De Change (BDC) exchange rate, and maximum lending interest rate influence exports in Nigeria.

Data

The study employed annual time-series data obtained from secondary sources. Data on Official Naira/US Dollar exchange rate, Bureau De Change exchange rate, Exports, and Maximum lending interest rate were sourced primarily from publications of the Central Bank of Nigeria, including the Statistical Bulletin and Annual Reports. Additional data were obtained from publications of the National Bureau of Statistics where necessary. The study covered the period 1995–2024 based on data availability and relevance to Nigeria's exchange rate liberalization era.

Method of Data Analysis

The study employed descriptive statistics, unit root analysis, cointegration analysis, VAR and VAR lag order selection analysis, and Ordinary Least Squares estimation techniques. All analyses were conducted using E-Views 12 statistical software.

Unit Root Test

The stationarity properties of the variables were examined using the Augmented Dickey-Fuller (ADF) test. The tests were conducted to determine the order of integration of the variables and avoid spurious regression results. The null hypothesis for the tests states that the variable possesses a unit root (non-stationary), while the alternative hypothesis states that the variable is stationary. The study found that all logged variables were integrated of order one – 1(1) meaning that they became stationary after first differencing

Johansen Cointegration Test

Following the unit root tests, the Johansen Cointegration technique was employed to determine whether a long-run equilibrium relationship exists among the variables. The Johansen Trace Test and Maximum Eigenvalue Test were utilized. The results indicated the absence of cointegration among the variables, implying that no stable long-run equilibrium relationship exists between exchange rate indicators and exports during the study period.

The Trace Test, the Maximum Eigenvalue Test results show that the Trace and Max-Eigen statistics are lower than their corresponding critical values at the 5% significance level.

Short-Run Estimation Technique

Since the variables were integrated of order one 1(1)) but not cointegrated, the study estimated only the short-run dynamics using the first differences of the logged variables which were all at stationary level (see Table 3.1 below).

Table 3.1 Augmented Dickey Fuller Unit-Root Test Result

Variables	5% = -2.907021	Level	Order of 1ntegration
$\Delta InExport_t$	-2.991878	-3.290123	I(0)
$\Delta InEXR_t$	-2.971853	-4.700085	I(0)
$\Delta InBDC_t$	-2.971853	-2.907021	I(0)
$\Delta InMAXINT_t$	-2.971853	-7.654961	I(0)

Model Specification

The estimable short-run model is specified as:

$$\Delta In(Export_t) = \beta_0 + \beta_1 \Delta In(EXR_t) + \beta_2 \Delta In(BDC_t) + \beta_3 \Delta In(MAXINT_t) + \varepsilon_t$$

Where:

$\Delta In(Export_t)$ = change in log of Export

$\Delta In(EXR_t)$ = change in log of official N/$ exchange rate

$\Delta In(BDC_t)$ = change in log of Bureau De change exchange rate

$\Delta In(MAXINT_t)$ = change in log of Maximum interest rate

β_0 = intercept term

$\beta_1 - \beta_3$ = short-run elasticities

ε_t = white-noise error term

Δ = first difference operator

VAR Lag Selection and Estimation Decision

Following the absence of cointegration, a Vector Autoregression (VAR) model was estimated and VAR lag order selection procedure was conducted to determine the appropriate lag structure for modelling short-run dynamics. The VAR Lag Order Selection Criteria based on Akaike Information Criterion (AIC), Schwarz Criterion (SC), Hannan-Quinn Criterion (HQ), Final Prediction Error (FPE), and Sequential Modified Likelihood Ratio (LR) all selected lag zero VAR(0) as the optimal lag structure.

The implication of the VAR(0) outcome is that the data did not exhibit sufficient dynamic lag relationships among the endogenous variables. Consequently, the estimation of a meaningful dynamic VAR model became inappropriate because a zero-lag VAR does not adequately capture intertemporal dynamic effects. The VAR(0) result may be attributed to the relatively small sample size, the use of differenced stationary series, and the weak lag dependence among the variables after differencing.

Given these observations, the study adopted the Ordinary Least Squares (OLS) technique for estimating the short-run relationship among the variables.

The estimated coefficients measure the short-run responsiveness of exports to changes in exchange rate indicators and lending interest rate (see table 3.2 below).

A Priori Expectations

Variable	Sign
Official Exchange Rate (EXR)	±

Exchange rate depreciation may either promote export competitiveness or increase production costs

BDC Exchange Rate (BDC) ±

Parallel market exchange rate movements may positively or negatively affect export activities

Maximum Lending Interest Rate (MAXINT) −

Higher lending rates are expected to reduce investment and export activities

Result

Table 3.2 Result of the OLS estimated model

Dependent Variable: CINEXP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CINEXR	0.484053	1.299066	0.372616	0.7126
CINBDC	-2.406417	2.186338	-1.100661	0.2815
CINMAXINT	-2.884314	2.839265	-1.015866	0.3194
C	0.155603	0.163484	0.951791	0.3503

R-squared 0.084678, Adjusted R-squared -0.025161, F-statistic 0.770929, Prob(F-statistic) 0.521164, Durbin-Watson stat 1.701363

Estimated model equation

$$\Delta In(Export_t) = 0.156 + 0.484\Delta In(EXR_t) - 2.406\Delta In(BDC_t) - 2.884\Delta In(MAXINT_t)$$

Interpretation of Coefficients

(a) Official Exchange Rate (CINEXR) has a coefficient of 0.484053 showing that a 1% increase in the official exchange rate (naira depreciation) increases exports by approximately 0.48% in the short run. However, with an f-statistic probability of = 0.7126, the effect is statistically insignificant. Thus, there is insufficient empirical evidence that official exchange rate changes significantly influence exports in the short run.

(b) Bureau De Change Rate (CINBDC) has a coefficient of −2.406417 indicating that a 1% increase in the BDC exchange rate reduces exports by approximately 2.41% in the short run with an f-statistic probability of 0.2815. This means that the effect is statistically insignificant. Again, there is insufficient empirical evidence that changes in Bureau De Change Rate significantly influence exports in the short run.

(c) Maximum Lending Interest Rate (CINMAXINT) with a coefficient −2.884314 and f-statistic probability of 0.3194 show that a one percentage-point increase in maximum lending rate reduces exports by approximately 2.88% in the short run. Again, the effect is statistically insignificant.

(d) Constant Term indicate that when explanatory variables remain unchanged, exports increase by approximately 15.6% on average in the short run though statistically insignificant as shown by coefficient and f-statistic probability of 0.155603 and 0.3503 respectively.

Goodness of Fit

R-Squared = 0.084678 meaning that only about 8.47% of short-run variations in exports are explained by official exchange rate, BDC exchange rate and lending rate.

Overall Model Significance:

The F-statistic Probability of 0.521164 indicates that the explanatory variables are jointly insignificant. This means that the model does not provide sufficient evidence that exchange-rate indicators and lending rate jointly explain short-run export movements in Nigeria during the study period.

In summary, the Ordinary Least Squares estimation revealed that official exchange rate exerted a positive but insignificant effect on export performance, while Bureau De Change exchange rate and maximum lending interest rate exerted negative but insignificant effects on exports in the short run. The overall model was statistically insignificant, suggesting that short-run exchange rate fluctuations and lending rate movements did not significantly explain variations in Nigeria's export performance during the study period."

Diagnostic Tests

Durbin-Watson Statistic (DW) **of** 1.70 indicate no serious autocorrelation problem.

Breusch–Godfrey Serial Correlation LM Test

The Breusch-Godfrey Serial Correlation LM Test revealed the absence of serial correlation in the model, as the probability values of both the F-statistic (0.9306) and Obs*R-squared statistic (0.9136) exceeded the 5 percent significance level. This indicates that the residuals are independently distributed.

Breusch–Pagan–Godfrey Heteroskedasticity Test

The Breusch-Pagan-Godfrey heteroskedasticity test indicated the absence of heteroskedasticity in the model since the probability values associated with the F-statistic (0.1481) and Obs*R-squared statistic (0.1393) exceeded 0.05.

Ramsey RESET Test

The Ramsey RESET test indicated no serious specification error at the conventional 5 percent level, with F-statistic probability of 0.0763 > 0.05 although the borderline probability value suggests the possible existence of omitted macroeconomic factors affecting export performance.

CUSUM and CUSUM of Squares (CUSUMSQ) Stability Test

The CUSUM test indicated that the estimated model was structurally stable since the cumulative sum of recursive residuals remained within the 5 percent critical bounds

throughout the sample period. Similarly, the CUSUM of Squares test showed substantial stability for most of the study period, although slight instability was observed toward the latter years of the sample, possibly reflecting recent exchange-rate and macroeconomic disturbances in Nigeria.

Summary of Findings

This study examined the short-run relationship between exchange rate dynamics and export performance in Nigeria using annual time-series data covering the period 1995–2024. The study specifically investigated the effects of the official Naira/US Dollar exchange rate, Bureau De Change (BDC) exchange rate, and maximum lending interest rate on export performance.

The variables were transformed into logarithmic forms where appropriate and subjected to Augmented Dickey-Fuller (ADF) unit root tests. The results revealed that the variables were non-stationary in level form but became stationary after first differencing, indicating that the variables were integrated of order one I(1)

Subsequently, the Johansen Cointegration test was conducted to determine the existence of a long-run equilibrium relationship among the variables. The Trace and Maximum Eigenvalue statistics revealed the absence of cointegration among the variables, implying that no stable long-run relationship exists between exchange rate indicators and export performance in Nigeria during the study period.

Following the absence of cointegration, VAR lag order selection criteria were employed to determine the appropriate lag structure for short-run dynamic analysis. However, all the selection criteria suggested a zero-lag VAR structure (VAR(0)), indicating the absence of meaningful dynamic lag relationships among the variables. Consequently, the study adopted the Ordinary Least Squares (OLS) technique using stationary differenced variables.

The estimated short-run OLS results revealed that:

- Official exchange rate exerted a positive but statistically insignificant effect on export performance;
- Bureau De Change exchange rate exerted a negative but statistically insignificant effect on export performance; and
- Maximum lending interest rate exerted a negative but statistically insignificant effect on export performance.

Conclusion

This study concludes that exchange rate dynamics did not exert significant short-run effects on export performance in Nigeria within the study period. Although the official exchange rate exhibited a positive relationship with exports, the effect was statistically insignificant. Similarly, the Bureau De Change exchange rate and maximum lending interest rate exerted negative but insignificant effects on export performance. The absence of statistically significant relationships suggests that Nigeria's export performance may be influenced more

by structural and external factors than by short-run exchange rate movements. The findings also imply that exchange rate depreciation alone may not be sufficient to stimulate export growth in Nigeria unless accompanied by structural reforms aimed at improving productive capacity and export diversification.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Exchange Rate Management Should Focus on Stability: Monetary authorities should pursue policies aimed at reducing excessive exchange rate volatility, particularly within the parallel foreign exchange market. Stable exchange rate conditions may improve investor confidence, reduce uncertainty, and encourage export-oriented investments.

2. Lending Interest Rates Should Be Moderated: The Central Bank of Nigeria should implement policies that encourage moderate lending rates in order to improve access to credit for export-oriented firms. Lower financing costs can stimulate investment in productive and export-related activities.

Contribution to Knowledge

This study contributes to the empirical literature by examining the short-run relationship between exchange rate dynamics and export performance in Nigeria using a stationary differenced framework in the absence of cointegration. The study also contributes methodologically by demonstrating the appropriateness of short-run OLS estimation when cointegration and meaningful VAR lag structures are absent.

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