

IMPACT OF EXCHANGE RATE ON FOREIGN TRADE POSITION IN NIGERIA

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Abstract

The study empirically investigated the impact of exchange rate fluctuations on Nigeria's international trade position over a period of 30 years (from 1994 to 2024). Using annual time-series data from the Central Bank of Nigeria, the World Bank and International Monetary Fund, the paper employed a multivariate econometric framework to evaluate how exchange rate (EXR), trade openness (TO), inflation rate (CPI), foreign direct investment (FDI), interest rate (RI) and gross capital formation (GCF) have impact on trade balance (TB) of Nigeria, which is the proxy for international trade position of Nigeria used in the study. The descriptive statistics revealed that the Naira depreciated from ₦22/USD in 1994 to ₦1,488/USD in 2024. Johansen co-integration test confirmed that a long-run equilibrium relationship exists among the variables used in the study. The result of the study showed that FDI, TO, GCF and CPI (used as a proxy for inflation) have positive impact on foreign trade position in Nigeria while EXR and RI exert negative impact on foreign trade position in Nigeria. The study further found that Nigeria's international trade position is predominantly driven by trade openness and FDI and not necessarily exchange rate volatility. The study therefore recommends that Nigerian policymakers should de-emphasize reactive exchange rate interventions and hence create an enabling environment for trade and investment in the country to achieve positive and sustainable foreign trade position in the Nigeria.

Keywords: Exchange rate, Trade balance, Trade Openness, Foreign direct investment.

1.0 INTRODUCTION

Exchange rate is the cornerstone of international trade dynamics particularly in resource-dependent economies like Nigeria, where currency valuation directly shapes export competitiveness, import costs, and overall trade balance. Nigeria's exchange rate policies underwent significant changes between 1994 and 2024, moving from a fixed regime to several managed float systems such the Dutch Auction System (DAS) in 2002, the Autonomous Foreign Exchange Market (AFEM) in 1995, the Nigerian Autonomous Foreign Exchange Market (NAFEM) in 2016, the Nigerian Foreign Exchange Market (NFEM) in 2023 and the Electronic Foreign Exchange Matching System (EFEMS) introduced in 2024. Over the past 30 years, the Naira has depreciated from ₦22/\$1 in 1994 to over ₦1,500/\$1 in 2024, reflecting chronic foreign exchange scarcity, oil price volatility, and structural imbalances in Nigeria's trade balance architecture (Odili, 2020). Nigeria's economy remains largely dependent on oil exports, which accounts for approximately 90% of its foreign exchange earnings. As a result, it is susceptible to shocks to the world oil price. Conversely, non-oil sectors like agriculture and manufacturing, critical for diversification, struggled with import-dependent production inputs and limited access to foreign exchange, undermining their export potential. This duality has created a persistent trade deficit, exacerbated by Nigeria's high import dependency on refined petroleum, machinery, and consumer goods.

The Exchange Control Act of 1962 and the implementation of dual exchange rate systems to reduce forex speculations were two notable policy initiatives during the time under study that attempted to stabilize the Naira. However, these measures often led to parallel market premiums, where unofficial exchange rates diverged sharply from official rates, distorting trade flows and complicating economic planning. 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, 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). 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. Nigeria's trade balance, for example, declined precipitously during the 2008 global financial crisis and the 2016 oil price crash, underscoring the vulnerability of its oil-centric trade strategy. Nigeria's exchange rate policies between 1994 and 2024 have undergone significant transformations, shaping the country's international trade

dynamics (Oladapo & Akinlabi, 2020). Nigeria switched from a fixed exchange rate regime to several managed float exchange rate systems. The years 1994-2024 were particularly noteworthy since they saw the following developments: The 1995 launch of the Autonomous Foreign Exchange Market (AFEM). In 1999, the Interbank Foreign Exchange Market (IFEM) was introduced by combining several exchange rate windows while in 2002, the Dutch Auction System (DAS) was reinstated which later gave rise to the introduction of the Wholesale Dutch Auction System (WDAS). The Naira experienced several devaluations during these periods and witnessed Naira depreciation from ₦22/\$1 in 1994 to over ₦1,500/\$1 in 2024. Despite multiple exchange rate regimes such as AFEM, IFEM, DAS, NAFEM, their comparative effectiveness remains understudied. These policy changes created an environment of exchange rate volatility that had profound implications for Nigeria's international trade performance and position. Although Nigeria has been engaged in foreign trade for many decades, but has been persistently marginalized and her performance or position in global trade is low or sometimes deficient (Obi & Ogbu, 2020). This may not be unconnected with our low level production, dependence on primary products and adverse exchange rate volatility. The fact that there is very scanty literature on exchange rate volatility and international trade position in Nigeria is the main motivation of this study. Also, empirical studies on few the available literature on exchange rate volatility and international trade position in Nigeria only revealed inconclusive results. It is against this backdrop that the paper examined the impact of exchange rate fluctuations on the international trade position of Nigeria.

2.0 LITERATURE REVIEW

The underlying theoretical foundations that examine international trade, foreign exchange rate and macroeconomic policies and J-Curve the Mundell-Fleming theory. The theory describes the interdependence of the goods market, the financial asset market and the foreign exchange market, such that the development in any of the markets will spill over to the other markets (Kenneth & Igbanogo, 2016). The Mundell-Fleming theory is also used to predict expansionary monetary policy which induces reduction in domestic interest rate in the money market. The Mundell-Fleming theory (IS-LM-BP model) of Robert Mundell and Marcus Fleming is crucial in international trade framework because it highlights how capital mobility and choice of exchange rate regime determine or dictate the effectiveness of monetary and fiscal policies of a country. The theory also helps to analyze how capital mobility, exchange rate regimes (whether it is fixed or floating) and monetary cum fiscal policies interact to determine economic performance in a country. Mundell-Fleming theory is a policy trilemma which states that a country cannot simultaneously maintain all the three economic possibilities at the same time. Thus, the model states that an economy cannot simultaneously maintain a fixed exchange rate, free capital movement and an independent monetary policy. A country can only choose two out of the three possibilities. This because under a flexible exchange rate regime, monetary policy will be potent and has impact on economic growth (GDP) while fiscal policy will be ineffective as it is crowded out by exchange rate fluctuations. However, under a fixed exchange rate regime fiscal policy will be effective while domestic monetary policy will be ineffective, as it is accommodated by capital flows. The depreciation of local currency has impact on international trade by making exports cheaper and imports more expensive. Nigeria's international trade position has been intrinsically linked to exchange rate dynamics over the past three decades (1994-2024), a period marked by oil price volatility, structural reforms, and evolving exchange rate regimes. The J-Curve is an economic cum financial theory used to represent a trend line that shows an initial loss experienced after a currency devaluation or depreciation followed by a significant long term gain. It is used to describe the trade balance that followed a currency devaluation or depreciation. It explains short-term negative impact of currency depreciation on a country's trade balance. The model states that initially imports will cause currency rise while export will cause a fall in exchange rate in a country. This will lead to increase in trade deficit before it eventually increased sales volume, thus improving the trade position of a country. The J-Curve also helps international policy makers to understand that currency devaluation may not yield immediate positive result in the economy., as patience is

required to achieve long term sustainable economic growth. J-Curve is also used in the field of finance to explain private equity investment returns that occur over time.

The conditions or assumptions behind the application of the J-Curve include the followings; (i) Marshal-Lerner condition, which states that for a currency devaluation or depreciation to improve the trade balance position of a country in the long run, the sum of the absolute price elasticities of demand for exports and imports must be greater than one. (ii) Time lags in adjustment, which holds that prices adjust faster than quantities. This means that in the short run, a change in price does not immediately lead to a change in quantity bought or sold. (iii) Currency contract period, which states that pre-existing contracts for inputs and exports are honoured immediately after currency devaluation or depreciation. This makes goods to be priced in the weakened currency and hence worsen the trade deficit position of a country. (iv) Pass-through lag, which states that there is a delay period between currency devaluation or depreciation time and the time that consumers or producers switch to cheaper local alternatives. (v) Increased input costs, which holds that a weaker currency makes imports more expensive and hence worsen the trade deficit position of a country.

A regime of variable currency rates has been established by several countries, including Nigeria. Because of Nigeria's present flexible exchange rate structure, supply and demand factors can control the currency rate. Such a mechanism can significantly alter the value of Naira given the volume of international market activity (Nguse et al., 2021). Foreign exchange rates have fluctuated particularly after the disruption of the Breton Woods system (1973) which adopted the fixed exchange rates regime. Since then, countries have switched their exchange rate system, from fixed to floating system. The floating system causes the exchange rate to fluctuate more and increased its uncertainty because of less government intervention. Exchange rate volatility can cause economic hazards and it has certain implications on a country's international trade performance and position (Moyotole & Barileera, 2025). The exchange rate fluctuation has become the influential determinant which has impacted on economic activities of a country. There has been widespread controversy over the exchange rate changes' impact on external trade. This matter is especially prominent for countries which have changed from a fixed to a floating exchange rate system owing to a higher level of variance related to flexible exchange rates (Obi & Ogbu, 2020). Therefore, exchange rates have impact not only on international trade but on the economic position of the entire economy. Empirical evidence generally supports the view that trade openness and foreign direct investment are key drivers of economic growth and determinant of foreign trade position in Nigeria than exchange rate

fluctuation, especially in the long-run. This is achieved by enhancing industrial production base of the country, increased market access and technology transfer. Trade Openness has been shown to specifically enhance output performance in the industrial and service sectors. However, its impact on the agricultural sector has been found to be negligible (Godwin et al., 2025). Alfaro et al, (2003) submitted that the extent to which trade openness and FDI promote economic growth is influenced by the sector in which the foreign investment is made. They maintained that FDI targeted at the primary sector of the economy often tend to exert negative impact on economic performance. However, the impact of FDI on the service sector of the economy appears to be mixed and inconclusive. Daramola & Akinwale (2022) opined that trade openness can easily spur economic growth, if accompanied by investment in infrastructure.

Furthermore, to maximize the growth impact of FDI and trade openness in Nigeria, the government should; (i) diversify the export base of Nigeria to reduce susceptibility to oil price shocks in the country and expand non-oil exports (ii) invest in infrastructure (such as sea ports, air ports, good road network) to support industrial expansion (iii) streamline custom processes and reduce tariffs on imported goods in order to facilitate foreign trade (iv) deepen regional trade integration. The empirical study of Okonkwo et al. (2026) on the impact of FDI and international trade on economic growth in Nigeria revealed that FDI has a positive impact on economic growth and international trade position of Nigeria. More so, the study of Lonera (2026) on trade liberalization and FDI inflows in eight selected African economies in African Continental Free Trade Area (AfCFTA) showed that a positive within-country relationship exists between trade liberalization and FDI inflows among the eight countries examined.

Danmola (2013) examined the impact of exchange rate volatility on full-scale financial variables in Nigeria using the Correlation Matrix, Ordinary Least Square (OLS) and Granger Causality test. The findings of the study show that exchange rate volatility impacts on Gross Domestic Product, Foreign Direct Investment and Trade Openness, but with negative influence on the inflationary rate in the country. Udeh (2010) asserted that Nigeria's economy is import dependent and operates on a system of float managed exchange rate. Exchange rate volatility is a major issue in determining the country's equalization of payments position.

The study of Chaudhary, Hashmi & Kharn (2016) found that floating exchange rates regimes were more conducive to trade, between the UK and US and between Asian sub regions respectively. Odili and Ariwa (2017) and Victoria (2019) in their study using cointegration

analysis to determine the impact of foreign exchange on trade across varying countries and sub-regions in Africa respectively. Their studies found that fixed exchange rate improved trade. Furthermore, Bergin and Lin (2008) used panel data analysis from 65 country pairs in during their studies and also found that fixed exchange rate regimes promoted trade. Olubode, Oluseyi and Hassan (2018) used the ARDL model but found that flexible exchange rate regime has negative impact on foreign trade flows in Nigeria. 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. 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. Yuorkuu et al. (2024) 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 and ARDL models. The study found that exchange rate volatility negatively impacts Ghana's economic growth. 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.

3.0 RESEARCH METHODOLOGY

The analytical methods, model specifications and theoretical expectations for analyzing the impact of exchange rate on Nigeria's international trade position from 1994 to 2024 are described in this session. Using data from the CBN statistical bulletin, National Bureau of Statistics (NBS) Database, World Bank Development Indicators (WDI), and International Monetary Fund (IMF) International Financial Statistics (IFS), an ex-post facto research design was used to determine the effect of exchange rates on international trade in Nigeria. Using time-series data and a quantitative research design, this study will examine the connections between Nigeria's foreign trade, interest rates, inflation rates, trade openness, foreign direct investment, gross capital formation, and exchange rates.

3.1 Description of Variables Used

The variables used in the study are described as operationalized in the table below

S/N	Variable	Description	Data Source	Notes
1	Exchange Rate	Naira per USD	Central Bank of Nigeria (CBN) Statistical Bulletin	Annual average exchange rate
2	Inflation Rate	Consumer Price Index (CPI) inflation rate	CBN or World Bank WDI	Annual percentage change
3	Trade Openness	(Exports + Imports)/GDP	Nigeria NBS, World Bank WDI	Calculate as ratio
4	Foreign Direct Investment (FDI)	Net FDI inflows (USD)	UNCTAD, World Bank WDI	Annual FDI inflow data
5	Interest Rate	Central Bank Policy Rate or Treasury Bill Rate	CBN Statistical Bulletin, World Bank WDI	Annual average interest rate
6	Gross Capital Formation	Total gross capital formation (USD or % of GDP)	Nigeria NBS, World Bank WDI	Annual data
7	International Trade	Total exports + imports (USD)	Nigeria NBS, UN Comtrade	Annual total trade volume
8	GDP (GDP)	Real GDP growth rate (%)	NBS, World Bank	ANNUAL GDP
9	Trade Value (TRVAL)	Total exports + imports (in USD millions)	CBN, World Bank WDI	Calculate in USD

3.2 Method of data analysis

Using a dataset taken from the CBN Statistical Bulletin, an ex-post facto research approach was used to determine the effect of currency rate fluctuation on Nigeria's position in international commerce. Ordinary least squares (OLS) regression analysis was employed for short-run estimates, whereas the Augmented Dickey-Fuller unit root is utilized for preliminary analysis. Long-term estimate is accomplished by combining the Johansen Co-integration test, Vector Auto Regression analysis, Granger causality test, Variance Decomposition, Impulse Response testing, and the ARCH / GARCH modeling approaches. The integrity of our model, i.e., whether exchange rate volatility has a clustering effect on the proxies of international trade position, was confirmed by every test.

3.3 Model Specification

The study uses a multivariate econometric framework with trade balance as the dependent variable (measured as total exports-imports) in order to empirically examine the factors influencing Nigeria's international trade position. The key independent variables include **Exchange Rate (EXR), Inflation (INF), Trade Openness (TO), Foreign Direct Investment (FDI), Interest Rate (INT), and Gross Capital Formation (GCF)**.

The functional relationship of the variables used in the model is specified in equation 1 as shown below:

$$ITP = f(EXR, INF, OPEN, FDI, INT, GCF) \dots\dots\dots \text{Equation 1}$$

The econometric form of the model specified for the study is as stated below in equation 2:

$$ITP = \beta_0 + \beta_1 EXR_t + \beta_2 INF_t + \beta_3 OPEN_t + \beta_4 FDI_t + \beta_5 INT_t + \beta_6 GCF_t + \mu_t \dots \text{Equation 2}$$

Where:

$\text{TRADE}_t = \text{International Trade}$ (Dependent variable)

$\text{EXR}_t = \text{Exchange Rate}$ (Official Naira/USD rate, annual average).

$\text{INF}_t = \text{Inflation Rate}$ (Annual % change in CPI).

$\text{OPEN}_t = \text{Trade Openness}$ (Exports + Imports/GDP, in %).

$\text{FDI}_t = \text{Foreign Direct Investment}$ (Net inflows as % of GDP).

$\text{INT}_t = \text{Interest Rate}$ (Monetary Policy Rate in %).

$\text{GCF}_t = \text{Gross Capital Formation}$ (as % of GDP).

$\beta_0 = \text{Intercept}$,

$\beta_1, \beta_2, \dots, \beta_6 = \text{Coefficients}$ of explanatory variables, $\mu_t = \text{Error term}$ (capturing unobserved factors).

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Descriptive Statistics of Variables

The summaries of the variables studied from 1994 to 2024 are presented in the table below

Table 4.1: Descriptive Statistics

Variables	Summary Statistics		
	Mean	Median	Standard Deviation
Exchange Rate	235.5900	149.6000	283.3538
Trade Openness (%)	39.93667	38.90000	12.07872
Real Interest (%)	-2.290000	-0.100000	10.86263
Foreign Direct Investment (%)	1.192667	0.960000	0.850156
Inflation Rate (CPI) (%)	16.04667	12.70000	12.67280
Gross Capital Formation (%)	18.49667	19.00000	3.010382
Trade Balance (USD)	2.46109	1.77209	1.50410

Source: *Authors' Computation, 2025*

Table 4.1 shows that the mean exchange rate from 1994 to 2024 is 234.59 naira to a dollar, with a median exchange rate of 149.60 naira and a standard deviation of 282.35 naira. For trade openness, the mean percentage score is 39.94% with a median trade openness of 38.9%. the mean interest for the period of study is -2.29% indicating a loss with a median real interest rate of -0.10% and a standard deviation of 10.86%. For the Foreign Direct Investment (FDI) rate, the result presented in Table 4.2 shows that the mean FDI is 1.19% with a standard deviation of 0.85% and the median deviation is 0.96%. The mean inflation rate from 1994 to 2024 is 16.05% with a standard deviation of 12.67% and a median inflation rate of 12.70%. the mean value for the gross capital formation is 18.50% with a standard deviation of 2.01% and a median value of 19% from 1994 to 2024. For the dependent variable, which is trade balance, the mean trade balance for the period of 1994 to 2024 is 2.46 billion in USD with a standard deviation of 1.5 billion USD. the median trade balance for the study period is 1.77 billion dollar.

4.2: Augmented Dickey-Fuller (ADF) Test

To check for stationarity of the time series data, an ADF test was conducted. The result is presented in Table 4.3.

Table 4.2: Stationarity Test

Variables	ADF t-statistic	t-Test critical values (@ 5%)	Probability	Exogenous	Remark
Exchange Rate	0.7388	-1.9529	0.8686	None	Not Stationary
Inflation Rate (CPI)	-6.3285	-3.5742	0.0001	Constant, linear trend	Stationary
Trade Openness	-4.3056	-2.9678	0.0021	Constant	Stationary
Foreign Direct Investment	-7.7380	-2.9719	0.000	Constant	Stationary
Interest Rate	-6.2265	-2.9678	0.0000	Constant	Stationary
Gross Capital Formation	-3.8525	-2.9678	0.0066	Constant	Stationary
Trade Balance	-5.7636	-2.9719	0.0001	Constant	Stationary

Source: Authors' Computation, 2025

Table 4.2 shows that Exchange rate did not achieve stationarity. Although the differences were applied, it still refuses to achieve stationarity as the t-critical value is higher than the ADF t calculated value (ADF t-stat = 0.7388; t critical = -1.9529; $\rho > 0.05$). Therefore, the null hypothesis that stated that exchange rate has a unit root fails to be rejected. Except for exchange rate, the other variables studied all achieved stationarity at first difference [trade Openness (ADF t-stat = -4.3056, t critical = -3.5742, $\rho < 0.05$); Foreign Direct Investment (ADF t-stat = -7.7380, t critical = -2.9719, $\rho > 0.05$); Interest Rate (ADF t-stat = -6.2265, t critical = -2.9678, $\rho > 0.05$); Gross Capital formation (ADF t-stat = -3.8525, t critical = -2.9678, $\rho > 0.05$) and Trade Balance (ADF t-stat = -5.7636, t critical = -2.9719, $\rho > 0.05$)] as their ADF absolute t- calculated value is higher than the t-critical values of the other variable; therefore the variables null hypotheses that says these variables (inflation rate, trade openness, FDI,

Interest Rate, GCF and Trade Balance) have a unit root is rejected. The variables are therefore stationary at 1st level difference with intercept.

4.3 Co-integration Test

In order to examine whether a long-term equilibrium relationship exists among variables, a Johansen Co-integration test was conducted. The reason for conducting the co-integration test is because running OLS on non-stationary and non-co-integrated data will produce non-spurious results. Hence, this will act as super consistent estimator for a long run co-integrating relationship (if any co-integration exists) and confirm the existence of a stable, long term equilibrium. The co-integration result is presented in Table 4.3.

Table 4.3: Johansen Co-integration Testing long-term equilibrium relationship among variables

Hypothesized No. of CE (s)	Trace Co-integration Rank Test			Max-Eigenvalue Co-integration Test		
	Trace Statistic	0.05 Critical Value	Prob.**	Max- Eigen Statistic	0.05 Critical Value	Prob.**
None *	260.2350	125.6154	0.0000	89.23652	46.23142	0.0000
At most 1 *	170.9985	95.75366	0.0000	57.00295	40.07757	0.0003
At most 2 *	113.9956	69.81889	0.0000	43.51103	33.87687	0.0026
At most 3 *	70.48453	47.85613	0.0001	27.03672	27.58434	0.0586
At most 4 *	43.44781	29.79707	0.0008	21.95709	21.13162	0.0382
At most 5 *	21.49072	15.49471	0.0055	14.79096	14.26460	0.0412
At most 6 *	6.699762	3.841466	0.0096	6.699761	3.841466	0.0096

Source: Authors' Computation, 2025

In order to examine whether a long-term equilibrium relationship exists among variables, a Johansen Co-integration test was conducted. The result is presented as presented in Table 4.3, test the null hypothesis that no co-integrating equation exist among the variables of study. The result shows that the Trace and Max-Eigen statistics values of the hypothesized no of co-integration Equation(s) are greater than their critical values. Of note is that all the hypothesized CEs were asterisked indicating that that the null hypothesis should be rejected. The result therefore implies that a co-integration equation exists among all the variables of study. The lag selection criterion is the information criterion. Akaike information criterion tends to prefer

models with more lags, which is useful for forecasting but unfit for small samples. Since annual time series data were used, 1 to 2 lags are sufficient.

Table 4.4: OLS result

Dependent Variable: TB

Method: Least Squares

Date: 07/08/25 Time: 23:46

Sample (adjusted): 1995 2024

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.491210	1.752110	-3.131089	0.0047
EXR	-4.282464.	6657278.	0.643275	0.5264
TO	1.172409	2.124208	5.496625	0.0000
RI	-1.502308	5.964508	0.252203	0.8031
FDI	6.931408	3.074309	-0.225938	0.8232
CPI	2.453408	5.544508	0.441999	0.6626
GCF	3.744508	6.846408	0.547028	0.5896
Mean dependent				
R-squared	0.773891	variance		2.463209
S.D. dependent				
Adjusted R-squared	0.714906	variance		1.506510
S.E. of regression	8.042109	Akaike info criterion		48.65300
Sum squared				
residual	1.483421	Schwarz criterion		48.97995
Hannan-Quinn				
Log likelihood	-722.7950	criterion		48.75759
F-statistic	13.12014	Durbin-Watson stat		2.377676
Prob(F-statistic)	0.000002			

Source: Authors’ Computation, 2025

4.4 DISCUSSION OF RESULTS

Exchange Rate: Exchange rate has a negative impact on Nigeria's trade balance position and it is not statistically significant. However, the trade balance (TB) is negatively impacted by the exchange rate in a statistically negligible way. The study corroborates the empirical finding of the study of Ijirshar, Okpe & Andohol (2022) whose study revealed that exchange rate depreciation has a strong negative impact on trade balance in the short run. Furthermore, the study of Olamade & Oni (2023) also showed that exchange rate significant negative impact on trade balance in Nigeria. The economic and financial implications of the finding of this study are that export competitiveness of the country will be reduced worsened by imported inflation, significant pressure on the foreign exchange reserves of Nigeria to deplete them, reduced foreign direct investment in the country, increased foreign debt burden, increased cost of importation, capital flight and J-Curve effect.

Trade Openness: Trade openness has a strong positive and significant impact on the trade balance position of Nigeria, indicating that increased trade openness positively and significantly enhanced trade performance in Nigeria. The empirical study of Ahmad & Saad (2021) aligns with the finding of the study. Their study found that trade openness has positive impact on trade balance position in Nigeria. Moreso, the study of Ijirshar (2019) confirms the finding of the study. It revealed that trade openness in ECOWAS countries has positive impact on trade balance. The economic and financial implications of trade openness having a positive impact on trade balance position of Nigeria in line with the finding of the study are; accelerated economic growth, improved foreign exchange reserve, increased structural productivity, increased international competitiveness, growth in sectoral productivity, reduced poverty, currency stability, improved foreign exchange reserves, reduced external dependence and enhance foreign direct investment.

Inflation Rate: Inflation rate has a positive impact on trade balance in Nigeria, although insignificant. This suggests that higher inflation might not adversely affect trade balance position in Nigeria. The empirical work of Bhayang & Raya (2023) confirms the findings of this study and revealed that inflation rate has a positive impact on trade balance position in OIC countries, namely Indonesia, Brunei and Saudi Arabia. They further asserted that low and manageable increase in inflation rate will improve trade balance both in the short and long run. The study of Widya, Imsar & Nur (2023) corroborates the findings of this study and found that inflation rate had positive impact on trade balance in the short run. They opined that moderate

inflation rate does not necessarily lead to trade deficit but can under certain structural conditions accompany a trade balance improvement. The economic and financial implications of inflation rate having a positive impact on trade balance position of Nigeria in line with the finding of the study are; improved net export position of the country, increased export competitiveness, import substitution drive, expansionary output effect, increased foreign reserves and high cost of imported materials (where inflation rate is high).

Foreign Direct Investment (FDI): Foreign direct investment has a positive impact on trade balance position in Nigeria but insignificant. The empirical study of Abdoulaye (2025) confirms the finding of this study. It showed that foreign direct investment has positive impact on trade balance in Ghana both in the short and long run. Similarly, the study of Dhungel (2019) is also in support of the finding of this study. The economic and financial implications of foreign direct investment having a positive impact on trade balance position of Nigeria in line with the finding of the study are; improved foreign exchange reserves, enhanced export competitiveness, increased industrialization, increased employment creation, improved infrastructural development and increased tax revenue.

Interest Rate: Real interest rate has a negative and insignificant impact on trade balance in Nigeria. The finding study of Oyadeji (2024) aligns with this study by revealing that interest rate has negative impact on trade balance. He further maintained that high-interest rate environment can affect trade balance position and slow down economic growth. The economic and financial implications of interest rate having a negative impact on trade balance position of Nigeria in line with the finding of the study are; reduced export competitiveness, contractionary effect, increased imports, domestic currency appreciation and attracts foreign capital or investors who seek higher returns on investment.

Gross Capital Formation: Gross capital formation has a positive impact on trade balance position in Nigeria but insignificant implying that investment in capital assets supports and boosts trade performance in Nigeria. The study of Ogbonna (2017) corroborates the finding of this study. It showed that gross capital formation has a positive impact on trade balance .and enhances trade performance. The economic and financial implications of gross capital formation having a positive impact on trade balance position of Nigeria in line with the finding of the study are; increased export capacity, enhanced economic diversification, improved import substitution, employment creation, improved structural economic growth, increased foreign direct investment inflow, domestic currency stability and reduced sovereign risk.

5.0 RECOMMENDATIONS AND CONCLUSION

5.1 Recommendation

From the findings of the study, it is recommended that the government should make economic and financial policies that will improve export competitiveness and reduce trade barriers in order to boost Nigeria's trade balance position such as reducing tariffs and streamlining customs procedures in the country. Furthermore, the government should attract foreign investors for improved infrastructural development and focus more on macroeconomic stability by adopting a stable exchange rate. Interest rate and external borrowings should also be drastically reduced.

5.2. Conclusion

Policymakers in Nigeria should focus on creating enabling business environment and making economic cum financial policies that promote trade liberalization, foreign direct investment inflows and infrastructural growth while maintaining macroeconomic stability with a view to improving Nigeria's foreign trade balance position over time through the channel of exchange rate.

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