

Impact of Exchange Rate Fluctuations on Economic Growth in Nigeria

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Abstract: *This study examines the impact of exchange rate fluctuations on economic growth in Nigeria over the period 1985-2024. Specifically, it evaluates the effects of exchange rate, monetary policy rate, and inflation rate on gross domestic product (GDP). The study adopts a quantitative ex-post facto research design, utilizing secondary time series data sourced from the Central Bank of Nigeria, World Bank, and International Monetary Fund. The Autoregressive Distributed Lag (ARDL) model is employed to estimate both short-run and long-run relationships among the variables, following unit root testing using the Augmented Dickey-Fuller (ADF) technique. Diagnostic tests, including Breusch-Godfrey serial correlation, Breusch-Pagan-Godfrey heteroskedasticity, Jarque-Bera normality, and Ramsey RESET tests, are conducted to ensure model robustness. Findings reveal that exchange rate and inflation rate exert a positive and statistically significant effect on economic growth in the short run, while monetary policy rate has a negative but insignificant effect on GDP. The study concludes that exchange rate volatility plays a critical role in shaping Nigeria's economic performance and recommends coordinated monetary and fiscal policies, alongside economic diversification, to enhance stability and sustainable growth.*

Keywords: Exchange rate, monetary policy rate, inflation, gross domestic product, economic growth

INTRODUCTION

Exchange rate serves as a critical macroeconomic indicator reflecting a nation's economic performance and global competitiveness. Maintaining exchange rate stability is essential, as it significantly affects household purchasing power and the competitiveness of imports and exports (Ozata, 2020). In Nigeria, exchange rate fluctuations have a longstanding history, remaining relatively stable from the 1960s until 2001, when the naira reached ₦111.85 per USD, marking the beginning of persistent volatility (Akinlo & Onatunji, 2020).

Nigeria has attempted different exchange rate policies over time, mainly to stabilise the naira and support economic growth. But in reality, the results have been mixed. A lot of it comes down to structural issues like overdependence on oil exports, weak industrialisation, and the size of the informal sector (Ogundipe et al., 2020). The oil boom in the 1970s has not helped matters either. It shifted the attention away from agriculture toward oil, and over time that led to heavy import dependence. At some point, crude oil was accounting for over 80% of national revenue (Valogo et al., 2023). Then there lies the issue of the naira itself. Continuous depreciation has had knockon effects, higher production costs, rising inflation, reduced purchasing power and at the same time, it weakens the competitiveness of non-oil exports (Habanabakize, 2021). So, the impact is quite broad, not just limited to one part of the economy.

The Structural Adjustment Programme of 1986 introduced a transition from a pegged to a floating exchange rate type of system, aiming to mitigate economic fluctuations and promote growth (Omoriege, 2020). Despite all these reforms, the naira has still remained relatively weak against major currencies. So the problem has not really gone away. Even in related studies, there is no full agreement but mixed findings, some studies argue that depreciation can improve export competitiveness, which makes sense in theory. But others point to the downside, especially the inflationary effects that tend to follow (Akinlo & Onatunji, 2020).

This study tries to make more sense of that. By using more recent data, it looks at how exchange rate movements actually affect key economic variables. The idea is to provide clearer insights, which can be utilized by policymakers.

LITERATURE REVIEW

Exchange Rate

The exchange rate reflects how much one currency is worth in relation to another, categorized into nominal and real exchange rates, and classified as fixed, floating, or managed depending on a country's monetary policy (Mankiw, 2021; Krugman & Obstfeld, 2020). It plays a major role in shaping a country's trade balance, inflation, and overall competitiveness. Once exchange rates change, the relative prices of imports and exports shift, and that alone can affect how the economy performs (Dornbusch, Fischer, & Startz, 2014).

In Nigeria, exchange rate fluctuations have far-reaching consequences. As a major oil-exporting nation heavily dependent on crude oil revenues denominated in U.S. dollars, naira depreciation increases the local currency value of oil exports but at the same time it raises the cost of imports, especially for essential raw materials and technology (CBN, 2021). The inflation effect then comes in. Depreciation tends to push prices up, mainly because Nigeria relies heavily on imported petroleum products, machinery, and even consumer goods (Adeniran et al., 2014).

Furthermore, naira devaluation increases the cost of servicing foreign-denominated debt, straining fiscal sustainability and deterring foreign direct investment critical for long-term growth (Obadan, 2012).

While a depreciated exchange rate can theoretically enhance export competitiveness, Nigeria's underdeveloped industrial sector and over-reliance on oil limits its ability to fully leverage this advantage (Adeniran et al., 2014). The naira has experienced significant depreciation against major currencies in recent years (CBN, 2023). Which, if anything, just reinforces the point. There is a clear need for economic diversification, better fiscal discipline and more deliberate monetary policies. Without these, exchange rate volatility will likely persist and its negative effects on long-term, sustainable growth would not be reduced.

Monetary Policy Rate

The monetary policy rate (MPR) is an essential instrument used by the Central Bank of Nigeria (CBN) to regulate economic activity, control inflation, and influence borrowing costs across the economy (CBN, 2023). Adjustments in the MPR directly affect investment decisions and overall economic performance, with reductions typically lowering borrowing costs and stimulating consumer spending and growth (Goshit et al., 2020). Raising the MPR may attract foreign investment by improving asset returns, this in turn strengthening the naira, but then lowering it risks currency depreciation and heightened inflationary pressures (Akinlo & Onatunji, 2020).

The effectiveness of MPR adjustments is significantly influenced by exchange rate dynamics. Once the naira depreciates, import costs rise and that feeds into inflation, which then weakens the intended effect of monetary policy (Bawa et al., 2021). There is also the issue of volatility. When the exchange rate is unstable, it creates uncertainty, especially for investment decisions, and that slows growth (Okechukwu, 2023). Furthermore, there is evidence of a long-run relationship between monetary variables, including MPR, and economic growth. But this tends to hold more when the exchange rate is relatively stable. It strengthens the effect (Olagunju & Ogah, 2022). Still, monetary policy alone is not enough. Without coordination with fiscal and trade policies, it struggles to deal with external shocks (Eme & Johnson, 2022).

Inflation Rate

The inflation rate measures the general increase in price levels over a specified period, reflecting a decline in the purchasing power of money. In Nigeria, inflation is influenced by a mix of factors. Monetary policy, fiscal deficits, and exchange rate movements all play a role. It is not linear either. Moderate inflation can support growth, but once it goes too high, it starts reducing purchasing power and slows the economy (Adeyemi, 2023). Exchange rate depreciation is a major driver here. A weaker naira increases import costs, and that directly pushes prices up (Akpan & Udo, 2023). Then the volatility part. When exchange rates keep fluctuating, firms find it harder to plan or price properly. That just adds more pressure on inflation (Orisdare, 2024). Fiscal deficits also contribute. Especially when they are financed through borrowing or money creation, inflation tends to rise.

further, affecting both consumers and growth (Odionye et al., 2024) when outcomes such as high inflation, unstable exchange rate, low investment are put together, it results in growth declines. This then necessitates the need for coordinated policy action (Ogwuche, 2023).

Economic Growth

Economic growth refers to the steady rise in an economy's output of goods and services over time, serving as a crucial indicator of national development and prosperity (Todaro & Smith, 2020). Classical economists linked growth to capital accumulation, labor productivity, and free markets, while neoclassical economists emphasize technological innovation as essential for sustaining growth beyond diminishing returns to capital. Kuznets (1971) characterizes growth as a sustained rise in productive capacity driven by technological advancement, institutional improvements, and capital accumulation. Contemporary discourse increasingly emphasizes sustainable growth that harmonizes economic expansion with environmental conservation and social equity (World Bank, 2020).

Nigeria, Africa's largest economy, with obvious potential, has a large population, abundant natural resources. But the structure of the economy tells a different story. Since the discovery of crude oil in Oloibiri in 1956, oil has taken over, almost completely. Over time, it pushed agriculture and manufacturing into the background, creating what is a "monoeconomy" (Akinlo, 2012). Oil exports currently account for approximately 90% of foreign exchange earnings and over 60% of government revenue, rendering the economy highly vulnerable to global oil price fluctuations (World Bank, 2022). Compounding this challenge, Nigeria's total public debt rose to \$103 billion in 2023, raising concerns about debt sustainability (DMO, 2023). Persistent inflationary pressures, driven by food price increases, fuel subsidy removal, naira devaluation, further constrain economic performance (NBS, 2024). These structural challenges, including exchange rate volatility and over-reliance on oil, continue to impede the sustainable development and economic diversification.

Gross Domestic Product

Gross Domestic Product (GDP) is the widely accepted primary metric for evaluating a nation's economic growth, representing the total monetary value of all the goods and services produced within its borders over a defined period, typically annually or quarterly (Orji, Nwagu, Ogbuabor, & Anthony-Orji, 2021). This comprehensive indicator usually reflects the scale, health, and performance of an economy, serving as a crucial tool for policymakers, investors, and researchers in assessing economic trends and developmental outcomes.

GDP is commonly categorized into nominal GDP, measured using current prices, and real GDP, adjusted for inflation to accurately reflect changes in production and income levels (Ugwuoke, 2024). Real GDP is particularly significant for longitudinal economic analysis, as it isolates the impact of price fluctuations, providing a clearer indication of genuine economic expansion. Within the context of developing economies such as Nigeria, GDP growth functions as a central benchmark for economic advancement and policy efficacy. Empirical studies suggest that

variations in GDP can indicate the effects of fiscal and monetary policies, and other macroeconomic variables including inflation, exchange rates, and trade openness (Ologbenla, 2022). Sustained GDP growth is generally correlated with increased employment opportunities, improved living standards, and greater national income, whereas persistent contractions may signal economic distress necessitating policy interventions.

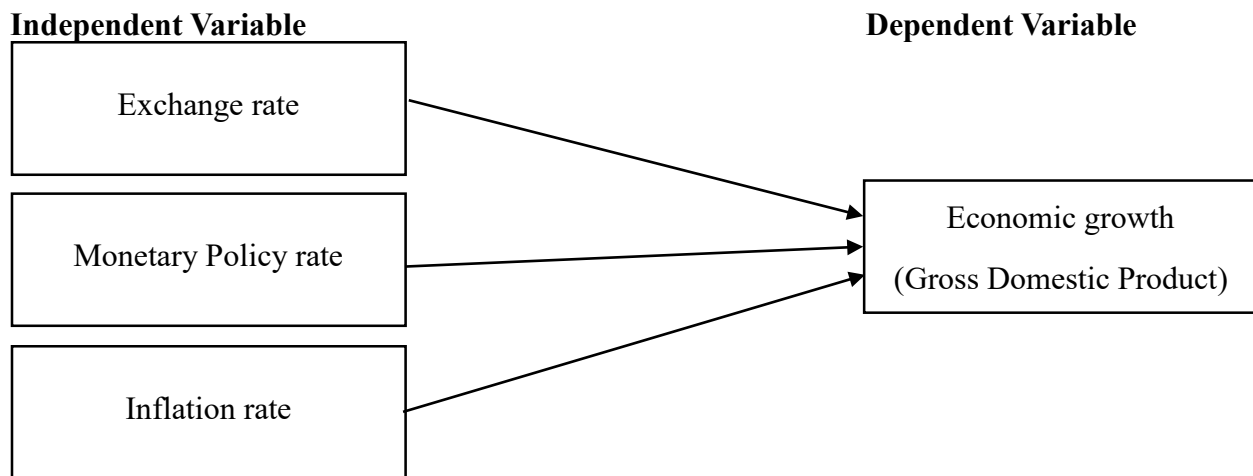


Figure 1: Conceptual framework

Theoretical Review

This study adopts the Purchasing Power Parity (PPP) theory as its foundational framework for analyzing the relationship between exchange rate fluctuations and economic growth in Nigeria. The PPP theory posits that exchange rates between two currencies are fundamentally determined by the relative price levels of a standardized basket of goods and services across countries, and that exchange rate variations are driven by differential inflation rates between trading partners (Dornbusch, 1976). However, for Nigeria, Naira depreciation increases the cost of imported goods, fueling inflation and eroding consumer purchasing power, and if not offset by proportional export earnings growth, ultimately constrains economic growth (Adeniyi et al., 2014). In practice, Nigeria's exchange rate fluctuations has consistently produced a cycle of rising inflation, higher import costs, and reduced economic growth, while the expected boost in export demand remains subdued due to the narrow oil-dependent export base (Fasanya & Omojola, 2017).

The application of PPP to Nigeria therefore underscores that exchange rate management alone is insufficient, and must be complemented by inflation control, export diversification, and coordinated fiscal and monetary reforms to achieve sustainable economic growth.

Empirical Review

Okechukwu et al. (2023) examined the effect of exchange rate fluctuations on Nigeria's domestic price level from 2015-2022 using the ARDL model. The findings revealed that while the nominal exchange rate had a positive but insignificant effect on inflation, import prices significantly influenced domestic price levels. The study emphasized Nigeria's dependence on imports and recommended promoting local production to enhance price stability.

Similarly, Ezebunwo (2024) analyzed the impact of exchange rate fluctuations on economic growth between 1985 and 2021. Using the ARDL technique, the study found an inverse relationship between exchange rate volatility and GDP growth, while foreign reserves had a significant positive impact on economic performance.

Bawa et al. (2021) investigated the asymmetric effects of oil price shocks on inflation using the NARDL model. The study showed that rising oil prices increased inflation, while falling prices reduced it. However, exchange rate depreciation during oil price declines could still trigger inflation, highlighting the mediating role of exchange rate dynamics.

In another study, Olagunju and Ogah (2022) applied the VAR model to assess the impact of monetary policy on rice production from 1981-2020. The findings indicated that expansionary monetary policy enhanced agricultural output, while contractionary policy reduced productivity, emphasizing the role of macroeconomic policy in economic growth.

Orisdare and Sodik (2024) examined the impact of exchange rate volatility on productivity using the ARDL approach. The results showed that exchange rate instability negatively affects productivity in both the short and long run, with weak financial sector performance further constraining growth.

Likewise, Akpan and Udo (2023) explored the relationship between exchange rate fluctuations and inflation from 1981-2021. The ARDL results indicated that exchange rate movements significantly increased inflation, although no direct causal relationship was established. The study highlighted inflation as a key channel through which exchange rate volatility affects economic growth.

Furthermore, Uche and Nwamiri (2022) employed the NARDL model to examine asymmetric effects of exchange rate movements on productivity. The study found that exchange rate depreciation negatively affected output in the short run, while no significant long-run impact was observed, suggesting weak linkage between exchange rate changes and sustained productivity growth.

Literature Gap

The literature on exchange rate fluctuations and their impact on Nigeria's economic growth still leaves a number of gaps that need to be addressed for a more complete understanding. For instance,

Akpan and Udo (2023) argue that sustainable growth in Nigeria cannot be achieved through exchange rate management alone. While exchange rate policies are clearly important, their effectiveness tends to be limited when broader structural issues are not tackled at the same time. So even when the exchange rate is being “managed,” the expected outcomes may not fully materialise. The issue, really, is that many studies isolate exchange rate variables without giving enough attention to the wider economic environment. In practice, factors like infrastructure deficits, low industrial productivity, weak institutions, and heavy import dependence all interact with exchange rate movements. Ignoring these makes the analysis somewhat incomplete. There is also the question of policy consistency. Monetary authorities may attempt to stabilise the naira, but if fiscal policy is not aligned or if trade structures remain skewed toward imports, the impact becomes diluted.

Another gap is the methodological gap, a number of studies rely on narrow model specifications or limited variables, focusing mainly on direct relationships between exchange rate and GDP. This approach, while useful, often overlooks indirect channels such as investment behaviour, production costs, and sectoral responses. Taken together, there is a clear need for more comprehensive studies. studies that go beyond exchange rate movements and incorporate broader reform agendas, structural adjustments, and policy coordination. That way, the findings will better reflect the real dynamics of Nigeria’s economy rather than just a single dimension of it.

METHODOLOGY

A quantitative research design was used in the study. The study population consists of data sourced from the Central Bank of Nigeria (CBN), specifically relating to exchange rates, monetary policy rates, and inflation rates. World Bank and International Monetary Fund (IMF) for GDP growth rate and FDI data. National Bureau of Statistics (NBS) for government expenditure and other macroeconomic indicators. The dataset will cover an annual time series from 1985 to 2024 to capture short and long-term fluctuations and effects. The analysis will first involve multiple steps to ensure validity and reliability of results.

In the event where the error variance is not constant, it implies the existence of heteroscedasticity which leads to a spurious regression outcome. The test is used to detect whether there are some portions of the population that have different or unequal variability through a range of values of a subsequent predictor variable. Using the Breusch-pagan test, a chi-square test statistic, a P-value of less than 0.05 implies heteroskedasticity presence.

During the panel regression analyses, testing for autocorrelation is important. A Breush-Godfrey test will be applied which holds the null hypothesis that serial correlation exists. In the situation where the presence of serial correlation is obtained, this will be corrected using robust standard estimates as they are not impaired by issues of serial correlation.

To determine whether a unit root exists and whether the variables are stationary, the study will employ the Augmented Dickey-Fuller test. In conducting this test, the avoidance of spurious regression is imminent. Accordingly, the null hypothesis states that series have unit-root. Alternatively, the hypothesis states that at least one or some series have no unit root (Choi, 2001). When any variable used in the study exhibits unit root presence, it was different in the model.

Research data is expected to have a normal distribution. c Jarque Bera Test will be applied in assessing normally as pointed out by Chris (2008). The normal distribution indicates the study's null hypothesis. In a situation of the distribution is non-normal, this will be ignored or nonparametric tests used (Wooldridge, 2013)

Model Specification

The study investigated the relationship between Nigeria's economic growth and exchange rates using an econometric model. A multiple regression analysis will be employed to test the hypotheses, where GDP growth is the dependent variable and exchange rate, among other control variables, serves as the independent variable. The econometric model using multiple regression analysis was applied in studies on effect of exchange rate on economic growth by (Okosu, 2021) and (Egbaseimokumo, 2025) to be adopted for this study is given as thus:

$$GDP_t = \beta_0 + \beta_1 EXR_t + \beta_2 MPOLR_t + \beta_3 INF_t + \epsilon_t$$

Where; GDP_t = Gross Domestic Product growth rate at time t (dependent variable); EXR_t = Exchange rate (Naira per US Dollar) at time t (independent variable); $MPOLR_t$ = Monetary policy rate at time t (control variable) INF_t = Inflation rate at time t (control variable) ϵ_t = Error term capturing all unobserved factors

RESULTS AND DISCUSSION

Descriptive Statistics

Table 4.1 shows that GDP has a mean score of 4.453500 and a standard deviation of 3.776142, showing that the deviation from the mean is below the mean hence; the data are clustered below the mean. Thus, indicating moderate disparity in GDP growth for different years. Also, all other variables have standard deviations lower than their mean scores, showing that the deviation from the mean is quite low hence; the data are clustered below the mean. Thus, indicating low level of disparity in the variables for different years. By implication, all the independent variables used in the study affect the growth of GDP by 4.45, which is at low level.

Table 4.1: Descriptive Statistics Analysis Result

	GDP	EXR	MPOLR	INF
Mean	4.453500	175.9640	13.87500	18.75425
Median	3.575000	127.2400	13.50000	12.05000
Maximum	14.60000	1535.000	26.00000	72.80000
Minimum	-1.920000	0.890000	6.000000	5.400000
Std. Dev.	3.776142	162.0711	3.812093	15.90827
Skewness	0.518175	3.737473	0.622993	1.851743
Kurtosis	2.821936	19.39234	4.344153	5.728317
Jarque-Bera	1.842883	540.9728	5.598713	35.26586
Probability	0.397945	0.000000	0.060849	0.000000
Sum	178.1400	7038.560	555.0000	750.1700
Sum Sq. Dev.	556.1107	2678569.	566.7500	9869.854
Observations	40	40	40	40

*Source: Researchers Computation, 2026***Unit Root Test**

As a pre-condition for estimation of time series models and prior to ARDL bound test, time series properties of the variables needed to be examined to ascertain the existence or non-existence of unit root, for the avoidance of spurious results. The unit root allows for the determination of the existence or non-existence of unit roots in the variables that are employed in the research models. Several tools exist for this purpose but the Augmented Dickey-Fuller (ADF) Unit Root Test is employed here, as indicated in Table 4.2.

Table 4.2: Unit Root Test Results

Variables	t-statistic	Critical value (0.05)	Prob.	Order of Int.
D(LOG(GDP))	-8.270941	-3.615588	0.0000	I(0)
:D(LOG(EXR))	-5.017016	-2.941145	0.0002	I(0)
D(LOG(MPOLR))	-7.326084	-2.941145	0.0000	I(0)
D(LOG(INF))	-5.696684	-2.941145	0.0000	I(0)

Source: Extracted from the Eviews outputs in Appendix III

The analysis in Table 4.2 show the results of the unit root (stationarity) tests of the series in respect to variables at 5% level of confidence. It was found that the variables were of a first order integrated process. In other word, the variables have unit root in them i.e. the variables were stationary by first differencing. The statistical implication of this is that estimation using the variables in level will not follow the standard distribution, and the issue of spuriousity is highly feasible. Based on the reason above, an ARDL methodology is adopted due to its flexible nature to accommodate this kind of variables we have. ARDL is considered a general single equation

dynamic model due to its ability to accommodate the general dynamics in the dependent variable and the independent variable(s).

Engle-Granger Cointegration Test

From Table 4.3, the trace statistic value for GDP clearly exceeds the critical values at 5 percent confidence interval. The implication of this result is that only one variable (GDP) has a long-run equilibrium relationship with all the variables and that the regression is not spurious. The calculated p-values that are less than 0.005 level of significance also supported this claim of long run equilibrium relationship among the variables thus, we are not accepting the null hypothesis of no cointegrating relationships among the variables.

Table 4.3: Engle-Granger cointegration test

Date: 04/21/25 Time: 05:54
 Sample (adjusted): 1987 2024
 Included observations: 38 after adjustments
 Trend assumption: Linear deterministic trend
 Series: LOG(GDP) LOG(EXR) LOG(MPOLR) LOG(INF)
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.541491	51.86081	47.85613	0.0201
At most 1	0.293797	22.22933	29.79707	0.2860
At most 2	0.189015	9.010921	15.49471	0.3644
At most 3	0.027246	1.049718	3.841466	0.3056

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.541491	29.63149	27.58434	0.0269
At most 1	0.293797	13.21841	21.13162	0.4323
At most 2	0.189015	7.961203	14.26460	0.3827
At most 3	0.027246	1.049718	3.841466	0.3056

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Researchers Computation, 2026

Linearity Test (using Ramsey Reset Test)

From Table 4.4, the output from the Ramsey reset test reports the test regression, the F-statistic and t-statistic for testing the hypothesis that the coefficients on the powers of fitted values from the regression are jointly zero, that is, the model is correctly specified. If the p-value is less than 0.05 level of significance, we reject the null hypothesis that there is no difference between the means and conclude that a significant difference does exist and that the model is correctly specified. From Table 4.4, it is obvious that the p-values are less than 0.05, hence, null hypothesis was rejected.

Table 4.4: Ramsey RESET Test

Ramsey RESET Test			
Equation: UNTITLED			
Specification: GDP GDP(-1) EXR MPOLR INF INF(-1) INF(-2) C @TREND			
Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	2.866843	29	0.0076
F-statistic	8.218791	(1, 29)	0.0076
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	51.60860	1	51.60860
Restricted SSR	233.7095	30	7.790317
Unrestricted SSR	182.1009	29	6.279342

Source: Researchers Computation, 2026

The Breusch-Godfrey Serial Correlation LM Test

The null hypothesis of the test as seen in Table 4.5 is that there is no serial correlation problem in the residuals up to the specified lag order. The Breusch-Godfrey Serial Correlation LM Test was further conducted; it showed F-statistic (0.417125) with p-value of 0.6633 which is greater than 0.05 meaning that there is no autocorrelation problem.

Table 4.5: Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.417125	Prob. F(2,26)	0.6633
Obs*R-squared	1.181382	Prob. Chi-Square(2)	0.5539

*Source: Researchers Computation, 2026***Heteroscedasticity Test**

In this study as shown in the Table 4.6, both the F-statistic and Chi-Square versions of the test statistic gave the same conclusion that there is no evidence for the presence of heteroscedasticity, since the p-values were in excess of 0.05. The third version of the test statistic, 'Scaled explained SS', which as the name suggests is based on a normalized version of the explained sum of squares from the auxiliary regression, also gave the same conclusion that there is no evidence for the presence of heteroscedasticity problem, since the p-value was in excess of 0.05.

Table 4.6: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.429526	Prob. F(8,28)	0.8932
Obs*R-squared	4.044373	Prob. Chi-Square(8)	0.8531
Scaled explained SS	2.135879	Prob. Chi-Square(8)	0.9766

ARDL Bound Test

The three options of the decision criteria are adopted when conducting this test. Thus, if the calculated F-statistic is greater than the Critical Value Bounds for the upper bound $I(1)$, then we can conclude that there is cointegration, which implies that there is long-run relationship. On the other hand, if the calculated F-statistic falls below the theoretical critical value for the lower bound $I(0)$ bound, then we conclude that there is no cointegration, hence, no long run relationship. Furthermore, the test is considered inconclusive if the F-statistic falls between the lower bound $I(0)$ and the upper bound $I(1)$.

Table 4.7: ARDL Bounds Test

ARDL Bounds Test		
Date: 04/21/25 Time: 23:43		
Sample: 1988 2024		
Included observations: 37		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	1.600200	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source: Researchers Computation, 2026

In the case of our empirical illustration as shown in the result in Table 4.7, the F-statistic obtained is 1.600200 and is lower than the Critical Value Bounds for the lower bound $I(0)$ and upper bound $I(1)$. Hence, we may consider only short run models appropriate for analysis.

Testing of Research Hypotheses

The researcher conducted ARDL short run estimation in order to test the hypotheses.

H01: Exchange rate has no significant effect on the Nigeria GDP

H02: Monetary policy rate has no significant effect on Nigeria GDP.

H03: There is no correlation between Inflation Rate fluctuation and the growth of Nigeria's GDP.

Table 4.8: ARDL estimation test analysis results for the test of hypotheses

ARDL Cointegrating And Long Run Form

Dependent Variable: LOG(GDP)

Selected Model: ARDL(1, 0, 0, 2)

Date: 04/21/25 Time: 22:56

Sample: 1985 2024

Included observations: 38

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(EXR)	2.088778	0.563071	3.709619	0.0009
DLOG(MPOLR)	-0.104772	0.146096	-0.717146	0.4788
DLOG(INF)	0.129067	0.053285	2.422187	0.0217
DLOG(INF)	0.109836	0.042143	2.606247	0.0141
D(@TREND())	-0.077836	0.071240	-1.092582	0.2833
CointEq(-1)	-0.471970	0.146347	-3.225001	0.0030
Cointeq = LOG(GDP) - (0.0017*LOG(EXR) -0.2220*LOG(MPOLR) - 0.1303*LOG(INF) + 13.2776 -0.1649*@TREND)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(EXR)	0.001662	0.005772	0.287886	0.7754
LOG(MPOLR)	-0.221989	0.312656	-0.710009	0.4832
LOG(INF)	-0.130264	0.086564	-1.504826	0.1428
C	13.277592	6.159676	2.155567	0.0393
@TREND	-0.164918	0.151891	-1.085759	0.2862
R-squared	0.491677	Mean dependent var		4.626842
Adjusted R-squared	0.373068	S.D. dependent var		3.525066
S.E. of regression	2.791114	Akaike info criterion		5.075423
Sum squared resid	233.7095	Schwarz criterion		5.420177
Log likelihood	-88.43303	Hannan-Quinn criter.		5.198084
F-statistic	4.145364	Durbin-Watson stat		2.339281
Prob(F-statistic)	0.002689			

*Note: p-values and any subsequent tests do not account for model selection.

Source: Researchers Computation, 2026

The error correction term is statistically significant as the model reports the calculated p-value of 0.0030 at lag 1 which is less than the alpha value of 0.05. Nonetheless, the coefficient of -0.471970 is infinitesimally low. The low coefficient implies that the error correction term speed of adjustment after shock to equilibrium is low. Furthermore, it infers that the error correction term

speed of adjustment from the preceding year's disequilibrium in the GDP growth in Nigeria to current year's equilibrium can be achieved but at a lower speed.

DISCUSSION OF THE FINDINGS

This section of the study presents the discussion of major findings which are related to the hypotheses testing of the study. The discussions are presented based on the research hypotheses for this study.

H₀₁: Exchange rate has no significant effect on the Nigeria GDP

ARDL coefficient of 0.001662 for exchange rate (EXR) from Table 4.10 implies that there is a positive effect of exchange rate on Nigeria's GDP. The p-value of 0.0009 for exchange rate indicates a significant short-run effect of exchange rate on the economic growth of Nigeria. This led to the finding that exchange rate has a significant effect on the Nigeria GDP. This finding corroborates the finding of Anaezichukwuolu & Nwannebuikwe (2021) that exchange rates significantly impacted GDP and GNP. This finding is further consistent with the finding of Iheanachor & Ozegbe, Azuka (2021) that exchange rates significantly affected Nigeria's economic growth. In a more recent study, this finding corroborates the finding of Najeem (2024) that exchange rate fluctuations are the most significant factor affecting economic growth, with a direct and notable impact on GDP.

H₀₂: Monetary policy rate has no significant effect on Nigeria GDP.

Also, the ARDL coefficient of -0.104772 for monetary policy rate (MPOLR) implies that there is a negative short-run effect of monetary policy rate on the economic growth of Nigeria. The p-value of 0.4788 for MPOLR from indicates an insignificant short-run effect of monetary policy rate on the economic growth of Nigeria. This led to the finding that monetary policy rate has no significant effect on Nigeria GDP. This finding is consistent with the finding of Goshit et al. (2020) that there is a negative effect of monetary policy on economic growth and that monetary policy shocks exhibited a less significant impact on output growth, indicating potential rigidity or resistance within the economy to policy measures intended to tighten monetary conditions.

H₀₃: There is no correlation between Inflation Rate fluctuation and the growth of Nigeria's GDP.

Furthermore, the ARDL coefficient of 0.129067 for inflation rate (INFL) implies that there is a positive short-run effect of inflation rate on the economic growth of Nigeria. The p-values of 0.0217 and 0.0141 for INFL for lags 1 and 2 respectively implied that inflation rate has significant short run effect on GDP in Nigeria. This led to the findings that there is a correlation between Inflation Rate fluctuation and the growth of Nigeria's GDP. This finding is consistent with the finding of Akpan and Udo (2023) that inflation rate has positive and significant impact on GDP growth in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study has investigated the effect of exchange rate on the economic growth in Nigeria. Findings revealed that Exchange rate and inflation rate have positive significant effects on the economic growth in Nigeria. On the contrary, monetary policy rate has a negative insignificant effect on the economic growth in Nigeria. Exchange rate fluctuations significantly affect Nigeria's trade dynamics. As a major oil-exporting country, Nigeria's economy relies heavily on crude oil revenues, which are priced in U.S. dollars. A depreciation of the Naira increases the local currency value of oil exports, potentially improving trade balances. However, this also raises the cost of importing goods, including essential raw materials and technology.

Exchange rate volatility often contributes to inflation in Nigeria. A weaker Naira increases the cost of imported goods, leading to cost-push inflation. This is particularly significant given Nigeria's dependence on imports for refined petroleum products, machinery, and consumer goods. Nigeria's dependence on foreign loans exposes the economy to exchange rate risks. A devaluation of the Naira increases the cost of servicing foreign denominated debt, straining government resources and impacting fiscal sustainability. This is a critical challenge given Nigeria's reliance on external borrowing for infrastructure development and budgetary support.

Monetary policy in Nigeria, particularly the Monetary Policy Rate (MPR), plays a crucial role in shaping the economic landscape of the country. The Central Bank of Nigeria (CBN) utilizes the MPR as a primary tool to influence interest rates, control inflation, and ultimately drive economic growth. The MPR serves as a nominal anchor for interest rates, impacting borrowing costs and investment decisions across various sectors of the economy. A reduction in the MPR typically lowers the cost of borrowing, which can stimulate consumer spending and investment, thereby promoting economic growth. On the contrary, in Nigeria, MPR is witnessing steady increase thereby leading to higher cost of borrowing, which has over the years discouraged investors. This development has hindered MPR from impacting economic growth positively and significantly. However, the effectiveness of monetary policy in achieving these objectives is often influenced by external factors, particularly exchange rate fluctuations. Based on the findings of this study, the researcher concludes that exchange rate has positive and significant effect on the economic growth in Nigeria from 1985 to 2024.

As a result of the findings of the study, it was recommended that:

- I. There is need for government to implement credible reforms in the foreign exchange system to mitigate the harmful effects of exchange rate instability on the nation's economy. And the need for better coordination in foreign exchange management policies and called for increased transparency and clarity in managing the foreign exchange market.

- II. The Central Bank of Nigeria should adopt strategies aimed at the reduction of monetary policy rate in Nigeria in order to lower the cost of borrowing, which can stimulate consumer spending and investment, thereby promoting economic growth.
- III. The Central Bank of Nigeria should focus on monetary policy actions aimed at controlling core inflation during periods of significant oil price increases. However, the fiscal authorities should also avoid excessively procyclical fiscal stances during rising oil prices to mitigate adverse economic effects.

Suggestions For Further Studies

While this study has provided valuable insights into the effect of exchange rate fluctuations on economic growth in Nigeria, the following areas are suggested for further research:

1. Future studies could examine how exchange rate volatility affects specific sectors such as agriculture, manufacturing, or services to provide more targeted policy implications.
2. Further research may include additional macroeconomic variables such as trade openness, foreign direct investment (FDI), external reserves, and government debt to capture a broader economic perspective.
3. Studies can also explore the future impact of exchange rate dynamics using forecasting models to predict Nigeria's economic trajectory beyond 2024.
4. Future researchers could evaluate the performance of different exchange rate regimes (fixed, floating, or managed float) on Nigeria's economic growth to determine which system yields better economic outcomes.

REFERENCES

- Adeyemi, O. (2023). Inflation and growth nexus re-visited: financial and practical implications of the threshold effect in Nigeria. *NIU JSS*, 9(3), 59-67.
<https://doi.org/10.58709/niujss.v9i3.1711>
- Ahiabor, G., & Amoah, E. (2019). The impact of exchange rate fluctuations on household purchasing power. *International Journal of Economics and Finance*, 11(4), 15-25.
- Akinlo, A. E. (2012). Oil dependence and economic growth in Nigeria. *African Journal of Economic Policy Studies*, 19(1), 45-60.
- Akinlo, A. E., & Onatunji, O. I. (2020). Exchange rate volatility and economic growth in Nigeria: A re-examination. *Journal of African Economic Studies*, 8(2), 45-60.
- Akpan and Udo (2023). Exchange rate and inflation rate nexus: the Nigerian experience. *Journal of Economics and Sustainable Development*. <https://doi.org/10.7176/jesd/14-10-02>
- Amanda, P., Akhyar, A., & Ilham, S. (2023). Resource reallocation and the decline of agricultural output: Evidence from Nigeria's oil boom. *Journal of Development Economics*, 16(3), 122-140.
- Anaezichukwuolu, O., & Nwannebuikwe, I. (2021). Exchange rate and economic growth in Nigeria. *International Journal of Economic Research*, 15(2), 45-62.

- Anyanwu, U., Ananwude, A., & Okoye, E. (2019). Exchange rate policy and Nigeria's economic growth: A Granger causality impact assessment. *Journal of Economics and Policy Studies*, 7(4), 1-14.
- Arintoko, A. and Kadarwati, N. (2022). Does monetary policy respond to macroeconomic shocks? evidence from indonesia. *Jurnal Ekonomi & Studi Pembangunan*, 23(2), 171-188. <https://doi.org/10.18196/jesp.v23i2.14881>
- Bawa, S., Abdullahi, I., Tukur, D., Barda, S., & Adams, Y. (2021). Asymmetric impact of oil price on inflation in nigeria. *Central Bank of Nigeria Journal of Applied Statistics*, (Vol. 11 No. 2), 85-113. <https://doi.org/10.33429/cjas.11220.4/8>
- Bhat, S., & Bhat, N. (2021). Currency devaluation and trade balance: A case study of Nigeria. *Journal of International Trade and Policy Analysis*, 14(2), 98-115.
- Central Bank of Nigeria (CBN). (2021). Annual report and statement of accounts. Central Bank of Nigeria Publications.
- Central Bank of Nigeria (CBN). (2023). Exchange rate policy and naira stability. CBN Economic Report 2023.
- Debt Management Office (DMO). (2023). Nigeria's public debt profile. Debt Management Office Annual Report.
- Eme, O., & Johnson, A. (2022). The macroeconomic effects of currency depreciation in Nigeria. *African Journal of Economic Policy Studies*, 19(1), 33-49.
- Eme, O., Akpan, O., & Johnson, A. (2012). Effects of exchange rate movements on economic growth in Nigeria. *Nigerian Journal of Economics*, 9(3), 12-30.
- Ewubare, D. B., & Ushie, R. O. (2020). Exchange rate fluctuations and economic growth in Nigeria (1981–2020). *Journal of African Economics and Development Studies*, 11(2), 5672.
- Eyung, A., Agbor, F., & Orajekwe, C. (2023). Currency value fluctuations in Nigeria: Historical trends and policy responses. *Nigerian Journal of Monetary Economics*, 10(1), 27-43.
- Ezebunwo, N. (2024). Impact of exchange rate on economic growth in nigeria. *International Journal of Advanced Economics*, 6(6), 242-250. <https://doi.org/10.51594/ijae.v6i6.1237>
- Fadilah, P. and Kusumastuti, S. Y. (2024). Analysis of the effectiveness of the monetary policy transmission channel in indonesia with a single target of inflation for the period 2016:08 - 2022:12. *Media Ekonomi*, 31(2), 153-164.
- Fathia, N., Silvia, V., & Gunawan, E. (2021). Analysis of foreign investment determinants in indonesia. *Economics Development Analysis Journal*, 10(3), 338-350. <https://doi.org/10.15294/edaj.v10i3.45375>
- Goshit, G., Jelilov, G., Iorember, P., Çelik, B., & Davd-Wayas, O. (2020). Asymmetric effects of monetary policy shocks on output growth in nigeria: evidence from nonlinear ardl and hatemi-j causality tests. *Journal of Public Affairs*. <https://doi.org/10.1002/pa.2449>
- Habanabakize, T. (2021). Exchange rate instability and its implications for developing economies. *Journal of Economic Development and Policy Research*, 12(2), 75-90.

- Hetzel, R. L. (2021). Assessing the powell policy review. *Economic Affairs*, 41(1), 51-58.
<https://doi.org/10.1111/ecaf.12442>
- Iheanachor, N., & Ozegbe, A. (2021). The consequences of exchange rate fluctuations on Nigeria's economic performance: An autoregressive distributed lag (ARDL) approach. *Economic Review of Nigeria*, 16(1), 28-40.
- Kelikume, I., & Nwani, C. (2019). Exchange rate volatility and foreign direct investment inflows: Evidence from Nigeria. *Journal of African Finance and Economics*, 9(3), 50-68.
- Kuznets, S. (1971). *Economic growth of nations: Total output and production structure*. Harvard University Press.
- Mankiw, N. G. (2021). *Principles of economics* (9th ed.). Cengage Learning.
- Mumtaz, M., & Ali, R. (2022). Exchange rate dynamics and trade behavior in Nigeria. *International Journal of Economic and Policy Research*, 15(4), 89-102.
- Najeem, A. A. (2024). Exchange rate volatility and economic growth in Nigeria: Insights from multivariate adaptive regression splines (MARS). *Journal of Contemporary Nigerian Studies*, 9(1), 120-137.
- Nasiru, M., Idris, A., & Suleiman, M. (2022). Micro and macroeconomic debates on Nigeria's exchange rate policies. *Journal of Contemporary Economic Issues in Africa*, 7(2), 120-140.
- National Bureau of Statistics (NBS). (2024). *Inflation report 2024*. National Bureau of Statistics, Nigeria.
- Nwafor, J. C. (2018). Effect of Naira rate on economic growth in Nigeria. *African Economic Analysis Journal*, 6(3), 75-89.
- Odionye et al., (2024). Responses of inflation to fiscal deficit and money supply in Nigeria. *EJBM*. <https://doi.org/10.7176/ejbm/16-3-06>
- Ogundipe, A., Ogundipe, O., & Idowu, K. (2020). Structural issues in Nigeria's exchange rate management: An overview. *West African Economic Review*, 11(1), 48-63.
- Ogwuche, D. (2023). Impact of monetary policy on economic growth in Nigeria: 1985-2022. *Asian Journal of Economics Business and Accounting*, 23(24), 27-38. <https://doi.org/10.9734/ajeba/2023/v23i241184>
- Okechukwu, N. (2023). Effect of exchange rate on domestic price level in Nigeria. *Asian Research Journal of Arts & Social Sciences*, 21(3), 26-38.
<https://doi.org/10.9734/arjass/2023/v21i3469>
- Olagunju, I. and Ogah, O. (2022). Responses of rice output to monetary policy shock in Nigeria from 1981-2020. *Journal of Agripreneurship and Sustainable Development*, 5(3), 911-101.
<https://doi.org/10.59331/jasd.v5i3.338>
- Olomola, P. A., & Adejumo, A. (2023). The linkage between oil prices and exchange rate volatility in Nigeria. *Journal of Energy Economics and Policy Research*, 18(3), 65-82.
- Omoriegie, R. (2020). Nigeria's Structural Adjustment Programme and its impacts on the naira. *Economic Policy and Structural Analysis Journal*, 14(4), 90-112.

- Orisdare, J. O., & Sodik, R. (2024). Exchange rate volatility and productivity in Nigeria: An empirical analysis. *International Journal of Economic Policy and Development*, 22(3), 99112.
- Orisdare, M. (2024). Exchange rate volatility and productivity in nigeria: an empirical analysis. *Asian Journal of Economics Business and Accounting*, 24(6), 240-250.
<https://doi.org/10.9734/ajeba/2024/v24i61357>
- Osabuohien, E., Chiwunze, C., & Olayemi, A. (2022). The exchange rate-growth nexus in Nigeria: A review of historical and contemporary evidence. *African Journal of Applied Economic Research*, 13(3), 102-120.
- Ozata, E. (2020). Exchange rate as a determinant of GDP in developing economies. *Journal of Global Economic Studies*, 17(2), 36-51.
- Ozili, P. (2020). Covid-19 pandemic and economic crisis: the nigerian experience and structural causes. *Journal of Economic and Administrative Sciences*, 37(4), 401-418.
<https://doi.org/10.1108/jeas-05-2020-0074>
- Ruslan, D., Nasir, M., & Namora, I. (2020). Analysis of the monetary transmission mechanism channels in indonesia and effect in regional economics north sumatera (a projection with stochastis simulation-var model). *Proceedings of the 4th Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2019)*.
<https://doi.org/10.2991/aebmr.k.200305.091>
- Samuelson, P. A., & Nordhaus, W. D. (2010). *Economics* (19th ed.). McGraw-Hill Education.
- Senadza, B., & Diaba, D. (2021). Exchange rate volatility in Africa: Challenges for sustainable development. *Journal of Economic and Financial Studies*, 19(2), 41-58.
- Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. W. Strahan and T. Cadell.
- Todaro, M. P., & Smith, S. C. (2020). *Economic development* (13th ed.). Pearson Education.
- Tuncsipir, D. C. (2023). A deep learning network for modelling the relationship of the real gdp, co2 emission and renewable energy consumption for turkiye. *Cognizance Journal of Multidisciplinary Studies*, 3(1), 35-46.
<https://doi.org/10.47760/cognizance.2023.v03i01.003>
- Uche, E., & Nwamiri, S. (2022). Dynamic effects of exchange rate movements on productivity levels: New evidence from Nigeria based on NARDL. *Journal of Economic Dynamics and Development Studies*, 18(2), 23-41.
- Ugwu, C. (2023). Exchange rate fluctuations and firm's survival: evidence manufacturing contribution to the nigerian economic growth. *Journal of Economics and Business*, 6(3).
<https://doi.org/10.31014/aior.1992.06.03.520>
- Valogo, I., Duodu, S., Yusif, J., & Baidoo, C. (2023). Economic diversification in oil-dependent economies: Lessons from Nigeria. *Journal of Policy and Development Studies*, 16(1), 88104.
- World Bank. (2020). *World Development Report 2020: Trading for development in the age of global value chains*. The World Bank.

World Bank. (2022). Nigeria development update: The continuing urgency of business unusual. The World Bank.

Zoramawa, A., Ezekiel, A., & Kiru, M. (2020). A review of Nigeria's exchange rate trends from independence to the present. Nigerian Economic Research Journal, 10(4), 67-81.