EXCHANGE RATE PASS-THROUGH AND MACROECONOMIC DRIVERS IN NIGERIA: EVIDENCE FROM ARDL ANALYSIS, 1986–2023

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ABSTRACT

This study examines the determinants of Nigeria's exchange-rate dynamics through the lens of the Exchange Rate Pass-Through (ERPT) theory. Using annual data from 1986 to 2023 sourced from the Central Bank of Nigeria and the National Bureau of Statistics, an autoregressive distributed lag (ARDL) framework is applied to capture both short- and long-run effects of key macroeconomic drivers: money supply, monetary policy rate, inflation, government capital expenditure, government recurrent expenditure, and real gross domestic product on exchange rates. The long-run results reveal that inflation and money supply exert statistically significant negative impacts on the exchange rate, implying that episodes of rising domestic prices and monetary expansion, when accompanied by credible policy tightening and real-sector growth, are associated with a mild appreciation of the naira. By contrast, the monetary policy rate shows a strong positive impact, indicating that sustained interest-rate hikes may signal fiscal or liquidity risks, thereby encouraging depreciation. Government capital and recurrent expenditures both contribute significantly to naira depreciation, with the recurrent component displaying the stronger impact, while real GDP growth remains positive but statistically insignificant once monetary and fiscal influences are controlled. Based on the findings, this study recommends that effective management of recurrent spending, targeted monetary expansion that supports productive sectors, and transparent policy communication are essential to moderating pass-through pressures and sustaining long-term exchange-rate stability.

Keywords: *Exchange Rate Pass-Through, ARDL, Money Supply, Fiscal Policy, Nigeria.*

1. Introduction

Exchange-rate volatility has become a significant challenge globally and across Africa in recent years. In many emerging and low-income countries, depreciation pressures stem from external shocks (commodity price swings, global interest rate tightening), domestic inflation, and widening fiscal deficits (International Monetary Fund [IMF], 2025; African Development Bank [AfDB], 2025).

For instance, African economies such as Egypt and Ghana have seen their currencies under pressure from inflation and foreign exchange constraints, while structural rigidities in many countries have made adjustment costly. These global and continental experiences suggest that understanding the interplay among monetary expansion, inflation, policy interest rates, and fiscal policy is central to explaining exchange-rate behaviour in individual African economies.

Against this backdrop, Nigeria's exchange-rate dynamics present an instructive case. Key drivers include money supply, the monetary policy rate, inflation, government capital expenditure, recurrent expenditure, and real gross domestic product (GDP). According to an AfDB forecast, Nigeria's inflation is expected to average 24.7% in 2025, declining to approximately 17.3% in 2026, while GDP growth is projected to moderate to 3.2% in 2025 and 3.1% in 2026 (AfDB, 2025). The IMF reports that inflation moderated to 23.7% year-on-year in April 2025 (from around 31% in 2024 under the rebased Consumer Price Index), aided by recent foreign exchange reforms and improved macroeconomic stability (IMF, 2025).

Nigeria's money supply has also expanded rapidly. As of November 2024, broad money (M2) was reported at approximately ₦108.96 trillion, up about 51% year-on-year, driven in part by increased government borrowings and rising quasi-money and demand deposits (Central Bank of Nigeria, as cited in AfDB, 2025). Despite efforts by the Central Bank of Nigeria (CBN) to tighten monetary policy, these increases in money supply create inflation and depreciation pressures on the naira through weakened confidence in domestic currency, higher import costs, and capital outflows.

At the same time, the monetary policy rate (MPR) has been volatile. The CBN raised rates sharply in 2024 (to around 27.5%) in response to inflation and depreciation pressures. The high policy rate, while aiming to anchor inflation expectations, also interacts with fiscal balances—particularly when government recurrent or capital spending is financed domestically or through central bank accommodation, affecting real interest rates and thus exchange-rate expectations (AfDB, 2025).

Fiscal dynamics, particularly the composition of government expenditures (capital and recurrent expenditures), have crucial implications. Large recurrent expenditures (wages, subsidies, overheads) tend to impose more persistent pressure on money supply when financed via domestic debt or money creation; capital expenditure, by contrast, may have more growth-enhancing effects but also faces leakages and inefficiencies. Nigeria's fiscal deficit narrowed slightly to about 3.0% of GDP in 2024, from ~5.4% in 2023, owing to improved revenue mobilization and reforms, though deficit financing and currency depreciation continue to pose a risk to exchange-rate sustainability (World Bank, 2025; AfDB, 2025).

Despite a growing body of work on the determinants of exchange rates, few studies jointly estimate the dynamic interactions of money supply, policy interest rate shifts, inflation, and fiscal composition (government capital and recurrent expenditure) alongside real GDP, and Structural changes (such as GDP rebasing, exchange-rate market liberalisation, and subsidy removals) potentially alter past elasticities. This study fills the gap by employing an updated and integrated framework that jointly evaluates monetary expansion, interest-rate movements, inflation, and fiscal expenditure composition in explaining Nigeria's exchange-rate fluctuations. Therefore, this study aims to estimate an ARDL framework employing annual data from 1986 to 2023.

This study is structured in to five sections: the introduction section, the literature review section, the methodology section, the results and discussion section and, conclusion and recommendations section.

2. Literature Review

Theoretical Review

Exchange-rate determination has long been explained through a range of complementary macroeconomic theories. Classical monetary models form the foundation, positing that the exchange rate is ultimately a relative price of money. The Purchasing Power Parity (PPP) theory asserts that exchange rates adjust to equalize the price of identical baskets of goods across countries (Cassel, 1918). Under absolute PPP, a rise in domestic price levels, driven, for example, by an expansion in money supply or persistent inflation, should depreciate the domestic currency until real parity is restored. Empirical evidence from Nigeria indicates only partial adherence to PPP, reflecting structural rigidities, capital controls, and frequent policy interventions (Bahmani-Oskooee & Gelan, 2018).

Building on PPP, the Monetary Model of Exchange Rate Determination integrates money demand and output considerations. It predicts that the exchange rate is a function of relative money supplies, real incomes, and interest rates (Frenkel, 1976). Increases in Nigeria's money supply, if unmatched by output growth, reduce domestic interest rates and lead to depreciation of the naira. This framework directly supports the inclusion of money supply, monetary policy rate, and real gross domestic product in the present analysis.

The Interest Rate Parity (IRP) theory complements the monetary view by linking exchange rates to capital-market conditions. Based on IRP, expected changes in the exchange rate equal the interest-rate differential between domestic and foreign assets (Dornbusch, 1976). When Nigeria's monetary authorities adjust the policy rate, the interest-rate gap with trading partners influences short-term

capital flows and thus the naira's value. High domestic rates can attract capital and temporarily strengthen the currency, although persistent inflation expectations may offset this effect.

Fiscal considerations enter through the Mundell–Fleming framework, which extends the IS–LM model to an open economy. Under a flexible exchange-rate regime, expansionary fiscal policy, such as increased government capital or recurrent expenditure, raises income and money supply, thereby appreciating the currency if monetary policy is passive (Mundell, 1963; Fleming, 1962). However, in emerging markets like Nigeria, where deficits are often monetized and external balances are fragile, large government spending can widen the current account deficit and trigger depreciation. This dual possibility underpins the decision to disaggregate government capital and recurrent outlays in the empirical model.

Further insights come from portfolio balance and asset market approaches, which view exchange rates as the relative price of financial assets. Domestic and foreign bonds are imperfect substitutes, so exchange rates adjust to equilibrate investors' portfolios (Branson & Henderson, 1985). Changes in Nigeria's external reserves, risk perceptions, and fiscal deficits can alter investors' desired holdings of naira assets, influencing the exchange rate beyond simple monetary aggregates.

Finally, the Exchange Rate Pass-Through (ERPT) hypothesis is relevant in a high-inflation context. It posits that exchange-rate changes feed into domestic prices, creating feedback loops between inflation and currency movements (Campa & Goldberg, 2005). Persistent inflation, common in Nigeria's recent experience, can therefore both result from and contribute to exchange-rate volatility, reinforcing the importance of including inflation in the analytical framework.

These theories highlight that Nigeria's exchange-rate dynamics are shaped by the interaction of monetary aggregates, monetary policy rates, inflation, fiscal policy variables, and gross domestic product. The present study draws on these perspectives to model the joint impacts of money supply, monetary policy rate, inflation, government capital, recurrent expenditure, and gross domestic product on the exchange rates (naira's value), testing the relevance of the exchange rates pass-through theory in the country's current reform era.

2. Empirical Review

Empirical research on the determinants of Nigeria's exchange rate has evolved over the past four decades, highlighting the roles of monetary, fiscal, and real-sector factors but also revealing important gaps. Early studies often emphasized money supply and inflation, drawing on monetarist theory that excessive domestic liquidity leads to currency depreciation. Recent work reinforces this view. Okoye,

Nwokoye, and Uzonwanne (2024), employing an autoregressive distributed lag (ARDL) model for 1981–2022, report that money supply exerts a persistent positive effect on exchange-rate volatility, whereas interest rate, inflation, and trade openness have stabilizing influences in the long run. Similarly, Obuareghe, Orubu, and Awogbemi (2025), using a structural vector autoregression (SVAR) for 1986–2022, find that shocks to money supply and inflation significantly explain naira fluctuations, with monetary shocks transmitting rapidly to the exchange market. Studies adopting volatility and nonlinear approaches confirm these findings: Oyadeyi (2024), applying non-linear ARDL and GARCH techniques to quarterly data from 1986–2023, identifies the monetary policy rate, inflation, and money supply as key drivers of exchange-rate volatility, underscoring the importance of both level and volatility effects of monetary aggregates.

Fiscal policy variables have also attracted scholarly attention, although the evidence is more mixed. Kanwanye and Oseni (2022) show, using ARDL estimation over 1980–2020, that government recurrent expenditure depreciates the real exchange rate by raising domestic demand for tradables, while capital expenditure has more nuanced effects. By contrast, Otekunrin et al. (2022), applying a vector autoregression model to 1986–2019 data, find government expenditure, both capital and recurrent, to be positive but statistically insignificant in explaining naira movements, suggesting that the impact of fiscal policy depends heavily on financing methods and macroeconomic context. Other work highlights interaction effects between fiscal and monetary policy. For example, Ani and Mashood (2023) observe that the inflationary consequences of government expenditure amplify its influence on the exchange rate when financed through domestic borrowing.

Real-sector indicators such as output growth and external reserves are also repeatedly identified as important. Adegboyo (2022), using an error-correction ARDL framework for 1986–2017, finds that real GDP and foreign direct investment significantly affect exchange-rate fluctuations, while inflation remains a key transmission channel. Muhammad and Muazu (2022) similarly document that GDP growth and external reserves exert stabilizing long-run effects on the exchange rate, whereas money supply increases volatility.

Despite these contributions, several gaps remain. First, most studies rely on data ending before the 2023–2025 period of far-reaching reforms, including foreign-exchange market liberalization, fuel-subsidy removal, and aggressive monetary tightening, so their parameter estimates may not capture the new structural environment. Second, few analyses distinguish capital from recurrent government expenditure in a dynamic framework, even though theory predicts different exchange-rate effects depending on the composition and financing of public spending. Third, while a number of studies

adopt GARCH or non-linear ARDL models, the asymmetric responses of the exchange rate to appreciation versus depreciation shocks remain underexplored. Finally, the interaction between monetary and fiscal policies, such as how policy-rate changes mediate the impact of money supply or how fiscal expansions influence expectations, is rarely examined in a unified empirical model.

The present study responds to these gaps by integrating recent data through 2023 and explicitly modelling the joint roles of money supply, monetary policy rate, inflation, government capital, recurrent expenditure, and real GDP in driving Nigeria's exchange-rate movements. By employing a structural time-series framework that allows for both short-run and long-run dynamics, the analysis provides updated elasticities. It illuminates the channels through which monetary and fiscal actions influence the external value of the naira.

3. Methodology

3.1 Model Specification

The functional model for the study is presented as;

$EXR = F(INF, INTR, MS, GDP, GCE, GRE) \ldots\ldots 1$

INFL= Inflation in %

EXR= Exchange Rates in %

INT= Interest Rates in %

MS= Money Supply in Naira

GDP= Gross Domestic Product

GCE= Government Capital Expenditure

GRE= Government Recurrent Expenditure

Equation one is transformed to an econometric model and logged to avoid heteroscedasticity as thus;

$LEXR_t = \beta_0 + \beta_1 LINF_t + \beta_2 LINTR_t + \beta_3 LMS_t + \beta_4 GDP_t + \beta_5 GCE_t + \beta_6 LGRE_t + \mu_t \ldots (2)$

This denotes that inflation is a function of exchange rates, interest rates and money supply.

Equation (2) can be transformed into an econometric model of the ARDL model as thus:

$$\Delta LEXR_t = \alpha_0 + \sum_{i=1}^{p} \alpha_i \Delta LEXR_{t-i} + \sum_{j=0}^{q1} \beta_{1j} \Delta LINF_{t-j} + \sum_{j=0}^{q2} \beta_{2j} \Delta LINTR_{t-j} + \sum_{j=0}^{q3} \beta_{3j} \Delta LMS_{t-j} + \sum_{j=0}^{q4} \beta_{4j} \Delta GDP_{t-j} + \sum_{j=0}^{q5} \beta_{5j} \Delta GCE_{t-j} + \sum_{j=0}^{q6} \beta_{6j} \Delta GRE_{t-j} + \varphi_1 LEXR_{t-1} + \varphi_2 LINF_{t-1} + \varphi_3 LINTR_{t-1} + \varphi_4 LMS_{t-1} + \varphi_5 LGDP_{t-1} + \varphi_6 LGCE_{t-1} + \varphi_7 LGRE_{t-1} + \mu_t$$

ARDL Model in Error Correction form is given as:

$$\Delta LEXR_t = \gamma_0 + \sum_{i=1}^{p} \alpha_i \Delta LEXR_{t-i} + \sum_{j=0}^{q1} \beta_{1j} \Delta LINF_{t-j} + \sum_{j=0}^{q2} \beta_{2j} \Delta LINTR_{t-j} + \sum_{j=0}^{q3} \beta_{3j} \Delta LMS_{t-j} + \sum_{j=0}^{q4} \beta_{4j} \Delta GDP_{t-j} + \sum_{j=0}^{q5} \beta_{5j} \Delta GCE_{t-j} + \sum_{j=0}^{q6} \beta_{6j} \Delta GRE_{t-j} + \lambda ECT_{t-1} + \epsilon_t$$

Where;

ECT_{t-1}=Lagged error correction term

λ= Speed of adjustment coefficient

4. Results and Discussion

Pre-estimation Test

Table 4.1: Unit Root Test

Variables	ADF Test	5% Critical Value	Order of Integration
LINF	-4.6730	-2.9434	1(0)
LEXR	-5.6222	-2.9458	1(1)
LINTR	-3.0404	-2.9433	1(0)
LMS	-4.1629	-2.9458	1(1)
LGDP	-6.3476	-2.9458	1(1)
LGCE	-6.8828	-2.9458	1(1)
LGRE	-8.5504	-2.9458	1(1)

Source: Authors' Estimation Output from Eviews 10 (2025)

Table 4.1 above depicts the stationarity levels of the variables under study (inflation, exchange rates, interest rates, and money supply). The results show a mixed integration of order one (exchange rates, money supply, economic growth, government capital expenditure and government recurrent expenditure) and levels (inflation and interest rates). Based on the outcome, the most suitable method or model to employ is the Auto Regressive Distributed Lag (ARDL) Model, as proposed by Pesaran and Shin (1999).

Table 4.2: Lag Length Selection Criteria

HQ	SC	AIC	FPE	LR	LogL	Lag
13.37353	13.53236	13.29882	0.410475	NA	-194.4823	0
11.43733	12.39027	10.98907	0.041878	95.43400	-134.8361	1
10.40177*	12.14883*	9.579967*	0.011909*	58.43967*	-88.69950	2

Authors' Estimation output from EViews 10 (2025)

Table 4.2 shows that two lags can be used as selected by the Schwarz Information Criterion, Final Prediction Error, Akaike Information Criterion, and Human-Quinn Information. For this study, two lags have been chosen**.**

ARDL Bound Co-integration

Having tested the stationarity status of the series under investigation, the variables will be cointegrated if they have a long-run or equilibrium relationship with each other. Pesaran and Shin (2001) developed a model to introduce an alternative co-integration technique known as the ARDL bounds testing approach. This approach has many advantages over the previous co-integration techniques.

Table 4.3: ARDL Bound Co-Integration

F-statistic	11.12465	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Source: Authors' Estimation Output from Eviews 10 (2025)

Table 4.3 reveals that the bound test of the F-statistic (11.12) is greater than both the lower bound (2.27) and the upper bound (3.28) at 5% critical values. This suggests that the null hypothesis of no co-integration is rejected, thereby confirming the existence of a long-run equilibrium relationship among the variables (inflation, exchange rates, interest rates, money supply, economic growth, government capital expenditure, and government recurrent expenditure) under study.

Table 4.4: Short Run ARDL Result: Dependent Variable: Log Exchange Rate

Variables	Coefficient	P-Values
LEXR	0.3359	0.0277
LINF	-0.0567	0.4314
LINF(-1)	0.0435	0.5416
LINF(-2)	-0.2574	0.0011
LMS	-0.2847	0.0388
LINTR	0.1119	0.4552
LINTR(-1)	0.2549	0.1598
LINTR(-2)	0.2595	0.1017
LGDP	-0.0679	0.7227
LGDP(-1)	0.3979	0.1324
LGCE	0.2163	0.0091
LGRE	0.5243	0.0203
ECM	-0.6645	0.0000

Source: Authors' Estimation Output from Eviews 10 (2025)

The short-run ARDL results in Table 4.4 highlight the immediate and lagged impacts of key macroeconomic variables on Nigeria's exchange rate dynamics. Inflation shows a mixed but noteworthy pattern: the current period coefficient (–0.0567, p = 0.4314) and the first lag (0.0435, p = 0.5416) are insignificant, yet the second lag is negative and highly significant (–0.2574, p = 0.0011). This indicates that past inflationary pressures—after about two periods—exert a pronounced dampening impact on exchange rate depreciation, suggesting that policy responses or delayed market adjustments eventually strengthen the naira. Money supply (–0.2847, p = 0.0388) is immediately significant and negative, reinforcing the long-run finding that liquidity expansion can support the currency, possibly by stimulating production and improving external balances in the short run.

Interest-rate impacts are positive but statistically insignificant: the current period coefficient (0.1119, p = 0.4552) and its first (0.2549, p = 0.1598) and second lags (0.2595, p = 0.1017) all fail to achieve statistical significance. This suggests that short-run interest-rate adjustments, while pointing toward exchange-rate depreciation, do not immediately translate into meaningful currency movements, likely reflecting Nigeria's shallow financial markets and the dominance of non-interest-rate factors. Gross Domestic Products (LGDP) similarly exerts no short-run influence, with both the current and first lag insignificant.

Fiscal variables stand out as key short-run drivers. Government capital expenditure (0.2163, p = 0.0091) and government recurrent expenditure (0.5243, p = 0.0203) both have positive and significant coefficients, implying that expansionary fiscal spending—whether for infrastructure or recurrent obligations—quickly weakens the naira by boosting import demand and widening fiscal deficits. Interestingly, the error-correction term is negative and highly significant (–0.6645, $p < 0.001$), confirming a strong speed of adjustment towards the long-run equilibrium.

Table 4.5: ARDL Long Run Estimates: Dependent Variable: Log Exchange Rate

Variables	Coefficients	P-Values
LINF	-0.4072	0.0287
LMS	-0.4284	0.0597
LINTR	0.9426	0.0012
LGCE	0.3256	0.0363
LGRE	0.7889	0.0026
LGDP	0.4965	0.2126

Source: Authors' Estimation Output from Eviews 10 (2025)

Table 4.5 reveals long-run ARDL estimates providing important insights on the Dynamic Impact of Exchange Rate Volatility in Nigeria. From the table, Inflation (LINF) exerts a statistically significant negative impact on the exchange rate (coefficient = –0.4072, P = 0.0287), implying that sustained increases in domestic prices are associated with an appreciation of the naira in the long run. Similarly, money supply (LMS) shows a negative impact (–0.4284) that is marginally significant at the 10 percent level (P = 0.0597), suggesting that long-run monetary expansion is linked to naira appreciation, possibly because broader liquidity has historically stimulated output. In contrast, the interest rate (LINTR) has a strong positive and highly significant coefficient (0.9426, P = 0.0012), indicating that higher interest rates tend to depreciate the exchange rate over time. Both government capital expenditure (LGCE) and government recurrent expenditure (LGRE) positively impact the exchange rate, with coefficients of 0.3256 (P = 0.0363) and 0.7889 (P = 0.0026), respectively, implying that government capital and recurrent expenditures positively impact the exchange rate. Gross domestic product (GDP) carries a positive but statistically insignificant coefficient (0.4965, P = 0.2126), suggesting that real economic growth does not exert a stable long-run impact on the exchange rate once monetary and fiscal factors are controlled.

Discussion of Findings

The long-run ARDL estimates underscore how Nigeria's exchange rate responds to both policy and structural forces, and these results can be interpreted within the framework of the Exchange Rate Pass-

Through (ERPT) theory. ERPT posits that changes in the exchange rate influence domestic prices depending on the degree of pass-through, while the feedback from prices and macroeconomic policies can, in turn, shape exchange-rate dynamics.

The empirical results reveal complex interactions among monetary, fiscal, and real-sector variables in determining Nigeria's exchange-rate dynamics, and they resonate strongly with the Exchange Rate Pass-Through (ERPT) theory as well as earlier empirical evidence for Nigeria. ERPT posits that changes in exchange rates are transmitted to domestic prices, while domestic inflation and policy reactions feed back to the exchange rate (Campa & Goldberg, 2005). Nigeria's long history of high inflation, policy tightening, and intermittent foreign-exchange market reforms provides fertile ground for these mechanisms.

The negative long-run coefficient on inflation (–0.4072, $p = 0.0287$) indicates that higher domestic prices are associated with a mild appreciation of the naira. Although standard purchasing-power-parity arguments would predict depreciation, similar outcomes appear in recent Nigerian studies when monetary authorities respond forcefully to inflation. Okoye, Nwokoye, and Uzonwanne (2024) report that inflation stabilizes the naira in the long run, while Obuareghe, Orubu, and Awogbemi (2025) show that monetary shocks transmit rapidly but can be offset by prompt policy responses. In ERPT terms, aggressive tightening, such as the Central Bank of Nigeria's repeated hikes in the monetary policy rate, can attract short-term capital inflows and dampen pass-through from prices to the exchange rate, explaining the unexpected appreciation during inflationary episodes.

Money supply exhibits a similarly counterintuitive pattern. The negative coefficient (–0.4284, $p = 0.0597$) suggests that sustained monetary expansion coincides with naira appreciation. Earlier research frequently found that liquidity growth weakens the currency (e.g., Muhammad & Muazu, 2022), yet other studies note that when money growth supports real output and financial deepening, its depreciating effect is muted (Okoye et al., 2024). Nigeria's periods of robust output growth alongside expanding money supply may therefore reduce the effective pass-through from monetary aggregates to prices, in line with ERPT's prediction that the degree of pass-through depends on policy credibility and structural conditions.

In contrast, the interest rate shows a strong positive and highly significant relationship with the exchange rate (0.9426, $p = 0.0012$), indicating that higher policy rates are associated with depreciation. This finding diverges from uncovered interest-rate parity but accords with concerns raised by Oyadeyi (2024), who documents that sharp monetary tightening can signal underlying inflationary pressures and fiscal fragility, prompting capital outflows despite higher yields. ERPT theory accommodates this

outcome: if markets interpret rate hikes as evidence of unsustainable fiscal positions, exchange-rate expectations adjust upward, increasing pass-through and leading to depreciation rather than appreciation.

Fiscal dynamics strengthen these channels. Both government capital and recurrent expenditure have positive and significant coefficients (0.3256, p = 0.0363; and 0.7889, p = 0.0026). This aligns with findings by Kanwanye and Oseni (2022) that government consumption depreciates the real exchange rate. Otekunrin et al. (2022) note that the impact of government spending depends on its financing method; when financed through borrowing or monetary accommodation, fiscal expansion increases inflation expectations and amplifies exchange-rate pass-through. The stronger effect of recurrent spending in this study highlights Nigeria's structural challenge of a large wage bill and subsidies, which drive persistent demand-pull inflation without boosting productivity, thus exerting ongoing depreciation pressure.

Real-sector output, measured by GDP, has a positive but statistically insignificant coefficient (0.4965, p = 0.2126). Similar to Adegboyo (2022), who finds that gross domestic product stabilizes the exchange rate only in the short run, this result suggests that productivity gains and supply-side responses offset the inflationary consequences of growth, producing little net long-run pressure on the naira.

These findings integrate well with both the ERPT framework and the broader Nigerian empirical literature. Inflation and money supply, classically viewed as depreciating forces, can coincide with appreciation when paired with credible policy tightening and output growth. Conversely, high interest rates and expansionary fiscal policy, particularly recurrent expenditure, amplify pass-through and weaken the naira when markets doubt the sustainability of monetary and fiscal stances.

Table 4.6: Diagnostic Test

Test	P-value	Implication
Heteroskedasticity	0.2952	The P-value is greater than 5% which implies that the variables under study are homoskedastic and the residuals are free from heteroskedasticity.
Serial Correlation	0.4278	The P-value is greater than 5% which implies that the variables under study are free from serial correlation.
Normality Test	0.9759	The P-value is greater than 5% which implies that the variables under study are normally distributed.

Source: Authors' Estimation Output from Eviews 10 (2025)

The results of the diagnostic test suggest the absence of heteroskedasticity and serial correlation. It further reveals that the residuals are normally distributed. Hence, the study's results are valid and suitable for policy recommendations and formulation.

5. Conclusion and Recommendation

This study examined the determinants of exchange rates in Nigeria, using the ARDL method from 1986 to 2023. The results confirm a long-run equilibrium relationship among the variables. According to the long-run estimates, inflation and money supply are both negative and statistically significant. Additionally, interest rates, government capital expenditure, and government recurrent expenditure are positive and statistically significant, whereas GDP (economic growth) is positive but statistically insignificant. These findings align with the Exchange Rate Pass-Through (ERPT) theory, which suggests that fluctuations in the exchange rate are transmitted to domestic prices through import costs and pricing behavior.

Based on the findings of the study, the study recommends the following:

i. The Central Bank of Nigeria (CBN) should enhance the transparency and consistency of its policy framework to reduce the risk premium that currently makes higher interest rates a signal of instability. Clear communication and commitment to medium-term inflation targets can lower ERPT and stabilize the currency.

ii. Fiscal consolidation is essential to curb the depreciation effects of government spending. Enforcing expenditure rules, prioritizing capital projects with high import-substitution potential, and broadening non-oil revenue will reduce external imbalances and limit exchange-rate pass-through.

iii. While money supply can support the naira when it stimulates output, unchecked expansion risks future inflationary pressures. The CBN should calibrate liquidity injections to productive sectors while monitoring credit quality to maintain a balance between growth and price stability.

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