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**Inflation, Monetary Policy Rate and Economic Growth Nexus in Nigeria**

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**ABSTRACT**

*This paper unravels inflation rate, monetary policy rate and growth nexus in Nigeria using time series data spanning from 1981 to 2022. Specifically, it examined the inflation rate impacted economic growth in Nigeria and investigated whether the interest rate had any significant impact on economic growth in Nigeria. The paper adopted a secondary method of data collection and employed the Johansen co-integration test and the error correction model, which showed that the underlying variables were integrated of order 1(1), that is, stationary after first difference, with the growth rate of the real gross domestic product as the dependent variable and the inflation rate and interest rate as the independent variables. The exchange rate and broad money supply were used as the control variables. The paper documents that the error correction model (ECM) estimation indicated that both the inflation rate and interest rate exhibit a negative and statistically significant impact on gross domestic product (GDP) at the 5% significance level. Additionally, the analysis demonstrated that a broad money supply positively and significantly influences GDP, also at the 5% significance level, while the exchange rate does not have a significant effect on GDP. The paper therefore recommended, among other things, that, given the adverse effect of inflation on economic growth, it is imperative for policymakers to implement measures aimed at controlling inflationary pressures. This may include adopting tighter monetary policies, such as increasing interest rates or adjusting government spending, to curb inflationary tendencies and stabilize prices.*

## Introduction

In various economies worldwide, including Nigeria, issues of inflation and interest rates have a pervasive phenomena that significantly influence economic performance over time (Danladi, 2022). While the occurrence of inflation and interest rates may vary in terms of timing, causes, and duration, the impact on economic conditions remains profound. Whether in developed, developing, or underdeveloped economies, price increases are witnessed, with some experiencing mere fluctuations while others endure sustained rises in prices (Ogu et al., 2020).

Inflation, characterized by a persistent increase in the general price level of goods and services, is a common occurrence across different economies (Lipsey & Chrystal, 1995). Despite its prevalence, there remains limited understanding of its determinants, mechanisms, and real implications for national economic growth (Hossain & Islam, 2012). While high inflation adversely affects economic performance, zero inflation can lead to economic stagnation, necessitating a balanced approach to inflation management (Hossain & Islam, 2012). This challenge transcends national boundaries and affects both emerging and developed economies, prompting policymakers worldwide to prioritize inflation control (Fatukasi, 2012).

Rising inflation rates often lead to significant economic distortions, including balance of payment deficits, currency devaluation, and reduced purchasing power, which, in turn, prompt labor unions to demand higher wages, leading to productivity disruptions and service paralysis in vital sectors such as education and healthcare (Fatukasi, 2012). Conversely, interest rates play a crucial role in attracting foreign investment, driving capital accumulation, and influencing foreign exchange rates, thereby impacting economic growth (Babalola, 2021).

In Nigeria, the management of exchange rates underwent a dramatic shift with the economic reform program initiated in July 1986 (CBN, 2021). Before this reform, foreign exchange supply was heavily subsidized through domestic currency overvaluation, with interest rates controlled administratively by the government (CBN, 2021). Academics have linked changes in interest rates to various economic indicators, including money supply, investment, savings, consumption, and unemployment, underscoring the complex interplay between

monetary policy, economic growth, and exchange rate management (Chukunolu et al., 2023).

Despite extensive literature on the individual impacts of inflation and interest rates, there remains a gap in understanding their combined effects on economic growth in Nigeria. This paper seeks to address this gap by comprehensively examining the relationship between inflation, interest rates, and economic growth, providing valuable insights for policymakers and researchers alike.

## Exploring the Conundrum

Nigeria, reliant on oil as a cornerstone of its economy, grapples with persistent challenges stemming from elevated inflation rates and volatile interest rates, significantly impacting its economic stability. Ogunleye and Adeniyi (2021) underscore the enduring battle against inflation, while Umar and Sarki (2022) shed light on the intricate nature of interest rates and their implications for investment and economic expansion in Nigeria. These challenges carry significant ramifications for the country's economic advancement.

The coexistence of elevated inflation rates and fluctuating interest rates in Nigeria raises concerns regarding their combined effect on economic growth. Despite ongoing research endeavors, the intricate connections between inflation, interest rates, and their impact on key macroeconomic indicators, particularly Gross Domestic Product (GDP), remain incompletely understood. The nuanced interactions among these variables, compounded by fluctuations in exchange rates and shifts in broad money supply, necessitate thorough examination. A comprehensive understanding of the complex interplay among inflation, interest rates, and economic growth is essential for the development of effective policy measures. In-depth insights into these relationships are imperative for policymakers to devise strategies aimed at alleviating inflationary pressures, fostering investment, and attaining sustained and inclusive economic growth in Nigeria.

## 1. Theoretical Review

Numerous theories have associated inflation with factors influencing both supply and demand, resulting in increased prices of goods and services within an economy over a specific period.

This paper explores several inflation theories, including Fisher's quantity theory of money, Keynesian Theory, and Endogenous Growth Theory.

Fisher's quantity theory of money, among the oldest classical economic doctrines, establishes a connection between the overall price level and fluctuations in the money supply. According to this theory, the amount of money in circulation dictates whether an economy experiences inflation or remains stable. Fisher articulated this relationship through the quantity equation.

$$MV = PT$$

(2.1)

Where: M = money supply; V = velocity of circulation; P = price level; T = transactions.

T measures the level of output and because of that is usually substituted for Y (national income). Hence, the equation above changes to (MV = PY), that is, the rate of expenditure must equal the value of output. Nonetheless, they argue that it is unnecessary increases in the money supply that manifest in inflation.

Keynesian theory of inflation, proposed by John Maynard Keynes (1883-1946) and his followers, posits that an escalation in aggregate demand serves as the catalyst for demand-pull inflation. This type of inflation occurs when the collective demand for goods and services surpasses the overall supply within the economy. Aggregate demand comprises government expenditure, consumption, and investment. According to Totonchi (2011), implementing policies aimed at reducing each component of aggregate demand can effectively address inflation. This typically involves cutting government spending, raising taxes, and managing interest rates. In Nigeria, where the economy's productive capacity struggles to meet the demand due to reliance on foreign markets, there may be heightened inflationary pressures stemming from excessive demand for goods and services. Endogenous growth theory asserts that economic growth is propelled by internal factors within the production process, such as increasing returns, economies of scale, or induced technological advancements, rather than external factors outside the production process, such as population growth.

On the other hand, two theories concerning interest rates are relevant to this discussion: the Resource Gap (RG) theory and Interest Rate Parity (IRP). The

Resource Gap theory, initially developed by Chery and Stout (1966), posits that when domestic resources are insufficient to meet investment and consumption demands, economies seek capital from external sources. On the other hand, Interest Rate Parity (IRP) theory, formulated by Keynes (1923), elucidates the relationship between exchange rates and interest rates. It suggests that the difference in interest rates between two countries equals the difference between the forward and spot exchange rates. IRP can be categorized as uncovered or covered, depending on the presence or absence of a forward contract. Uncovered IRP theory assumes that exchange rates adjust rapidly to changes in relative interest rates to eliminate arbitrage opportunities. The Resource Gap Theory, credited to Chenery and Stout (1966) and further developed by Thirlwall (1976), argues that domestic savings may not always match investment requirements. Thus, when savings fall short of investment, a savings-investment gap arises. To bridge this gap, governments may borrow domestically or internationally, creating a foreign exchange gap. The funding source for the deficit depends on the magnitude of the savings-investment gap relative to the foreign exchange gap. If the former is larger, domestic sources may be used; otherwise, international financing is sought. The interest rate determines the extent of funding if domestic sources are preferred, while interest rate parity theory governs international financing decisions.

Interest Rate Parity theory dictates that the interest rate differential between two countries equals the difference between the exchange rate futures and spot rate. In the absence of arbitrage opportunities, investors find no economic incentive to seek investment outside their domestic economy. Any deviation from parity creates arbitrage opportunities, prompting capital flows from countries with lower lending rates to those with higher rates. Consequently, interest rate differentials and exchange rate movements drive international capital flows and stimulate economic growth, according to Keynes (1923) and Levich (2011). These theories serve as complementary foundations for this paper.

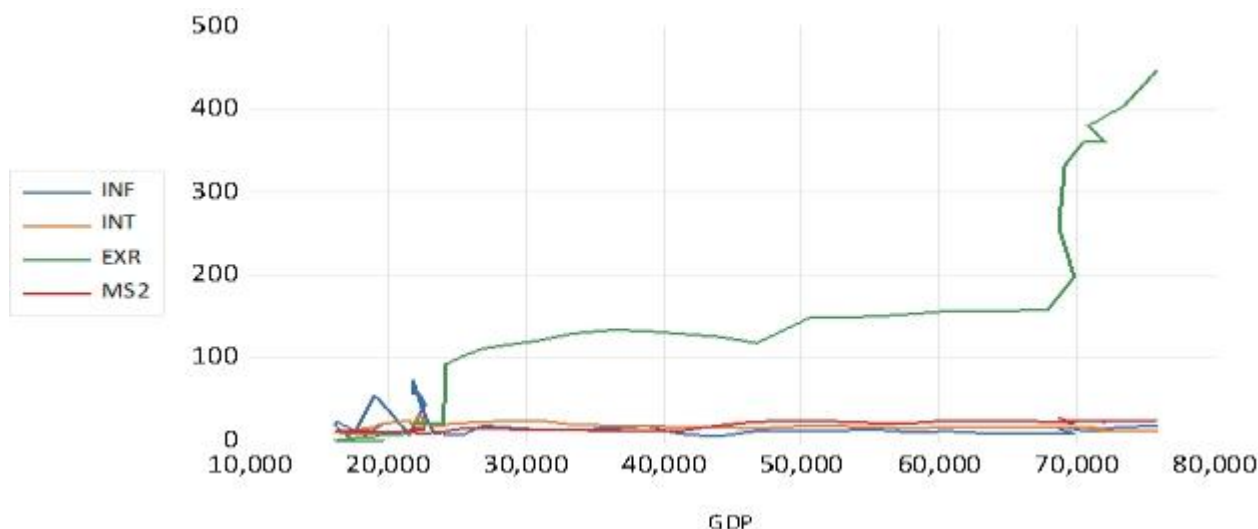


Figure 2.1: Trend Analysis of inflation and interest rates

Figure 2.1 revealed several key patterns in the economic landscape of the country, particularly focusing on the interplay between inflation, interest rates, exchange rates, and broad money supply.

### 1. Inflation Trends:

- Inflation was slightly above the zero point at the initial stage, indicating a low but positive rate of inflation. This suggests mild price increases in the economy.
- Throughout the analyzed period, inflation fluctuated, implying varying levels of price stability or instability. Fluctuations in inflation rates could be influenced by factors such as changes in consumer demand, supply shocks, or government policies.
- Notably, inflation never dropped below the zero level, indicating the absence of deflationary pressures during the period under examination. Persistent positive inflation suggests that overall price levels were generally increasing, albeit at different rates over time.

### 2. Interest Rate Dynamics:

- Similar to inflation, interest rates exhibited fluctuations over the analyzed period. Fluctuations in interest rates could be driven by changes in monetary policy, market conditions, or external economic factors.
- Interest rates also remained consistently above the zero level, indicating a positive cost of borrowing or lending throughout the period. This suggests that the central bank or monetary authorities maintained a stance aimed at

avoiding negative interest rates, which could have adverse implications for economic stability.

### 3. Exchange Rate Dynamics:

- Initially, the exchange rate was below zero, indicating a stable or relatively low value compared to a reference point.
- Subsequently, there was an increase in the exchange rate, suggesting a depreciation of the national currency against other currencies. This could be indicative of external pressures such as trade imbalances or changes in investor sentiment.
- However, the exchange rate later experienced a sharp decline or nosedive. This decline could be attributed to macroeconomic factors, particularly the intricate relationship between inflation and interest rates. A sudden increase in inflation or a rise in interest rates may have led to a loss of confidence in the currency, triggering a rapid devaluation.
- Despite the nosedive, the exchange rate eventually rebounded, indicating potential stabilization or recovery in the currency's value. This could be influenced by policy interventions, market adjustments, or improvements in economic fundamentals.

### 4. Broad Money Supply:

- The trend analysis suggests that the broad money supply followed a pattern similar to that of inflation and interest rates. Fluctuations in the money supply could influence overall economic activity, liquidity conditions, and inflationary pressures.
- Like inflation and interest rates, the broad money supply remained above zero throughout the period, indicating continuous expansion of the money supply. This expansion could be driven by factors such as credit creation, government spending, or changes in banking regulations.

Overall, the trend analysis highlights the complex interplay between inflation, interest rates, exchange rates, and broad money supply in Nigeria's economic landscape, emphasizing the need for coordinated policy actions to maintain stability and promote sustainable growth.

### Empirical Literature Review

Chukunalu and Harvest (2023) investigated the effect of interest rates and exchange rate on economic growth of Nigeria. The dependent variable was real gross domestic product while the independent variables were savings deposit rate, prime lending rate, exchange rate and total investment. The data spanned the period 1981-2021. The data were sourced from the CBN Statistical bulletin 2021 edition and analysed using the error correction model (ECM) technique. The variables were shown to be stationary at first difference and co-integrated, hence the adoption of the ECM technique in estimating the model parameters. The result revealed that prime lending rate and exchange rate decreased economic growth of Nigeria for the period reviewed but only exchange rate decreased growth significantly. However, savings deposit rate and investment increased economic growth but only investment increased growth significantly.

Douglas, Eche & Adi (2022) evaluated the impact of interest and exchange rates on the performance of the manufacturing sector. In pursuance of this, they employed the multiple regression analysis. Using data on total GDP, manufacturing output, interest rate and exchange rate, they found that interest rates do not have a significant impact on the performance of the manufacturing sector. But this is contrary to economic reasoning and so they advocated for more extensive study on this area. However, their analysis

showed that exchange rates showed a significant inverse relationship with the performance of the manufacturing sector within the period covered. Danladi (2022) investigated the impact of inflation on economic growth in Nigeria. The study employed the Autoregressive Distributed Lag (ARDL) model on the selected variables that are GDP, inflation, interest rate, money supply and government consumption expenditure from 1990-2020 (31 years). The findings from ARDL model revealed that inflation, interest rate and money supply exert significant negative impact on economic growth while government consumption expenditure exerts significant positive impact on the economic growth.

Osahon (2021) investigated the joint impact of interest rate and exchange rate volatility on the performance of the informal sector in Nigeria, focusing on Small and Medium-sized Enterprises (SMEs). They used annual time-series data on the exchange and interest rates for the period 1981-2018. The data analysis was carried out using descriptive statistics, correlation, a unit root test, an Autoregressive Distributed Lag (ARDL) bound test for cointegration and the ARCH regression model. The result obtained by the ARDL bound test confirmed the presence of the long-term relationship between interest and exchange rates volatility and SMEs' performance, which suggested that all the variables of interest moved together in the long run. Moreover, the ARCH regression model showed a positive impact of exchange and interest rates volatility on SMEs' performance. However, only exchange rate volatility was significant in their ARCH analysis.

Babalola (2021) examined the impact of interest rates on the exchange rate in Nigeria. The study used monthly data set from the Central Bank of Nigeria online database. Interest rates were represented by short term interest rates proxied by Lending Rate, Treasury bill rate, Saving/deposit rate and Time deposit rate. Price level (inflation rate) was included as a macroeconomic variable, between January 2007 and April 2021. Auto-Regressive Distributed Lag and Cointegration techniques were employed. Results of the study showed that, in the short run, only Treasury bill rate and Price level had significant impact on the foreign exchange rate. However, in the long run, all the four variables used to proxy short term interest

rate had significant impact on the foreign exchange rate in Nigeria. Although the speed of adjustment or switch was quite low, it was correctly signed and significant.

Ogu, Adagiri & Abdulsalam (2020) examined the impact of inflation on economic growth in Nigeria, utilizing time series data sourced from CBN for the period spanning from 1999 to 2017. The study adopted the Ordinary Least Square (OLS) regression technique and established that inflation has positive but not significant impact on economic growth in Nigeria. The result also revealed that interest rate has negative and significant effect on economic growth in Nigeria. Uduakobong & Isaac (2020) examined the long-run relationships among inflation, interest rate and exchange rate in Nigeria along with money supply and output using quarterly data from 2010 to 2018. The study employed Vector Autoregression Cointegration technique in the analysis. The Study revealed that on the average a long run relationship existed among the variables. However, the interactions among inflation, interest rate and

exchange rate were weak while money supply and output had significant links with inflation, interest rate and exchange rate. Money supply and output also had significant long run interactions with each other. The findings indicated that the long run path to price stability and economic growth using monetary policy would be through changes in monetary aggregates and increase in domestic production.

Adaramola & Dada (2020) examined the effect of inflation on economic growth from 1980 to 2018. Time series data on inflation rate, government consumption expenditure, exchange rate, supply of money, rate of interest, degree of openness and real GDP was utilized for the study. The study employed ARDL model, test for normality, cumulative sum test, heteroscedasticity test, and serial correlation LM test. Results found that interest rate and money supply have a direct linkage with the economic growth; while, exchange rate and inflation have an inverse relationship with economic growth.

Please, give a summary of the empirical literature. The review is quite current.

## 2. Methodology

### 3.1 Research Design

The paper employs an ex-post facto research design as it investigates the impact of independent variables on the dependent variable.

#### Model Specifications

The research is grounded in the Keynesian framework, which is founded on the analysis conducted by Chukunolu and Harvest (2023) employing an error correction model.

$$GDP = f(INF, INT, EXR, MS2) \quad (3.2)$$

Where;

GDP = Gross domestic product at constant market prices

INF = Inflation rate

INT = Interest rates

EXR = Exchange rate

MS2 = Broad money supply (% of GDP)

Putting equation (1) in econometric form, the linear regression model specification is in the form below:

$$GDP_t = \beta_0 + \beta_1 INF_t + \beta_2 INT_t + \beta_3 EXR_t + \beta_4 MS2_t + \mu_t \quad (3.3)$$

Where;

GDP, INF, INT, EXR, and MS2 as previously defined

$\beta_0$  = Constant term

$\beta_1$  and  $\beta_4$  are the coefficients to be estimated

$t$  = trend variable

$\mu$  = error term

Therefore, the model undergoes a logarithmic transformation to standardize the unit measurement and enhance the linear relationship between the dependent and independent variables.

$$LGDP_t = \beta_0 + \beta_1 INF_t + \beta_2 INT_t + \beta_3 EXR_t + \beta_4 MS2_t + \mu_t \quad (3.4)$$

### 3.2 Source of Data

The information utilized in this paper was sourced from secondary sources. More precisely, annual time series data spanning from 1981 to 2022 for the variables under investigation were acquired for this study. The Annual Statistical Bulletin published by the Central Bank of Nigeria (CBN) and the World Development Indicators (WDI) served as the primary sources of data.

**Table 4.1.** Definition of Variables and Sources of Data

Variable	Symbol	Definition and measurement	Data Source
Gross Domestic Product	GDP	Proxy for economic growth	2022 CBN Statistical Bulletin
Inflation Rate	INF	(% of CPI)	World development Indicators (WDI), World Bank
Interest Rate	INT	Measures the growth in real value of loans	2022 CBN, Statistical Bulletin, various issues
Exchange Rate	EXR	Measures the rate at which a country's currency is exchanged for others (Naira/Dollar)	WDI, World Bank
Broad money supply	M <sub>2</sub>	Measures total stock of money in the economy at a particular time. (% of GDP)	2022 CBN, Statistical Bulletin, various issues

Source: Authors' Compilation, 2024

### 3. Findings and Discussion

**Table 4.2:** Descriptive Statistics

	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability	Obs.
GDP	22131007	1.98E+08	610780.7	39651331	3.28453	13.0821	4440.576	0.000	736
INF	1820.151	9966.770	219.193	1974.164	1.934	6.055	744.936	0.000	736
INT	38.570	88.976	7.211	15.632	0.575	3.517	48.813	0.000	736
EXR	10.161	58.650	0.001	9.914	1.966	7.594	1121.559	0.000	736
MS <sub>2</sub>	67.491	98.139	9.422	23.528	-0.888	2.631	100.837	0.000	736

Source: Researchers' compilation, 2024 (Eviews12.0)

The result of the descriptive statistics is as contained in table 4.2 above, the Jarque-Bera statistic rejected the null hypothesis of normal distribution for the values of GDP, INF, INT, EXR and MS<sub>2</sub> variables.(see p= 0.00). However, the kurtosis of all the series were normally distributed while asymmetry of the series were positively skewed, indicating that the series were statistically significant.

#### Unit Root Test

In time series analysis, it is a standard practice to conduct a unit root test for macroeconomic variables to help ascertain their stationarity state and thereby prevent spurious results in the analysis. In other words, the unit root test is conducted to check for the stationarity of variables in an econometric model. Table 4.2 below shows the summary of the Augmented Dickey-Fuller (ADF) unit root test for the variables in this study.

#### Decision criterion:

H<sub>0</sub>: observable series have no unit root

H<sub>1</sub>: observable series have unit root

**Table 4.3: Summary of the Augmented Dickey-Fuller (ADF) Unit Root Test**

Variables	ADF Statistics	Test Values (5%)	Critical Values (5%)	Order of Integration	Conclusion
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LGDP	-4.222238	-2.938987	I(1)	Stationary
INF	-6.636972	-2.938987	I(1)	Stationary
INT	-7.009229	-2.936942	I(1)	Stationary
EXR	-3.626577	-2.936942	I(1)	Stationary
MS2	-4.929596	-2.938987	I(1)	Stationary

**Source: Researchers' compilation, 2024 (Eviews12)**

The unit root test presented in Table 4.3 above shows that all the variables ranging from the log of gross domestic product (LGDP), inflation rate (INF), interest rate (INT), exchange rate (EXR), and broad money supply (MS2) were integrated of order one {I (1)}, i.e., they are stationary at first difference and have no unit roots.

**The Johansen co-integration**

The trace test reveals the presence of one co-integrating equation with significance at the 5% threshold. This result leads to the rejection of the initial hypothesis, which suggested the absence of any co-integrating equation. Similarly, the max-eigenvalue test identifies no co-integrating equation at the 5% significance level.

**The Error Correction Model (ECM)**

$$\Delta LGDP_t = \alpha_{01} + \sum_{i=1}^p \alpha_{1i} \Delta LGDP_{t-i} + \sum_{i=1}^p \alpha_{2i} \Delta INF_{t-i} + \sum_{i=1}^p \alpha_{3i} \Delta INT_{t-i} + \sum_{i=1}^p \alpha_{4i} \Delta EXR_{t-i} + \sum_{i=1}^p \alpha_{5i} \Delta MS2_{t-i} + \lambda ECT_{t-1} + \mu_t$$

$$d(\lg dp)cd(\lg dp-1))d(\inf(-1))d(int(-1))d(exr(-1))d(M2(-1))d(ecm(-1))$$

**Table 4.4: Extracted ECM results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.018655	0.016188	1.152430	0.2574
D(LGDP(-1))	0.460702	0.474284	0.971361	0.3384
D(INF(-1))	-0.000422	0.000480	0.879127	0.0457
D(INT(-1))	-0.001246	0.002748	-0.453321	0.0333
D(EXR(-1))	9.82E-05	0.000364	0.269612	0.7891
D(MS2(-1))	0.002212	0.003054	0.724164	0.0241
ECM(-1)	-0.064708	0.556507	0.116275	0.0081
R-squared	0.585675	Mean dependent var		0.035377
Adjusted R-squared	0.455798	S.D. dependent var		0.044063
S.E. of regression	0.040486	Akaike info criterion		-3.418110
Sum squared resid	0.054090	Schwarz criterion		-3.122556
Log likelihood	75.36219	Hannan-Quinn criter.		-3.311247
F-statistic	2.199579	Durbin-Watson stat		2.161635
Prob(F-statistic)	0.047955			

Source: Researchers' compilation, (2024)

**ECM Analysis**

The findings from the ECM estimation indicate that both inflation rate and interest rate exhibit a negative and statistically significant impact on gross domestic product (GDP) at the 5% significance level. Additionally, the analysis demonstrates that broad money supply positively and significantly influences GDP, also at the 5% significance level, while the exchange rate does not have a significant effect on GDP.

Regarding the error correction model, it suggests a linkage between past errors and subsequent periods. In the provided results, the estimated coefficient for the error correction model is -0.064708, which is statistically significant at the 5% level with a probability value of 0.0081. This supports the idea of a long-term relationship



between the variables. Moreover, the coefficient of the error correction term indicates a swift adjustment to equilibrium following a shock.

**Table 4.5: Summary of Diagnostic test results**

Test	Type	Statistic value		Probability value
Goodness of fit	R-Squared	0.585675		
	Adjusted R-Squared	0.455798		
Joint significance	F-statistics	2.199579		0.0479555
CUSUM	Recursive estimates	Lies within 5% significance level		
CUSUMSQ	Recursive estimates	Slight deviation from 5% significance level		
Normality	JB test	Jarque-Bera	1.075356	0.584103
Autocorrelation	Breusch-Godfrey LM Test	F-statistic	6.613650	0.0841
Multicollinearity	Variance Inflation Factors	Coefficient variance	Less than 10	No sign of multicollinearity

**Source: Researcher compilation, 2024**

### Diagnostic Test analysis

The assessment of goodness of fit reveals that 59% of the variation in the dependent variable is explained by the independent variables ( $R^2 = 0.585675$ ), while the adjusted R-squared stands at 46% (0.455798). The Durbin-Watson statistic, with a value of 2.161635, suggests an absence of autocorrelation in the regression analysis residuals. Furthermore, the Durbin-Watson statistic's value being greater than R-squared indicates the test result's reliability and non-spurious nature. The Cumulative Sum of Recursive Residuals (CUSUM) analysis demonstrates the stability and accuracy of both long-term and short-term parameter estimates, with the graph showing the blue line staying within the critical boundaries at the 5% significance level. However, the Cumulative Sum of Squares of Recursive Residuals (CUSUMSQ) exhibits a slight deviation from the 5% significance level, possibly due to structural breaks. The diagnostic findings indicate normally distributed residuals, as the Jarque-Bera probability value exceeds the 5% significance level, and there is no serial correlation in the model, as confirmed by the f-statistical probability value of the serial correlation LM test exceeding the 5% significance level. Moreover, the assessment of multicollinearity using the Variance Inflation Factor (VIF) reveals the absence of multicollinearity, as all VIF values are less than 10.

The results from the estimated error correction model (ECM) indicating a negative impact of both inflation rate and interest rate on Gross Domestic Product (GDP) at 5% significance level hold significant implications for the economy. Make a comparison with other studies.

### Inflation Rate's Impact on GDP:

- The negative impact of inflation on GDP suggests that higher inflation rates are associated with a decrease in economic output. This relationship aligns with economic theories that high inflation can negatively affect consumer purchasing power and business investment decisions.
- High inflation erodes the real value of money, reducing consumers' purchasing ability. This can lead to decreased consumer spending, impacting businesses' revenue and ultimately lowering GDP growth.
- Moreover, high inflation often prompts central banks to tighten monetary policy by raising interest rates to curb inflation. This can further impact GDP growth by increasing borrowing costs for businesses and consumers, potentially slowing down economic activities.

### Interest Rate's Impact on GDP:

- The negative impact of interest rates on GDP suggests that higher interest rates are associated with a decrease in economic output. This

relationship is consistent with conventional economic thinking that higher borrowing costs can deter investment and consumption.

- When interest rates rise, borrowing becomes more expensive for businesses and individuals. This can lead to reduced investments in capital projects, decreased consumer spending.

## 5. Conclusion and Recommendations

The findings of the estimated Error Correction Model (ECM) reveal that both inflation rate and monetary policy rate exert a significant negative impact on economic growth in Nigeria, as demonstrated by their coefficients being statistically significant at the 5% significance level. These results underscore the intricate relationship between inflation, monetary policy rates, and economic growth, highlighting the challenges faced by Nigeria in achieving sustained economic development. Based on the findings, the paper is of the view that policymakers should implement measures aimed at controlling inflationary pressures. This may include adopting tighter monetary policies, such as increasing interest rates or adjusting government spending, to curb inflationary tendencies and stabilize prices. Moreover, there is a need for proactive measures to manage interest rates effectively. Policymakers should consider implementing strategies to lower interest rates where feasible, thereby reducing the cost of borrowing for businesses and individuals. Additionally, fostering an environment conducive to investment and entrepreneurship can help spur economic activity and mitigate the adverse effects of high interest rates on growth.

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