

Analyzing Interest Rate as a Monetary Transmission Channel Affecting Consumer Prices in Nigeria

EMMANUEL SUNDAY KOLEDIYE¹, ADEDEJO EMMANUEL ADEDAYO²

¹University of Abuja, Abuja, Nigeria

²Adekunle Ajasin University, Akungba-Akoko, Nigeria

Abstract- This study analyzes the role of interest rate as a monetary transmission channel affecting consumer prices in Nigeria from 1996 to 2023. The research aims to determine the effectiveness of the interest rate channel in transmitting monetary policy impulses to consumer prices within the Nigerian economy. Employing a Structural Vector Autoregression (SVAR) model, the study investigates both the short-run and long-run dynamics among key macroeconomic variables, including money supply, interest rate, and consumer prices. The empirical findings reveal that an increase in money supply exerts a considerable inflationary effect over time and influences short-run interest rates, indicating that monetary aggregate expansion has an immediate effect on interest rates in Nigeria. However, the influence of money supply on interest rates does not have a significant impact on the general price level, suggesting that money supply affects consumer prices through other channels apart from the interest rate. Based on these findings, the study recommends that the Central Bank of Nigeria refine its monetary policy tools to ensure that changes in money supply are effectively targeted toward influencing key economic variables. Furthermore, deepening and improving the efficiency of Nigeria's financial markets could enhance the transmission mechanism from interest rates to the broader economy. The study also underscores the importance of fiscal coordination, as the limited effect of money supply on prices through the interest rate channel indicates the need for a more harmonized macroeconomic policy framework.

Keywords: Interest rate, Monetary transmission mechanism, Money supply, Consumer prices, Inflation, Nigeria, Structural VAR, Monetary policy.

I. INTRODUCTION

Monetary policy is one of the most important macroeconomic instruments available to central banks for achieving price stability, controlling inflation, stimulating growth, and managing aggregate demand (Olasehinde-Williams, Omotosho & Bekun, 2024). At the core of this policy framework is the concept of the monetary policy transmission mechanism; the process through which changes in the policy stance affect real variables such as output,

employment, and most notably, the general price level. Among the various identified transmission channels, such as the exchange rate channel, credit channel, asset price channel, and expectations channel; the interest rate channel has traditionally been considered a primary conduit, especially in economies where financial markets are reasonably developed and responsive.

The interest rate channel operates through the adjustment of the central bank's policy rate (such as the Monetary Policy Rate, MPR, in Nigeria), which is expected to influence short-term market interest rates, thereby affecting the cost of borrowing and the returns to saving. These changes influence household consumption, business investment decisions, and, ultimately, the aggregate demand in the economy (Ebiringa & Anyaogu, 2014). Consequently, fluctuations in demand lead to corresponding movements in output and consumer prices, thus enabling central banks to steer inflation toward target levels.

In theory, this mechanism provides a clear pathway for controlling inflation and stabilizing prices. However, the practical effectiveness of the interest rate channel is highly dependent on the structure and efficiency of the domestic financial system, the degree of financial inclusion, the responsiveness of the banking sector to policy signals, and the broader macroeconomic environment. In developing economies like Nigeria, these ideal conditions are often absent or weak, thereby complicating the operation of monetary transmission mechanisms.

Despite consistent efforts by the Central Bank of Nigeria (CBN) to deploy the interest rate tool as a means of inflation control, inflationary pressures have remained persistent and volatile (Knotek & Zaman, 2024). Over the past two decades, Nigeria has experienced repeated episodes of double-digit inflation, often driven by both demand-side and supply-side factors, including food price shocks, exchange rate volatility, energy prices, and fiscal

policy inconsistencies. This persistent inflation raises critical questions about the functional strength of the interest rate channel in Nigeria's context.

Several empirical studies have investigated the effectiveness of the interest rate channel in Nigeria, producing mixed and inconclusive results. Onanuga and Onanuga (2014), using a vector autoregression (VAR) framework, found that although interest rate shocks affect prices and output, the impact is delayed, with prices responding more slowly than output. Similarly, Udejaja, Audu, and Obiezue (2020) applied a Structural Vector Autoregression (SVAR) approach and observed that while the interest rate channel plays a role in influencing inflation, the exchange rate channel appears to exert a stronger and more immediate impact on consumer prices. Osundina, Tella, and Adesoye (2018), employing a Bayesian VAR model, supported the notion that interest rate policy does influence inflation dynamics but also highlighted a trade-off with output performance.

A recurring theme in these studies is the weak or incomplete pass-through from the policy rate (MPR) to market and retail interest rates. The Nigerian financial system is characterized by several structural rigidities, limited credit penetration, a dominant informal sector, and significant government intervention in interest rate settings that hinder the smooth transmission of monetary policy. Yusuf, Afiemo, and Isah (2022) further noted that external shocks, particularly exchange rate fluctuations and imported inflation, often dampen the potency of domestic monetary policy actions, including interest rate adjustments. Likewise, the responsiveness of the banking sector to policy signals is often asymmetric and sluggish. Banks may be reluctant to adjust lending rates downward following policy rate reductions due to concerns over credit risk and financial market instability, while being quick to raise lending rates in response to policy tightening. This asymmetry limits the effectiveness of interest rate changes as a tool for managing demand and stabilizing prices (Tonye & Gbawe, 2024).

Another important consideration is the lag structure of the interest rate channel. Empirical evidence suggests that monetary policy actions take time to permeate through the financial system and influence real variables (Uwakwe, 2025). In Nigeria, these lags may be extended due to institutional inefficiencies,

low financial literacy, and limited access to formal credit markets. This delayed effect poses a challenge for timely policy interventions, particularly in rapidly evolving inflationary environments.

Despite these challenges, the interest rate channel remains an important tool in the CBN's monetary policy arsenal. However, given the complexity of the Nigerian economy, it is increasingly important to evaluate the precise nature, strength, and conditions under which the interest rate channel operates. A better understanding of how policy rate changes affect consumer prices, both in the short and long term, can enhance the effectiveness of monetary policy in achieving its price stability mandate.

This study therefore seeks to empirically investigate the role of the interest rate as a transmission channel of monetary policy in Nigeria, with a focus on its impact on consumer prices. It aims to assess the responsiveness of consumer prices to changes in the MPR, the degree of pass-through to market interest rates, and the extent to which structural and external variables moderate this relationship. By doing so, the research contributes to both the theoretical literature on monetary transmission mechanisms and the practical policy discourse on how best to strengthen the effectiveness of interest rate-based interventions in the Nigerian economy.

II. LITERATURE REVIEW

2.1 Theoretical Framework of Monetary Policy Transmission Channels

Monetary policy operates through various transmission channels, each of which influences economic variables differently. The interest rate channel is one of the primary mechanisms through which central banks transmit policy changes to the real economy. The theoretical foundation of the interest rate channel is rooted in Keynesian and New Keynesian economics, which argue that changes in the central bank's policy rate (e.g., the Monetary Policy Rate, MPR in Nigeria) affect short-term interest rates, influencing consumer borrowing, spending behavior, and business investment decisions.

In this framework, when the central bank raises the policy rate, borrowing becomes more expensive, leading to a reduction in consumption and investment. Conversely, a reduction in the policy rate

stimulates borrowing, boosting consumption and investment, thereby increasing aggregate demand. This increase in demand, in turn, raises prices, leading to inflationary pressures (Bernanke & Gertler, 1995; Ifionu & Akinpelumi, 2015).). The core mechanism of the interest rate channel is thus the impact of interest rate changes on market rates (lending and deposit rates), which affects consumer behavior and ultimately influences consumer prices.

However, the theoretical strength of the interest rate channel hinges on certain preconditions, including the degree of financial market development, the transparency and credibility of monetary policy, and the responsiveness of economic agents (consumers, businesses, and financial institutions). These factors are critical in developing economies, where financial systems may be shallow and informal, and where structural and institutional constraints may hinder the smooth transmission of policy signals.

2.2 Empirical Review

The operation of the interest rate channel in developing economies has been widely studied, with findings varying significantly due to the specific characteristics of these economies. Several studies have shown that the interest rate channel is often weak or operates with substantial lags in developing countries (Knotek & Zaman, 2024). In such economies, factors like limited access to credit, imperfect financial markets, exchange rate volatility, and fiscal dominance can complicate the transmission process.

In many developing countries, the financial systems are underdeveloped, with low banking penetration and high reliance on informal credit channels. This makes the monetary policy transmission via the interest rate channel much less effective than in developed economies. In particular, the lack of deep capital markets, low financial literacy, and limited access to formal credit means that households and small businesses are less likely to respond to interest rate changes in the same way as in developed countries (Chirwa & Mlachila, 2004).

In Nigeria, empirical research on the effectiveness of the interest rate channel as a monetary transmission mechanism has yielded mixed results. A number of studies have sought to examine the role of the Monetary Policy Rate (MPR) in influencing market rates and consumer prices.

Onanuga and Onanuga (2014) used a Vector Autoregression (VAR) approach to analyze the impact of interest rate changes on inflation and output in Nigeria. They found that although interest rate shocks had significant effects on output, the impact on consumer prices was delayed. This lag in response was attributed to various factors, including imperfect financial markets and delayed transmission mechanisms in the Nigerian banking system. Moreover, Yunana (2011) used the vector Autoregression approach to investigate the influence of the money supply on Nigerian interest rates from 1988 to 2010. The findings confirm a negative effect of the money supply on interest rates. Fiscal deficits exhibited a positive correlation with interest rates. The granger causality model revealed a bidirectional relationship between money supply and interest rates.

Similarly, Udejaja, Audu and Obiezue (2020) employed a Structural Vector Autoregression (SVAR) model to investigate the effectiveness of the interest rate channel in Nigeria. Their findings indicated that while interest rate changes did influence inflation, the exchange rate channel exerted a stronger and more immediate impact on consumer prices. They suggested that external factors, such as fluctuations in the exchange rate, play a more substantial role in driving inflation in Nigeria, overshadowing the direct effects of interest rate adjustments.

In a more recent study, Yusuf, Afiemo and Isah (2022) investigated the pass-through effect of the MPR on retail lending rates and consumer prices. They found that the pass-through from the MPR to lending rates was incomplete, with commercial banks often adjusting their lending rates asymmetrically in response to changes in the policy rate. This asymmetry was particularly evident during periods of economic instability; such as exchange rate crises or fluctuations in global oil prices.

Shuaibu, Musa, Jabir and Sanusi (2023) examined the asymmetric effects of interest rate changes on inflation in Nigeria using a Nonlinear Autoregressive Distributed Lag (NARDL) model over the period 1986–2023. Their findings revealed that increases in interest rates significantly reduce inflation both in the short and long run, while decreases in interest rates do not produce equally strong disinflationary effects. This suggests that the interest rate transmission mechanism is nonlinear in nature, and its efficacy

depends on the direction of the monetary policy stance.

Similarly, Ademola, Alalade, Ogbebor and Aworinde (2023) employed the Autoregressive Distributed Lag (ARDL) approach to explore the influence of interest rates on inflation in Nigeria between 2007 and 2023. Their empirical results indicated a statistically significant negative relationship between interest rates and inflation, affirming that higher interest rates help reduce inflation, albeit with a lag. This aligns with traditional monetary transmission theory, which posits that tightening monetary policy via interest rate increases dampens inflationary pressures.

According to Abasimi, Salim and Vorlak (2018), every economy is subject to the deviation and self-correcting effects of monetary growth. This suggests that tightening monetary policy will reduce the demand for money by raising the official rates set by the monetary authority (or alternative rates that the Central Banks may deem appropriate for monetary purposes). This means that the economy will see a decline in output, an increase in interest rates, and a shock to contractionary monetary policy. The real impact of an increase in interest rates is immediately felt in the economy as prices rise.

Yusuf, Afemo and Isah (2022), using a Structural Vector Autoregressive (SVAR) model with sign restrictions and monthly data from 2007 to 2020, investigated the interest rate channel as part of Nigeria's broader monetary policy transmission framework. Their study found that although changes in the monetary policy rate (MPR) do influence domestic interest rates, the impact on inflation is weak and delayed. Their impulse response analysis shows limited responsiveness of inflation to interest rate shocks, suggesting that the effectiveness of this channel is hindered by structural rigidities, poor transmission to retail rates, and the dominance of exchange rate shocks.

In another related study, Olanrele and Angahar (2024) assessed the dynamic impact of interest rate shocks on inflation in Nigeria using a rolling impulse response function within an SVAR framework. Their results showed that interest rate shocks have a short-term effect on inflation that typically fades after about four to six months. The study emphasized the time-varying nature of the interest rate channel, indicating that the policy environment and macroeconomic context influence its potency.

Conversely, Offor, Amadi and Uzoma (2022) found that interest rates did not significantly impact inflation in Nigeria over the period 1991–2021. Utilizing ARDL estimation techniques, their study concluded that the exchange rate had a stronger and more consistent influence on inflation than interest rates. This raises questions about the strength of the interest rate channel in Nigeria, especially given the structural distortions, underdeveloped financial markets, and informal credit systems that may limit the effectiveness of traditional monetary tools. Osundina, Tella and Adesoye (2018) examined this issue using a Bayesian VAR approach and found that the interest rate channel, while significant, was not as effective in driving inflation due to slow responses from commercial banks and imperfect financial intermediation.

Collectively, these studies reflect a consensus that the interest rate transmission channel does affect inflation in Nigeria, but its effectiveness is conditional on several factors including policy credibility, inflation expectations, pass-through efficiency to market interest rates, and the influence of exogenous shocks such as exchange rate fluctuations. The literature also underscores the importance of institutional and structural reforms to strengthen the link between policy interest rates and consumer prices. A key issue highlighted in these studies is the weak pass-through from the policy rate to market interest rates. The Nigerian banking system, despite efforts by the Central Bank of Nigeria (CBN) to liberalize interest rates, still faces challenges in transmitting policy rate changes to retail lending rates.

III. METHODOLOGY

3.1 Model Specification

This model is specified to investigate interest rate as a transmission channels through which money supply affect the price level in Nigeria, the study adapts the model of Abasimi *et al.* (2018). The Abasimi *et al.* (2018) model, which primarily saw inflation as a direct result of the money supply (MS), interest rate (NIT), and exchange rate (EXG), is modified in this study to fit a transmission channel framework.

$$INF_t = f(MS_t, NIT_t, EXG_t) \text{-----} 3.1$$

According to the modified model, the money supply has an impact on interest rates, which in turn have an

impact on inflation. This structure provides a more accurate representation of how monetary policy affects inflation, particularly in developing nations like Nigeria, and is consistent with the interest rate channel of monetary policy transmission. Both theoretical and empirical arguments support the adaption. It accounts for the indirect manner that monetary policy influences inflation in the Nigerian setting, while theoretically it represents well-established monetary policy procedures. By elucidating how shifts in the money supply impact price levels through interest rate transmission, this theory improves the relevance of policy.

Estimating a structural VAR, as defined by the CBN (2016), is crucial to improving knowledge of assessing the channels of transmission among

variables. The specification for the VAR representation is:

$$Y_t = aY_{t-1} + bX_t + v_t \text{-----} 3.2$$

Y_t : Vector endogenous variables

X_t : Vector exogenous variables

v_t : Residual vector

b : Matrix including every coefficient that describes how endogenous and exogenous factors are related

Equation 3.3 and 3.4, which is premised on equation 3.2, presents the VAR representation illustrating the channel of transmission of the money supply through interest rates to the price level.

Transmission Channel Equation (Effect of Money Supply on Interest Rate)

$$INT_t = \alpha_0 + \sum_{i=1}^p \phi_1^{(i)} INT_{t-1} + \sum_{j=0}^q \phi_2^{(j)} MS_{t-1} + \varepsilon_t \text{-----} 3.3$$

Outcome Equation (Effect of Interest Rate and Money Supply on the Price Level)

$$CPI_t = \theta_0 + \sum_{i=1}^r \psi_1^{(i)} CPI_{t-1} + \sum_{j=0}^s \psi_2^{(j)} MS_{t-1} + \sum_{k=0}^m \psi_3^{(k)} INT_{t-1} + \mu_t \text{-----} 3.4$$

Where; CPI is consumer price index, MS is money supply, and INT is interest rate.

Equation 3.3 illustrates the relationship between the transmission variable (INT) and the policy variable (MS). The impact of both MS (direct path) and INT (indirect path) on the CPI is demonstrated in equation 3.4. In other words, $MS \rightarrow INT \rightarrow CPI$. The variables are as previously defined

Equation 3.3 and 3.4 were analyzed using structural VAR approach. VAR approach has dependent variables in each equation that are regressed against both the system's lagged values and their own. Should it be imperative that the effects of this regressor be represented in the model, each of the VAR system's equations may additionally contain a regressor that is not considered a dependent variable inside the system.

3.2 Nature and Sources of Data

Time series secondary data are the predominant type of data used in this study. The data were sourced from the Central Bank of Nigeria's bulletins (CBN, 2024). This included money supply, interest rate and consumer price index from 1996 to 2023.

IV. ANALYSIS AND RESULTS

4.1 Unit Root Test

Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests were used to determine the presence of a unit root in a time series for this model.

Table 1: Augmented Dickey-Fuller Result

VARIABLE	LEVEL		1 st Difference		Conclusion
	Test statistics	Critical values@5%	Test statistics	Critical values@5%	
MS	6.3442	-2.9763			I (0)
INT	-1.3678	-2.9763	-4.5182	-2.9810	I (1)
CPI	13.9145	-2.9763			I (0)

Source: Authors' Computation, 2025

Table 1 reveals the ADF unit root test. While the result indicates that the money supply and consumer price index are stationary at the level, interest rate is stationary at the first difference. This is determined by comparing the ADF test results to the corresponding absolute 5% critical value. The ADF

test statistics of the MS and CPI (6.3442, 13.9145) are greater than the 5% corresponding critical value (-2.9763) at level in absolute term. Also, the ADF test statistics of INT (-4.5182) is greater than the 5% corresponding critical value (-2.9810) at first difference in absolute term

Table 2: Philips-Perron Unit Result

VARIABLE	LEVEL		1 st Difference		Conclusion
	Test statistics	Critical values@5%	Test statistics	Critical values@5%	
MS	5.6635	-2.9763			I (0)
INT	-1.4840	-2.9763	-4.5182	-2.9810	I (1)
CPI	10.5710	-2.9763			I (0)

Source: Authors' Computation, 2025

Table 2 shows results from the Philips-Perron (PP) unit root test. Money supply and consumer price index are stationary at the level, hence supporting the ADF result. Interest rate is nonetheless stationary at the first difference. This is derived by comparing the relevant absolute 5% critical value to the PP test statistics. The PP test statistics of the MS and CPI (5.6635, 10.5710) are greater than the 5% corresponding critical value (-2.9763) at level in absolute term. Also, the PP test statistics of INT (-4.5182) is greater than the 5% corresponding critical value (-2.9810) at first difference in absolute term

The ADF and PP unit root tests indicated that the variables in this model were not jointly stationary at

the level. As a result, it is required to determine whether the regression residuals are co-integrated, i.e., whether there are any long-run relationships between the response and explanatory variables predicted inside the model. The variables contain two orders of integration (I(0) and I(1)), thus, the study used the Bound F-test for Cointegration to verify long run link among the variables. Table 3 displays this result.

4.2 Cointegration Test

Bound test was used to verify long-run relationship between the variables.

Table 3: Bound F-test for Cointegration

Predictor Variable	Function				F-Statistic		Cointegration Results	
CPI	F(CPI MS, INT)				116.044***		Cointegrated	
Asymptotic Critical value								
Critical Value Bounds	10%		5%		2.5%		1%	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
	3.17	4.14	3.79	4.85	4.41	5.52	5.15	6.36

Source: Authors' Computation, 2025

Table 3 shows the results of Bound cointegration test. An F-statistic of 116.03 was obtained from the test findings, which is substantially greater than the upper critical value bounds at all standard levels of significance. For instance, it is well below the computed F-statistic with an upper bound of 4.85 at the 5% significance level and 6.36 at the stricter 1% threshold. Since the F-statistic is greater than the upper bounds at every level of significance, we reject the null hypothesis that there is no long-term link.

This offers compelling statistical support for the existence of a steady, long-term equilibrium relationship between the model's variables. In real life, this indicates that the variables will usually move in tandem over time, and any temporary departures from this equilibrium will probably be rectified eventually. The study then advanced to estimate the transmission channel parameters.

4.3 Transmission Channel Regression Running from Money Supply to Interest Rate

The System equation for the transmission running from money supply to interest rate is generated as:

$$D(INT) = C(1) * (INT(-1) + 0.507881603655 * LOG(MS(-1)) + 2.56017824435 * LOG(CPI(-1)) - 33.8042980785) + C(2) * D(INT(-1)) + C(3) * D(LOG(MS(-1))) + C(4) * D(LOG(CPI(-1))) + C(5)$$

Table 4: Transmission Channel Running from Money Supply to Interest Rate

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.5043	0.1307	-3.8574	0.0009
C(2)	0.2999	0.1393	2.1536	0.0430
C(3)	4.4875	2.1618	2.0759	0.0504
C(4)	9.6460	6.7243	1.4345	0.1662
C(5)	-2.0104	1.4079	-1.4279	0.1680

Source: Authors' Computation, 2025

Table 4 showed the transmission channel running from money supply to interest rate. As shown in the system equation of the model, while interest rate was the dependent variable the coefficients of money supply were estimated as C(3). Findings revealed that the coefficients are statistically significant. This

implies that money supply significantly transmitted to changing in interest rate in Nigeria. Meaning that, 1% increase in money supply increased interest rate by about 30%. Wald test on Table 5 supports this finding

Table 5: Wald Test of the Transmission Channel Running from Money Supply to Interest Rate

Test Statistic	Value	Df	Probability
t-statistic	2.075864	21	0.0504
F-statistic	4.309211	(1, 21)	0.0504
Chi-square	4.309211	1	0.0379

Source: Authors' Computation, 2025

Table 5 showed the result of the Wald test of the transmission channel running from money supply to interest rate in Nigeria. The t-statistics, F-statistics and Chi-square estimates are statistically significant. This revealed that money supply affect interest rate in the short run. Meaning that, there is short run

causality running from money supply to interest rate in Nigeria.

4.4 Transmission Channel Regression Running from Interest Rate to Price Level

The system equation for the transmission running from interest rate to price level is generated as:

$$D(CPI) = C(9) * (INT(-1) + 0.00472372866932 * MS(-1) - 0.721669196552 * CPI(-1)) + C(10) * D(INT(-1)) + C(11) * D(MS(-1)) + C(12) * D(CPI(-1))$$

Table 6: Transmission Channel Running from Interest Rate to Price Level

	Coefficient	Std. Error	t-Statistic	Prob.
C(9)	-0.384498	0.140103	-2.744389	0.0118
C(10)	0.841502	0.684982	1.228503	0.2322
C(11)	0.000434	0.001127	0.384845	0.7040
C(12)	0.878987	0.231434	3.798004	0.0010

Source: Authors' Computation, 2025

Table 6 indicated the transmission channel running from interest rate to the price level. As shown in the system equation of the model, while price level proxied by CPI was the dependent variable the

coefficients of interest rate were estimated as C(9). Findings from Table 6 revealed that the coefficients are not statistically significant. This implies that interest rate did not significantly transmit to altering

the price level in Nigeria. Wald test on Table 7 justified this result

Table 7: Wald Test of the Transmission Channel Running from Interest Rate to Price Level

Test Statistic	Value	Df	Probability
t-statistic	0.696984	22	0.4931
F-statistic	0.485786	(1, 22)	0.4931
Chi-square	0.485786	1	0.4858

Source: Authors' Computation, 2025

Table 7 shows the result of the Wald test of the transmission channel running from interest rate to price change in Nigeria. The t-statistics, F-statistics and Chi-square estimates are not statistically significant. This revealed that interest rate did not affect price level in the short run. Meaning that, there is no short run causality running from interest rate to price level in Nigeria. Summarily, this analysis established that the monetary aggregate transmits to affect interest rate changes in Nigerian but do not have a significant transmission effect on the price level in Nigeria.

The transmission channel estimation showed that money supply influenced interest rate in the short run, in contrast to Yunana (2011), who found negative effect of the money supply on interest rates. Therefore, money supply affect interest rate in the short run. This demonstrated that monetary aggregate expansion had immediate impact on the rate of interest in Nigeria Concisely, there is immediate link between Nigeria's money supply and interest rate. However, the influence caused by money supply to interest rate did not transmit to affect the price level as the estimation revealed that interest rate did not significantly transmit to altering the price level in Nigeria. The finding is consistent with Ahamba *et al.* (2018) that found that price level was not significantly impacted by the interest rate in Nigeria.

V. CONCLUSION AND RECOMMENDATIONS

The study concluded that an increase in the money supply exerts a considerable inflationary effect over time, indicating that monetary expansion in Nigeria contributes to rising consumer prices in the long run. This finding aligns with the classical monetary theory, which posits that persistent growth in money supply eventually translates into higher price levels when not matched by equivalent output growth. Additionally, the study revealed that variations in

money supply significantly influence short-run interest rates, suggesting that monetary aggregate expansion has an immediate and measurable impact on interest rate movements. In essence, when the monetary authority increases liquidity in the financial system, short-term interest rates tend to decline as banks and other financial institutions are more willing to lend, thereby easing credit conditions.

However, the study found that while the money supply has a direct effect on interest rates, the influence of these interest rate changes on the overall price level is weak or statistically insignificant in Nigeria. This outcome implies that the interest rate channel of the monetary transmission mechanism is not a dominant path through which monetary policy affects consumer prices. Instead, money supply appears to influence inflation and consumer prices through alternative transmission channels, such as the exchange rate, credit, or expectations channels. In other words, rather than interest rate adjustments translating directly into changes in aggregate demand and prices, other macroeconomic and structural factors play a more substantial role in determining price movements. This observation underscores the limited effectiveness of the interest rate channel in Nigeria's monetary policy framework and highlights the need for complementary mechanisms to enhance the responsiveness of consumer prices to policy-induced interest rate changes.

Based on the findings that interest rate changes do not transmit to price changes, the Central Bank should aim to refine monetary tools to ensure that changes in the money supply are well-targeted to influence key economic variables. Furthermore, boosting financial market depth and efficiency may increase the transmission mechanism from interest rates to the broader economy, making interest rate adjustments more effective at controlling price level. Furthermore, fiscal coordination is critical because

the impact of the money supply on interest rates has little effect on the consumer price level.

REFERENCES

- [1] Abasimi, I., Li, X., Salim, A. & Vorlak, L. (2018). The dynamics of inflation, money growth, exchange rates and interest rates in Ghana. *Journal of Business Management and Economic Research*, 2(6), 21-32
- [2] Ademola, O. A., Alalade, Y. S., Ogbabor, O. A., & Aworinde, O. B. (2023). The impact of interest rates on inflation in Nigeria: Evidence from ARDL approach. *WSEAS Transactions on Business and Economics*, 20, 495–508. <https://wseas.com/journals/bae/2023/e765107-2565.pdf>
- [3] Bernanke, B. S., & Gertler, M. (1995). Inside the black box: The credit channel of monetary policy transmission. *Journal of Economic Perspectives*, 9(4), 27-48.
- [4] Central Bank of Nigeria (2016). *An Econometric Analysis of the Impact of Macro-Prudential Instruments on the Nigerian Economy*. CBN Research Department.
- [5] Central Bank of Nigeria (2024). *Annual statistical bulletin*. CBN Publication.
- [6] Chirwa, E. W., & Mlachila, M. (2004). Financial intermediation and monetary policy transmission in Sub-Saharan Africa. *Journal of African Economies*, 13(1), 115-138.
- [7] Ebiringa, O. T. & Anyaogu, N. (2014). Exchange rate, inflation and interest rates relationships: An autoregressive distributed lag analysis. *Journal of Economics and Development Studies*, 2(2), 263-279.
- [8] Ifionu, E. & Akinpelumi, O. F. (2015). Macroeconomic variables and money supply: evidence from Nigeria. *African Research Review*, 9(4), 288-307. <http://dx.doi.org/10.4314/afrev.v9i4.22>
- [9] Knotek, E. & Zaman, S (2024). *The effects of interest rate increases on consumers' inflation expectations*. Inter-American Development Bank Discussion Paper. Washington, DC: IDB
- [10] Offor, P. U., Amadi, T., & Uzoma, F. I. (2022). Nigerian monetary policy (1991–2021): Money supply rate and inflation rate. *Asian Journal of Economics, Business and Accounting*, 22(20), 39–48. <https://journalajebea.com/index.php/AJEBA/article/view/883>
- [11] Olanrele, I. A., & Angahar, J. S. (2024). Interest rate shocks and inflation dynamics in Nigeria: A structural VAR approach. *International Journal of Humanities Education and Social Sciences*, 4(1), 84–95. <https://ejournal.yasin-alsys.org/IJHESS/article/view/5009>
- [12] Olasehinde-Williams, G., Omotosho, O., & Bekun, F. V. (2024). Interest rate volatility and economic growth in Nigeria: New insight from the quantile autoregressive distributed lag model. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-024-01924-x>
- [13] Onanuga, A., & Onanuga, O. T. (2014). The impact of interest rate channel of monetary policy on output and prices in Nigeria: An unrestricted VAR approach. *Journal of African Macroeconomic Review*, 4(1), 286–294. <https://mpira.ub.uni-muenchen.de/83322/>
- [14] Osundina, K. C., Tella, S. A., & Adesoye, A. B. (2018). Interest rate channel and real economy in Nigeria: A Bayesian vector autoregression approach. *International Journal of Economics and Financial Issues*, 8(4), 313–321. <https://www.econjournals.com/index.php/ijefi/article/view/6113>
- [15] Shuaibu, A. A., Musa, M. K., Jabir, I. M., & Sanusi, A. S. (2023). Testing the asymmetric relationship between interest rate and inflation in Nigeria: A NARDL approach. *International Journal of Economics, Finance and Business Studies*, 5(1), 54–66. <https://journal.multitechpublisher.com/index.php/ijefbs/article/view/1462>
- [16] Tonye, B., & Gbawe, K. (2024). Interest rate, exchange rate and inflation in Nigeria: An econometric approach. *FUW International Journal of Management and Social Sciences*, 9(1), 44–56. <https://fuw-ijmss.com.ng/index.php/fijmss/article/view/115>
- [17] Udejaja, E. A., Audu, N. P., & Obiezue, T. O. (2020). The transmission mechanism of monetary policy shocks in Nigeria: The interest and exchange rates channels. *Advances in Social Sciences Research Journal*, 7(9), 283–311. <https://journals.scholarpublishing.org/index.php/ASSRJ/article/view/8927>
- [18] Uwakwe, Q. C. (2025). Impact of interest rate spread on domestic investment in Nigeria. *Global Review of Journal of Economics and Sustainable Development*, 4(2), 1–14.

<https://journals.amssr.org/grjesd/2025/08/16/impact-of-interest-rate-spread-on-domestic-investment-in-nigeria/>

- [19] Yunana, T. W. (2011). *The effects of money supply on interest rate in Nigeria (1988 – 2010)*. A Thesis Submitted to the Post-Graduate School, Ahmadu Bello University, Zaria in Partial Fulfilment of the Requirement for the Award of Degree of Masters of Science in Economics.
- [20] Yusuf, B., Afiamo, O., & Isah, A. (2022). Assessment of interest rate channel effectiveness in the transmission of monetary policy in Nigeria. *Applied Journal of Economics, Management and Social Sciences*, 3(5), 27–42.
<https://nokspublishing.com/index.php/AJMSS/article/view/63>