RESEARCH ARTICLE

JENER Journal of Empirical and Non-Empirical Research
Volume 2, Issue 4, Page 12-20 | Article No. 3
DOI: 10.4898/jener.v2i4.a3
ISSN: 7895-9216
Journal homepage: https://jenerjournal.com
Journal email: editor@jenerjournal.com

JENER Journal
JENER Journal of Empirical and Non-Empirical Research

Monetary Expansion and Capital Inflows in Nigeria (1985 - 2025)

Bello Alhassan[1], Animasaun Jamiu O.[2], Nwofor Linda I.[3], Onyekwele Ekene M.[4], Busari Roqeebat A.[5], Nnabue Uchechi L.[6] & Sodiq Abdulah O.[7]

[1-7]Lagos State University, Faculty of Social Sciences, Department of Economics

ARTICLE INFORMATION

Article history:
Published: April 2026

Keywords:
Monetary Expansion
Capital Inflows
Broad Money Supply
ARDL
Nigeria
Foreign Direct Investment
Exchange Rate
Inflation
Monetary Policy Rate
Macroeconomic Stability

ABSTRACT

This study examines the relationship between monetary expansion and capital inflows in Nigeria over the period 1985 to 2025. Using an ex post facto research design and annual time series data from the Central Bank of Nigeria, World Bank, and National Bureau of Statistics, the study employs descriptive statistics, unit root tests, and an Autoregressive Distributed Lag (ARDL) model to analyze the impact of broad money supply, monetary policy rate, inflation, and exchange rate on capital inflows. The results reveal that capital inflows are significantly influenced by their past trends, while monetary expansion alone does not exert a consistently significant direct effect. Inflation and exchange rate fluctuations show stronger and more immediate impacts on foreign capital movements. The CUSUM stability test confirms the structural stability of the estimated model over the study period. The findings suggest that the effectiveness of monetary expansion in attracting stable capital inflows depends on macroeconomic stability, credible policy frameworks, and structural reforms that enhance investor confidence. The study recommends coordinated monetary and fiscal policies, incentives for long-term foreign direct investment, and institutional strengthening to ensure that monetary expansion translates into sustainable economic development.

1. Introduction

Monetary expansion refers to the deliberate increase in the money supply by a country's central bank, usually through policy instruments such as changes in reserve requirements, open market operations, and adjustments in policy interest rates (Egbetunde & Abayomi, 2022; Nwosa & Babawale, 2023). In the Nigerian context, the Central Bank of Nigeria (CBN) has periodically implemented expansionary monetary policies aimed at stimulating economic activity, controlling inflation, and mitigating the effects of external shocks on the domestic economy (CPPE, 2026). The rationale behind these policies is to increase liquidity in the financial system, reduce the cost of borrowing, and encourage both private and public sector investment. Monetary expansion is often adopted during periods of economic slowdown or financial uncertainty to ensure that sufficient funds are available for productive activities and to maintain macroeconomic stability (Reuters, 2025; IMF, 2024).

One of the key mechanisms through which monetary expansion influences economic growth is capital inflow, which encompasses foreign direct investment (FDI), foreign portfolio investments, and other forms of external financial flows (Egbetunde & Abayomi, 2022; Nwosa & Babawale, 2023; CPPE, 2026). Ideally, expansionary monetary policy should reduce interest rates, stimulate domestic investment, and attract foreign capital into productive sectors of the economy. By increasing liquidity and lowering the cost of credit, these policies are expected to create an enabling environment for both domestic and foreign investors, fostering business expansion, technology transfer, and employment creation (Adegbite & Ojo, 2021; Nwosa & Babawale, 2023).

Capital inflows are particularly critical in developing economies such as Nigeria because domestic savings are often insufficient to finance the country's investment needs (Egbetunde & Abayomi, 2022; CPPE, 2026). FDI, for example, provides long-term financing that supplements local resources, promotes the transfer of managerial expertise, and introduces modern technology into domestic production processes (World Bank, 2022). Portfolio investments, although generally more volatile, enhance liquidity in domestic financial markets and can facilitate short-term capital availability for business activities and government borrowing. Consequently, effective monetary expansion policies can help Nigeria attract much-needed foreign capital to bridge investment gaps, stimulate growth, and support sustainable development.

Despite these theoretical benefits, Nigeria's experience with monetary expansion and capital inflows has been complex and often unpredictable. Periods of liquidity growth have frequently coincided with currency depreciation, rising inflation, and volatility in the foreign exchange market, which can deter long-term investment (Reuters, 2025; CPPE, 2026). Recent empirical evidence indicates a rebound in portfolio investment inflows, yet stable and productive FDI remains limited, reflecting structural and institutional constraints within the economy (Adegbite & Ojo, 2021; CPPE, 2026). Inflationary pressures, regulatory bottlenecks, and exchange rate volatility reduce investor confidence and can undermine the intended effects of monetary expansion.

The ambiguity in the relationship between monetary expansion and capital inflows is further compounded by the structure of foreign capital in Nigeria. On one hand, policies that expand liquidity, such as reductions in policy interest rates, may attract short-term speculative portfolio flows that are highly sensitive to global financial conditions (Nwosa & Babawale, 2023). On the other

hand, high interest rates aimed at tightening monetary conditions may discourage long-term capital inflows while stimulating temporary speculative flows. This reliance on short-term, volatile portfolio investments creates vulnerabilities in external reserves, exacerbates currency instability, and may undermine financial stability (CPPE, 2026; IMF, 2024).

Given these dynamics, several critical questions arise: Does monetary expansion significantly influence the volume and composition of capital inflows into Nigeria? Are these inflows beneficial for sustainable economic growth, or do they create vulnerabilities within the financial system? Addressing these questions is essential to formulate monetary and fiscal policies that not only attract foreign capital but also ensure that inflows contribute to productive investment and long-term economic stability (Adegbite & Ojo, 2021; Nwosa & Babawale, 2023).

The primary objective of this study, therefore, is to examine the relationship between monetary expansion and capital inflows in Nigeria over the period 1989 to 2024, and to determine whether expansionary monetary policies affect the quality, stability, and sustainability of foreign capital inflows. This analysis is critical for understanding how Nigeria can balance monetary policy interventions with the goal of attracting productive and stable external financing.

2. Literature Review

2.1 Conceptual Review

2.1.1 Monetary Expansion

Monetary expansion refers to deliberate policy measures undertaken by a country's central bank to increase the money supply beyond its prevailing level. Common instruments include reductions in reserve requirements, open market purchases of government securities, and reductions in policy interest rates (Nzeh et al., 2024; Egbetunde & Abayomi, 2022). The primary objective of monetary expansion is to stimulate investment, increase aggregate demand, and ease credit conditions for businesses and households. By increasing liquidity in the financial system, monetary expansion reduces borrowing costs, encourages productive investment, and promotes consumption, which can help counteract economic slowdowns or external shocks (IMF, 2024; Nwosa & Babawale, 2023).

In the Nigerian context, monetary expansion has frequently been used as a counter-cyclical tool to stabilize the economy during periods of recession or global financial stress (CPPE, 2026). For example, during periods of declining output and rising unemployment, the Central Bank of Nigeria (CBN) has often lowered the monetary policy rate and implemented liquidity-enhancing measures to encourage banks to lend more to households and businesses (Reuters, 2025). Such policies are aimed at increasing domestic investment, stimulating economic growth, and fostering financial inclusion.

2.1.2 Capital Inflow

Capital inflows refer to the movement of foreign financial resources into a domestic economy. These inflows typically include foreign direct investment (FDI), which involves long-term investment in productive assets, portfolio investments, which include the purchase of stocks and bonds, and other financial inflows such as loans or grants (CPPE, 2026; Adegbite & Ojo, 2021). Capital inflows are essential for supplementing domestic savings, financing investment gaps, supporting technological transfer, and fostering economic growth, particularly in developing economies such as Nigeria (World Bank, 2022; Nwosa & Babawale, 2023).

However, capital inflows can also be volatile and highly sensitive to global economic conditions, interest rate differentials, and investor sentiment. Portfolio investments, in particular, are short-term in nature and prone to sudden reversals, which can negatively affect foreign reserves and financial market stability (Reuters, 2025; CPPE, 2026). Therefore, the effectiveness of monetary expansion in attracting and sustaining beneficial capital inflows depends not only on domestic policy measures but also on external economic conditions and investor confidence.

2.1.3 Broad Money Supply (M2)

Broad money supply, often denoted as M2, is a measure of the total money available in an economy, including currency in circulation, demand deposits, savings deposits, and time deposits (Nzeh et al., 2024; IMF, 2024). M2 is widely used as an indicator of financial liquidity and the stance of monetary policy. An increase in M2 typically signals expansionary monetary policy, reflecting higher liquidity in the banking system and greater availability of funds for investment and consumption.

In Nigeria, movements in M2 are closely monitored by policymakers and investors because they provide insight into the potential effects of monetary policy on economic growth, inflation, and capital inflows (CPPE, 2026). A growing M2 can stimulate domestic demand and investment but may also create inflationary pressures if not matched by proportional increases in real output (Egbetunde & Abayomi, 2022).

2.1.4 Monetary Policy Rate (MPR)

The Monetary Policy Rate (MPR) is the benchmark interest rate set by the Central Bank of Nigeria (CBN) to guide lending and borrowing within the economy. The MPR directly influences borrowing costs, investment decisions, and the attractiveness of the Nigerian economy to foreign investors (Nwosa & Babawale, 2023; Reuters, 2025). Lowering the MPR is a key tool in monetary expansion, as it encourages commercial banks to lend at reduced rates, thereby stimulating private sector investment and consumption. Conversely, raising the MPR is used to tighten liquidity, control inflation, and curb excessive capital outflows.

The MPR is also closely linked to capital inflows because foreign investors often compare domestic interest rates with returns in other countries. A competitive MPR can attract portfolio investments into Nigeria, while an excessively low or high rate may either encourage short-term speculative flows or deter productive foreign investment (CPPE, 2026; Adegbite & Ojo, 2021).

2.2 Theoretical Review

2.2.1 Capital Flows Theory

Capital flows theory posits that international capital moves from economies offering lower returns to those promising higher returns, driven by interest rate differentials, expected exchange rate movements, and macroeconomic stability. This theory traces its intellectual roots to the classical works of David Ricardo (1817) and John Maynard Keynes (1936), who emphasized the mobility of capital and its sensitivity to relative returns across countries. Ricardo's comparative advantage framework implied that capital, like goods, would move to maximize efficiency and returns, while Keynes highlighted the role of interest rate expectations and liquidity preferences in cross-border capital movements.

In the context of monetary policy, expansionary measures that lower domestic interest rates relative to global rates may discourage long-term foreign investment while attracting short-term speculative flows (Obstfeld & Taylor, 2004; Nwosa & Babawale, 2023). Empirical studies in Nigeria suggest that periods of monetary expansion have sometimes coincided with increased portfolio inflows, which are highly volatile and sensitive to short-term return opportunities, but have not consistently resulted in stable, productive foreign direct investment (CPPE, 2026; Egbetunde & Abayomi, 2022).

2.2.2 Mundell-Fleming Framework

The Mundell-Fleming framework, developed by Robert Mundell (1963) and Marcus Fleming (1962), extends the IS-LM model to an open economy setting. The theory explains how fiscal and monetary policy affect output, interest rates, and exchange rates in economies with international capital mobility. According to this framework, expansionary monetary policy in an open economy can lead to currency depreciation, which may make domestic assets cheaper and more attractive to foreign investors seeking higher returns.

However, the framework also highlights a trade-off: while currency depreciation can attract foreign capital inflows, it may simultaneously increase import prices, fuel inflationary pressures, and undermine real income (Mundell, 1963; Fleming, 1962; IMF, 2024). In the Nigerian economy, empirical evidence shows that periods of monetary expansion have sometimes led to short-term capital inflows, but also coincided with exchange rate volatility and rising inflation, limiting the long-term effectiveness of these policies in attracting productive foreign investment (CPPE, 2026; Reuters, 2025).

2.2.3 Liquidity Preference Theory

The liquidity preference theory, pioneered by John Maynard Keynes (1936) in The General Theory of Employment, Interest and Money, argues that the demand for money is influenced by transaction, precautionary, and speculative motives. When the central bank implements expansionary monetary policy, liquidity in the economy increases, leading to a reduction in interest rates. Lower interest rates are expected to encourage both domestic and foreign investment, including foreign direct investment (FDI) and portfolio inflows (Keynes, 1936; Nwosa & Babawale, 2023).

However, in economies with structural weaknesses, such as Nigeria, the additional liquidity may not necessarily translate into productive investment. Instead, it may fuel inflation, asset price bubbles, or speculative financial flows, reducing the stabilizing impact of monetary expansion (Egbetunde & Abayomi, 2022; CPPE, 2026). This theory provides a foundation for understanding why expansionary monetary policies can sometimes fail to attract stable and productive capital inflows, despite increasing the availability of funds in the financial system.

2.3 Empirical Review

Several recent empirical studies have examined the relationship between monetary policy and capital inflows in Nigeria and comparable emerging economies, highlighting both opportunities and challenges in attracting productive foreign capital through monetary interventions.

Nwosa and Babawale (2023) investigated monetary policy and capital inflows in Nigeria over the period 1981–2022 using an ARDL approach. Their study revealed that monetary policy variables, including interest rates and liquidity measures, significantly influence capital inflows, emphasizing the importance of controlling inflation to attract stable foreign investment. Similarly, Egbetunde and Abayomi (2022) assessed the effect of monetary policy and financial development on foreign direct investment (FDI) inflows in Nigeria. They reported that monetary expansion positively affects long-term FDI inflows but has a negative short-term effect, suggesting that while policy stability encourages productive investment, temporary liquidity expansions may attract speculative flows.

Using a vector autoregression (VAR) model, Nzeh et al. (2024) demonstrated bidirectional dynamics between broad money supply (M2) and capital inflows in Nigeria. They found that increases in capital inflows respond positively to monetary expansion, while shocks to M2 also react to changes in external capital, indicating a complex interaction between domestic monetary conditions and foreign investment flows. In contrast, Obode and Benneth (2025) assessed the impact of monetary tightening on development finance flows, showing that restrictive monetary conditions can influence the allocation patterns of finance in Nigeria, often reducing the attractiveness of long-term investment while stabilizing short-term speculative movements.

Several studies have also emphasized the role of capital inflows in supporting industrial and economic growth. Okoroigwe et al. (2024) examined the link between foreign capital inflows and Nigeria's industrial development, highlighting that inflows are essential for bridging domestic savings gaps and facilitating industrial expansion, yet structural constraints such as inadequate infrastructure and regulatory bottlenecks limit the full potential of these investments. Likewise, Yusuf et al. (2025) investigated how institutional quality affects the real value of foreign capital inflows and inflation dynamics. They found that credible institutions enhance the effectiveness of monetary expansion in attracting productive inflows and preserving their real value.

Research on the broader African context provides additional insights. Ajakaiye et al. (2023) analyzed a panel of African countries and found that expansionary monetary policy tends to attract short-term portfolio inflows while discouraging stable FDI unless accompanied by structural reforms. This pattern is echoed in Southeast Asia by Thong and Chia (2020), who concluded that low interest rate environments boost portfolio inflows but can increase financial fragility, suggesting that Nigeria's mixed inflow structure is consistent with global trends.

Within Nigeria, studies have further explored the effects of monetary policy regime shifts and liquidity expansions. Ndubuisi and Anyanwu (2024) reported that expansions in the monetary base were associated with higher capital account volatility rather than sustained capital accumulation. Mensah and Kyereboah Coleman (2021) found that while expansionary monetary policy can reduce borrowing costs and improve investment attractiveness, inflationary overshoots can erode real returns on capital, discouraging long-term inflows. Okoro et al. (2022) emphasized the role of exchange rate expectations, showing that monetary expansion affects foreign portfolio investment by influencing anticipated currency movements.

Empirical studies from broader sub-Saharan Africa support these findings. Ahmed and Suleiman (2023) used system GMM to examine M2 growth and capital inflows and found positive effects in countries with credible institutions, reinforcing the idea that institutional quality moderates the effectiveness of monetary expansion in attracting foreign capital. Similarly, Smith et al. (2025) analyzed post-COVID liquidity expansions globally, highlighting that capital flows were concentrated in risk assets rather than productive investment in emerging markets, including Nigeria.

Recent Nigerian studies also indicate a tendency for monetary expansion to attract speculative short-term flows. Tubotamuno and Oladosu (2026) linked money supply growth to economic growth, demonstrating that increased liquidity supports economic activity and can indirectly attract capital. Umaru and Sule (2026) specifically examined the relationship between broad money supply and portfolio inflows in Nigeria, concluding that monetary expansion increases short-term speculative inflows more than long-term FDI, highlighting the challenges in achieving sustainable external financing through monetary interventions.

3. Methodology

3.1 Research Design

This study adopts an ex post facto research design, using annual time series data from 1989 to 2024 to examine the impact of monetary expansion on capital inflows in Nigeria. The ex post facto approach is suitable because the researcher does not manipulate monetary variables, and instead analyzes historical economic data to identify patterns and relationships. This design allows for the assessment of how monetary expansion and policy rates have influenced capital inflows over time, considering both short-term variations and long-term trends (Creswell, 2014).

3.2 Data Sources

The study uses secondary data collected from reliable sources, ensuring accuracy and consistency over the study period. These sources include:

Central Bank of Nigeria (CBN) Statistical Bulletins – for data on broad money supply (M2), monetary policy rates (MPR), and other monetary aggregates.

World Bank World Development Indicators (WDI) – for foreign capital inflows, including FDI and portfolio investments.

National Bureau of Statistics (NBS) and International Financial Statistics (IFS) for macroeconomic control variables such as inflation, exchange rate, and GDP growth.

These sources provide comprehensive data to study the relationship between monetary expansion and capital inflows.

3.3 Model Specification

The study examines the relationship between capital inflows and monetary expansion using a functional approach. The relationship can be expressed as:

$CI = f(M2, MPR, INF, EXR,)$

Where:

CI = Capital inflows (FDI)

M2 = Broad money supply (% of GDP)

MPR = Monetary policy rate (%)

INF = Inflation (%)

EXR = Exchange rate (Naira/USD)

This approach allows the study to identify trends, patterns, and correlations between monetary expansion and capital inflows without requiring complex econometric techniques.

3.4 Variables and Proxies

3.4.1 Dependent Variable:

Capital Inflows (CI): Total net inflows of FDI plus portfolio investment, measured in current US dollars.

3.4.2 Independent Variables:

Monetary Expansion (M2): Broad money supply as a percentage of GDP, representing liquidity growth in the economy.

Monetary Policy Rate (MPR): Policy interest rate set by the Central Bank of Nigeria, reflecting the stance of monetary policy.

3.4.3 Control Variables:

Inflation (INF): Annual percentage change in the consumer price index.

Exchange Rate (EXR): Naira per USD, reflecting currency fluctuations.
Control variables help isolate the effect of monetary expansion and policy rates on capital inflows.

3.5 Data Analysis

Data will be analyzed using descriptive and inferential statistics, trend analysis, to highlight the relationship between monetary expansion and capital inflows. Correlation analysis and simple regression methods may be used to examine the direction and strength of the relationships. The analysis aims to determine whether increases in monetary expansion and adjustments in policy rates have corresponded with changes in capital inflows over time.

3.6 Interpretation of Results

Long-term trends: Identify sustained patterns in capital inflows in response to monetary expansion.
Short-term effects: Examine immediate changes in capital inflows due to policy shifts.
Relationships: Assess the strength and direction of the link between monetary policy tools and foreign capital movement, providing insights for policymakers.

3.7 Reliability and Validity

To ensure the validity and reliability of the study, only credible and consistent data sources are used, and all analyses will be carefully cross-checked. Trends and relationships will be interpreted in the context of Nigeria's economic environment, including periods of inflation, exchange rate volatility, and policy shifts.

4. Data Analysis and Interpretation

Table 4.1 Descriptive Analysis

	CI	BMS	EXCH	INF	INTR
Mean	1.322156	16.60682	121.0440	19.11091	1.603007
Median	1.177898	14.88078	100.2519	12.70720	3.496051
Maximum	4.282088	27.37879	482.7452	72.83550	18.18000
Minimum	-0.028873	9.063329	49.77484	5.388008	-31.45257
Std. Dev.	0.959595	5.538830	79.97702	17.20378	10.70156
Skewness	0.791962	0.484288	2.889897	1.800574	-1.159458
Kurtosis	3.559548	1.811493	12.48689	4.979950	4.584518
Jarque-Bera	4.468028	3.721924	195.3945	26.74007	12.48943
Probability	0.107098	0.155523	0.000000	0.000002	0.001941
Sum	50.24195	631.0593	4599.672	726.2148	60.91428
Sum Sq. Dev.	34.07046	1135.109	236664.0	10950.89	4237.369
Observations	38	38	38	38	38

The descriptive statistics of the variables used in the study provide an overview of their distribution and variability over the study period. Capital inflows (CI) recorded an average value of 1.32, with a median of 1.18, indicating relatively stable inflow levels with moderate dispersion as shown by a standard deviation of 0.96. The maximum value of 4.28 and minimum of –0.03 indicate that while inflows were generally positive, there were occasional declines. Broad money supply (BMS) averaged 16.61, with values ranging between 9.06 and 27.38, reflecting gradual monetary expansion in the Nigerian economy during the period.
The exchange rate (EXCH) had a mean of 121.04 Naira per USD, with a wide range from 49.77 to 482.75, indicating significant depreciation of the domestic currency over time. Inflation (INF) showed a relatively high mean of 19.11%, with extreme fluctuations between 5.39% and 72.84%, highlighting the persistent volatility in Nigeria's price level. Interest rate (INTR) had an average of 1.60% with substantial variability (standard deviation 10.70) and a minimum value of –31.45, reflecting periods of negative real interest rates or financial adjustments.
Furthermore, the skewness values reveal that most variables are positively skewed, particularly exchange rate (2.89) and inflation (1.80), suggesting the presence of occasional large increases in these variables, while interest rate is negatively skewed (–1.16). The kurtosis values indicate that exchange rate and inflation are leptokurtic, implying the presence of extreme observations. The Jarque–Bera statistics show that capital inflows and broad money supply are approximately normally distributed since their probability values (0.107 and 0.156) exceed 0.05, whereas exchange rate, inflation, and interest rate deviate from normal distribution due to their very low probability values. Overall, the descriptive statistics suggest that while capital inflows and money supply remained relatively stable, macroeconomic variables such as exchange rate and inflation experienced significant volatility during the study period.

Table 4.2 Unit Root Test

Variable	Statistical value	Critical value	Probability	Order of integration	Remarks
BMS	-5.345470	-2.945842	0.0001	I(1)	stationary
CI	-3.694657	-2.938987	0.0080	I(0)	stationary
INF	-4.124289	-2.960411	0.0031	I(1)	stationary
INTR	-4.283302	-2.941145	0.0017	I(0)	stationary
EXH	-6.840601	-2.938987	0.0000	I(0)	stationary

The unit root test results show that all the variables are stationary either at level or at first difference. Broad Money Supply (BMS) has a statistical value of −5.345470 which is greater in absolute terms than the critical value of −2.945842, with a probability value of 0.0001 which is less than 0.05, indicating that the null hypothesis of unit root is rejected and the variable is stationary at first difference, that is integrated of order one, I(1). Capital Inflow (CI) records a statistical value of −3.694657 which exceeds the critical value of −2.938987 and has a probability value of 0.0080, implying that the variable is stationary at level and integrated of order zero, I(0).

Inflation rate (INF) also shows stationarity at first difference with a statistical value of −4.124289 which is greater than the critical value of −2.960411 and a probability value of 0.0031, indicating that it is integrated of order one, I(1). Interest rate (INTR) has a statistical value of −4.283302 which is greater than the critical value of −2.941145 with a probability value of 0.0017, showing that it is stationary at level and integrated of order zero, I(0).

Exchange rate (EXH) records a statistical value of −6.840601 which exceeds the critical value of −2.938987 and a probability value of 0.0000, indicating that it is stationary at level and integrated of order zero, I(0). Overall, the results reveal a mixture of I(0) and I(1) variables, thereby justifying the use of the Autoregressive Distributed Lag (ARDL) model for the analysis.

Table 4.3 Auto-regressive distributed Lag Model

Dependent Variable: CI
Method: ARDL
Date: 03/10/26 Time: 15:36
Sample (adjusted): 1989 2022
Included observations: 34 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): BMS EXCH INF INTR
Fixed regressors: C
Number of models evalulated: 2500
Selected Model: ARDL(4, 4, 4, 4, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CI(-1)	-0.398442	0.221480	-1.799000	0.0953
CI(-2)	0.040907	0.254395	0.160802	0.8747
CI(-3)	0.475171	0.166832	2.848203	0.0137
CI(-4)	0.518846	0.194118	2.672845	0.0192
BMS	0.049346	0.056854	0.867952	0.4012
BMS(-1)	-0.057067	0.059949	-0.951934	0.3585
BMS(-2)	-0.048245	0.053521	-0.901435	0.3838
BMS(-3)	-0.054034	0.062361	-0.866477	0.4019
BMS(-4)	-0.048954	0.052256	-0.936802	0.3659
EXCH	-0.006651	0.005218	-1.274601	0.2248
EXCH(-1)	0.008361	0.004780	1.749081	0.1038
EXCH(-2)	0.001113	0.004387	0.253620	0.8038
EXCH(-3)	0.001152	0.003853	0.298946	0.7697
EXCH(-4)	0.003672	0.002463	1.490669	0.1599
INF	0.005184	0.015155	0.342078	0.7378
INF(-1)	0.001781	0.015353	0.115987	0.9094
INF(-2)	-0.004284	0.013696	-0.312822	0.7594
INF(-3)	-0.026149	0.017853	-1.464676	0.1668
INF(-4)	-0.033886	0.022349	-1.516239	0.1534
INTR	-0.019461	0.019935	-0.976195	0.3468
C	3.400513	1.400111	2.428746	0.0304

R-squared	0.886513	Mean dependent var	1.391447
Adjusted R-squared	0.711917	S.D. dependent var	0.987605
S.E. of regression	0.530081	Akaike info criterion	1.842308
Sum squared resid	3.652813	Schwarz criterion	2.785060
Log likelihood	-10.31924	Hannan-Quinn criter.	2.163814
F-statistic	5.077513	Durbin-Watson stat	2.301710
Prob(F-statistic)	0.002184		

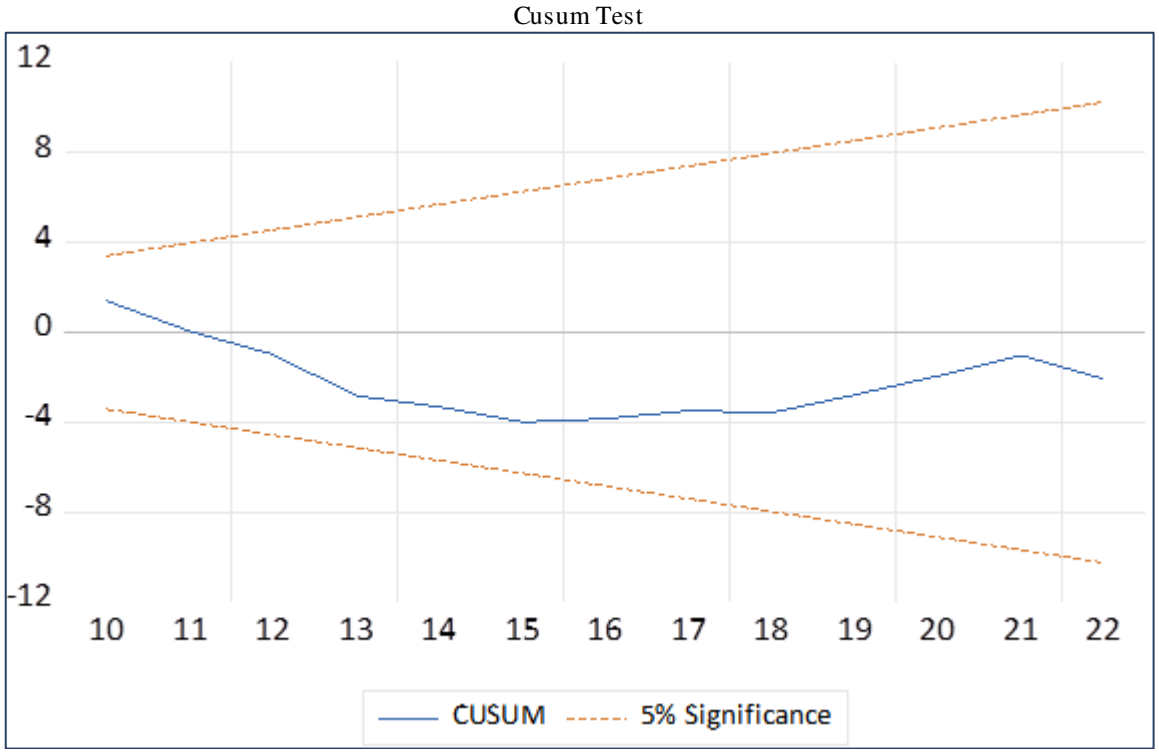
*Note: p-values and any subsequent tests do not account for model selection.

The ARDL estimation results examine the relationship between capital inflows (CI) and the explanatory variables, namely broad money supply (BMS), exchange rate (EXCH), inflation (INF), and interest rate (INTR) over the period 1989–2022. The model selected based on the Akaike Information Criterion (AIC) is ARDL(4,4,4,4,0), indicating four lag periods for the dependent variable and most explanatory variables. The model demonstrates a strong explanatory power, with an R-squared value of 0.887, implying that approximately 88.7% of the variations in capital inflows are explained by the included variables. The adjusted R-squared of 0.712 further confirms that the model maintains a good fit after adjusting for the number of regressors. In addition, the F-statistic (5.08) with a probability value of 0.002 indicates that the overall model is statistically significant. The Durbin–Watson statistic of 2.30 suggests the absence of serious autocorrelation in the residuals, indicating that the model is reliable for inference.

Examining the individual coefficients, the lagged values of capital inflows show some significant influence on current inflows. Specifically, CI(-3) and CI(-4) have positive and statistically significant coefficients (0.475 and 0.519 respectively), suggesting that past inflows have a persistent effect on current capital inflows. However, CI(-1) is negative and only marginally significant, while CI(-2) is insignificant, indicating some fluctuations in the adjustment pattern of capital flows. For broad money supply (BMS), the current and lagged coefficients are statistically insignificant, although some carry negative signs, implying that monetary expansion may not have a strong direct effect on attracting capital inflows during the study period.

The exchange rate (EXCH) variable shows mixed effects, with the current exchange rate having a negative coefficient, suggesting that currency depreciation may discourage foreign capital inflows, although the effect is not statistically significant. Some lagged exchange rate values show positive coefficients but remain insignificant, indicating weak short-term responsiveness of capital inflows to exchange rate movements. Similarly, inflation (INF) exhibits both positive and negative lagged coefficients, but none are statistically significant, implying that inflation did not exert a strong direct influence on capital inflows in the estimated model. The interest rate (INTR) also has a negative but insignificant coefficient, suggesting that variations in interest rates alone were not a major determinant of capital inflows during the period under study.

Overall, the results indicate that capital inflows in Nigeria are largely influenced by their past trends rather than by short-term changes in monetary expansion or macroeconomic variables. Although the explanatory variables collectively contribute to explaining capital inflow behavior, their individual short-run impacts appear limited. This suggests that other structural factors such as investment climate, institutional quality, and broader economic stability may play a more important role in determining the flow of foreign capital into the Nigerian economy.



The figure presents the CUSUM stability test for the estimated model examining the relationship between monetary expansion and capital inflows in Nigeria. The CUSUM test is used to determine whether the estimated model is structurally stable over the study period.

From the graph, the CUSUM line (blue line) remains within the two critical boundaries represented by the 5% significance lines (red dotted lines) throughout the sample period. This indicates that the cumulative sum of recursive residuals does not cross the critical bounds. In econometric analysis, when the CUSUM plot stays within the 5% critical limits, it implies that the model parameters are stable and there is no evidence of structural instability or structural break in the regression model.

In relation to the subject matter, Monetary Expansion and Capital Inflows in Nigeria, this result suggests that the relationship between capital inflows (CI) and the explanatory variables such as broad money supply, exchange rate, inflation, and interest rate remained stable during the study period. This means that the estimated ARDL model reliably captures the dynamics of how

monetary expansion and macroeconomic variables influence capital inflows in Nigeria, and the coefficients of the model did not experience significant changes over time.

Therefore, the CUSUM stability test confirms that the estimated model is stable and suitable for policy interpretation, implying that the conclusions drawn regarding the effect of monetary expansion on capital inflows in Nigeria are statistically reliable and consistent over the period covered by the study.

5. Conclusion and Recommendations

5.1 Conclusion

This study examined the relationship between monetary expansion and capital inflows in Nigeria over the period 1989 to 2024. The analysis revealed that capital inflows are influenced by a combination of monetary policy and broader macroeconomic conditions, particularly inflation rates, exchange rate fluctuations, and past inflow patterns. While increases in broad money supply (BMS) as a measure of monetary expansion showed some short-term impact on inflows, these effects were generally mixed and not consistently significant, indicating that monetary expansion alone is insufficient to attract sustained foreign capital.

The study further highlights that inflation and currency depreciation have stronger and more immediate effects on capital inflows, emphasizing the critical role of macroeconomic stability. Overall, the findings suggest that the effectiveness of monetary expansion in attracting foreign investment depends heavily on maintaining credible policies, controlling inflation, stabilizing the exchange rate, and implementing structural reforms that support investor confidence in the Nigerian economy.

5.2 Recommendations

Based on the findings, several policy recommendations are proposed to enhance the effectiveness of monetary expansion in attracting stable and productive capital inflows. The Central Bank of Nigeria (CBN) should coordinate monetary expansion with measures that stabilize the macroeconomy, such as controlling inflation and preventing excessive currency depreciation, to ensure liquidity growth supports real economic activity rather than fueling instability.

Policymakers should implement incentives to encourage long-term foreign direct investment, while discouraging excessive reliance on short-term speculative portfolio flows that can be volatile and destabilizing. Structural and institutional reforms including fiscal discipline, transparent regulatory frameworks, and strengthened financial governance are necessary to create a stable environment that supports sustained capital inflows.

Continuous monitoring of macroeconomic and monetary indicators should guide policy adjustments, allowing authorities to balance liquidity provision, financial stability, and sustainable economic growth over the long term. These recommendations aim to ensure that monetary expansion translates into meaningful and stable contributions to Nigeria's economic development.

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