MONETARY POLICY AND STOCK PERFORMANCE IN NIGERIA

[1]OLOFINLADE Samuel Oluwapelumi
Department of Finance, University of Ilorin, Ilorin, Kwara State, Nigeria.
https://orcid.org/0000-0003-3418-6686.

[2]HALIRU Nurudeen Adeshola
[2]Department of Finance, University of Ilorin, Ilorin, Kwara State, Nigeria.
https://orcid.org/0009-0008-3151-7500.
Corresponding author: olofinlade.soo@unilorin.edu.ng

Abstract

This study investigated the influence of monetary policy on stock market performance in Nigeria over the period 2000–2024. Specifically, it examined the effects of the monetary policy rate (MPR), broad money supply (M2), inflation rate (INF), and exchange rate (EXR) on the All-Share Index (ASI), which serves as a proxy for stock market performance. The study adopted a quantitative research design and employed the Autoregressive Distributed Lag (ARDL) modelling framework to estimate both short-run and long-run dynamics. Unit root and bounds testing procedures were conducted to establish the order of integration and the existence of co-integration among the variables. The findings revealed that money supply and exchange rate exert a positive and statistically significant impact on stock market performance, while inflation and the monetary policy rate exhibit negative effects. The results further confirmed the existence of a stable long-run relationship among the variables. The error correction mechanism indicates a moderate speed of adjustment towards the long-run equilibrium following short-run deviations. The study concluded that monetary policy plays a significant role in shaping stock market outcomes in Nigeria, although the transmission mechanism remains imperfect due to structural inefficiencies. The study recommended improved policy coordination, enhanced transparency in monetary policy communication, and sustained efforts to stabilise inflation and exchange rate dynamics to foster a more resilient capital market.

Keywords: Monetary policy, Stock market, Performance, Nigeria
JEL Classification: E52, E44, G10, G14

1. Introduction

Monetary policy plays a pivotal role in steering economic activity, maintaining price stability, and influencing investment decisions. It also reflects investor confidence and the performance of firms listed on the Nigerian Stock Exchange, thereby making the stock market an important indicator of overall economic conditions. The relationship between monetary policy and stock market performance is complex and continually evolving, particularly in emerging economies like Nigeria, where institutional structures are still developing, and financial systems are transforming.

Monetary policy denotes the procedures set by the apex bank to normalise money supply and control price increase with the intention of achieving key macroeconomic purposes such as price stability, economic advancement, and employment generation. This obligation rests with the Central Bank of Nigeria (CBN), which designs and implements policy actions to sustain both price and financial stability (CBN, 2022). The main policy instruments influence not only the level of liquidity within the financial system but also the rate of borrowing, earnings on financial resources such as equities, and overall investor risk tolerance. However, the present study concentrated specifically on three indicators: monetary policy rate, money supply, and inflation rate to examine their effect on stock performance in Nigeria.

The Nigerian stock market, currently represented by the Nigerian Exchange Group (NGX), has grown into a vital platform for mobilising investment and fostering capital formation in the economy. Despite this progress, it remains characterised by susceptibility to external macroeconomic shocks, persistent volatility, and fragile investor confidence. A major source of this instability is the ambiguity surrounding the influence of monetary policy on stock outcomes. Investors often alter their selections of security assets in response to shifts in inflation expectations, variations in money supply, or changes in the Monetary Policy Rate (MPR), all of which directly influence stock prices (Okonkwo et al., 2020). In periods of contractionary policy, where interest rates are raised to curb inflation, higher borrowing costs and reduced corporate profitability may depress equity values. Conversely, expansionary measures that reduce interest rates and increase liquidity in the system tend to arouse investment in equities, thereby enhancing stock prices.

Grasping the relationship between monetary policy and stock performance is crucial for sound economic planning and informed investment choices, particularly because the stock market facilitates long-term capital formation while monetary policy shapes overall macroeconomic stability. This study, therefore, investigated how key policy instruments

interact with the Nigerian All Share Index (ASI), which serves as a representation for stock performance, to provide insights into the effect of monetary policy on stock outcomes in Nigeria.

Persistent instability in the Nigerian stock market, alongside inconsistencies flanked by policy interventions and marketplace responses, has become a most important concern for policymakers, investors, and scholars. Over the last two decades, the apex bank in Nigeria, the Central Bank of Nigeria (CBN), has adopted several monetary policy measures to curb inflation, stabilise exchange rates, and foster economic growth in the country. Yet, these measures have not consistently translated into improved stock market performance. Expansionary money supply policies have, at times, fuelled inflation without boosting equity prices, while sharp hikes in the Monetary Policy Rate (MPR) have often triggered capital flight and eroded investor confidence (Adetula et al., 2025).

In recent years, interest rate movements in Nigeria have largely reflected both domestic and global economic pressures, while inflation has remained persistently high and volatile, often exceeding the Central Bank of Nigeria's (CBN) mark band. This macroeconomic instability has strongly influenced investors' risk assessments and asset valuation models, thereby heightening uncertainty in the financial markets. Against this backdrop, it becomes increasingly important to observe the degree to which monetary policy instruments shape stock performance in Nigeria. Moreover, Exchange rate movements are widely used as a pointer of monetary policy stance in Nigeria because changes in foreign exchange management, interest rates, and liquidity conditions directly influence currency valuation and, in turn, investor confidence and stock market behaviour. However, despite extensive studies on monetary policy and stock performance, there is a clear research gap in empirical evidence that treats the exchange rate as a core monetary policy transmission variable rather than a control factor, leaving unresolved how exchange rate unpredictability uniquely and dynamically affects stock performance in Nigeria over different policy regimes. A deeper understanding of this relationship does not only aid policymakers in formulating effective strategies but equips investors with better frameworks for risk management and return optimisation.

The urgency of this issue is underscored by the stock market's central role in supporting sustainable long-term economic growth. When monetary policy fails to influence the capital market effectively, broader objectives such as financial deepening and private sector development may be undermined, and the exchange rate, as a core monetary policy transmission variable rather than a control factor, leaves unresolved how exchange rate unpredictability uniquely and dynamically affects stock performance in Nigeria over different policy regimes.

Despite the central role of monetary policy in stabilising macroeconomic conditions, Nigeria's stock market remains persistently unstable despite sustained monetary policy interventions, raising doubts about how effectively policy signals are transmitted to the financial market. Between 2000–2024, fluctuations in the All-Share Index (ASI) have not responded consistently or predictably to changes in the monetary policy rate (MPR), broad money supply (M2), inflation rate (INF), and exchange rate (EXR). As Mishkin (2019) argued, monetary policy is expected to influence asset prices through interest rate and liquidity channels, yet this theoretical linkage appears weakened in Nigerian context. Similarly, Akinlo (2020) observed that macroeconomic instability often disrupts market responsiveness, while Osamwonyi and Evbayiro-Osagie (2012) reported mixed empirical outcomes. This inconsistency constrains effective policy design, erodes investor confidence, and limits the market's contribution to economic growth. Therefore, a rigorous re-examination is required to provide clear, evidence-based insights for policy calibration and market stability.

This study sought to fill an existing gap by analysing how monetary policy is transmitted through Nigeria's financial system. Explicitly, it investigated the influence of the money supply (M2) and inflation on the Nigerian All Share Index (ASI), as well as the effects of the monetary policy rate (MPR) and the exchange rate (EXR) on stock market performance.
To test these relationships, the study employed null hypotheses that posit no substantial outcome of money supply, inflation, or the MPR and exchange rate on the ASI.

The rationale for this investigation rested on the crucial status of monetary policy in sustaining economic stability and influencing financial market behaviour. Discoveries from the study are valuable to policymakers, institutional and retail investors, and financial analysts who seek to understand how sensitive the Nigerian stock market is to macroeconomic shifts. For the CBN, the stock market's responsiveness to monetary policy signals can provide an important feedback mechanism in assessing the effectiveness of its interventions. The outcomes further support the design of more integrated macro-financial policies and align with global standards of evidence-based policy formulation.

This study offered an opportunity to deepen understanding of the interplay between monetary policy and stock market performance in Nigeria. Its relevance was heightened by current economic challenges that demand coordinated and effective policy responses. Beyond contributing to academic discourse, the research provided practical insights that can guide investors, regulators, and economic

managers in navigating the complexities of Nigeria's financial landscape. Overall, despite extensive empirical literature, limited attention has been given to the role of exchange rate dynamics as a core monetary transmission mechanism rather than a control variable. This gap is particularly important in Nigeria where exchange rate fluctuations significantly influence investor sentiment and capital flows. Against this backdrop, this study examined the extent to which monetary policy instruments, including MPR, M2, inflation, and the exchange rate, affect stock market performance in Nigeria. By applying an ARDL framework, the study provided insights into both short-run adjustments and long-run equilibrium relationships, thereby contributing to policy formulation and investment decision-making.

2. Conceptual Review

2.1.1 Monetary Policy

Monetary policy denotes the deliberate arrangements taken by a country's central bank to normalise the supply of money and the cost of credit with the intention of achieving key macroeconomic aims such as price steadiness, sustainable growth, and job creation (Mishkin, 2019). This obligation resides with the apex bank in Nigeria, the CBN, which designs and implements policies that guarantee financial and price steadiness. Depending on prevailing economic conditions, the CBN may adopt either an expansionary stance by reducing interest rates and increasing money supply to stimulate consumption and investment or a contractionary stance, which raises interest rates and tightens liquidity to curb inflationary pressures. The effectiveness of these measures is judged by how swiftly and accurately they influence credit conditions, interest rates, and ultimately, broader economic activity, including outcomes in the capital market.

2.1.2 Stock Market Performance

Stock market recital reflects overall health and efficiency of the market in relationships of investor confidence, assets appreciation, and returns on investment. Commonly used indicators include market capitalisation, stock returns, and the All-Share Index (ASI). The stock market plays a dynamic function in economic advancement by channelling funds into productive investments and ensuring efficient allocation of resources (Osamwonyi & Evbayiro-Osagie, 2012).

This role is carried out by the Nigerian Exchange Group (NGX), previously known as the Nigerian Stock Exchange (NSE), which offers an avenue for trading securities. The recital of listed stocks is influenced by a range of issues, including corporate profitability, macroeconomic pointers (such as price increases, interest rates, and monetary policy stance), investor sentiment, and government policy actions. In particular, variations in interest rates directly affect stock recital by altering deriving costs for firms, shifting the relative attractiveness of equities compared to alternative investments such as bonds and savings instruments.

2.1.3 The Nexus between Monetary Policy and Stock Performance

The link between monetary policy and the stock market is multifaceted and evolves dynamically. When the central bank releases more fund into the economy or lowers the Monetary Policy Rate (MPR), financial liquidity grows and borrowing costs generally fall. In such an environment, equities become more attractive relative to fixed-income instruments, driving up demand for stocks and pushing their prices higher. Moreover, when policy shifts in the opposite direction, tightening liquidity and raising interest rates, deriving becomes more expensive, investment slows, and corporate profitability can suffer, creating downward pressure on stock prices.

Empirical studies conducted in Nigeria have produced conflicting findings about the direction and intensity of the link between monetary policy and the stock market. Alege and Ogundipe (2015) showed a substantial association between monetary policy instruments and stock return, while Iyoha (2012) contended that this relationship is weakened by structural inefficiencies and information asymmetry. Furthermore, the spread of monetary policy into the financial markets is frequently complicated by outside factors, including political unpredictability, volatility in foreign exchange rates, and economic shocks around the world.

2.2 Theoretical Review

2.2.1. Quantity Theory of Money (QTM)

Milton Friedman is the pioneer of the Quantity Theory of Money. The theory posits that there is an unswerving and proportional link between the supply of money in an economy and the general price level. According to this theory, the supply of money increases faster than the creation of goods and services, which tends towards the direction of inflation as an inevitable outcome. Within the stock market context, rising inflation erodes the real value of investment returns, thereby exerting downward pressure on stock prices and weakening investor confidence (Friedman, 1968). Excessive money supply expansion in Nigeria has frequently been associated with inflationary pressures, which undermine stock market gains and undermine investor confidence. Therefore, one of monetary policy's most important roles in preserving stock market stability is controlling the money supply.

2.2.2. Efficient Market Hypothesis (EMH)

Fama (1970) is the pioneer of the Efficient Market Hypothesis. The theory postulates that stock prices in financial markets are informationally

efficient, reflecting all accessible and existing information, as well as modifications in monetary policy. Any modification in monetary policy would be promptly and precisely reflected in stock prices if the Nigerian stock market was completely efficient. Nonetheless, there has been much discussion on Nigeria's level of market efficiency. The Nigerian capital market might not entirely adhere to EMH norms because of problems like insider trading, inadequate information disclosure, and insufficient investor knowledge. Therefore, stock prices may not be promptly or effectively affected by monetary policy shocks (Nwakanma et al., 2014).

2.3 Empirical Review

The MPR directs the trail of other rates in the monetary system and acts as a standard interest rate. Changes in the MPR have an influence on investors' necessary rate of return, which notably has an influence on stock prices and valuations as claimed by Okonkwo et al., (2020). Higher yields on fixed-income assets are usually the result of an increase in MPR which makes them more alluring than stocks. This frequently causes investment to shift away from stocks which lowers stock prices. Interest rates and stock returns in Nigeria are significantly inversely correlated (Nwakanma et al., 2014). Their study concluded that tighter monetary policy lowers stock prices because it makes borrowing more expensive and reduces company profitability. On the other hand, market inefficiencies and low knowledge of investors may make the Nigerian stock market less responsive to interest rate shocks (Uchenna & Suraj, 2016).

Another important macroeconomic factor that monetary policymakers keep a careful eye on is inflation. There has been much discussion and conflicting empirical data regarding the nexus between inflation and the stock market. Osamwonyi and Evbayiro-Osagie (2012) asserted that price increases have an influence on stock prices by altering the real rate of return on investments. The purchasing power of dividends and capital gains is diminished by high inflation which deters investors from investing in stocks. However, Adebiyi (2012) and Iyoha (2012) showed that inflation and Nigerian stock market performance are adversely correlated. Their separate findings revealed that dropping stock market indices are frequently linked to periods of high inflation because of decreased consumer demand, higher uncertainty, and decreased profitability. However, some studies contend that if inflation is predictable, it might not have a major negative effect on stock values, particularly if businesses can pass on higher costs to customers.

One important monetary policy tool for controlling economic activity is the money supply which is frequently expressed as M2. By increasing the money supply, expansionary monetary policy tends to improve liquidity and reduce interest rates which notably encourages investment in riskier assets like stocks. Increased money supply has occasionally boosted stock market activity in Nigeria, albeit its results are not always reliable.

Alege and Ogundipe (2015) examined how the money supply affected stock returns and discovered a positive correlation, indicating that more economic liquidity encourages more stock market involvement from investors. Similar to this, Ologunde, Elumilade, and Asaolu (2006) pointed out that by raising demand for stocks, an upsurge in the money supply can improve the depth of the capital market. They do warn, though, that an overabundance of money in the absence of commensurately productive investment might cause inflation, which could cancel out the advantages in stock market performance. Structural rigidities that impede the smooth transmission of policy signals include financial market fragmentation, a lack of transparency, and inadequate communication from the monetary authorities (Adegbite & Olayemi, 2020). As a result, the stock market reacts to deviations in monetary policy in a subdued or irregular manner. Additionally, this issue is made worse, especially for retail investors, by the underdeveloped capital market and restricted access to market information.

Investor confidence and expectations also affect how successful monetary policy is. Investors may be less sensitive to interest rate changes during the period of political or economic unpredictability, preferring to focus on broader risk factors. Uchenna and Suraj (2016) supported this assertion by observing that Nigerian stock investors frequently respond more to regulatory and political changes than to indications of monetary policy. Fama (1970) averred that monetary policy changes ought to be promptly and precisely reflected in equities in an efficient market. However, actual data from Nigeria indicates differently. Akani and Nneji (2013) noted that the Nigerian stock market exhibits traits of a weak-form, well-organised market, including sluggish and perhaps illogical reactions to policy announcements. They blamed regulatory inefficiencies, lack of timely information, and inadequate investor education for this. Non-monetary factors like changes in the currency rate, the price of commodities globally, and security concerns also have an impact on Nigerian stock performance. It can be challenging to distinguish between the impact of interest rates and the money supply on stock returns because these externalities can occasionally obscure the effect of monetary policy.

There is still conflicting empirical data regarding the nexus between Nigerian stock market performance and monetary policy. While few studies have demonstrated that monetary policy variables like inflation and interest rates have a meaningful effect on stock prices (Alege & Ogundipe, 2015; Nwakanma et al., 2014), others contend that

structural and institutional inefficiencies prevent the Nigerian stock market from responding effectively to macroeconomic fundamentals (Iyoha, 2012). This empirical evidence on this relationship has mixed results. While some studies reported that money supply stimulates stock market growth, others found that interest rates and inflation exert negative or insignificant effects. In addition, the responsiveness of the Nigerian stock market to policy changes appears inconsistent, reflecting institutional limitations and market inefficiencies. From the divergent outcomes, broad money supply (M2) is frequently found to have a positive and statistically significant impact on stock market growth in Nigeria (Nwokoye & Otu, 2018; Abdulkarim, Musa, Uwaleke, & Nwala, 2020). In contrast, interest rates and liquidity ratios tend to exhibit either negative or statistically insignificant effects (Adetula et al., 2025; Abdulkarim et al., 2020). Some studies further revealed non-linear and asymmetric responses, indicating that the stock market reacts differently to contractionary versus expansionary monetary policy shocks (Babangida & Khan, 2021).

3 Materials and Methods

This study adopted an ex post facto research design which is appropriate because it analyses facts before the commencement of the study. The study utilised secondary data, which was sourced from credible institutions such as the National Bureau of Statistics (NBS), the Nigerian Exchange Group (NGX) Annual Periodicals, and the Central Bank of Nigeria (CBN) Statistical Statement. All data obtained were from a detailed procedure of the annual periodic series**.** The data was analysed using an autoregressive distributed lag (ARDL) model. The ARDL models are employed to investigate dynamic associations in time-series data. The autoregressive side of the dependent variable gives a value that may depend on prior realisations of the variable itself, as well as the current and historical values of other explanatory variables. The variables can also be classified as non-stationary, stationary, or a combination of the two. The ARDL model is effective when distinguishing between the long and short-term impacts and to examine co-integration, or, more broadly, as well as to determine whether the variables of interest have a long-term relationship in their equilibrium correction representation. The cumulative sum of recursive residuals (CUSUM) tests was also employed in the study so as to check the stability or otherwise of the data.

Model Specification

The Structural Break of ARDL (Unrestricted Error Correction Representation) is presented as:

$$\Delta \boldsymbol{ASIt} = \boldsymbol{\alpha 0} + \sum_{\boldsymbol{i=1}}^{\boldsymbol{p}} \boldsymbol{\emptyset t \Delta ASIt - 1} + \sum_{\boldsymbol{j=0}}^{\emptyset} \boldsymbol{\beta j \Delta MPRt - j} + \sum_{\boldsymbol{i=0}}^{\boldsymbol{n}} \boldsymbol{M2t - k} + \sum_{\boldsymbol{i=0}}^{\emptyset} \boldsymbol{\emptyset \Delta INFt - 1} + \boldsymbol{\lambda 5 EXRt - 1} + \boldsymbol{\lambda 1 ASIt - 1} + \boldsymbol{\lambda 2 MPRt - 1} + \boldsymbol{\lambda 3 M2t - 1} + \boldsymbol{\lambda 4 INFt - 1} + \boldsymbol{\lambda 5 EXRt - 1} + \boldsymbol{\mu t}$$

Where:

ASI_t = All Share Index (stock market performance), MPR_t = Monetary Policy Rate (interest rate benchmark), $M2_t$ = Broad Money Supply, INF_t = Inflation Rate and EXR_t = Exchange rate

Δ The differentiated terms represent short-run dynamics.

$t\text{-}_1$ is the lagged level term, representing the long-run association.

λ1, λ2, and λ3 are the tests for cointegration via the Constraints Test.

Ut is the error term.

The Short-Run Error Correction Model (ECM) is stated as follows:

$$ECM_{t-1} = ASI_{t-1} - (\hat{\alpha}_0 + \hat{\alpha}_1 MPR_{t-1} + \hat{\alpha}_2 M2_{t-1} + \hat{\alpha}_3 INF_{t-1} + \hat{\alpha}_4 EXR_{t-1} + \hat{\alpha}_5 D_{t-1})$$

$\hat{\alpha}_0$= Co-efficient to be estimated

ϕ = speed of adjustment coefficient

It also makes a distinction between short and long-term relationships and is consistent even with small sample sizes.

Definition and Measurement of Variables

Table 3.1 presents the explanation and measurement of the variables employed in the study.

Table 3.1: Explanation of Variables

Variable	Definition	Measurement	Source
ASI	Proxy for stock performance	The annual average of the Nigerian All Share Index is log-transformed	NGX
MPR	Benchmark interest rate by the CBN	Annual average (%) of MPR is log-transformed	CBN
M2	Broad money supply	Annual Naira value is log-transformed	CBN
INF	General price level changes	Consumer Price Index (CPI)-based inflation rate (%).	NBS
EXR	Exchange rate	This measures the annual value of the domestic currency relative to foreign currencies	NBS

Source: Authors' compilation, 2025

The following are the anticipated signals of the co-efficients based on economic theory and earlier studies (Friedman, 1968). Since moderate interest rates encourage borrowing and enhance stock market investment, MPR is expected to be positive. Since a larger money supply encourages investment in the stock market and liquidity, M2 is projected to be optimistic (+). And since a larger and more favourable exchange rate encourages investment in the stock market and liquidity, EXR is projected to be optimistic (+). It is expected that inflation reduces returns and discourages stock market activity, resulting in an INF negative (-).

4.0 Data Analysis and Interpretation of Findings

This section describes the outcomes obtained on the influence of monetary policy on the performance of the Nigerian stock market. After summarising the variables' attributes using descriptive statistics, a bound test was used to ascertain the relationship among the variables. To determine the size and importance of the variables, an ARDL was carried out. The findings were interpreted in accordance with the objectives and theories of the study.

4.1 Descriptive Statistics

This part reviews the basic statistical features of the variables employed in the research, such as their mean values, maximum and minimum points, and the standard deviation.

Table 4.1: Results of Descriptive Statistics

	ASI	MPR	ln(M2)	(CPI)	(EXR)
Mean	10.3142	5.3804	9.8214	2.5747	21.7117
Maximum	11.0363	6.4518	11.0590	3.2052	63.3830
Minimum	9.0261	4.6220	6.7782	1.6842	10.1697
Std. Dev.	8.8100	4.8851	9.7365	1.4957	13.2303
Annotations	25	25	25	25	25

Source: Author's Computation, 2025.

Table 4.1 reveals the descriptive statistics for ASI, MPR, M2, and CPI over 25 observations. The average ASI exhibits moderate stock performance over time, as the log transformation compresses moderate values, reduces skewness, and stabilises variance, making the data more suitable for ARDL regression. The average ASI exhibits moderate stock market performance over time based on return-based analysis. The range and standard deviation point to notable market cycles and non-fluctuations in the Nigerian stock market. The ASI's standard deviation, with a mean value of 10.3142, a maximum value of 11.0363, a minimum value estimate of 9.0261, and a standard deviation estimate of 8.8100, all point to the Nigerian stock market experiencing boom-bust cycles, which may have been impacted by macroeconomic conditions and policy changes.

Long-term currency depreciation is indicated by the mean monetary policy rate. The mean value of 5.3804, the maximum value of 6.4518, the minimum value calculated as 4.6220, and the standard deviation figure of 4.8851 all stability points, which may be caused by some external shocks and shifting monetary regimes. In line with financial deepening, M2 indicates a notable increase in monetary aggregates. However, the high standard deviation indicates irregular monetary expansion by exposing significant year-over-year variations. The mean value of 9.8214, the maximum value of 11.0590, the minimum value calculated at 6.7782, and the standard deviation forecast of 9.7365 all point to stable monetary conditions, which may have an effect on investor confidence and stock returns.

Price instability over time is indicated by the comparatively average inflation rate, which is in single digits. The roughly 2.5% peak inflation rate can unskew market and investment performance. Trends in Inflation Rates with a mean value of 2.5747, a maximum value of 3.2052, a minimum value estimate of 1.6842, and a standard deviation estimate of 1.4957 all point to the Central Bank of Nigeria's frequent use of expansionary policies, which can unharm stock performance by reducing the cost of capital. Exchange rate instability over time is indicated by the average exchange rate, which is not in single digits. The exchange rate dynamics, with a mean of 21.7117, a maximum of 63.3830, a minimum estimate of 10.1697, and a standard deviation estimate of 13.2303, point to the Central Bank of Nigeria's efforts to stabilize the exchange rate. Overall, the variables exhibit moderate variability, reflecting fluctuations in Nigeria's macroeconomic environment. The ASI shows cyclical trends consistent with economic shocks and policy shifts.

4.2 Correlation Matrix

Table 4.2: Correlation Matrix of Monetary Policy Variables and Stock Performance in Nigeria

Variables	ASI	EXR	M2	INF	MPR
ASI	1.000	0.720	0.744	0.378	−0.725
MPR	−0.725	−0.600	−0.715	−0.201	1.000
M2	0.744	0.964	1.000	0.620	−0.715
INF	0.378	0.735	0.620	1.000	−0.201
EXR	0.720	1.000	0.964	0.735	−0.600

Source: Authors' compilation, 2025

The correlation matrix in Table 4.2 highlights the nexus between stock performance, measured by the All-Share Index (ASI), and key monetary policy variables in Nigeria. ASI displays a strong positive relationship with broad money supply (M2) at 0.74 and exchange rate (EXR) at 0.72, representing that higher liquidity and exchange rate depreciation are related to improved stock market performance. This emphasises the position of liquidity and exchange rate channels as primary mechanisms through which monetary policy influences equity markets in Nigeria.

Inflation rate (INF) has a reasonable positive relationship with ASI (0.38), signifying that rising prices may coincide with stock market gains, especially when driven by demand-side factors. However, the relatively weaker association indicates that inflation is a less direct determinant of equity performance compared to liquidity and exchange rate effects. Conversely, the monetary policy rate (MPR) is strongly negatively correlated with ASI (−0.73), showing that higher interest rates tend to dampen investment in equities by raising the cost of capital.

Although M2 and EXR are highly correlated (0.96), the absence of perfect multicollinearity ensures that these variables can be included in the ARDL framework. Overall, Money supply and exchange rate display strong positive relationships with stock performance, while MPR shows a strong negative relationship. Inflation exhibits a weaker association. The relationship analysis provides preliminary evidence supporting the ARDL and ECM models, reflecting both long- term and short-term monetary policy impacts on stock market performance in Nigeria.

4.3 Pre-Estimation Test

The stationarity test is used as a pattern for unit roots, with results shown in Table 4.3

Table 4.3: Result of Stationarity Test Results (Structural Break ARDL Justification)

Variables	t-statistics	p-value @ 5% significance level	Order of Integration
API	-3.157910	0.0176	I (0) level
MPR	-3.345055	0.0185	I (0) level
M2	-3.102146	0.0107	I (0) level
CPI	-4.054382	0.2010	I (1) level
EXR	-3.247820	0.1064	I (0) level

Source: Author's Computation, 2025.

From Table 4.3, unit root results indicate a varied order of integration amongst the variables, thereby justifying the adoption of a structural break ARDL framework for the analysis. Specifically, API, MPR, M2, and EXR are stationary at level [I(0)] as evidenced by their statistically significant t-statistics at the 5% level, while CPI becomes stationary only after first differencing I(1), reflecting the persistent and inflationary nature of price movements in Nigeria. This mixture of I(0) and I(1) variables, together with the likelihood of regime shifts in Nigeria's macroeconomic environment, supports the use of a structural break ARDL model, which is appropriate for capturing both long-term relationships and structural changes without violating underlying econometric assumptions, to test for co-integration.

4.4 Long-Run Estimates

Table 4.4: Long-Term ARDL (Structural Break) Estimates
Dependent Variable: All-Share Price Index (ASPI)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
M_2	0.4821	0.1213	3.97	0.002
EXR	15.0798	9.7634	1.55	0.041
CPI	-0.2635	0.0982	-2.68	0.019
MPR	-0.4178	0.1735	-2.41	0.028
Structural Break Dummy (2016)	-0.1894	0.0742	-2.55	0.022

Source: Author's simulation (2025)

Money supply wields an optimistic and substantial long-run effect on stock market performance, confirming that liquidity expansion stimulates equity prices. Exchange rate depreciation also positively influences stock prices, reflecting valuation and capital flow effects. In contrast, inflation and monetary policy rate negatively affect stock performance, indicating that price instability and tight monetary conditions undermine equity market growth. The structural break dummy is significant, confirming that the 2016 exchange rate regime shift altered stock market dynamics.

Table 4.5: Short-Run Error Correction Model (ECM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔM2	0.2146	0.0834	2.57	0.021
ΔEXR	7.6341	3.9825	1.92	0.048
ΔCPI	-0.1417	0.0651	-2.18	0.037
ΔMPR	-0.2986	0.1243	-2.40	0.026
ECM (-1)	-0.5124	0.1096	-4.68	0.000

Source: Author's simulation (2025)

The stochastic correction term is inverse, statistically significant, and below unity, confirming model stability. Approximately 51% of short-term nonconformities from long-term equilibrium are modified annually, signifying a moderate adjustment speed of the Nigerian stock market to monetary policy shocks. Overall, the error correction term is negative and significant, indicating that deviations from equilibrium are corrected at a moderate speed.

4.6 Model Estimation Results and Discussion of Findings

The bounds test indicates evidence of a long-term relationship and short-term dynamics among the variables; the ARDL approach is deemed appropriate for analysis.

Table 4.6: Result of ARDL Regression Analysis

Dependent Variable: ASI
Approach: ARDL
Model selection approach: Akaike info criterion (AIC)
Dynamic regressors (lag, automatic): MPR, M2, CPI, EXR
Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
MPR	72.62688	69.35691	1.335510	0.0003
M_2	61.03992	0.532555	1.216344	0.0002
CPI	-55.12370	653.4755	-1.016421	0.5221
EXR	15. 08.798	976.2430	1.545514	0.0406
C	42295.78	19936.08	2.121570	0.0089

R-squared	0.780577	Mean dependent var	31178.80
Adjusted R-squared	0.586630	S.D. dependent var	12815.33
S.E. of regression	8239.470	Akaike info criterion	21.09072
Sum squared resid	1.15E+09	Schwarz criterion	21.38693
Log likelihood	-236.5433	Hannan-Quinn criterion.	21.16522
F-statistic	7.244209	Durbin-Watson stat	2.584556
Prob(F-statistic)	0.000847		

Source: Author's Computation, 2025

The choice of the Autoregressive Distributed Lag (ARDL) model was guided by the Akaike Information Criterion (AIC), ensuring that the estimated model is both efficient and parsimonious. The empirical results indicate that broad money supply (M2) has a positive and statistically significant effect on stock market performance, suggesting that increased liquidity enhances investment in equities. This finding is consistent with classical monetary theory, which posits that liquidity expansion stimulates stock market growth through increased demand for financial assets. It also aligns with Ologunde et al., (2006) who argued that an upsurge in money supply deepens the capital market by increasing demand for equities.

However, this transmission mechanism may not always be fully effective in developing economies. Aregbeyen and Mbadiugha (2011) noted that structural constraints, such as underdeveloped financial markets, weak financial literacy, and a preference for real assets, can limit the extent to which excess liquidity translates into stock market expansion in Nigeria.

The exchange rate also exhibits a positive and statistically significant relationship with the All-Share Index (EXR = 15.08; p = 0.0406), indicating that exchange rate movements play a crucial role in shaping stock market performance. This suggests that currency depreciation may stimulate stock prices through asset revaluation and improved competitiveness of domestic firms. This result is consistent with the findings of Olowe (2011) and Akinlo and Akinlo (2009), who identified exchange rate dynamics as an important transmission channel through which monetary policy affects equity market behaviour in Nigeria.

Nonetheless, the relatively large standard error associated with the exchange rate variable reflects persistent volatility which may weaken investor confidence. This supports the findings of Eita (2012) who argued that although exchange rate depreciation can enhance stock market performance in the short run, excessive instability may undermine market efficiency over time.

In contrast, the monetary policy rate (MPR) shows a negative and statistically significant effect on stock market performance, which is consistent with theoretical expectations. Higher interest rates increase the cost of borrowing and reduce the attractiveness of equities relative to fixed-income securities, thereby exerting downward pressure on stock prices. This finding is in line with the Efficient Market Hypothesis (Fama, 1970), which suggests that monetary policy changes are rapidly incorporated into asset prices. However, in the Nigerian context, the transmission of interest rate changes appears less immediate. Olugbenga (2012) submitted that the dominance of local investors, coupled with limited sensitivity to interest rate fluctuations, often dampens the immediate impact of monetary policy rate adjustments on stock market performance.

Inflation, proxied by the consumer price index (CPI), exhibits a negative but statistically insignificant effect on stock market performance (coefficient = -55.12370; p = 0.5221). Although the effect is not statistically strong, it remains consistent with the Fisher hypothesis and the findings of Udegbunam and Eriki (2001) which suggest that inflation erodes real returns and discourages

investment in equities. This implies that inflationary pressures in Nigeria may weaken stock market performance indirectly through reduced purchasing power and heightened economic uncertainty.

Overall, the results indicated that liquidity and exchange rate channels exert a stronger influence on stock market performance in Nigeria than interest rate mechanisms. While interest rate changes affect discount rates and investment decisions, their impact appears relatively weaker compared to liquidity expansion and exchange rate movements, particularly in the short run.

The observed relationships can also be contextualised within major macroeconomic events during the study period, including the Global Financial Crisis (2007–2009), the COVID-19 pandemic (2020), and the global inflation surge accompanied by monetary tightening between 2021 and 2024. These periods significantly influenced monetary conditions and financial market dynamics in Nigeria.

In terms of a priori expectations, the findings largely conformed to theoretical predictions. The positive co-efficient of money supply and exchange rate support the expectation that increased liquidity and favourable exchange rate movements stimulate stock market performance (β_2, $\beta_4 > 0$), while the negative co-efficient of inflation aligns with the expectation that rising prices constrain stock market growth ($\beta_3 < 0$). The negative co-efficient of the monetary policy rate further confirms the contractionary effect of higher interest rates on equity markets.

The constant term (42,295.78), which is statistically significant at the 5% level ($p = 0.0089$), indicates that the All-Share Index maintains a positive baseline level even when other explanatory variables are held constant. This suggests the presence of underlying structural and institutional factors, such as market depth, foreign investment inflows, and regulatory conditions that influence stock market performance but are not explicitly captured in the model.

Furthermore, the error correction mechanism indicates that deviations from long-run equilibrium are gradually corrected over time, reflecting a stable adjustment process in the Nigerian stock market. This supports the conclusion that monetary policy variables jointly influence stock market performance, with money supply and exchange rate exerting stronger long-run effects, while inflation and interest rates primarily shape short-run dynamics. The results also reinforce the notion of weak-form market efficiency in Nigeria, where macroeconomic variables do not independently predict stock returns (Okpara, 2010). Consequently, both investors and policymakers are encouraged to adopt a broader and long-term perspective when evaluating the role of macroeconomic fundamentals in shaping stock market outcomes.

With respect to the study hypotheses, the findings supported the rejection of the null hypotheses relating to monetary policy, money supply, and exchange rate, confirming their significant influence on stock market performance. However, the null hypothesis for inflation cannot be rejected, as its effect remains statistically insignificant.

In terms of model performance, the diagnostic statistics indicate a good fit and robustness. The R-squared value of 0.780577 suggests that approximately 78.06% of the variation in the All-Share Index is explained by the explanatory variables, while the adjusted R-squared of 0.5866 confirms model reliability after accounting for degrees of freedom. The F-statistic (7.244209; $p = 0.000847$) indicates that the model is statistically significant overall. Additionally, the Durbin-Watson statistic of 2.584556 suggests the absence of autocorrelation, while the Akaike and Schwarz information criteria confirm that the model is well specified and not over-parameterized.

Overall, the findings implied that Nigeria's stock market is more responsive to monetary expansion and exchange rate movements than to restrictive interest rate policies. This underscores the need for monetary authorities to carefully balance liquidity management with price stability in order to promote sustainable stock market development and enhance investor confidence.

4.7 Diagnostic and Stability Tests

This segment presents the post-estimation analytical checks to validate the model's reliability. The tests include the Breusch-Godfrey LM test for detecting serial correlation, the Breusch-Pagan-Godfrey test for assessing heteroskedasticity, and the Jarque-Bera test for examining the normal distribution of residuals.

Table 4.7: Result of Diagnostic and Stability Tests

Test	Statistic	Prob.	Remarks
Serial Correlation (Breusch-Godfrey)	1.34	0.29	No detection of serial correlation
Heteroskedasticity (Breusch-Pagan)	0.88	0.41	No heteroskedasticity detected
Normality (Jarque-Bera)	2.17	0.34	Normal distribution
CUSUM	Stable	✔	
CUSUMSQ	Stable	✔	

From Table 4.8, all diagnostic tests affirm that the model is free from econometric problems. The CUSUM and CUSUMSQ indicate parameter stability even after accounting for structural breaks. The Nigerian stock market responds more strongly to liquidity expansion and exchange rate movements, while inflation and interest rate tightening exert contractionary effects. Structural changes, particularly exchange rate reforms, significantly modify monetary transmission to the stock market.

5 Conclusion

This study examined the relationship between monetary policy and stock market performance in Nigeria using the ARDL framework over the period of 2000–2024. The findings revealed the existence of a stable long-run relationship between monetary policy variables and stock market performance. Specifically, money supply and exchange rate were found to exert significant positive effects, while inflation and the monetary policy rate negatively influenced stock market outcomes.

The results underscored the importance of liquidity conditions and exchange rate stability in driving stock market performance in Nigeria. However, the relatively weak impact of inflation and interest rate adjustments highlights structural inefficiencies and weak transmission mechanisms within the financial system. The short-term impact of inflation on ASI was insignificant; its negative co-efficient raised the possibility of a negative impact on investment. To protect investment returns, the Central Bank of Nigeria (CBN) should take aggressive steps to preserve price stability. This is because the short-term effects of macroeconomic factors are limited in the Nigerian setting, investors should be interpreting short-term macroeconomic swings and instead concentrate on long-term trends.

From a policy perspective, the study recommended emphasising the need for improved coordination between monetary authorities and capital market regulators. Enhancing transparency in policy communication and maintaining macroeconomic stability will be critical in strengthening investor confidence and promoting sustainable stock market development.

References

Abdulkarim, A., Musa, U., Uwaleke, U., & Nwala, M. N. (2020). Impact of Monetary Policy Targets on Capital Market Development in Nigeria (1986–2018). *International Journal of Innovative Research in Education and Teaching Sciences*, 8(1), 85– 98.

Adebiyi, M. A. (2012). Inflation targeting: Can we establish a stable relationship between inflation and stock market returns in Nigeria? *Journal of Monetary and Economic Integration, 12*, 1, 45–66.

Adegbite, T. A., & Olayemi, S. O. (2020). Transmission mechanism of monetary policy and stock market performance in Nigeria. *Nigerian Journal of Economic Policy, 7*, 2, 54–73.

Adetula, O., Omodero, A., & Adeyemo, S. (2025). *Monetary Policy and Stock Market Performance in Nigeria*. *IIARD Journal of Economics and Business Management*, 11, 4, 12–32.

Akani, H. W., & Nneji, S. (2013). Stock market development indicators and economic growth in Nigeria: Empirical investigation. *Journal of Economics and Sustainable Development, 4*, 5, 13–23.

Akinlo, A. E. (2020). Monetary policy and stock market performance in Nigeria. *Journal of Economic Studies*, 47, 3, 619–635.

Akinlo, O. O., & Akinlo, A. E. (2009). Stock market development and economic growth: Evidence from seven sub-Saharan African countries. *Journal of Economics and Business, 61*, 2, 162–171.

Alege, P. O., & Ogundipe, A. A. (2015). Monetary policy and stock market behaviour: Evidence from Nigeria. *Covenant Journal of Business and Social Sciences, 6*, 1, 1–14.

Aregbeyen, O., & Mbadiugha, S. (2011). *Factors influencing investors' decisions in shares of quoted companies in Nigeria*. The Social Sciences, 6, 3, 205–212.

Babangida, B., & Khan, 2021). Effect of Monetary Policy on the Nigerian Stock Market: A Smooth Transition Autoregressive Approach. *CBN Journal of Applied Statistics*, 12, 1, 1–21.

Central Bank of Nigeria (CBN). (2023). *Statistical Bulletin*. https://www.cbn.gov.ng

Central Bank of Nigeria (CBN). (2022). *Monetary Policy Framework*. https://www.cbn.gov.ng/MonetaryPolicy

Eita, J. H. (2012). Modelling macroeconomic determinants of stock market prices: Evidence from Namibia. *Journal of Applied Business Research, 28*, 5, 871–884.

Fapetu, O., Ojo, S. M., Balogun, A. A., & Asaolu, A. A. (2022). *Capital Market Performance and Macroeconomic Dynamics in Nigeria*. *arXiv*. arXiv

Fama, E. F. (1981). Stock returns, real activity, inflation, and money. *American Economic Review, 71*, 4, 545–565.

Friedman, M. (1968). The role of monetary policy. *American Economic Review, 58*, 1, 1–17.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance, 25*, 2, 383–417.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill/Irwin.

Iyoha, M. A. (2012). Macroeconomic determinants of stock market performance in Nigeria. *International Journal of Academic Research in Economics and Management Sciences,* 1, 4, 10–25.

Nwokoye, C., & Otu, E. (2018). Impact of monetary policy on stock market development: Implications for the Nigerian economy. *International Journal of Development and Economic Sustainability*, 6, 4, 29–50. IIARD Journals

Mishkin, F. S. (2019). *The Economics of Money, Banking, and Financial Markets* (12th ed.). Pearson.

National Bureau of Statistics (NBS). (2023). *Consumer Price Index Reports*. https://www.nigerianstat.gov.ng

Nwakanma, P. C., Nnamdi, I. S., & Ubochi, I. (2014). Monetary policy and stock market returns in Nigeria. *European Journal of Business and Management,* 6, 24, 105–112.

NGX (Nigerian Exchange Group). (2023). *Market Statistics*. https://www.ngxgroup.com

Okonkwo, O., Uche, G. U., & Okoh, J. I. (2020). The impact of macroeconomic variables on stock market performance in Nigeria. *Journal of Finance and Economics,* 8, 1, 23–33.

Okpara, G. C. (2010). *Monetary policy and stock market returns: Evidence from Nigeria*. Journal of Economics, 1, 2, 13–21.

Olowe, R. A. (2011). The relationship between stock market volatility and exchange rate volatility in Nigeria. *International Journal of Economics and Finance*, 3, 2, 70–78.

Olugbenga, A. A. (2012). *The impact of the exchange rate on the stock market in Nigeria. Journal of Research in International Business and Management*, 2, 11, 275–284.

Onwumere, J. U. J. (2009). *Business and economic research methods*. Enugu: Vougasen Limited.

Osamwonyi, I. O., & Evbayiro-Osagie, E. I. (2012). The relationship between macroeconomic variables and the stock market index in Nigeria. *Journal of Economics*, 3, 1, 55–63.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16, 3, 289–326.

Uchenna, E., & Suraj, O. A. (2016). Impact of monetary policy on Nigerian stock market performance. *Journal of Applied Finance and Banking*, 6, 1, 17–27.

Udegbunam, R. I., & Eriki, P. O. (2001). *Inflation and stock price behaviour: Evidence from the Nigerian stock market*. *Journal of Financial Management & Analysis,* 14, 1, 1–10.