



MACROECONOMIC POLICY AND STOCK MARKET BEHAVIORS IN NIGERIA

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Abstract: This study examined the relationship between macroeconomic policy and stock market behaviour in Nigeria using annual data covering the period 1981–2024. Stock market Behavior was proxied by the turnover ratio, while macroeconomic policy indicators included the monetary policy rate (MPR), treasury bill rate (TBR), broad money supply (BMS), and cash reserve ratio (CRR). Descriptive statistics revealed high volatility in stock market liquidity, with sharp peaks in 2008 and 2013, alongside persistent policy swings in monetary indicators. The Autoregressive Distributed Lag (ARDL) technique was employed to capture both the short-run dynamics and long-run equilibrium relationships. The results showed that stock market liquidity exhibits strong persistence, as indicated by the significance of the lagged dependent variable (SML(-1)). However, the individual monetary policy variables MPR, TBR, BMS, and CRR did not show statistically significant effects on stock market liquidity in the short run. The treasury bill rate was negatively signed, suggesting a substitution effect between government securities and equities, though its impact was weak. The joint F-statistic confirmed that monetary policy variables collectively exert a significant effect on stock market liquidity, explaining about 50% of its variation. The study concludes that monetary policy in Nigeria has limited direct transmission into the stock market, with liquidity largely driven by its own past performance and structural market factors. It recommends strengthening monetary transmission mechanisms, diversifying liquidity channels beyond treasury bills, deepening the capital market, and adopting a more flexible approach to cash reserve requirements. These reforms would enhance the responsiveness of the Nigerian stock market to monetary policy changes and promote financial system stability.

Keywords: Monetary Policy, Stock Market Liquidity, Monetary Policy Rate, Treasury Bill Rate, Broad Money Supply, Cash Reserve Ratio, Nigeria.

1. Introduction

Stock market liquidity in Nigeria is essential for the smooth operation of the capital market and broader economic development. Liquidity reflects how easily investors can buy and sell securities without large price impacts, enabling efficient price discovery, reducing transaction costs, and encouraging deeper market

participation. A liquid market attracts both domestic and foreign investors, supports capital formation, and enhances economic resilience, while illiquid conditions dampen investor confidence and restrict access to finance for corporate expansion (Afolabi & Mabinuori, 2021). Nigeria's stock market, now organized under the Nigerian Exchange Group (NGX), has seen reforms aimed at

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enhancing market depth, trading activity, and liquidity, yet several indicators suggest persistent challenges. According to World Bank data, Nigeria's stock market turnover ratio, a key proxy for liquidity measuring the value of shares traded relative to market capitalization stood at approximately 2.84 percent in 2024, significantly below global averages and signaling relatively low trading activity and limited liquidity (The Global Economy, 2025). Macroeconomic policy plays a critical role in shaping financial market conditions, including liquidity. It involves using instruments such as the Monetary Policy Rate (MPR), Cash Reserve Ratio (CRR), liquidity ratio, and open market operations to influence money supply, credit conditions, inflation, and overall economic stability (Mishkin, 2016). In Nigeria, the Central Bank of Nigeria (CBN) has maintained tight monetary settings in recent years, with the MPR frequently held in the high twenties (e.g., retained at 27.5 percent or adjusted to 27.0 percent at recent Monetary Policy Committee meetings) and high CRR and liquidity ratios applied to banking institutions to manage inflation and credit conditions. The liquidity ratio has been kept at 30 percent while the CRR for deposit money banks has ranged around 45 to 50 percent, reflecting efforts to control excess liquidity and inflationary pressures (CBN Monetary Policy Decisions, 2025). Over the first half of 2025, broad money supply (M3) reached over N119 trillion, up sharply year-on-year despite tight policy stances, indicating complex interactions between bank reserves, foreign asset inflows, and domestic liquidity conditions (Nairametrics, 2025). Empirical research underscores the link between macroeconomic policy and stock market behaviors. Studies in Nigeria have found that monetary policy indicators like interest rates and money supply materially influence market performance measures, including liquidity and turnover (Asaolu & Ogunmuyiwa, 2011; Adebisi, 2005). Tight monetary conditions can increase borrowing costs, reduce credit availability, and constrain investment in equities, leading to lower liquidity. Conversely, loosening policy may stimulate investment and trading activity, though the effects depend on investor expectations and broader economic context. Structural

factors such as limited investor base, product diversification, regulatory inefficiencies, and macroeconomic volatility especially inflationary pressures further complicate liquidity dynamics in the Nigerian market (Alajekwu & Achugbu, 2012; Imoughele & Ismaila, 2014).

Despite policy reforms and efforts to strengthen financial markets, Nigeria's stock market liquidity remains uneven and relatively low by international standards. Low turnover ratios, inconsistent trading volumes, and volatility in liquidity indicators suggest that monetary policy transmission to capital market liquidity is neither straightforward nor fully effective. These challenges are amplified by external shocks, exchange rate volatility, and questions about the predictability and credibility of policy actions, all of which influence investor behavior and market participation. Understanding how monetary policy tools affect stock market liquidity is therefore critical for policy design that supports efficient capital markets and economic growth. This study examines the relationship between monetary policy and stock market liquidity in Nigeria, addressing gaps in the literature related to the specific effects of monetary instruments on liquidity under evolving global and domestic economic conditions.

2. Literature Review

2.1 Theoretical Framework

This study is anchored on key financial and monetary theories that explain how macroeconomic policy, particularly monetary policy, affects stock market behavior in Nigeria. The Keynesian Liquidity Preference Theory (Keynes, 1936; Mishkin, 2019) posits that the interest rate is determined by the demand and supply for money, with individuals holding cash for transactions, precautionary, and speculative motives. When interest rates rise, the cost of holding money increases, prompting investors to shift funds from equities to interest-bearing assets, thereby reducing stock market liquidity (Bernanke & Gertler, 1995; Nwaolisa & Ekezie, 2013). Conversely, lower rates encourage equity investment, enhancing liquidity (Adeleke & Enilolobo, 2020).



The Monetarist Theory emphasizes the central role of money supply in influencing economic activity and financial markets (Friedman, 1956, 1968; Mishkin, 2019). Increases in broad money supply (BMS) inject liquidity into the economy, lower interest rates, and facilitate greater investor participation in equities, improving market depth and liquidity (Ajayi & Atanda, 2012; Osamwonyi & Evbayiro-Osagie, 2012; Owolabi & Adegbite, 2014). Conversely, contractionary policy restricts funds, raises borrowing costs, and reduces trading activity, illustrating how monetary policy transmission affects capital market performance.

The Efficient Market Hypothesis (Fama, 1970, 1991) argues that stock prices fully reflect all available information. Monetary policy signals such as changes in the Monetary Policy Rate (MPR) or Cash Reserve Ratio (CRR) are quickly incorporated into asset prices, influencing investor behavior and trading activity. Tight policy signals reduce liquidity by discouraging equity investment, while easing signals stimulate participation (Campbell, Lo, & MacKinlay, 1997; Jensen, 1978; Gupta & Modise, 2013; Nwanne & Eze, 2016). In Nigeria, although market efficiency is gradually improving, frictions like information asymmetry may delay full policy transmission, highlighting the importance of understanding how monetary policy affects stock market behavior.

2.2 Conceptual Clarification

2.2.1 Macroeconomic Policy

Macroeconomic policy refers to the strategic use of fiscal and monetary tools by a government or central bank to influence the overall economy, stabilize prices, encourage growth, and maintain financial system stability (Mishkin, 2019). In this study, macroeconomic policy is proxied using four key monetary policy instruments: Monetary Policy Rate (MPR), Broad Money Supply (BMS), Cash Reserve Ratio (CRR), and Treasury Bill Rate (TBR).

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. It serves as a signal for monetary stance; increases in MPR indicate

contractionary policy aimed at controlling inflation, while reductions signal expansionary measures to stimulate economic activity (Okonkwo et al., 2015). The Broad Money Supply (BMS) captures the total stock of money in circulation, including currency, demand deposits, savings, and other liquid assets. Changes in BMS reflect the liquidity conditions of the economy and directly influence credit availability, investment capacity, and aggregate demand (Ajayi & Atanda, 2012).

The Cash Reserve Ratio (CRR) represents the proportion of commercial banks' deposits that must be held with the CBN. Adjustments in CRR directly affect banks' lending capacity and, consequently, the liquidity available for investment in financial markets (Owolabi & Adegbite, 2014). The Treasury Bill Rate (TBR) reflects the return on short-term government securities and acts as a benchmark for risk-free investments. It is closely linked to interest rate movements and influences the allocation of funds between equities and fixed-income instruments (Adeleke & Enilolobo, 2020).

2.2.2 Stock Market Behavior

Stock market behavior refers to the overall activity, performance, and dynamics of the equity market, capturing how investors respond to economic signals, policy interventions, and market information. It reflects patterns in trading activity, price adjustments, and liquidity, which collectively indicate market efficiency, depth, and investor confidence (Bekaert & Harvey, 2003; Fabozzi et al., 2016). In this study, stock market behavior is proxied by stock market liquidity, measured using the stock turnover ratio. The stock turnover ratio is calculated as the total value of shares traded over a period divided by the total market capitalization of listed equities (Nwaolisa & Ekezie, 2013; Okonkwo et al., 2015).

This proxy captures the frequency and intensity of trading relative to market size, providing an objective indicator of market activity. A higher turnover ratio indicates a more liquid market where investors can buy and sell securities quickly without significantly affecting prices, reflecting strong market behavior. Conversely, a lower turnover ratio signals thin trading, reduced liquidity, and weaker market



performance. By using the stock turnover ratio as a proxy, this study quantifies stock market behavior in terms of liquidity and trading activity, allowing an empirical assessment of how macroeconomic policy instruments such as Monetary Policy Rate (MPR), Broad Money Supply (BMS), Cash Reserve Ratio (CRR), and Treasury Bill Rate (TBR) influence market dynamics and investor participation in Nigeria.

2.3 Empirical Review

Empirical evidence on the relationship between monetary policy and stock market behavior shows strong but heterogeneous effects, particularly in emerging economies. Nigerian studies largely document that monetary tightening, reflected in higher interest rates or Monetary Policy Rate (MPR), exerts a negative influence on stock market performance and liquidity, while monetary expansion through increased money supply tends to enhance market activity. For instance, Udeorah, Oladosu, and Odiche (2025) and Tubotamuno and Oladosu (2024) find that interest rates negatively affect stock market capitalization, whereas broad money supply exerts a positive and significant impact. Focusing specifically on liquidity, Anyanwu and Ohurogu (2024) report that interest rate shocks reduce stock market liquidity, while money supply shocks significantly improve liquidity, highlighting the dominance of the liquidity channel of monetary transmission in Nigeria. Similarly, Umezurike and Ananwude (2019) show that higher MPR raises lending rates, dampens trading activity, and reduces the value of stocks traded.

Evidence also suggests nonlinear and regime-dependent effects. Babangida and Khan (2021) demonstrate that the impact of monetary policy on the Nigerian stock market varies across bull and bear regimes, with expansionary policy stimulating market activity during low-performance regimes but generating adverse effects during overheated periods. Tumala and Yaya (2015) and Gu et al. (2022) further confirm that monetary policy effects evolve over time and across market conditions, underscoring state dependence. However, some studies report weak or insignificant effects of monetary policy instruments on

stock market outcomes in Nigeria, pointing to structural inefficiencies, shallow market depth, and weak transmission mechanisms (Echekoba et al., 2018; Okoro, 2017).

International evidence aligns broadly with Nigerian findings. Studies from Indonesia, Malaysia, Turkey, Ghana, and China consistently show that interest rates negatively affect stock prices and liquidity, while money supply exerts a positive influence, though with country-specific variations (Gunardi & Disman, 2023; Nugraha & Sari, 2023; Sampene et al., 2021). Collectively, the literature establishes a strong theoretical and empirical linkage between monetary policy and stock market behavior but reveals mixed results regarding magnitude, direction, and significance, especially for liquidity-related measures. This inconsistency highlights a gap in Nigeria-specific evidence on how core monetary policy instruments affect stock market liquidity, particularly when liquidity is proxied by stock turnover ratio, which this study seeks to address.

3. METHODOLOGY

This study adopts a time series research design and relies exclusively on secondary data to examine the relationship between macroeconomic policy and stock market behavior in Nigeria. The use of secondary data is appropriate given the macroeconomic nature of the variables and the need to analyze long-run and short-run dynamics over an extended historical period. Annual data covering the period 1981 to 2024 were employed to ensure sufficient observations for robust econometric analysis. Data on monetary policy indicators, namely the Monetary Policy Rate (MPR), Broad Money Supply (M2), Interest Rate, and Treasury Bill Rate (TBR), were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, which is an official and authoritative repository of Nigeria's monetary and financial statistics. Stock market behavior was proxied by stock market liquidity, measured using the stock turnover ratio, defined as the ratio of total value of shares traded to market capitalization. Data on turnover ratio were obtained from the Nigerian Exchange Group (NGX) annual reports and statistical publications. Where necessary,



supplementary data were drawn from the World Bank's World Development Indicators to enhance consistency and completeness. All variables were structured into an annual time series format consistent with the study period.

The analytical procedure begins with descriptive statistics to summarize the basic characteristics of the variables, including measures of central tendency and dispersion. This provides preliminary insight into the behavior and distributional properties of the data. To avoid spurious regression outcomes, the stationarity properties of the series were examined using the Augmented Dickey-Fuller (ADF) unit root test, which determines the order of integration of each variable. Following the unit root analysis, the Autoregressive Distributed Lag (ARDL) bounds testing approach was employed to investigate the existence of long-run relationships among the variables and to estimate both short-run and long-run effects. The ARDL technique is particularly suitable for this study because it accommodates variables integrated at different orders, $I(0)$ and $I(1)$, and performs well with relatively small sample sizes typical of macroeconomic time series. In line with the study objective, the ARDL model specifies stock market liquidity, proxied by the turnover ratio, as the dependent variable, while monetary policy indicators MPR, Broad Money Supply, Interest Rate, and Treasury Bill Rate serve as the explanatory variables. The functional relationship is expressed as turnover ratio as a function of

these monetary policy instruments. The general functional form of the model is expressed as:

$$SML = f(MPR, BMS, CRR, TBR)$$

Where

SML = Stock Market Liquidity (proxied by turnover ratio)

MPR = Monetary Policy Rate

BMS = Broad Money Supply

CRR = Cash Reserve Ratio

TBR = Treasury Bill Rate

In its linear econometric form, the ARDL model is specified as follows:

$$\begin{aligned} \Delta SML_t = & \alpha_0 + \sum \beta_{1i} \Delta SML_{t-i} + \sum \beta_{2i} \Delta MPR_{t-i} \\ & + \sum \beta_{3i} \Delta BMS_{t-i} + \sum \beta_{4i} \Delta INTR_{t-i} \\ & + \sum \beta_{5i} \Delta TBR_{t-i} + \lambda_1 SML_{t-1} \\ & + \lambda_2 MPR_{t-1} + \lambda_3 BMS_{t-1} \\ & + \lambda_4 INTR_{t-1} + \lambda_5 TBR_{t-1} + \varepsilon_t \end{aligned}$$

Where

Δ represents the first difference operator

α_0 is the intercept

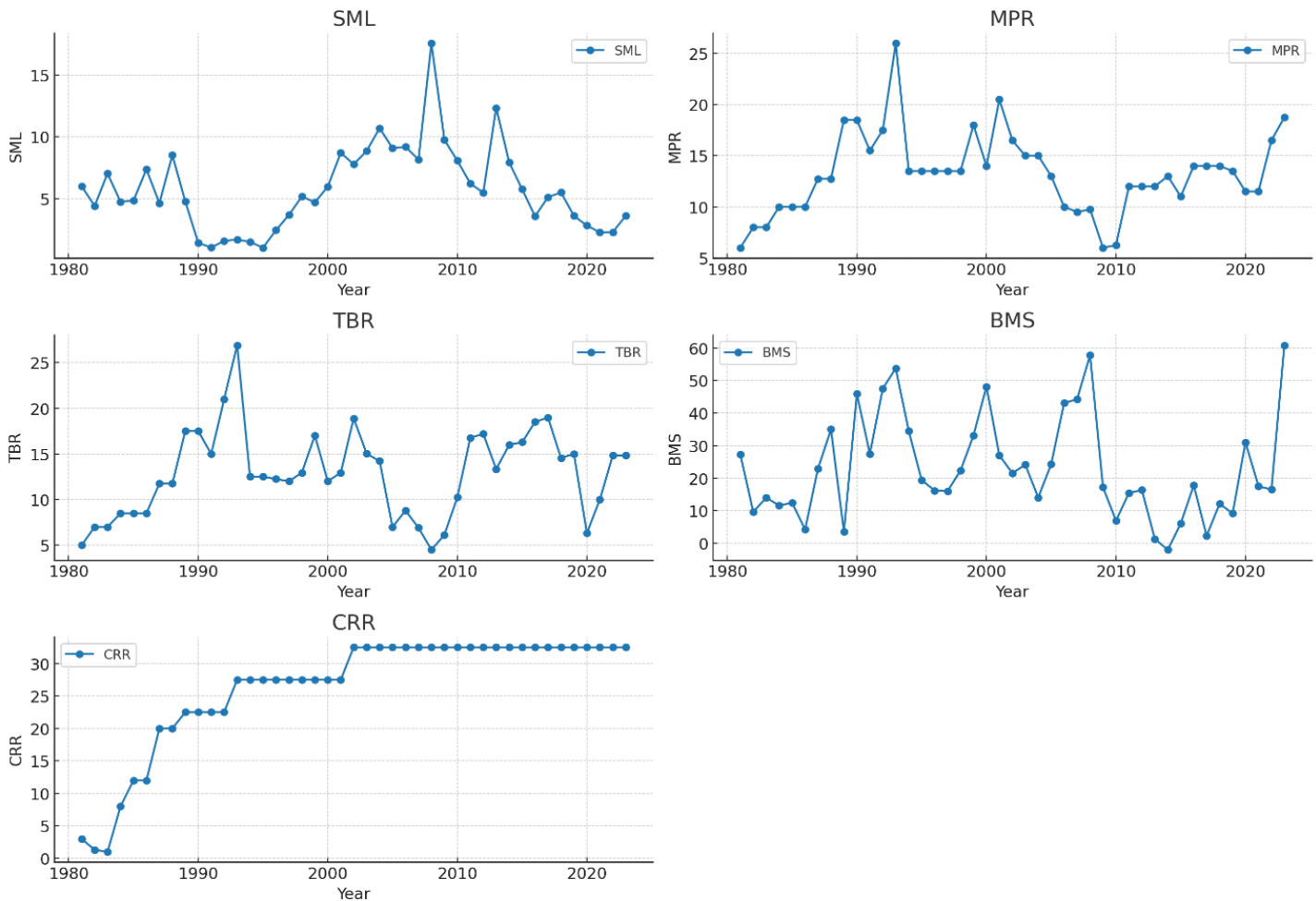
β_i are the short-run dynamic coefficients

λ are the long-run coefficients

ε_i is the stochastic error term assumed to be white noise

4. Results and Interpretations

4.1 Trend Analysis



Source: E-view 12 Output

The time-series plots for the period 1981–2024 preserve the historical behaviour of both macroeconomic policy variables and stock market behavior in Nigeria. Stock market behavior, measured by the stock turnover ratio, shows wide and persistent fluctuations throughout the sample period, reflecting alternating phases of market expansion and contraction. Notable peaks are observed around 2008 and 2013, coinciding with the post-banking consolidation era and renewed investor participation in the equity market. These episodes are followed by pronounced declines, indicating weakening market depth, reduced

trading activity, and structural challenges within the Nigerian capital market.

The Monetary Policy Rate (MPR) exhibits sharp increases in the early 1990s, a period characterized by high inflation and restrictive monetary policy measures by the Central Bank of Nigeria. The rate later moderated and remained relatively stable during most of the 2010s, before rising sharply again in 2023 in response to renewed inflationary pressures. Despite these significant variations, the plots indicate no strong co-movement between MPR and stock turnover ratio, suggesting that changes in the policy rate had limited direct influence on stock market trading



activity over the period. Treasury bill rates were particularly elevated in the early 1990s, reflecting heavy government domestic borrowing and tight liquidity conditions. Although the series remains volatile across the years, treasury bills consistently offered competitive risk-free returns relative to equities. The graphical pattern supports a substitution effect, where periods of higher treasury bill yields coincide with reduced stock market liquidity, as investors reallocate funds from equities to government securities.

Broad money supply displays substantial growth and volatility over time, with marked expansions around 2008, associated with strong oil revenue inflows and increased financial sector activity, and again in 2023 during expansionary monetary responses. However, the time-series plot shows a weak association between broad money supply and stock turnover ratio, indicating that increases in

aggregate liquidity did not translate proportionately into increased equity market trading. This reflects underlying issues such as low investor confidence, limited financial inclusion, and shallow capital market intermediation. The cash reserve ratio follows an upward trajectory through the 1980s and 1990s and becomes largely constant at a high level from the early 2000s onward, reflecting the Central Bank’s sustained effort to regulate banking system liquidity. The prolonged stability of this instrument over the latter part of the sample explains its limited variability and weak statistical influence on stock market liquidity. Overall, the figures and associated statistics indicate that while macroeconomic policy instruments experienced notable shifts over time, variations in stock market behavior in Nigeria were more strongly driven by market-specific and structural factors than by direct monetary policy actions.

4.2 Descriptive Statistics Results

Table 1 Relationship between Macroeconomic Policy and Stock Market Behavior

	SML	MPR	TBR	BMS	CRR
Mean	5.735116	13.21512	12.89140	23.01302	26.27442
Median	5.170000	13.50000	12.95000	17.78000	32.50000
Maximum	17.56000	26.00000	26.90000	60.84000	32.50000
Minimum	1.020000	6.000000	4.500000	-2.010000	1.000000
Std. Dev.	3.386554	3.995005	4.787032	15.98774	9.190577
Skewness	1.016307	0.604708	0.339659	0.706482	-1.602390
Kurtosis	4.762280	4.137800	3.146178	2.689374	4.517022
Jarque-Bera	12.96656	4.940120	0.865088	3.749879	22.52479
Probability	0.001529	0.084580	0.648856	0.153364	0.000013
Sum	246.6100	568.2500	554.3300	989.5600	1129.800
Sum Sq. Dev.	481.6875	670.3227	962.4585	10735.53	3547.602
Observations	43	43	43	43	43

Source: E-view 12 Output

The descriptive statistics in Table 1 provide insights into the behavior of stock market and macroeconomic policy variables in Nigeria over the period 1981–2024. Stock market behavior, proxied by stock market liquidity (SML), records a mean turnover ratio of 5.74 with a median of 5.17, indicating that, on average, trading activity in the Nigerian stock market has been relatively modest. The wide gap between the minimum value of 1.02 and the

maximum value of 17.56 reflects pronounced swings in trading intensity across time. Economically, this suggests that the Nigerian stock market has experienced intermittent episodes of heightened activity, often followed by prolonged periods of low liquidity. The positive skewness (1.02) and high kurtosis (4.76) indicate a right-skewed and leptokurtic distribution, implying that extreme liquidity surges are infrequent but substantial when they occur. The



significant Jarque–Bera statistic confirms non-normality, which is consistent with the presence of episodic market booms and sharp corrections rather than smooth trading dynamics.

The Monetary Policy Rate (MPR) shows an average value of 13.22 percent, reflecting Nigeria’s historically tight monetary stance aimed at controlling inflation and stabilizing macroeconomic conditions. The maximum of 26 percent, observed in the early 1990s, corresponds to periods of severe inflationary pressure and restrictive policy, while the minimum of 6 percent reflects episodes of monetary easing. The relatively moderate standard deviation (3.99) suggests that although policy rates have changed over time, such adjustments were not excessively volatile. The mild positive skewness and borderline normality indicate that MPR adjustments were broadly symmetric around the mean, supporting the view that interest rate policy in Nigeria has followed a largely discretionary but stable path. From an economic perspective, this stability helps explain why changes in MPR alone may have limited power in driving stock market liquidity. Treasury bill rates (TBR) record a mean of 12.89 percent, closely aligned with the MPR average, indicating the importance of short-term government securities in Nigeria’s financial system. The relatively high maximum of 26.9 percent reflects periods of intense government borrowing and liquidity tightening, particularly during the 1990s. The near-zero skewness and kurtosis close to the normal benchmark suggest that treasury bill rates are relatively well-behaved statistically. Economically, this stability reinforces the role of treasury bills as a predictable, low-risk investment alternative, which can systematically divert funds away from equities during periods of high yields, thereby dampening stock market liquidity.

Broad money supply (BMS) exhibits substantial variability, with a mean of 23.01 and a high standard deviation of 15.99. The wide range, from negative growth to over 60 percent, captures Nigeria’s highly volatile monetary environment, driven largely by oil revenue cycles, fiscal dominance, and periodic monetary expansions. The relatively mild skewness and kurtosis indicate that extreme monetary expansions, while present, are not persistent. Economically, the large dispersion suggests that increases in system-wide liquidity do not occur uniformly and may not always translate into higher stock market activity, especially in an environment characterized by weak financial intermediation and low investor confidence. The Cash Reserve Ratio (CRR) has a mean of 26.27 percent and a median of 32.5 percent, highlighting the prolonged period during which the policy was held at a high and fixed level. The sharp contrast between the minimum value of 1 percent and the maximum of 32.5 percent reflects discrete, policy-driven adjustments rather than continuous market responses. The strong negative skewness and high kurtosis confirm a highly non-normal distribution. Economically, this pattern indicates that CRR has functioned primarily as a regulatory tool to restrain banking system liquidity rather than as a flexible instrument influencing capital market behavior. Its limited variation over time explains its weak direct linkage with stock market liquidity. Overall, the descriptive results suggest that stock market behavior in Nigeria is characterized by high variability and episodic liquidity surges, while macroeconomic policy variables, particularly interest rates and reserve requirements, display more controlled and policy-driven patterns. This divergence implies that stock market liquidity responds less to routine monetary policy adjustments and more to structural, institutional, and confidence-related factors within the Nigerian capital market.

4.3 ARDL Regression Results

Table 2 Relationship between Macroeconomic Policy and Stock Market Behavior

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SML(-1)	0.578998	0.139470	4.151417	0.0002
MPR	0.060686	0.198755	0.305329	0.7619



TBR	-0.241803	0.152530	-1.585282	0.1216
BMS	0.017775	0.030079	0.590936	0.5583
CRR	0.052281	0.052762	0.990890	0.3284
C	2.919247	2.103033	1.388113	0.1736
R-squared		0.505991		
Adjusted R-squared		0.437378		
S.E. of regression		2.570790		
Sum squared resid		237.9225		
Log likelihood		-96.01521		
F-statistic		7.374628		
Prob(F-statistic)		0.000076		
Durbin-Watson stat		2.202917		
Mean dependent var		5.728810		
S.D. dependent var		3.427349		
Akaike info criterion		4.857867		
Schwarz criterion		5.106105		
Hannan-Quinn criter.		4.948856		

Source: E-view 12 Output

The ARDL regression results in Table 2 provide important insights into the relationship between macroeconomic policy and stock market behavior in Nigeria, with stock market behavior proxied by stock market liquidity. The lagged value of stock market liquidity is positive and highly significant, with a coefficient of 0.579. This indicates strong persistence in stock market behavior, implying that current liquidity conditions are largely influenced by past trading activity. Economically, this reflects the path-dependent nature of the Nigerian stock market, where investor participation, confidence, and trading depth adjust gradually rather than responding sharply to contemporaneous policy changes. This persistence suggests that liquidity shocks, whether positive or negative, tend to have lasting effects on market behavior.

The coefficient of the monetary policy rate is positive but statistically insignificant. This implies that changes in the Central Bank of Nigeria's policy rate do not exert a meaningful short-run influence on stock market liquidity. From a macroeconomic policy perspective, this result suggests a weak transmission of interest rate policy to the equity market. The limited responsiveness may be

attributed to structural factors such as shallow market depth, limited participation of institutional investors, and the dominance of non-interest-rate considerations in equity investment decisions in Nigeria. The treasury bill rate carries a negative coefficient, consistent with theoretical expectations, indicating that higher risk-free yields tend to reduce stock market liquidity as investors reallocate funds from equities to government securities. Although this effect is not statistically significant at the conventional 5 percent level, its magnitude and sign point to a substitution effect between the money market and the stock market. Economically, this suggests that government domestic borrowing and attractive short-term yields can crowd out equity investment, thereby weakening stock market behavior, even if the effect is not immediately strong in the short run.

Broad money supply shows a positive but insignificant relationship with stock market liquidity. This result implies that expansions in aggregate liquidity do not automatically translate into increased trading activity in the stock market. From a macroeconomic policy standpoint, this reflects inefficiencies in the financial intermediation process, where increases in money supply may be absorbed by the



banking sector, informal markets, or consumption, rather than being channeled into capital market investments. It also highlights the role of investor confidence and market structure in mediating the impact of monetary expansion on stock market behavior. The cash reserve ratio also exhibits a positive but statistically insignificant coefficient. This suggests that variations in reserve requirements have no direct short-run effect on stock market liquidity. Economically, this outcome reflects the regulatory nature of the CRR, which primarily influences banking system liquidity rather than equity market trading. Moreover, the prolonged period of relative stability in the CRR during the sample period reduces its explanatory power in capturing changes in stock market behavior.

The overall goodness-of-fit measures indicate that the model is reasonably robust. The R-squared and adjusted R-squared values suggest that macroeconomic policy variables jointly explain about half of the variations in stock market liquidity, which is acceptable for time-series analysis involving financial markets. The statistically significant F-statistic confirms that macroeconomic policy variables, taken together, are relevant in explaining stock market behavior. The Durbin-Watson statistic indicates the absence of serial correlation, validating the reliability of the estimated coefficients. In summary, the results indicate that stock market behavior in Nigeria is driven more by its own historical dynamics than by contemporaneous macroeconomic policy adjustments. While monetary policy instruments such as the policy rate, money supply, and reserve requirements do not exert significant short-run effects on stock market liquidity, the negative influence of treasury bill rates underscores the relevance of policy-induced portfolio substitution between government securities and equities. These findings suggest that improving stock market behavior in Nigeria requires not only macroeconomic policy coordination but also structural reforms aimed at deepening the capital market and strengthening investor confidence.

4.3 Discussion of Findings

The discussion of findings is anchored on the relationship between macroeconomic policy and stock market behavior

in Nigeria, with stock market behavior measured by stock market liquidity. The positive and statistically significant lagged stock market liquidity confirms strong persistence in stock market behavior. This implies that liquidity conditions in the Nigerian stock market are largely driven by past trading activity, reflecting gradual adjustment rather than immediate responses to macroeconomic policy changes. This finding supports Chordia, Roll, and Subrahmanyam (2001), who documented high autocorrelation in market liquidity, and is consistent with Adesina (2020), who showed that African stock markets exhibit path dependence and slow recovery from liquidity shocks. In the context of macroeconomic policy, this result suggests that stock market behavior in Nigeria is structurally driven and largely self-reinforcing. The monetary policy rate exhibits a positive but statistically insignificant relationship with stock market liquidity, indicating that interest rate policy does not exert a direct short-run influence on stock market behavior. This finding aligns with Okonkwo, Ogwuru, and Ajudua (2014), who observed weak responsiveness of the Nigerian capital market to monetary policy actions due to shallow market depth and limited investor participation. The result contrasts with evidence from developed economies reported by Bernanke and Kuttner (2005), where policy rate changes significantly influence equity market activity. This divergence highlights structural differences in policy transmission and suggests that the effectiveness of interest rate policy in shaping stock market behavior in Nigeria is limited.

The treasury bill rate shows a negative and weakly significant effect on stock market liquidity, suggesting that higher risk-free returns on government securities discourage equity trading by reallocating funds away from the stock market. This finding supports the substitution effect between money market instruments and equities documented by Nwakoby and Okoye (2014). It is also consistent with Bekaert, Harvey, and Lundblad (2007), who noted that in emerging markets, government securities often compete directly with equities for investment funds. This result indicates that macroeconomic policy influences stock market behavior in Nigeria mainly through portfolio



reallocation rather than direct liquidity expansion. Broad money supply has a positive but insignificant effect on stock market liquidity, implying that monetary expansion does not automatically translate into improved stock market behavior. This finding is consistent with Nwokoma (2002), who reported limited influence of money supply growth on Nigerian equity market performance due to weak financial intermediation. In contrast to evidence from developed markets such as Thorbecke (1997), the Nigerian experience suggests that increases in aggregate liquidity are not effectively transmitted to the stock market. This underscores structural inefficiencies that constrain the flow of funds from the banking system to the capital market.

The cash reserve ratio also exhibits a positive but statistically insignificant relationship with stock market liquidity, indicating that changes in reserve requirements do not meaningfully affect stock market behavior. This finding supports Iyoha and Oriakhi (2002), who argued that indirect monetary policy instruments in Nigeria have muted effects on capital market activity due to weak transmission mechanisms. While Mishkin (2001) emphasized the relevance of reserve requirements in influencing credit conditions in advanced economies, the Nigerian evidence points to limited integration between the banking sector and the stock market. The joint significance of the model confirms that macroeconomic policy variables collectively explain variations in stock market behavior, although the explanatory power is moderate. This result aligns with Alile (1997), who noted that while monetary policy shapes the broader macro-financial environment, its direct influence on the Nigerian stock market is constrained by institutional and structural weaknesses. Overall, the findings indicate that stock market behavior in Nigeria is strongly driven by its own dynamics, with treasury bill rates emerging as the most relevant macroeconomic policy channel. The weak influence of the monetary policy rate, broad money supply, and cash reserve ratio highlights the underdeveloped state of financial intermediation and the limited effectiveness of monetary policy in stimulating stock market liquidity in the short run.

5. Conclusion

This study investigated the relationship between macroeconomic policy and stock market behavior in Nigeria, with stock market behavior proxied by stock market liquidity measured using the turnover ratio. Annual data covering the period 1981 to 2024 were employed, while macroeconomic policy was captured using the monetary policy rate, treasury bill rate, broad money supply, and cash reserve ratio. The ARDL framework was adopted to examine both the dynamic and long-run interactions between macroeconomic policy instruments and stock market behavior, supported by descriptive analysis, unit root tests, and diagnostic checks. The empirical evidence shows that stock market behavior in Nigeria is highly volatile and characterized by episodic surges and contractions, notably around 2008 and 2013. These patterns reflect periods of heightened investor activity followed by market corrections. Macroeconomic policy indicators exhibited differing dynamics over time, with interest-based instruments showing substantial volatility in earlier decades and relative stability in recent years, while broad money supply recorded wide fluctuations, pointing to weaknesses in monetary transmission to the real and financial sectors.

The ARDL results indicate strong persistence in stock market behavior, as the lagged stock market liquidity variable is positive and statistically significant. This confirms that current liquidity conditions in the Nigerian stock market are largely shaped by past market activity, underscoring the path-dependent nature of stock market behavior. In contrast, macroeconomic policy variables exert weak direct influence on stock market liquidity in the short run. The monetary policy rate, broad money supply, and cash reserve ratio were all statistically insignificant, suggesting limited effectiveness of these instruments in stimulating stock market trading activity. The treasury bill rate exhibited a negative but weak relationship with stock market liquidity, implying that higher returns on government securities tend to divert funds away from equities through a substitution channel, although the effect is not sufficiently strong to dominate market behavior. Overall, the model explains a moderate proportion of



variations in stock market behavior, and the joint significance of the macroeconomic policy variables confirms that monetary policy shapes the broader financial environment within which the stock market operates. However, the findings clearly indicate that stock market behavior in Nigeria responds more to internal market dynamics and structural conditions than to direct adjustments in macroeconomic policy instruments.

The study concludes that stock market behavior in Nigeria, as reflected in stock market liquidity, is largely self-reinforcing and driven by historical trading patterns rather than by short-run macroeconomic policy actions. Conventional monetary policy tools such as the monetary policy rate, broad money supply, and cash reserve ratio do not exert significant direct effects on stock market liquidity, highlighting weak transmission from macroeconomic policy to the capital market. Although the treasury bill rate shows evidence of a substitution effect between government securities and equities, its influence remains limited. These results suggest that macroeconomic policy alone is insufficient to stimulate stock market activity in Nigeria. Instead, stock market behavior is more strongly influenced by structural market conditions, institutional quality, and investor confidence. In line with the findings, the following recommendations are advanced:

- i. The Central Bank of Nigeria should strengthen the transmission mechanism between macroeconomic policy and the capital market by promoting deeper financial intermediation, ensuring that liquidity injections and policy adjustments translate into investible funds accessible to the stock market.
- ii. Fiscal and monetary authorities should carefully manage treasury bill yields and domestic borrowing strategies to minimize the crowding-out of equities. A more balanced mix of financing instruments would reduce excessive portfolio shifts from the stock market to government securities.
- iii. Capital market regulators should focus on deepening the Nigerian stock market through product diversification, improved market infrastructure, stronger corporate governance standards, and enhanced investor protection.

These measures would improve stock market liquidity independently of short-term policy changes.

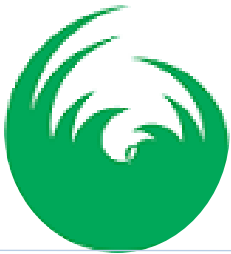
- iv. The prolonged rigidity of the cash reserve ratio reduces its effectiveness as a policy instrument. A more flexible and countercyclical approach to reserve requirements could enhance overall policy effectiveness without unduly constraining financial sector liquidity.
- v. Policymakers should encourage greater participation of long-term institutional investors, such as pension and insurance funds, in the equity market through appropriate incentives and regulatory support. This would promote stable stock market behavior and reduce excessive sensitivity to short-term macroeconomic conditions.

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