MONETARY POLICY AND THE PERFORMANCE OF STOCK MARKET IN NIGERIA

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ABSTRACT: This study empirically determined the effect of monetary policy on the performance of the stock market in Nigeria from 1985 to 2022. The monetary policy rate, money supply, lending rate and treasury bill rate were used as proxies for monetary policy while stock market performance was measured by stock market capitalisation. The time series data used for the study were sourced/extracted from the Central Bank of Nigeria (CBN) statistical bulletin. The techniques of data analysis adopted include descriptive statistical techniques, the ADF unit root test, and the ARDL approach. The results of the study showed that the monetary policy rate has a negative and nonsignificant effect on stock market capitalisation in Nigeria, the money supply and the treasury bill rate have a positive and significant effect on stock market capitalisation in Nigeria while the lending rate has a negative but significant effect on stock market capitalisation in Nigeria. Based on the findings, the study concluded that monetary policy variables are vital determinants of the performance of the stock market in Nigeria. The Central Bank of Nigeria should be cautious and properly consider the prevailing macroeconomic conditions in monetary policy decisions, especially with regard to the lending rate because of its potential to fuel inflation, which negatively affects the performance of the stock market.

Keywords: Monetary Policy, Stock Market Capitalisation, Stock Market, Money Supply, Lending Rate, Treasury Bill Rate

INTRODUCTION

The stock market has become an important institution of great concern to investors, stakeholders and governments. It is part of the broader market referred to as the financial market, which deals in exchange for securities issued by publicly quoted companies and the government (Gompers, 2022). The stock market is a public marketplace where investors buy and sell shares of publicly traded companies. It provides a platform for companies to raise capital by issuing stocks and for investors to invest in these stocks, aiming to generate returns through capital appreciation and dividends. The stock market facilitates the allocation of capital from investors to companies, allowing businesses to fund growth initiatives, research and development, and other strategic endeavours. It also serves as a barometer of economic health, reflecting investor sentiment, corporate performance, and macroeconomic conditions. However, the securities traded in the stock market are influenced by monetary policy announcements, both globally and nationally. Monetary policy refers to the actions and decisions undertaken by a country's central bank or monetary authority to manage the money supply, interest rates, and credit conditions in the economy. These monetary policy indicators make stock markets so unpredictable that both developed and the emerging markets are found in the same saga.

There are various monetary policy tools used by the central banks of nations to manipulate the economy through the determination of credit accessibility and the amount of money that should be in circulation within a specified period. In this scenario, monetary authorities try to adjust monetary policy tools to suit the macroeconomic goals of the government and, if possible,

jettison any fundamentals that may distort financial system stability, reliability, stock market performance and the economy in general. Since there is a functional relationship between monetary policy and the stock market index, it becomes necessary for the Central Bank to determine the effect of monetary variables such as the money supply, credit and interest rate on the performance of the money market, and a stock market is not always blessed with upbeat conditions (Muktadir-Al-Mukit & Shafiullah, 2012). Consequently, one of the most significant channels through which monetary policy affects the stock market is changes in interest rates. When central banks lower interest rates (through an expansionary monetary policy), borrowing becomes less expensive encouraging businesses to invest and consumers to spend. This increased economic activity can lead to higher corporate profits and, consequently, higher stock prices. Conversely, when central banks increase interest rates (a contractionary monetary policy), borrowing becomes more expensive, potentially slowing economic growth and dampening stock market performance.

In support of this, Omodero, Adetula and Adeyemo (2021) established that interest rate changes, as one of the monetary policy channels, affect the stock market through a decrease in stock investment. When the interest rate is high, investors tend to reduce their investment commitment due to the high cost of financing. The stocks at this point become less attractive and result in the low stock market output. However, a low-interest rate helps to boost the stock market. Additionally, changes in the money supply can affect liquidity conditions in financial markets, influencing investor behaviour and stock market dynamics. Expansionary monetary policy measures, such as quantitative easing or open market operations, increase liquidity and reduce borrowing costs, potentially boosting stock prices (Omodero, Adetula & Adeyemo, 2021). Conversely, contractionary monetary policy actions can tighten liquidity conditions and dampen investor sentiment, leading to declines in stock prices and stock market performance as a whole. Hence, when the money in circulation is not at equilibrium, investors find it challenging to invest the little that is meant for household usage. The point is that monetary powers are encouraged to ensure that the money supply matches the level of economic activity in an economy which in turn affects stock market performance (Lawson & Amenze, 2022).

However, despite the various monetary policies/measures adopted by the Central Bank of Nigeria (CBN) over the years, inflation still remains high and remains a major threat to every sector of the Nigeria, economy, especially the stock market Central Bank of Nigeria, 2022). However, whether the problem of inflation in Nigeria is due to mismanagement of monetary policy tools or structural deficiencies remains a controversial. In addition, despite many frequently changing monetary and other macroeconomic policies, the Nigerian stock market has faced many challenges. For instance, in the stock market, there has been a decline in the value of shares resulting from the global financial and economic crisis. This has equally reduced the propensity to invest in the market. The poor functioning of the stock market also deters foreign investors because the markets are illiquid and trading is expensive, thereby adversely affecting the economic growth and development of the country (Omodero, Adetula & Adeyemo, 2021). Moreover, low market capitalisation, delays in the delivery of share certificates, double taxation, problems of macroeconomic instability, poor public awareness about the workings of the stock market, and underdevelopment of the stock market coupled with a high incidence of unethical practices have reduced stock market performance and restricted the role of the market in promoting economic growth and development in Nigeria.

Consequently, some studies such as Gunardi and Disman (2023), Lawson and Amenze (2022), Jamilu and Asad-Ul (2021), Omodero, Adetula and Adeyemo (2021), Alugbuo and Chika

(2020), Osakwe and Chukwunulu (2019), Anaele and Umeora (2019), Chukwuemeka (2018), Nwokoye and Otu (2018) have been carried out on monetary policy and stock market in Nigeria. However, based on these empirical studies, none of the related studies made use of the same set of variables that are adopted in this study. Additionally, the most recent time covered by most of these studies was 2021 which made their studies not covering the most recent events in Nigerian stock market. Hence, the point of departure is that this study aimed to analyse the effect of monetary policy on the performance of the stock market in Nigeria from 1985 to 2022. Specifically, this study sought to determine the effect of the monetary policy rate, money supply, lending rate and treasury bill rate on stock market capitalisation in Nigeria.

LITERATURE REVIEW

Theoretical Framework

This study is anchored on the theory of Monetarists. Monetarist theory was developed by American economist Milton Friedman in the mid-20th century. Friedman's work on monetarism gained prominence in the 1960s and 1970s, particularly with the publication of his influential book "A Monetary History of the United States, 1867–1960," coauthored with Anna Schwartz in 1963. In this seminal work, Friedman and Schwartz analysed the historical relationship between changes in the money supply and economic fluctuations in the United States, laying the foundation for the monetarist approach to monetary policy. According to monetarist theory, changes in the money supply have a direct and predictable effect on aggregate demand, output, and inflation. The monetarist conception of the money transmission mechanism can be symbolically and mathematically represented through the quantity theory of money (QTM) and the equation of exchange. The quantity theory of money posits a direct relationship between the money supply and nominal economic variables such as aggregate demand, prices, and output. The equation of exchange serves as the mathematical expression of the quantity theory of money, providing a framework for understanding how changes in the money supply affect economic activity.

The equation of exchange is expressed as:

$$MV = PY$$
(2.1)

where:

M represents the money supply.

V represents the velocity of money, or the rate at which money circulates in the economy.

P represents the price level.

Y represents real output, or the level of goods and services produced in the economy.

In this equation, the left-hand side (MV) represents the total nominal spending in the economy, known as "monetary expenditures while the right-hand side (PY) represents the total nominal income, known as "real expenditures." According to the equation of exchange, these two sides must be equal in equilibrium.

Monetarist theory provides a theoretical explanation for how monetary policy can affect the performance of the stock market. Monetarism emphasises the relationship between the money supply, interest rates, and economic activity, suggesting that changes in the money supply have a direct impact on asset prices, including stocks. Monetarist theory suggests that changes in the money supply influence liquidity conditions in the economy, which can affect stock market performance. When the central bank increases the money supply through expansionary monetary policy measures, such as lowering interest rates or purchasing government securities, liquidity in the financial system increases. This excess liquidity can flow into the stock market as investors seek higher returns, leading to increased demand for stocks and upwards pressure on stock prices. Finally, the monetarist theory highlights the role of interest rates in asset valuation and discounting future cash flows. Lowering interest rates through expansionary monetary policy reduces the discount rate applied to future earnings from stocks, making equities more attractive relative to fixed-income investments. As a result, investors may reallocate their portfolios towards stocks, driving up stock prices in the process.

Empirical Review

Anyanwu and Ohurogu (2024) investigated the effects of interest rates and money supplies on stock market liquidity in Nigeria for the period 1985–2022. The study employed ex post facto research design. Secondary data extracted from the Central Bank of Nigeria Statistical Bulletin and Nigerian Exchange Group Reports were used in the study. Vector autoregression estimation techniques with variance decomposition and impulse response function were employed to analyse the data. The findings revealed that the interest rate has a significant negative effect on stock market liquidity while the money supply has a significant positive effect on stock market liquidity in Nigeria.

Gunardi and Disman (2023) examined the effect of money supply and interest rates on stock prices in Indonesia and Malaysia for a period covering 2000 - 2020. The findings of the study indicated that the money supply and interest rates impact stock prices in Indonesia.

Lawson and Amenze (2022) adopted vector error correction model (VECM) causality framework to empirically investigate the impact of monetary policy instruments on stock market performance in Nigeria. Monthly data ranging January 2010 to June 2019 were collected and analysed. The results revealed that the monetary policy instruments broad money supply (BMS) and the inflation rate (INFR) were significant determinants of all share indices as proxies of stock market returns in the short run. BMS, INFR, interest rate (INTR), exchange rate (EXR) and market capitalisation (MCAP) (controlled variable) significantly impact stock market performance in the long run.

Jamilu and Asad-Ul (2021) examined the nonlinear effect of monetary policy decisions on the performance of the Nigerian Stock Exchange market, by employing the smooth transition autoregressive (STAR) model on monthly data from 2013 M4 to 2019 M12 for the All Share Index and monetary policy instrument. This study considered two regimes characterising the stock market: the lower regime (the bear market) and the upper regime (the bull market). The results showed that that monetary policy rate, money supply, lagged monetary policy rate and lagged treasury bill rate have significant positive effects on the stock exchange market in the lower regime, while the current treasury bill rate has a negative effect. In the upper regime, money supply and lagged treasury bill rate have significant negative effects on the stock market.

Omodero, Adetula and Adeyemo (2021) evaluated the stock market reactions to monetary policy modifications in an emerging market using Nigeria as a case study. This study used data covering the period from 1998 to 2018 to empirically establish the most recent position. The data were collected on all share indices, money supplies, interest rates and exchange rates. The multiple regression results provided evidence that the money supply has a significant favourable influence on the all-share index. In contrast, the interest rate has an immaterial harmful effect on stock market output.

Using the ARDL model, Alugbuo and Chika (2020) investigated the effect of monetary policy on stock market performance in Nigeria for the period of 1981-2018. The time series data used were obtained from World Bank Indicators and OECD National Accounts data files and the study established that the lending interest rate had a positive and significant relationship with all share indices in the current year, while the money supply had a negative relationship with the All-Share Index (ASI) in the current year and in the previous lags i.e., the 1st, 2nd and 3rd year lag periods in the short period.

Osakwe and Chukwunulu (2019) used the ordinary least squares regression technique to determine whether monetary policy (money supply, interest rate and exchange rate) influenced stock market performance in Nigeria from 1986 to 2015. The results of the study indicated that the money supply and exchange rate have positive and significant impacts on stock market price movement whereas the interest rate has an insignificant negative effect on stock market price movement.

Anaele and Umeora (2019) studied the relationship between monetary policy and Nigerian capital market performance from 1986 to 2017. The monetary policy tools employed by the study included the economic policy rate, cash reserve ratio, liquidity ratio and loan-to-deposit balance while using all share index as a proxy for capital market performance. The results from the autoregressive distribution lag (ARDL) regression method indicated that the monetary policy rate, cash reserve ratio and loan-to-deposit ratio are adversely and considerably interrelated with capital market output. Additionally, the liquidity ratio had an affirmative correlation with capital market productivity.

Chukwuemeka (2018) examined the relationship between monetary policy and the performance of the Nigerian capital market using annual time series data sourced from the Central Bank of Nigeria Statistical Bulletin. This study applied the ordinary least squares (OLS) regression technique and causality, unit root, and cointegration, vector error correction estimates. The findings revealed that the interest rate, exchange rate monetary aggregate and monetary policy rate have positive and significant relationships with market capitalisation, but the treasury bill rate has a negative and significant relationship with market capitalisation. The study concluded that monetary policy has a significant relationship with the performance of the Nigeria capital market.

Nwokoye and Otu (2018) used cointegration and vector error correction modelling (VECM) to examine whether monetary authorities can stabilise the stock market and reduce its volatility, culminating in the examination of the impact of monetary policy on the development of the stock market in Nigeria. The results of the cointegration test showed that long run relationships exist among the variables of the model. The VECM revealed that monetary policy, through the growth rate of the money supply, has impacted positively and significantly impacted the

development of the stock market in Nigeria. Again, the prime lending rate has a negative impact on the development of the stock market in Nigeria.

METHODOLOGY

An ex-post facto research design is adopted in this study because it shows the cause effect relationship between the independent variables and dependent variable with a view to establishing a link between them. It contains a description of the methods and procedures employed in the data collection, design and validation of the test instrument. Furthermore, the study employed time series data from 1985 to 2022, and these data were sourced from the Central Bank of Nigeria (CBN) statistical bulletin.

Model Specification

The empirical model employed for this study is built on the multiple regression model of Omodero, Adetula and Adeyemo (2021) with slight modifications. To show the functional relationship, the model can be written as follows:

SMC = (MPR, M2, LR, TBR)
   (3.1)

The model above (3.1) can be explicitly stated as follows:

SMC = $\alpha_0 + \alpha_1$MPR + α_2M2 + α_3LR + α_4TBR + $\mathbb{C}_t$
(3.2)

A Priori Expectation: $\alpha_1 < 0$, $\alpha_2 > 0$, $\alpha_3 < 0$, $\alpha_4 > 0$.

The ARDL form of the equations is thus as follows:

$$\Delta(SMC_t) = \beta_0 + \sum_{t=1}^{p} \beta_{1i}\Delta(SMC_{t-1}) + \sum_{t=1}^{q} \beta_{2i}\Delta(MPR_{t-1}) + \sum_{t=1}^{q} \beta_{3i}\Delta(M2_{t-1}) + \sum_{t=1}^{P} \beta_{4i}\Delta(LR_{t-1})$$

$$+ \sum_{t=1}^{P} \beta_{5i}\Delta(TBR_{t-1}) + \alpha_{1i}\Delta(SMC_{t-1}) + \alpha_{2i}\Delta(MPR_{t-1}) + \alpha_{3i}\Delta(M2_{t-1})$$

$$+ \alpha_{4i}\Delta(LR_{t-1}) + \alpha_{5i}\Delta(TBR_{t-1})$$

$$+ \varepsilon_{1i} \qquad\qquad (3.3)$$

where: SMC = stock market capitalisation; MPR = monetary policy rate; M2 = money supply; LR = lending rate; TBR = treasury bill rate; α_0 = regression intercept; α_1 - α_5 = long-run dynamic coefficients or parameters attached to the independent variables; β_1 - β_5 = short-run dynamic coefficients of the model; $\mathbb{C}_t$ = stochastic or error term; and ε_{1i} = serially uncorrelated stochastic term with zero mean and constant variance.

Description of Variables in the Model

The variables used in the model are classified as dependent variable and independent variables.

Dependent Variable

The performance of the stock market is the dependent variable and it is measured by stock market capitalisation:

Stock Market Capitalisation: This is the total value of all equity securities listed on a stock exchange. It is the most important measure for assessing the size of the stock market (Lawson & Amenze, 2022).

Independent Variable

On the other hand, monetary policy is the independent variable while its proxies include: monetary policy rate, money supply, lending rate and treasury bill rate. These proxies are further explained below:

Monetary Policy Rate: This is the rate at which the Central Bank of Nigeria lends to deposit money banks. In other words, it is the rate at which deposit money banks borrow from the central bank (Osakwe & Chukwunulu, 2019).

Money Supply: The is the total amount of money freely circulating in an economy i.e. currency (paper bills and coins) and bank deposits (Anaele & Umeora, 2019).

Lending Rate: This is the rental payment for the use of credit by borrowers and the return for parting with liquidity by lenders. The prevailing interest rate in the economy today revolves around the CBN monetary policy rate (Chukwuemeka, 2018).

Treasury Bill Rate: This is the rate paid to holders to the federal government of Nigeria's treasury bills issued by the Central Bank of Nigeria (Chukwuemeka, 2018).

Data Analysis Technique

To avoid spurious results, the characteristics of the time series data utilised for the estimation of the model were examined. This enabled the researchers to ascertain whether the mean value and variance of these variables vary or do not vary over time. To this end, stationarity test (unit root test) was conducted on all the variables involved in the study using Augmented Dickey-Fuller (ADF) statistic. In addition, the ARDL bounds testing procedure was used to investigate the long-term relationships among our variables. Finally, autoregressive distributed lag (ARDL) technique was adopted. This is because the variables of the study have mixed stationarity, that is, mixture of stationary at levels [I(0)] and stationary at first difference [I(1)], autoregressive distributed lag (ARDL) technique was adopted.

DATA ANALYSIS AND DISCUSSION

Descriptive Statistical Analysis

The analytical procedure for this study began by providing the descriptive statistics of each variable included in our model as follows:

Table 1: Descriptive Statistics

	SMC	MPR	M2	LR	TBR
Mean	9030.553	13.48684	9917.995	17.92684	13.37237
Median	1735.900	13.50000	2042.370	17.57500	12.95000
Maximum	44750.20	26.00000	43768.86	29.80000	26.90000
Minimum	6.600000	6.000000	22.30000	9.250000	4.500000
Std. Dev.	12453.08	3.720809	13281.41	4.211817	4.646055
Skewness	1.492185	0.885070	1.196080	0.518616	0.369646
Kurtosis	4.443783	5.193186	3.123131	3.976544	3.418638
Jarque-Bera	17.40238	12.57715	9.084525	3.213359	1.142867
Probability	0.000166	0.001857	0.010649	0.200552	0.564715
Sum	343161.0	512.5000	376883.8	681.2200	508.1500
Sum Sq. Dev.	5.74E+09	512.2434	6.53E+09	656.3578	798.6755
Observations	38	38	38	38	38

Source: *Authors' Computation, 2024.*

The descriptive statistics of the research variables (stock market capitalisation, monetary policy rate, money supply, lending rate and treasury bill rate) reported in Table 1 indicate that the money supply has the highest mean value of ₦9918 billion. This is followed by stock market capitalisation with a mean of ₦9030.6 billion. The mean monetary policy rate, lending rate and treasury bill rate were 13.5%, 17.9% and 13.4% respectively. The above statistics indicate that the value of the money supply is greater than the mean values of stock market capitalisation, the monetary policy rate, the lending rate and the treasury bill rate combined over the period. During the period under review, the maximum stock market capitalisation stood at ₦44750.2 billion with a minimum value of 6.6%. Additionally, the maximum monetary policy rate was 26.0%, with a minimum of 6.0%. Moreover, the money supply has a maximum value of ₦43768.86 billion and a minimum value of ₦22.3 billion. In addition, the maximum value for the lending rate was 29.8% with a minimum of 9.3%. Finally, the treasury bill rate has a peak rate of 26.9% and the lowest rate of 4.5% over the period of this study.

Unit Root Test

The test for stationarity was performed using the Augmented Dickey Fuller (ADF) unit root test, and the results of the unit root test are presented below:

Table 2: Augmented Dickey-Fuller (ADF) Test Results

Variables	ADF	Mackinnon Critical Value @ 5%	P-value (Prob.*)	Decision	Order of Integration
		@Levels			
SMC	2.505633	-2.943427	1.0000	Nonstationary	
MPR	-3.264999	-2.943427	0.0240	Stationary	
M2	7.353087	-2.943427	1.0000	Stationary	
LR	-3.740484	-2.943427	0.0074	Stationary	
TBR	-3.216034	-2.943427	0.0269	Stationary	

	@First Difference				
SMC	-4.778859	-2.945842	0.0004	Stationary	I(1)
MPR	-	-	-	-	I(0)
M2	-	-	-	-	I(0)
LR	-	-	-	-	I(0)
TBR	-	-	-	-	I(0)

Source: *Authors' Computation, 2024*

From Table 2 above, the Mackinnon critical value for rejection of unit root hypotheses indicates that stock market capitalisation was stationary at first difference and was integrated of order one I(1) while the monetary policy rate, money supply, lending rate and treasury bill rate in the test employed (that is, ADF) were stationary at levels and were integrated of order zero I(0). However, the variation in the order of stability or the mixed stationarity in the variables [that is 1(0) and 1(1)] necessitated the use of ARDL in the estimation of the long-term relationships among the variables.

ARDL Cointegration Test

Table 3: ARDL Bounds Cointegration Test

Series: SMC MPR M2 LR TBR		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	5.167462	4
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

Source: *Authors' Computation, 2024*

Table 3 shows the results of the ARDL bound correlation test. The F-statistic of 5.167462 indicates the rejection of the null hypothesis of no long-term relationship among the variables at all critical levels (lower and upper bounds). This finding indicates that the variables are cointegrated. This implies that stock market capitalisation has a long run relationship with monetary policy indicators (monetary policy rate, money supply, lending rate and treasury bill rate).

Table 4: Long-Run ARDL Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable = SMC				
MPR	-0.387995	0.468269	-0.828573	0.4141
M2	1.144210	0.043639	26.22011	0.0000
LR	-0.591189	0.183245	-3.226219	0.0031
TBR	0.676445	0.216762	3.120687	0.0041
C	-0.380523	1.715598	-0.221802	0.8260

Source: *Authors' Computation, 2024*

Interpretation of Long Run Results

The negative coefficient of the monetary policy rate (-0.387995) and the p-value (0.4141 > 0.05) indicate that the monetary policy rate has a negative and nonsignificant effect on stock market capitalisation in the long run. The implication of this is that a higher monetary policy rate will lead to a decrease in stock market capitalisation in the long run. Additionally, the positively signed coefficient of money supply (1.144210) and the p-value (0.0000 < 0.05) indicate that the monetary policy rate has a positive and statistically significant effect on stock market capitalisation in the long run. The implication of this is that a higher money supply will significantly increase stock market capitalisation in the long run. Moreover, the negatively signed coefficient of the lending rate (-0.591189) and the p- value (0.0031 < 0.05) indicate that the lending rate has a negative and statistically significant effect on stock market capitalisation in the long run. The implication of this is that a higher lending rate significantly decreases stock market capitalisation in the long run. Finally, the positively signed coefficient of the treasury bill rate (0.676445) and the p-value (0.0041 < 0.05) indicate that the monetary policy rate has a positive and statistically significant effect on stock market capitalisation in the long run. The implication of this is that a higher treasury bill rate will significantly increase stock market capitalisation in the long run.

Table 5: Short Run ARDL Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable = SMC				
D(SMC(-1))	0.348870	0.306372	1.138713	0.2770
D(MPR)	-0.145364	0.391764	-0.371050	0.7135
D(M2)	0.898440	0.202116	4.445172	0.0008
D(LR)	-0.674595	0.184353	-3.659248	0.0033
D(TBR)	0.423768	0.107367	3.946913	0.0005
CointEq(-1)*	-0.591189	0.109188	-5.414420	0.0000

Adjusted R^2 = 0.59999; Durbin-Watson stat = 2.015478

Source: *Authors' Computation, 2024*

Interpretation of the Short Run Results

The negative coefficient of the monetary policy rate (-0.145364) and the p-value (0.7135 > 0.05) indicate that the monetary policy rate has a negative and nonsignificant effect on stock market capitalisation in the short run. The implication of this is that a higher monetary policy rate will lead to a decrease in stock market capitalisation in the short run. Additionally, the positively signed coefficient of money supply (0.898440) and the p- value (0.0008 < 0.05) indicate that the monetary policy rate has a positive and statistically significant effect on stock market capitalisation in the short run. The implication of this is that a higher money supply will significantly increase stock market capitalisation in the short run. Moreover, the negatively signed coefficient of lending rate (-0.674595) and the p-value (0.0033 < 0.05) indicate that the lending rate has a negative and statistically significant effect on stock market capitalisation in the long run. The implication of this is that a higher lending rate significantly decreases stock market capitalisation in the long run. Additionally, the positively signed coefficient of the treasury bill rate (0.423768) and the p-value (0.0005 < 0.05) indicate that the monetary policy rate has a positive and statistically significant effect on stock market capitalisation in the short

run. The implication of this is that a higher treasury bill rate will significantly increase stock market capitalisation in the short run.

Additionally, the adjusted R-squared obtained from the empirical results of the regression analysis is 0.59999. This shows that if the coefficient of determination is adjusted, approximately sixty percent (60%) of the changes in stock market capitalisation are attributable to changes in the monetary policy rate, money supply, lending rate and treasury bill rate while the remaining forty percent (40%) of the variation in the model is equally captured by the error term (unknown factors outside the model). Furthermore, the Durbin-Watson statistic of 2.015478 which is greater than 2 indicates the absence of serial autocorrelation. Finally, the ARDL error correction results in Table 5 show that the expected negative sign of CointEq(-1) is highly significant. This confirms the existence of a long-term relationship among the variables with their various significant lags. The coefficient of CointEq(-1), which is -0.591189 indicates that the deviation from stock market capitalisation is corrected by 59% by the following year.

Table 6: Post Estimation Tests Results

Test	F-Statistic	Probability	Null Hypothesis	Decision
Serial Correlation LM Test	0.119672	0.8885	**H₀:** No serial correlation	Retain H₀
Normality Test	3.757555	0.1528	**Ho:** Normal distribution	Retain H₀
Heteroskedasticity Test	0.425850	0.9581	**H₀:** Homoscedasticity	Retain H₀
Ramsey RESET test	1.486538	0.2483	**H₀:** Correctly specified	Retain H₀

Source: *Authors' Computation, 2024*

The results of the serial correlation LM test showed that there was no evidence of autocorrelation given that that Breush Godfrey LM test probability value was greater than 0.05. Furthermore, the results of the normality test showed that the error term is normally distributed. Additionally, the results of heteroscedasticity test showed that homoscedasticity was absent in the model, confirming the assumption of homoscedasticity. Finally, the results of the Ramsey RESET test showed that the model was correctly specified while no variable was missing from the model. In conclusion, the post estimation test results in Table 6 provide evidence that all the variables (stock market capitalisation, monetary policy rate, money supply, lending rate and treasury bill rate) in our model conform to the basic assumptions of ordinary least squares estimation.

DISCUSSION OF FINDINGS

This study analysed relevant data on the effect of monetary policy on the performance of the stock market in Nigeria. The findings of this study revealed that in the monetary policy rate has a negative and nonsignificant effect on stock market capitalisation in Nigeria. Additionally, the findings of this study revealed that the money supply and the treasury bill rate have a positive and significant effect on stock market capitalisation in Nigeria while the lending rate has a negative but significant effect on stock market capitalisation in Nigeria. These findings are consistent with those of Anyanwu and Ohurogu (2024), who found that the interest rate has a significant negative effect on stock market liquidity while the money supply has significant positive effect on the stock market liquidity in Nigeria. Additionally, Omodero, Adetula and Adeyemo (2021) established that the money supply has a significant favourable influence on the all-share index but in contrast, the interest rate has an immaterial harmful effect on the stock

market output. Furthermore, Jamilu and Asad-Ul (2021) affirmed that the treasury bill rate has a significant positive effect on the stock exchange market. Finally, Osakwe and Chukwunulu (2019) ascertained that the money supply and exchange rate have positive and significant effects on stock market price movement whereas the interest rate has negative effect on stock market price movement.

Conclusion and Recommendations

Conclusion

This study has empirically determined the effect of monetary policy on the performance of the stock market in Nigeria. The study revealed that in different economies of the world, the effect of monetary policy on stock market performance varies according to peculiarities and prevailing economic conditions as well as the efficiency of the stock market in response to monetary policy. Empirically, the study found that the monetary policy rate has a negative and nonsignificant effect on stock market capitalisation in Nigeria, the money supply and the treasury bill rate have a positive and significant effect on stock market capitalisation in Nigeria while the lending rate has a negative but significant effect on stock market capitalisation in Nigeria. Based on these findings, the study concluded that monetary policy variables are vital determinants of the performance of the stock market in Nigeria.

Recommendations

The following recommendations are proposed based on the findings of this study:

1. Given the negative effect of the monetary policy rate on the performance of the stock market in Nigeria, the Central Bank of Nigeria should reduce the current double digit monetary policy rate to a single digit to attract investments in the stock market.
2. Given the positive effect of the money supply on the performance of the stock market in Nigeria, the Central Bank of Nigeria should consider increasing the amount of money in circulation to improve business activities and stock market performance.
3. The Central Bank of Nigeria should be cautious and properly consider the prevailing macroeconomic conditions in monetary policy decisions, especially with regard to lending rate because of its potential to furl or deter inflation which negatively affects the performance of the stock market.
4. Given the positive effect of the Treasury Bill Rate on the performance of the stock market in Nigeria, expansionary monetary policy that guarantees adequate liquidity in the economy should be pursued vigorously by the Central Bank of Nigeria. An adequate level of liquidity offers firms in the stock market better access to financial resources which will later increase their revenue and be translated to prices of securities.

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