EFFECT OF MONETARY POLICY AND FINANCIAL TECHNOLOGY ON STOCK MARKET PERFORMANCE IN NIGERIA

Janet John Yame
Postgraduate Student
Department of Economics,
Adamawa State University Mubi
janetjohnyame@gmail.com

Wadinga, Bakari, ***PhD***
Department of Economics,
Adamawa State University Mubi

Danjuma, Admad, ***PhD***
Department of Economics,
Adamawa State University Mubi

Godwin Boniface, ***PhD***
Department of Economics,
Adamawa State University Mubi

Corresponding Author:
Janet John Yame
Postgraduate Student
Department of Economics,
Adamawa State University Mubi
janetjohnyame@gmail.com

Abstract

The study examined the effect of financial technology and monetary policy on stock market performance in Nigeria. Secondary data covering the period from 2000 to 2023 were used for the study. The study employed Autoregressive Distributed Lag Model (ARDL) Bound test technique to examine long-run relationship and effect of financial technology, monetary policy rate, broad money supply and inflation on stock market performance in Nigeria. The ARDL Bound test confirmed that, there is long-run relationship among the variable of the study. The estimated ARDL model revealed that monetary policy rate (MPR) and inflation (INF) have significant negative effect on stock market performance in Nigeria as a unit increase in MPR and INF reduced stock market performance in Nigeria by about 72% and 15% respectively. The long-run coefficient of the estimated ARDL model revealed that; financial technology (NIP) has positive and significant effect on stock market performance in Nigeria as a unit increase NIP increase stock market performance in Nigeria by about 42%. In line with the findings, the study recommended for the Fintech companies to prioritize data privacy, consent, and fairness in algorithmic decision-making to avoid biases and discrimination. Striking the right balance between innovation and ethical practices is essential for the long-term success and sustainability of the fintech industry. Central Bank of Nigeria should ensure effective monetary policy transmission mechanism that will enhance the performance of the capital market, maintain a stable money supply growth that is consistent with increased activities in the Nigerian stock market and promote policies that will ensure price stability in the economy.

Keywords: *ARDL, Financial Technology, Monetary Policy, Stock Market Performance,*

1. INTRODUCTION

Any economy's stock market is important for mobilizing domestic resources for profitable ventures on a global scale. Since it indicates the reallocation and transfer of assets among various economic entities within an economy, the stock market is considered an essential part of most economies. The majority of developing nations have acknowledged the role that the market plays in advancing the effectiveness and caliber of their own financial systems. The global capital market is becoming unavoidable due to the interdependence and connectivity of domestic and international markets (Lawson & Amenze, 2022).

This market's performance is linked to an economy's overall performance. In particular, the influence of the stock market on the economy as a whole can be linked to the expansion of the Nigerian economy over the past 20 years (Bertram, 2018). This means that the performance of the stock market is inextricably linked to the development of the economy. In addition to the aforementioned, the stock market also serves to increase investor confidence in financial institutions and the economy as a whole, demonstrate the potential and strength of the productive sectors, speed up capital allocation and investment, and make it easier for businesses to obtain the necessary and sufficient capital. Thus, research on monetary policy, financial technology and stock market has become an issue of discourse among policy makers.

Stock market performance, financial technology (FinTech), and monetary policy are all intertwined. The acts of central banks (monetary policy) have an effect on interest rates and market liquidity, which in turn have an impact on stock prices. via changing the way money moves and how financial services are provided, fintech innovations have the potential to impact stock market dynamics via influencing investment behavior and the efficacy of monetary policy. Monetary authorities use this knowledge to accomplish economic objectives like growth and stable prices, while investors use it to forecast stock market success (Jamilu & Asad-Ul, 2021).

For every economy to move in the proper direction on the path of development, the monetary policy transmission mechanism—a conduit via which decisions about monetary policy impact the overall economy—should be developed. The economy has not responded favorably, and the monetary policy transmission mechanism remains unclear despite recent attempts by the Central Bank of Nigeria (CBN) and monetary officials to identify the most effective transmission mechanism. Existing research has demonstrated that the relationship between monetary policy and stock market liquidity will only be effective in developed financial markets where monetary policy is well-managed and its financial market objectives are met, as opposed to developing countries' financial markets, like Nigeria's, where monetary policy is marked by uncertainty and the financial market is still in its infancy.

The Nigeria Exchange (NGX) All Share Index began 2015 largely unchanged and ended the year at 28,642 points. The worldwide health epidemic presented a number of difficulties for economies around the world in 2020. Economic lockdowns, supply chain interruptions, a decline in energy prices, strain on the healthcare system that finally led to pay reductions, and layoffs were all consequences of the epidemic. The performance of the equities market was favorable throughout the year, despite the pandemic's impact on the Nigerian economy. The NGX ASI had increased by +45.07% so far this year by December 2020. For any worldwide stock market in 2020, this was one of the biggest returns (SEC, 2022). In comparison to December 2022 (N27.92 trillion), the market (NGX) had an 18.93% gain as of 2023 (N33.19 trillion) (SEC, 2023).

According to the efficient market hypothesis, asset prices should accurately reflect all available information for the Nigerian capital market to function effectively. Stocks are always trading at their present fair market value, according to the more sophisticated version of the theory put forward by Fama (1970). According to this theory, it is nearly impossible to sell overpriced equities for additional profits or purchase undervalued stocks at a discount. Regulators are therefore struggling with how to effectively oversee and regulate a

market that is becoming more and more characterized by new players and business models, as well as how to handle possible threats to consumer protection (including data privacy), financial stability, and fair competition as financial services shift toward technology-driven configurations. The digital revolution has been sped up by the COVID-19 epidemic. Specifically, as economies, financial services providers, businesses, and individuals navigate the pandemic and the eventual post-COVID-19 world, the need for digital connectivity to replace in-person interactions between consumers and providers and in the processes that produce financial services will become even more crucial. For example, the transition to digital payments has already been sped up by the epidemic (Auer, Cornelli & Frost, 2020).

However, in Nigeria, financial inclusion is a major obstacle. Nigeria's low banking and credit service coverage suggests that a sizable portion of the populace would not have access to liquidity and credit. The population is more impoverished as a result of poor internet penetration, low literacy rates, shocks to employment, production, and consumption, and ineffective savings intermediation. Furthermore, there aren't many noteworthy research on how financial technology and monetary policy transmission mechanisms affect Nigeria's capital market performance. Therefore, this study looked at how financial technology and monetary policy affected Nigeria's capital market performance.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Conceptual Review

The scope of the definition of monetary policy varies considerably among scholars, agencies and international organizations. Economic Times (2021) defined monetary policy is the macroeconomic policy laid down by the central bank. It involves management of money supply and interest rate and is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity. Kimberly (2020) views monetary policies as central bank's actions and communications that manage the money supply in an economy. The money supply includes forms of credit, cash, checks, and money market mutual funds. The most important of these forms of money is credit. Credit includes loans, bonds, and mortgages. Central banks use interest rates, bank reserve requirements, and the number of government bonds that banks must hold. All these tools affect how much banks can lend. The volume of loans affects the money supply. According to CBN (2021), monetary policy concept was defined as any policy measure designed by the federal government through the CBN to control cost availability and supply of credit. It also referred to as the regulation of money supply and interest rate by the CBN in order to control inflation and to stabilize the currency flow in an economy. It can be deduced that, monetary policy is concerned with the changes in the supply of money and credit. It refers to the policy measures undertaken by the government or the central bank to influence the availability, cost and use of money and credit with the help of monetary techniques to achieve specific objectives. Monetary policy aims at influencing the economic activity in the economy mainly through two major variables such money or credit supply and the rate of interest.

Similarly, the concept of financial technology conveys different meaning to different people at different levels. Shawn (2022) aims to elucidate the notion of financial technology, or fintech, as a comprehensive industry that deals with the integration of technology and financial services, thereby simplifying business transactions in the modern day. Currently, a number of businesses that offer online financial services have

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been established. Similarly, financial technology, or fintech, was defined by Julia (2023) as new technology that aims to enhance and automate the provision and utilization of financial services. Fundamentally, fintech is used to assist individuals, businesses, and entrepreneurs in better managing their financial life, operations, and procedures. It is made up of specific algorithms and software that are utilized by smartphones and PCs. The term fintech was first used to describe the technology used at the backend systems of well-known financial organizations, such banks, when it first appeared in the twenty-first century. Similar to this, Justin (2023) defined financial technology as any software, app, or technology that enables individuals or organizations to access, manage, or obtain financial information or conduct financial transactions digitally. Fintech emerged as a way to assist consumers in overcoming financial obstacles and moving closer to their financial objectives during the past ten years as they embraced digital tools more and more. As a result, customers now depend on fintech for a variety of purposes, including banking, budgeting, lending, and investing, in addition to its obvious daily advantages. From the explanation above, it is clear that financial technology refers to the use of digital and online platforms by businesses or representatives of businesses that supply goods and services in the money and capital market by fusing financial services with cutting-edge, contemporary technologies. Generally speaking, the goal is to draw clients with more automated, transparent, efficient, and user-friendly goods and services.

In a similar vein, stock market performance has been defined in a variety of ways, but no clear, widely-accepted definition has evolved. According to Gratton (2024), is the collective trading network that includes equities and their derivatives. Businesses that are listed on stock markets are required to be public, which means that their shares are exchanged on stock exchanges and other venues and are not restricted to a small group of people. Numerous reporting and transparency requirements apply to publicly traded firms. In the view of Renee (2022), each investor's assessment of stock performance is highly unique. Every investor has distinct criteria for assessing stock performance, just as each person has varied risk appetites, diversification plans, and investing methods. While one investor would seek to diversify their holdings by adding a stock that is unrelated to the overall stock market, another might anticipate an average yearly return of 10% or higher. The stock market, according to Davis and Taube (2022), is where investors purchase and sell company shares. Companies provide shares and other securities for trading on this network of exchanges. Over-the-counter (OTC) markets, in which investors trade securities with one another directly (as opposed to via an exchange), are also included. A network of exchanges operates the stock market. Companies use a procedure known as an initial public offering, or IPO, to list shares of their stock on an exchange. Thus, stock market performance is the assessment of how well a stock market or certain stocks within it are performing over a given time frame. It is an essential measure of a nation's economic and financial health, showing how well its financial system works and how well savings are being allocated to profitable ventures.

2.2 Theoretical Review

The study was anchored on the Efficient Market theory proposed by Fama (1965). The Efficient Market theory as a framework for analyzing the effectiveness of capital markets; financial market prices are meant to reflect all identified information and, therefore, be impartial, reflecting the collective views of investors (Osakwe, Ogbonna & Obi-Nwosu, 2020; Akintola & Cole, 2020). A test of efficiency is whether current

prices have taken into account all available information as of that moment. This information about current stock prices and the firm's value should not allow investors to receive excess profits above the overall market, which has implications for investors and financial managers (Abina & Maria, 2019; Akintola & Cole, 2020). Market proficiency was divided into three categories by Fama (1970): weak, semi-strong, and strong. The weak form of the capital market occurs when rates fully imply information based on a historical sequence of past prices, whereas the semi-strong form occurs when values display all information that is freely accessible; the strong form highlights information that is accessible to market participants and that insiders have an impact on stock prices (Akintola & Cole, 2020). The theory is relevant to our work because efficiency—whether it be operational, allocation, or price efficiency—is crucial in the financial market and any kind of inefficiency can have a significant impact on Nigeria's capital market performance. In terms of information availability, prices, value, and payment systems, this theory discusses the relationship between financial technology and capital market development, which may ultimately result in improved capital market performance. Therefore, this study will look into whether or whether capital market operators' use of financial technology genuinely affects the performance of the Nigerian capital market proportionately.

2.3 Empirical Literature

The literature on the impact of financial technology and monetary policy on capital market performance offers a broad spectrum of research conducted in Nigeria, other African nations, and the global community. Nevertheless, the empirical studies' attempts to identify the association between the factors have produced conflicting results. In terms of methodology, the region studied, the variables, and the time frame, the majority of these research vary. Due to conflicting results from earlier research, the argument over how financial technology and monetary policy affect capital market performance still need further investigation. A review of the empirical research aligns with the study's goals as follows:

Nwokoye and Emmanuel (2018), however, look into how monetary policy affects the growth of the Nigerian stock market. The study's time frame was 1981–2015. For the analysis, cointegration and vector error correction modeling (VECM) were used. The cointegration test shows that the model's variables have a long-term equilibrium relationship. According to the VECM result, monetary policy has had a favorable and substantial influence on the expansion of the Nigerian stock market through the money supply growth rate. Additionally, the results showed that the prime lending rate has hampered the growth of the Nigerian stock market.

Isaac (2018) conducts an empirical investigation on the relationship between Nigerian stock market activity and macroeconomic policy. The ARDL bounds testing approach is the methodology employed. The empirical results demonstrate that interest rates and the money supply both have short-term and long-term statistically significant impacts on the stock market. In a similar vein, taxes and government spending have both short-term and long-term statistically significant impacts on the stock market.

In a related study, Samuel, Joseph, and Oluwatoyin (2021) looked into the relationship between Nigerian stock market performance from 1985 to 2018 and government policies. Using the Fully Modified OLS (FMOLS) model and the Bounds cointegration test, it investigated the linear and non-linear effects of policy

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interactions with stock market performance. The results of the Bounds cointegration test showed a long-term linear correlation between Nigerian stock market performance and governmental actions. The results of the non-linear test, however, indicated that only fiscal policy has a long-term correlation with stock market performance; the relationship between monetary policy and stock market performance remains unclear. Both fiscal and monetary policies have a major impact on stock market performance, according to the FMOLS conclusion, but contractionary fiscal policy seems to have a greater impact than its monetary equivalent.

Ullah, Jebran, and Rahman's (2022) additional research investigates whether and how FinTech affects stock price liquidity. Based on a sample of Chinese listed companies from 2011 to 2020 and the FinTech index, the findings show a favorable correlation between Fintech and stock price liquidity. This association is weaker in the face of greater economic policy uncertainty but more pronounced in the presence of increased media coverage, analyst following, and non-state-owned firms. The results are still in line with endogeneity concerns, omitted factors, and other measures. The findings show that as financial technology advances, financial openness rises, fostering an information ecosystem and, ultimately, stock liquidity. The results add to the body of knowledge regarding the governance function of digital finance in relation to stock liquidity.

Suoye, Itotenaan, and Tarila (2021) evaluated the relationships between stock market performance and electronic transactions in the Nigerian financial ecosystem. Quarterly data was used in the study from 2012 to 2019. The evaluations, which included the Johansen Co-integration, were conducted using the Vector Error Correction Model. The short-run error correction reveals a negative and negligible correlation between stock market performance and the ATM and WEB. Additionally, the results demonstrated a positive but not statistically significant relationship between POS and stock market performance. The results also showed a strong and significant relationship between NIP and stock market capitalization. Essentially, NIP was the sole significant variable among the study's factors that affected the performance of the stock market in the Nigerian financial ecosystem.

The impact of FinTech development on the likelihood of future stock market crashes and the function of corporate social responsibility in a developing financial system are both examined by Quang and Van (2023). FinTech development raises the probability of stock market crashes, according to research utilizing a sample of 662 listed companies on the Vietnamese stock exchange from 2011 to 2020 using the fixed-effect and System GMM estimate methods.

Additionally, Osakwe and Chukwunulu (2019) investigated how Nigerian stock market performance was impacted by monetary policy. The CBN statistical bulletin provided the data. The period of time was 1986–2015. The OLS regression technique was used for the statistical analysis. The findings demonstrated that while interest rates have a negligible negative impact on stock market price movement, changes in the money supply and exchange rate have a considerable positive impact. Overall, the findings indicate that 94% of changes in Nigeria's stock market performance are significantly influenced by monetary policy variables.

Asiedu, Oppong, and Gulnabat (2020) conducted another research that offered a dynamic examination of the stock market performance in ten (10) chosen African nations between 1993 and 2019 in response to changes in monetary aggregates. Following the establishment of co-integration between the variables, the study used the random effect model based on our findings from the Hausman test and VECM. It was discovered that the performance of the stock market is positively impacted by the expansion of broad money via the interest rate channel. Inflation and interest rates were found to have a detrimental impact on stock market performance metrics. Because of the comparatively high degree of financial openness in the nations in question, it was also discovered that monetary policy changes have a considerable impact on the performance of the West African stock market.

By using the Smooth Transition Autoregressive (STAR) model on monthly data for the All Share Index and monetary policy instrument from 2013 M4 to 2019 M12, Jamilu and Asad-Ul (2021) investigate the nonlinear impact of monetary policy decisions on the performance of the Nigerian Stock Exchange market. The two regimes that define the stock market—the lower regime, or bear market, and the upper regime, or bull market—are examined in the study. The findings demonstrate that monetary policy has a nonlinear impact on the stock market. While the present treasury bill rate has a negative impact on the stock exchange market in the lower regime, the monetary policy rate, money supply, lagged monetary policy rate, and lagged treasury bill rate are found to have considerable positive effects. The money supply and the lagged treasury bill rate have a major detrimental impact on the stock market under the upper regime. The stock exchange market is proven to benefit from the present treasury bill rate.

Ugwuany (2019) objectively examined the long-term effects of the monetary policy tools to ascertain the rate of market adjustment while examining the response of stock market returns to monetary policy shocks of specific monetary policy instruments in Nigeria over the years 1985–2016. According to the study, which used the multivariate Engle-Granger Cointegration and Error Correction Mechanism (ECM) model, the broad money supply and deposit interest rate have significant short-term and long-term effects on stock market returns, respectively, while the inflation rate has a negligible long-term impact. According to the ECM result, which had the correct sign, stock market returns respond to long-term monetary policy shocks by about 2% over a two-year period.

3. METHODOLOGY

In order to establish a cause-and-effect relationship between monetary policy, financial technology, and stock market performance in Nigeria, the study used an ex-post facto research design, which examines how independent variables with certain qualities that existed before the study affect a dependent variable. Secondary sources provided the data pertaining to the study's variables, and several econometrics methods were used for data analysis. Data relating to the variables of the study were drawn from various editions of the Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS) Bulletins for the period of 2000 to 2023. The econometrics methods include; Augmented Dickey Fuller (ADF) test for unit root testing and Autoregressive distributed lag Bound Test (ARDL) for long-run and short-run impact analysis.

The relationship between monetary policy, financial technology, and capital market performance is specified using the efficiency market model, the quantity theory of money, and the empirical research that

has been done for both developed and developing economies (Jamilu & Asad-Ul, 2021; Lawson & Amenze, 2022; Suoye, Itotenaan & Tarila, 2021). The study starts with the definition of a functional model modified from Nwakoby and Alajekwe (2016) to include a financial technology variable in order to investigate the relationship between stock market performance, monetary policy, and financial technology in Nigeria. The model's mathematical function is expressed as follows:

Qt = f(ZtTtPt) …………………………………………………………………………(1)

Where;

Qt represents Vector of all share index at time t, Zt represents vector of monetary policy instrument at time t, Tt represents vector of financial technology variable at time t and Pt represents the vector of other control variables at time t. Based on the above function, Z represents the broad money supply and Monetary Policy Rate, T represents Nigeria Instant Payment system transaction while P represents the exchange rate and inflation rate.

Thus, the functional relationship of the model becomes;

ASI =f(M2, MPR, NIP, INF)…………………………………………………………..(2)

The stochastic form of the model specified as thus;

$ASI_t = \beta_0 + \beta_1 M2_{t-1} + \beta_2 MPR_{t-1} + \beta_3 NIP_{t-1} + \beta_4 INF_{t-1} + \varepsilon_t$ ……………………………………(3)

The stochastic form of the model is specified in accordance to ARDL model specification for estimation as thus;

$$\mathrm{ASI}_t = \beta_0 + \sum_{i=1}^{p} \beta_1 \mathrm{ASI}_{t-i} + \sum_{i=0}^{p} \beta_2 \mathrm{M2}_{t-i} + \sum_{i=0}^{p} \beta_3 \mathrm{MPR}_{t-i} + \sum_{i=0}^{p} \beta_4 \mathrm{NIP}_{t-i} + \sum_{i=0}^{p} \beta_5 \mathrm{INF}_{t-i} + \sum_{i=1}^{q} \alpha_1 \Delta\mathrm{ASI}_{t-i} + \sum_{i=0}^{q} \alpha_2 \Delta\mathrm{M2}_{t-i} + \sum_{i=0}^{q} \alpha_3 \Delta\mathrm{MPR}_{t-i} + \sum_{i=0}^{q} \alpha_4 \Delta\mathrm{NIP}_{t-i} + \sum_{i=0}^{q} \alpha_5 \Delta\mathrm{INF}_{t-i} + \varepsilon_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(4)$$

Where;

ASI = All Share Index, a proxy for Stock market performance

M2 = Broad Money Supply

MPR = Monetary Policy Rate

NIP = Nigeria Instant Payment system

INF= Inflation Rate

β_O = intercept or constant term;

$\beta_{1,}$ - β_6 = long-run parameters

α_1-α_{56} = Short-Run Parameters

εt = Error term with the assumption of zero mean and constant variance.

4. EMPIRICAL RESULTS

4.1 Unit Root Test

The variables of the study were subjected to unit root tests using the Augmented Dickey-Fuller (ADF) test to determine the stationarity levels of the series. The results of the tests are presented in Table 1.

Table 1: ADF Unit Root Test Result

Variables	ADF Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	Prob.	Order of Integration
ASI	-3.155955	-3.069597	-3.004861	-2.642242	0.0369	I(0)
NIP	-4.058446	-4.016209	-3.710482	-3.297799	0.0272	I(1)
MPR	-5.280966	-4.440739	-3.632896	-3.254671	0.0017	I(1)
M2	-4.560259	-3.769597	-3.004861	-2.642242	0.0017	I(1)
INF	-6.145531	-3.769597	-3.004861	-2.642242	0.0000	I(0)

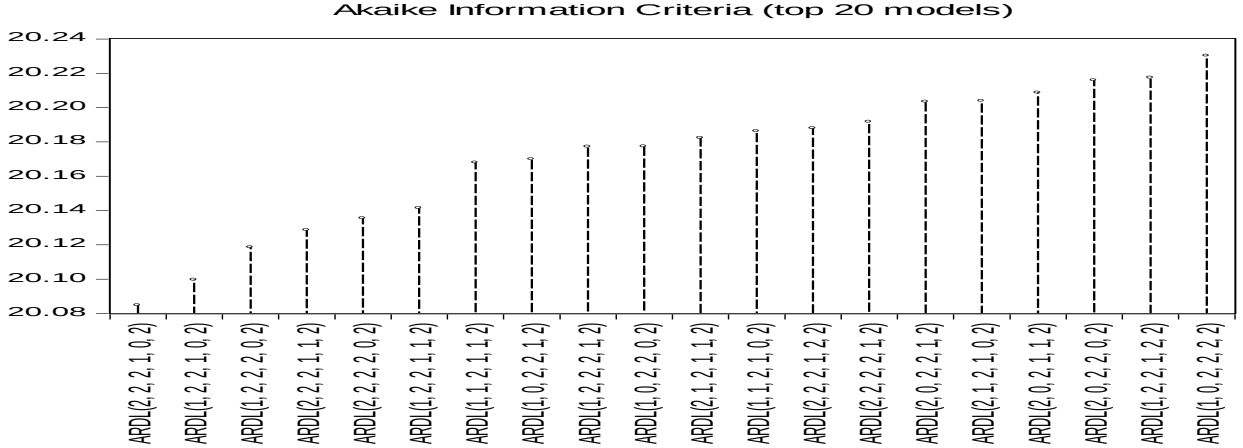
Source: E-Views 9.0 Result Output, 2025

Table 1 shows that while the All Share Index (ASI) and inflation (INF) are stationary at the level, Nigeria Instant Payment (NIP), the Monetary Policy Rate (MPR), and the money supply (M2) are integrated at order one. This circumstance justifies the use of ARDL techniques, which support series that are either I(1), I(0), or a combination of the two. To prevent spurious regression and make sure no variable is integrated of order two, stationarity tests are required. The Akaike Information Criterion (AIC), which was chosen automatically, served as the basis for the test.

4.2 ARDL Results

4.2.1 ARDL Optimal Lag Selection

The Akaike information Criterion was used to select the optimal lag for the models. The graph of the optimal model selection summary is presented in figure 1.



Source: Extraction from E-Views, 2025

Figure 1: Akaike Information Criteria (AIC) Graph Showing Optimal Model Selection Summary

Figure1 shows that, top 20 ARDL model specifications were considered. Although an ARDL (2,2,2,1,0,2) was finally selected. However, it can also be seen how well some other specifications performed in terms of minimizing AIC.

4.2.2 ARDL Bounds Test

The Autoregressive Distributed Lag (ARDL) Bounds test approach to cointegration was employed to investigate if the variables used for the study converge in the long-run. The ARDL Bound test result is presented in Table 2.

Table 2: ARDL Bound Test to Cointegration

Test Statistic	Value	k
F-statistic	**4.759157**	**5**
	Critical Value Bounds	
Significance	**I0 Bound I(0)**	**I1 Bound I(1)**
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Source: E-Views 9.0 Result Output, 2025

Table 2 shows that long-run relationships exist among the variables of the study because the F-Statistic (4.759157) is greater than the lower I(0) and upper I(1) bounds of the critical values at 5% critical value.

4.2.3 ARDL Long Run Coefficients

The ARDL long-run coefficients were estimated to examine the long-run impact of the independent variables on the endogenous variable having established that, long run relationship exist among the variables. The estimated result of the ARDL long-run coefficients are presented in Table 3.

Table 3: ARDL Long-Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NIP	0.422040	0.632345	0.667420	0.0259
MPR	-0.721228	1.541128	-0.467987	0.0450
M2	-0.619526	0.866692	-0.714817	0.4979
INF	-0.153930	1.375571	-1.119033	0.0301
C	0.497167	1.522605	3.265242	0.0138

. **Source: E-Views 9.0 Result Output, 2025**

Table 3 demonstrated that, everything been equal, Nigerian Instant payment (NIP) had a considerable favorable long-run influence on stock market performance over the time of the study. Accordingly, the performance of the Nigerian stock market will rise by roughly 42% for every unit increase in the Nigerian instant payment (NIP). The result showed that the probability value for Nigerian instant payment (NIP) (0.0259) is statistically significant to reject the null hypothesis that Nigerian instant payment (NIP) has no significant impact on stock market performance in Nigeria, given the decision criteria to reject null hypothesis (HO) if the probability value is < 0.05. Therefore, we draw the conclusion that, during the study period, Nigerian Instant Payment (NIP) significantly boosted the country's stock market.

Conversely, the findings showed that the monetary policy rate (MPR) significantly and negatively affects the performance of the Nigerian stock market over the long term. The performance of the stock market is reduced by roughly 72% for every unit increase in the monetary policy rate (MPR). The result showed that the probability value for the monetary policy rate (MPR) (0.0450) is statistically significant to reject the null hypothesis that the MPR has no significant effect on the performance of the Nigerian stock market, given the decision criteria to reject the HO if the probability value is less than 0.05. Therefore, we draw the conclusion that, during the study period, the monetary policy rate (MPR) significantly impacted the performance of Nigeria's capital market.

Similarly, money supply (M2) has a negligible negative effect on stock market performance, ceteris paribus. The performance of the Nigerian stock market will decline by roughly 62% for every unit increase in the money supply (M2). The result showed that the probability value for money supply (M2) (0.4979) is not statistically significant to reject the null hypothesis that money supply (M2) has no significant impact on stock market performance in Nigeria, given the decision criteria to reject null hypothesis (HO) if the probability value is < 0.05. Therefore, we draw the conclusion that the money supply (M2) in Nigeria has no appreciable detrimental long-term effects on market performance.

The ARDL long-run coefficient further demonstrated that inflation significantly impairs stock market performance. The performance of the Nigerian stock market will decline by about 15% for every unit increase in inflation (INF). The result showed that the probability value for inflation (INF) (0.0301) is statistically significant to reject the null hypothesis that inflation (INF) has no significant impact on stock market performance in Nigeria, given the decision criteria to reject null hypothesis (HO) if the probability value is < 0.05. Therefore, we draw the conclusion that Nigeria's stock market performance is significantly impacted negatively over the long term by inflation (INF).

4.2.4 ARDL Short-Run Coefficients

ARDL short-run coefficients were further examined to establish the short-run dynamics and to ascertain the speed of converges to the long-run equilibrium. The result of ARDL short-run dynamics is presented in Table 4.

Table 4: ARDL Short-Run Dynamics

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ASI(-1))	0.137719	0.155791	0.883999	0.4060
D(NIP)	0.121376	0.358085	3.389595	0.0116
D(NIP(-1))	-0.896440	0.437244	-2.050204	0.0795
D(MPR)	0.133072	8.638506	1.540452	0.1673
D(M2)	-0.378936	0.503905	-0.751998	0.4766
D(INF)	-0.672624	4.589675	-1.465517	0.1862
D(INF(-1)	-0.142436	4.640128	-3.069668	0.0181
CointEq(-1)	-0.611654	0.145536	-4.202773	0.0401

. **Source: E-Views 9.0 Result Output, 2025**

The short-run coefficient for the 1-year lag ASI was positive but not statistically significant, according to the ARDL estimated model's short-run coefficients, which are shown in Table 4. Therefore, for the research

period, we conclude that the current year all share index (a proxy for stock market performance) in Nigeria is positively impacted in the short term by the 1-year lags of ASI.

Additionally, the current year's Nigerian Instant payment system has shown a short-term beneficial impact on the performance of the Nigerian stock market, according to the ARDL estimated model shown in Table 4. The probability value (0.0116) indicates that NIP is statistically significant for the current year, supporting the conclusion that NIP significantly improves short-term stock market performance in Nigeria. The Nigerian instant payment system's one-year lag, however, has had a short-term detrimental effect on the country's stock market performance. The one-year lag NIP is statistically negligible, according to the probability value (0.0795), which supports the conclusion that NIP has a significant and adverse short-term influence on the performance of the Nigerian stock market during that time.

Additionally, it was discovered that the current year monetary policy rate (EXR) had a short-term favorable effect on stock market performance. The current year's MPR's probability value (0.1673) is statistically insignificant, indicating that MPR has a short-term positive effect on Nigeria's stock market performance.

Conversely, the money supply (M2) for the current year showed a short-term negative influence on stock market performance. Nonetheless, the current year M2 probability value (0.4766) has been found to be statistically insignificant, indicating that, throughout the study period, current year M2 significantly impairs Nigeria's stock market performance in the short term. Meanwhile, during the study period, the current and one-year lag inflation rates (INF) showed a short-term, statistically significant negative impact on Nigeria's stock market performance.

The explanatory variables' shock from the previous year is expected to converge back to the long-run equilibrium in the current year at a rate of about 15%, according to the calculated co-integrating error correction term (ECT), which is negative and statistically significant.

4.3 Diagnostic Test Results

The study employed post-estimation test to diagnose the residuals of the estimated model for valid and reliable outcomes. The test of serial correlation, Heteroskedasticity, Stability and normality test were conducted and the results presented in Table 5.

Table 5: Diagnostic Test Results

Test	Null Hypothesis	F-statistics	Prob. Value
Beusch Godfrey Serial Correlation LM Test	No Serial Autocorrelation	1.032412	0.4214
Breusch-Pagan Godfrey	No Hetroscedasticity	0.481550	0.8841
Jarque-Bera	Series residuals are normally distributed	1.551303	0.460404
Ramsey Reset	No Misspecification	0.293110	0.6077

. **Source: E-Views 9.0 Result Output, 2025**

Table 5 indicated the result of diagnostic tests to confirm the validity or the opposite of the estimated model. The model was subjected to serial correlation test to test the null hypothesis that there is no serial correlation

in the residuals up to a specified lag order. The results show that the null hypothesis cannot be rejected because the probability value of the F-statistics is greater than the 5% significance level (0.4214. Thus, the model does not suffer from serial correlation.

To test whether the variance of the disturbance term is not the same for all the observations, the heteroscedasticity test has been conducted. The null hypothesis of this test is that the there is no heteroskedasticity. Therefore, the null hypothesis cannot be rejected since the p-value of the F-statistics is greater than 5% significance value (0.8841). Hence, the model is homoscedastic.

To test the normality of the series residuals, Jarque-Bera (JB) statistic reveals that, the null hypothesis that the series residuals are normally distribution is accepted because the p-values of the JB statistic is greater than 5% significant level (0.460404). Ramsey reset test holds that the F-statistic test the hypothesis that the coefficients on the powers of the fitted values from the regression are jointly zero. Therefore, the null hypothesis cannot be rejected since the probability value of F-statistics is greater than 5% significant level (0.6077). This implies that the model used in this study is well-specified.

4.4 Discussion of Findings

The study's objectives and tested hypotheses serve as the bases for the discussion of the results. Determining the long-term relationship between Nigeria's stock exchange market, financial technology, and monetary policy was the study's fist objective. The results of the ARDL bound test indicate that there are long-term correlations between the study's variables. Similar research by Nwakoby et al. (2023), Isaac (2018) as well as Samuel, Joseph, and Oluwatoyin (2021 also found a long-term linear relationship between Nigerian stock market performance, financial performance, and monetary policy. This suggests that there is a propensity for the study's variables to eventually equilibrate.

The study's second objective is to evaluate how financial technology affect Nigeria's stock market performance. Given that a unit increase in the Nigerian Instant Payment System (NIP) corresponded to a roughly 42% rise in stock market performance, the estimated ARDL model demonstrated that the NIP has a large beneficial impact on stock market performance. In order to reject the null hypothesis that financial technology has no discernible effect on the performance of the Nigerian capital market, the probability value for the calculated coefficient of the Nigerian Instant Payment System (NIP) was determined to be statistically significant. The results were in line with some of the empirical studies that were reviewed because they supported the findings of Manasseh, Nwakoby et al (2023) as well as Ullah, Jebran, and Rahman (2022) who discovered that digital financial innovation has a significant long-term impact on the development of the financial system, Fintech has a positive correlation with stock price liquidity, and in general, information technology has helped the Nigerian Capital Market grow. The main effects of this have been the improvement in the trading patterns of the Nigeria Stock Exchange and the availability of information to investors. However, the results did not align with those of similar studies conducted by Suoye, Itotenaan, and Tarila (2021) as well as Quang and Van (2023). These studies found that web payment platforms were negatively and insignificantly linked to stock market performance, that the development of financial technology increases the risk of stock price crashes and has no significant effect on

stock returns listed on the Stock Exchange, and that electronic dividend payment systems have no effect on the rising unclaimed dividends in the Nigerian stock market.

The study's third objective was to ascertain how Nigeria's stock market performance was impacted by the monetary policy rate. The estimated ARDL model's long-run coefficient showed that the monetary policy rate (MPR) has a detrimental long-term effect on Nigeria's capital market performance. The null hypothesis that the monetary policy rate (MPR) has no discernible effect on the performance of the Nigerian capital market was rejected based on the statistical significance of the probability value for the calculated coefficient of the MPR. Additionally, the ARDL short-run estimated model verified that MPR showed a favorable but negligible effect on Nigeria's capital market performance. This implies that by changing the discount rate that market players employ, MPR directly affects stock returns. A tighter monetary policy rate causes enterprises' future cash flows to be capitalized at a faster rate, which lowers stock values. According to similar studies by Osakwe and Chukwunulu (2019) as well as Asiedu, Oppong, and Gulnabat (2020), the lending rate has had a negative impact on the growth of the Nigerian stock market over the years, and the monetary policy rate has a negative significant relationship with capital market performance. Yet, the results contradict research by Jamilu and Asad-Ul (2021) which found that the Monetary Policy Rate (MPR) significantly and marginally improves capital market performance.

The forth study objective evaluates the impact of the money supply on the performance of the Nigerian stock market. The ARDL model's long-term calculated coefficients showed that a broad money supply had a detrimental effect on the performance of the capital market. The null hypothesis that the broad money supply has no discernible effect on the performance of the Nigerian capital market is accepted since the test statistic probability for the estimate coefficient of the broad money supply has shown an insignificant value to reject the null hypothesis correspondence to objective three. The broad money supply's estimated short-run coefficient likewise verified a negative and negligible value, suggesting that it has a negative and negligible effect on Nigeria's capital market performance over both the short and long term. This is made possible by the fact that during the study period, Nigeria's money supply increased significantly. Higher money demand in the context of an accommodating monetary policy is indicated by an unanticipated increase in the money supply. A higher demand for money indicates a higher level of danger. Stocks become less appealing as a result of investors demanding larger risk premiums for keeping them, which lowers equity prices and lowers the economy's capital market performance. The results were consistent with related research by Jamilu and Asad-Ul (2021), who found that the money supply significantly impairs Nigeria's stock market performance. The findings, however, contradict the majority of related research conducted by Asiedu, Oppong, and Gulnabat (2020), Nwokoye and Emmanuel (2018) as well as Ugwuany (2019), which found that growth in broad money has a positive impact on the performance of the Nigerian stock market over the course of their individual studies.

5. Conclusion and Recommendations

In line with findings of the study, the study concluded that, monetary policies such as monetary policy rate and growth in money supply are encumbrances to stock market performance in Nigeria over the period of the study. In addition, the study concluded that, inflation which has been one of the monetary policy target

of the monetary authority in Nigeria derail capital market performance in Nigeria over the period of the study, suggesting that, during periods of rising inflation, corporations profit and growth margins may be hit, affecting investor confidence which in turn affects their willingness to take on risk by holding stocks there by negatively affecting capital market performance in Nigeria over the years. It was further concluded that, financial technology has potential to improve capital market performance in Nigeria as it payment platforms which serves as gateways that enable online transactions to improve overall business operations in the capital market operation, by providing a more secure and efficient transaction process, enhancing investors experience, confidence and facilitating global reach.

In line with the study findings, the following recommendations are proposed:

1. Since financial technology has the potential to enhance capital market performance in Nigeria, the Securities and Exchange Commission (SEC) should give artificial intelligence and machine learning top priority in order to maintain its important role in fintech and offer investors individualized services. To prevent prejudice and discrimination, fintech companies must give data privacy, consent, and fairness a priority when making algorithmic decisions. The long-term viability and prosperity of the fintech sector depend on finding the ideal balance between innovation and moral behavior. By offering investors in the capital market prompt and effective assistance, these technologies provide more precise risk assessment, fraud detection, tailored advice, and enhanced customer service.

2. To improve the performance of the capital market, the Central Bank of Nigeria should guarantee an efficient framework for transmitting monetary policy. To encourage capital market investment, the monetary authority should lower the current double-digit monetary policy to a single digit. A high interest rate lowers the cash lows of companies listed on the stock exchange, which causes the market value of securities to decline.

3. The Central Bank of Nigeria should also continue to boost the money supply steadily in line with the rise in activity on the Nigerian stock exchange. While a shrinking money supply can result in less market liquidity, which will also impact stockl market performance, an excess money supply lowers equity prices because it increases money demand, which suggests an increase in risk as investors demand higher risk premiums for holding stocks. Therefore, in order to ensure steady money supply growth that is compatible with rising activity in the Nigerian stock market, CBN needs to find a balance.

4. In addition, the CBN must support policies that will guarantee price stability in the economy. Supporting the improvement of basic infrastructure, particularly energy and power supply, will lower operating costs and, consequently, the economy's tendency toward inflation. This will significantly boost consumers' real income, purchasing power, and demand for goods and services, as well as improve business returns on investment and, eventually, instill confidence in investors in the Nigerian finance market.

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