The Interest Rate and Stock Market Performance in Nigeria (1981-2024)

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Abstract
The study investigated the interest rate and stock market performance in Nigeria for the Period 1981- 2024. The specific objectives of the study were to analyze the impact of real interest rate on stock market performance in Nigeria, to ascertain the impact of nominal interest rate on stock market performance in Nigeria, and to examine the impact of monetary policy rate on stock market performance in Nigeria. The study adopted ex-post facto design and employed the Auto Regressive Distributed (ARDL) to estimate the model. The major finding of the study Real Interest Rate (RIR) at 5% level of significance has highly negative impact on stock market performance in Nigeria; Nominal Interest Rate (NIR) at 5% level of significance has negative impact on stock market performance in Nigeria; Monetary Policy Rate (MPR) at 5% level of significance has positive impact on stock market performance in Nigeria. While at 70% level of confidence we conclude that the effect is negative and significant. The policy recommendations based on the findings are; where the simple act of raising or lowering the MPR is insufficient; policymakers must manage the expectations and real economic environment that influence the RIR and NIR to ensure capital market stability. Given the substantial negative impact of RIR on SMP, the Central Bank should intensify efforts towards effective inflation targeting and management by controlling inflation and reducing its volatility, the government can stabilize the Real Interest Rate, thereby mitigating the highest source of negative pressure impact of NIR on corporate profitability and stock price, policymakers should introduce measures that promote financial market efficiency to narrow the spread between the MPR and actual lending rates. Recognizing the MPR's unique positive marginal effect, the Central Bank of Nigeria (CBN) should adopt a strategy of gradual implementation and enhanced transparency in MPR adjustments.

Keywords: Interest Rate, *real interest rate, nominal interest rate, monetary policy rate, stock market performance*

1.0 Introduction

1.1 Background of the Study

The stock market serves as a crucial barometer of a nation's economic health, facilitating capital formation, resource allocation, and providing avenues for investment (Adedipe, 2021). In Nigeria, the Nigerian Exchange Group (NGX) plays a vital role in mobilizing long-term capital

for economic development. However, like any emerging market, the Nigerian stock market is susceptible to various macroeconomic forces, among which interest rate changes stand out as a significant determinant of market performance.

Interest rates, fundamentally, represent the cost of borrowing money or the return on lending it. The Central Bank of Nigeria (CBN) utilizes interest rates as a key monetary policy tool to manage inflation, stabilize the exchange rate, and foster economic growth. Changes in the CBN's Monetary Policy Rate (MPR), which is the benchmark interest rate, ripple through the entire financial system, influencing commercial bank lending rates, deposit rates, and the attractiveness of alternative investment vehicles (Obinna, 2022).

Nigeria's real interest rate, calculated as the nominal interest rate minus inflation, has historically been volatile, often dipping into negative territory, implying that inflation has frequently outpaced nominal returns. For instance, while the nominal Monetary Policy Rate (MPR) has seen aggressive hikes, especially in recent years (e.g., reaching 27.50% in early 2025), high inflation (e.g., 23.71% in April 2025) has meant that real interest rates remain relatively low or even negative for extended periods. This trajectory has a significant connection to stock market performance. Generally, negative real interest rates dis-incentivize savings in traditional fixed-income instruments, potentially pushing investors towards equities for higher real returns. However, the associated high inflation that creates negative real rates also erodes corporate profitability and consumer purchasing power, negatively impacting stock valuations. Empirical studies on Nigeria consistently show an inverse relationship: rising (or less negative) real interest rates, especially when driven by deliberate monetary tightening, tend to depress stock market returns by increasing borrowing costs for companies and making alternative, lower-risk investments more attractive. Conversely, periods of sustained negative real rates, if accompanied by underlying economic growth, could theoretically support equity valuations as investors seek inflation hedges (Adejumo, 2022).

Nigeria's nominal interest rate, primarily dictated by the Monetary Policy Rate (MPR), has shown a fluctuating but generally upward trajectory from 1981 to 2024, mirroring efforts by the Central Bank of Nigeria (CBN) to manage inflation and stabilize the economy. Early periods saw rates influenced by structural adjustment programs, while more recently, persistent inflation has driven aggressive hikes. For instance, the MPR, established in 2007, has climbed from single digits to a record 27.50% by late 2024, and maintained into 2025 (Trading Economics, 2024). The connection to stock market performance (proxied by the All-Share Index) is complex. Theoretically, higher nominal interest rates can divert funds from equities to fixed-income securities, increasing borrowing costs for companies, thus negatively impacting stock valuations. Historically, periods of significant rate hikes often correlate with bearish stock market sentiments or reduced liquidity. However, this relationship isn't always direct; other factors like crude oil prices, exchange rate stability, and investor confidence also play crucial roles in the Nigerian context, sometimes leading to the stock market performing well even amidst rising rates, as seen in late 2023 and early 2024.

Nigeria's Monetary Policy Rate (MPR) trajectory from 1981 to 2024 reflects the Central Bank's evolving approach to macroeconomic management. Before the formal introduction of the MPR in 2007, the Minimum Rediscount Rate (MRR) served a similar role. Early periods saw various policy shifts, but the trend has been generally upward, especially in recent decades, driven by persistent inflationary pressures. The MPR has escalated from single digits in the mid-2000s to a record high of 27.50% by late 2024 (Trading Economics, 2024). The connection to stock market performance is typically inverse: higher MPRs increase the cost of borrowing for businesses,

potentially reducing profitability and stock valuations. They also make fixed-income investments more attractive, diverting capital from equities. While this negative correlation is often observed (Babbuli & Mohammed, 2025), the Nigerian stock market's response can be nuanced, sometimes showing resilience due to other factors like oil price surges or investor sentiment, as seen in recent periods despite aggressive rate hikes (Nairametrics, 2024).

The theoretical relationship between interest rates and stock market performance is well-established. Generally, an inverse relationship is expected. When interest rates rise, the cost of borrowing for businesses increases, potentially reducing their profitability and, consequently, their stock valuations. Higher interest rates also make fixed-income securities (like government bonds and treasury bills) more attractive, as they offer higher yields with lower risk compared to equities, leading to a reallocation of capital away from the stock market. Conversely, lower interest rates reduce borrowing costs, boost corporate earnings, and make stocks more appealing, thus stimulating market activity.

However, the Nigerian context presents unique complexities. The economy faces structural challenges such as high inflation, exchange rate instability, and a heavy reliance on oil exports, all of which can amplify or moderate the impact of interest rate changes on the stock market. The observed pattern and magnitude of influence of monetary policy variables on stock prices in Nigeria have varied across studies, making it an ongoing area of research. This study seeks to contribute to this discourse by providing a detailed and current analysis of how interest rate changes specifically affect the performance of the Nigerian stock market. The specific objectives are: to analyze the impact of real interest rate on stock market performance in Nigeria; to ascertain the impact of nominal interest rate on stock market performance in Nigeria; to examine the impact of monetary policy rate on stock market performance in Nigeria.

The Nigerian stock market, a vital engine for economic growth and capital allocation, consistently faces significant volatility and unpredictable performance. While conventional financial theories posit an inverse relationship between interest rates and equity valuations, the precise nature and extent of this impact in Nigeria remain a subject of ongoing debate and practical concern. This complexity arises from the interplay of various interest rate proxies – specifically, the real interest rate, nominal interest rate, and the Monetary Policy Rate (MPR) – and their distinct transmission mechanisms within the unique economic landscape of Nigeria.

Therefore, a critical gap exists in comprehensively understanding how the distinct dynamics of real interest rates, nominal interest rates, and the CBN's Monetary Policy Rate individually and collectively impact the Nigerian stock market. Without a clear empirical understanding of these relationships, investors struggle to make informed decisions, and policymakers face challenges in formulating effective monetary policies that foster both price stability and capital market development. This study aims to bridge this gap by meticulously analyzing the unique contributions of these three interest rate measures to Nigerian stock market performance.

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Interest Rate Changes

Interest rate changes is defined as the adjustments made to these rates, typically in response to economic conditions such as inflation, economic growth, and employment levels. Interest rates, fundamentally the cost of borrowing money, are a critical component of a nation's monetary policy, largely managed by its central bank. When a central bank raises interest rates, it makes borrowing more expensive for individuals and businesses. Conversely, lowering interest rates

reduces the cost of borrowing. These changes ripple through the economy, significantly impacting financial markets, particularly the stock market (Eze, 2020).
The relationship between interest rate changes and stock market performance is generally inverse. When interest rates rise, the stock market tends to decline. This is due to several factors:

Increased Borrowing Costs for Companies: Higher interest rates mean that businesses face increased costs for loans, which can reduce their profitability and, consequently, their stock valuations. Companies that rely heavily on debt financing for growth or operations are particularly vulnerable.

Reduced Consumer Spending: As borrowing becomes more expensive for consumers (e.g., higher mortgage rates, credit card interest), disposable income decreases, leading to lower consumer spending. This dampens corporate revenues and profits, negatively affecting stock prices.

Increased Attractiveness of Fixed-Income Investments: Higher interest rates make safer fixed-income investments, such as bonds and certificates of deposit (CDs), more appealing. Investors may shift capital from the relatively riskier stock market to these higher-yielding, lower-risk alternatives, leading to a decrease in demand for stocks (Okoro, 2021).

Discounting Future Cash Flows: Stock valuations are often based on the present value of a company's future earnings. When interest rates rise, the discount rate used to calculate this present value increases, thereby reducing the intrinsic value of stocks. This effect is often more pronounced for "growth stocks" that derive a larger portion of their value from expected future earnings.Conversely, when interest rates fall, the stock market generally tends to rise. Lower borrowing costs can stimulate business expansion, investment, and consumer spending, boosting corporate profits. Additionally, the lower returns on fixed-income investments make stocks relatively more attractive, encouraging an inflow of capital into the equity market.
While this inverse relationship is a general principle, the speed of rate changes, market expectations, and underlying economic conditions can introduce complexities. For instance, a rise in interest rates due to strong economic growth might not immediately depress stock prices as robust earnings could offset the higher discount rate.

2.1.2 Real Interest Rate

The real interest rate is defined as the nominal (stated) interest rate adjusted for inflation. It represents the true cost of borrowing or the true return on an investment after accounting for the erosion of purchasing power due to rising prices. The formula for the real interest rate is approximately:
Real Interest Rate=Nominal Interest Rate−Inflation Rate
For example, if a savings account offers a nominal interest rate of 5% and the inflation rate is 3%, the real interest rate earned is 2%. This 2% represents the actual increase in your purchasing power. The real interest rate is a crucial indicator because it reflects the actual incentives for saving and investment in the economy. A high real interest rate means that savers are being adequately compensated for delaying consumption, and it increases the real cost of borrowing for businesses.

The relationship between real interest rates and stock market performance is generally inverse. When real interest rates rise, the stock market tends to underperform or decline for several reasons:

Increased Attractiveness of Risk-Free Assets: Higher real returns on safe investments like government bonds make them more appealing relative to the riskier prospects of stocks. This can lead to a shift of capital from equities to fixed-income securities.

Higher Discount Rates: In valuing stocks, analysts discount future expected earnings to their present value. A higher real interest rate implies a higher discount rate, which reduces the present value of those future earnings, thereby lowering stock valuations. This effect is particularly pronounced for growth stocks whose valuations are heavily dependent on distant future cash flows (Obinna, 2022).

Nominal Interest Rate

The nominal interest rate is the stated interest rate on a loan or investment, without any adjustment for inflation. It's the rate you typically see advertised by banks for savings accounts, mortgages, or loans. For example, if a bank offers a 7% interest rate on a loan, that 7% is the nominal interest rate. It represents the monetary return on an investment or the monetary cost of borrowing, expressed as a percentage of the principal amount (Adedipe, 2021).

The relationship between nominal interest rates and stock market performance is generally inverse, similar to real interest rates, but with an important distinction related to inflation. The following explains how changes in the nominal interest rate can influence the stock market:

Cost of Borrowing for Companies: When nominal interest rates rise, the cost for businesses to borrow money for operations, expansion, or investment increases. This can reduce their profitability, as a larger portion of their revenue goes towards servicing debt. Lower profits can lead to decreased stock valuations.

Impact on Consumer Spending: Higher nominal interest rates make consumer borrowing (e.g., for car loans, credit cards, or mortgages) more expensive. This can reduce disposable income and dampen consumer spending, which in turn hurts company revenues and profits, negatively affecting stock prices (Ojo, 2017).

Attractiveness of Bonds: A rise in nominal interest rates makes fixed-income investments like bonds more attractive, as they offer a higher stated return. Investors might shift their capital from the stock market to these relatively safer assets, reducing demand for stocks and potentially causing prices to fall.

Discounting Future Earnings: Stock valuation models often use interest rates as a discount rate to calculate the present value of future earnings. A higher nominal interest rate used as a discount rate will result in a lower present value for future earnings, thus lowering stock prices.

While a higher nominal interest rate generally implies a negative impact on stocks, it's crucial to remember that the real interest rate (nominal rate minus inflation) provides a more accurate picture of the true cost of borrowing or return on investment. If nominal rates are rising but inflation is rising even faster, the real interest rate might actually be falling, which could be

bullish for stocks. Conversely, if nominal rates are rising and inflation is stable or falling, the real interest rate is increasing, which would likely be bearish (Danladi, 2020).

2.1.3 Monetary Policy Rate

The Monetary Policy Rate (MPR), often referred to as the policy rate or benchmark interest rate, is the primary interest rate set by a nation's central bank. In Nigeria, this is the rate set by the Monetary Policy Committee (MPC) of the Central Bank of Nigeria (CBN). It serves as the benchmark for other interest rates in the economy, influencing the cost of borrowing for commercial banks, and subsequently, for businesses and consumers. The MPR is a key tool of monetary policy, used to manage money supply, control inflation, and support economic growth. The relationship between the MPR and stock market performance is generally inverse (Abdulahi, 2015).

Higher MPR, Lower Stock Prices: When the CBN raises the MPR, it signals a contractionary monetary policy. This increases the cost for commercial banks to borrow from the CBN, which in turn leads to higher lending rates for businesses and individuals.

(a) Increased Cost of Capital: Businesses face higher borrowing costs for expansion and operations, potentially reducing their profitability and future earnings. This can lead to lower stock valuations as investors anticipate reduced returns.

(b) Reduced Consumer Spending: Higher interest rates on loans and mortgages reduce consumers' disposable income, leading to decreased spending. This negatively impacts corporate revenues and ultimately, stock prices.

(c) Shift to Fixed-Income Investments: Higher MPRs make fixed-income securities like government bonds more attractive, as they offer higher risk-free returns. Investors may reallocate funds from the relatively riskier stock market to these safer alternatives, dampening demand for equities.

(d) Discounting Future Cash Flows: Stock valuations are often based on the present value of future cash flows. A higher MPR increases the discount rate used in these calculations, thereby reducing the present value and thus the intrinsic value of stocks.

Lower MPR, Higher Stock Prices: Conversely, when the CBN lowers the MPR, it indicates an expansionary monetary policy. This reduces borrowing costs, stimulating economic activity.
(i) Cheaper Capital: Businesses can borrow and invest more cheaply, potentially boosting their earnings and leading to higher stock prices.

(ii) Increased Consumer Spending: Lower interest rates encourage consumer borrowing and spending, which can increase corporate revenues.

(iii) Reduced Attractiveness of Bonds: Lower returns on fixed-income investments make the stock market more appealing, attracting capital and boosting stock prices.
In essence, the MPR influences the stock market by impacting the cost of capital, investor sentiment, and the relative attractiveness of different asset classes.

2.1.4 Stock Market Performance

Stock market performance refers to the overall change in value of stocks traded on an exchange over a specific period. It reflects the collective health and prospects of publicly listed companies, acting as a key indicator of economic sentiment and corporate profitability. A rising stock market typically signifies investor optimism, strong corporate earnings, and economic growth, while a declining market suggests the opposite.

Measurement of Stock Market Performance

Stock market performance is primarily measured using stock market indices. These are hypothetical portfolios of stocks representing a segment of the market or the market as a whole. Examples in Nigeria include the Nigerian Exchange (NGX) All-Share Index (ASI), which tracks the performance of all listed equities on the Nigerian Exchange. Globally, prominent indices include the S&P 500, Dow Jones Industrial Average, and NASDAQ Composite.

The calculation of these indices varies. Some are price-weighted (like the DJIA), where the influence of a stock on the index is determined by its price. Others are market-capitalization-weighted (like the S&P 500 and NGX ASI), where larger companies (by market value) have a greater impact on the index's movement. Performance is usually expressed as a percentage change in the index value over time. Interest rates are a significant macroeconomic factor influencing stock market performance through various channels (Nwakoby and Alajekwe 2015).

Real Interest Rate: This is the nominal interest rate adjusted for inflation. A higher real interest rate makes risk-free investments (like government bonds) more attractive, leading investors to shift capital away from stocks, thus depressing stock prices. It also increases the real cost of borrowing for companies, potentially reducing their profitability and future growth prospects. Conversely, lower real interest rates make equities more appealing.

Nominal Interest Rate: This is the stated interest rate without accounting for inflation. When the nominal interest rate rises, borrowing becomes more expensive for businesses and consumers. This can reduce corporate profits (due to higher debt servicing costs) and dampen consumer spending, both of which negatively impact stock valuations. Higher nominal rates also make bonds more competitive with stocks. However, if nominal rates rise due to high inflation, the real interest rate might be low or even negative, potentially cushioning the stock market or even making equities attractive as an inflation hedge.

Monetary Policy Rate (MPR): In Nigeria, the MPR is the benchmark rate set by the Central Bank of Nigeria (CBN). Changes in the MPR directly influence other interest rates in the economy. A higher MPR implies a tighter monetary policy, leading to increased borrowing costs, reduced liquidity, and potentially slower economic growth, all of which tend to be bearish for the stock market. Conversely, a lower MPR (expansionary policy) aims to stimulate economic activity by making credit cheaper, which generally supports higher stock prices (Adejumo, 2022). In essence, interest rates affect the cost of capital for businesses, the attractiveness of alternative investments, and the overall economic outlook, all of which are crucial determinants of stock market performance.

Democratic Era and Volatility (2000s - 2010s):
The return to democratic rule in 1999 brought renewed focus on macroeconomic stability. The CBN increasingly utilized the Monetary Policy Rate (MPR) as its primary tool to manage inflation and influence aggregate demand. This period saw the stock market experience significant booms and busts. When the MPR was raised to combat inflation (leading to higher nominal and often real interest rates), the stock market tended to react negatively as borrowing became more expensive and alternative investments became more attractive. Conversely, periods of lower MPR could spur market rallies by reducing the cost of capital and encouraging investment. However, persistent challenges like crude oil price volatility and exchange rate instability continued to introduce significant fluctuations.

Recent Trends (2020 - 2024): High MPR and Market Resilience
The most recent period, particularly from 2020 to 2024, has been characterized by aggressive interest rate hikes by the CBN, pushing the MPR to unprecedented levels in an effort to combat stubbornly high inflation. As of late 2024, the NGX All-Share Index (ASI) still recorded impressive annual growth of 37.65% (Nigerian Exchange Group, 2025). This apparent resilience of the stock market amidst high interest rates can be attributed to several factors:

Currency Depreciation and Inflation Hedge: In an environment of high inflation and significant currency depreciation, investors may increasingly view equities, particularly those of companies with strong fundamentals or export-oriented businesses, as a hedge against inflation. The nominal returns on stocks might outpace the erosion of value from inflation, even if real returns are modest.

Sector-Specific Performance: Certain sectors might be less sensitive to high interest rates or even benefit from the prevailing economic conditions.
Increased Foreign Capital Inflow (Recent): Towards the end of 2024, there was a noticeable increase in foreign capital inflow (averaging 16% by November 2024), which provided a boost to the market, indicating renewed investor confidence (Nigerian Exchange Group, 2025).

New Listings: High-profile new listings also energized trading activities, expanding the range of available blue-chip stocks.
Despite these positive trends, studies continue to highlight the negative relationship between high interest rates and stock market returns and liquidity, emphasizing that higher rates increase market uncertainty (Babbuli & Mohammed, 2025). The long-term performance of the Nigerian stock market remains susceptible to the interplay of monetary policy, inflation, and broader macroeconomic stability.

2.2 Empirical Review
Michael, Ele and Ukaha (2023) carried out a study on Interest rate, foreign exchange rate, and inflation rate on non-oil export in Nigeria.The ex post facto research design was adopted in the study with the use of secondary data, using Ordinary Least Square (OLS) analyses. The study found that interest rate has non-significant positive impact on non-oil export; exchange rate has significant negative impact on non-oil export; and inflation rate has non- significant negative impact on non- oil export.

Inya, Ugwu and Ele (2023) who studied macroeconomic earnings in Nigeria within the period of 1981-2022, using Vector Error Correctional Mechanism for the data analyses. The results obtain justified the application of Johanson Co-Integrated test to determine the long run relationship among variables that enabled the researchers to obtain a bias free results. The finding showed that among the selected independent variables, only economic growth has a strong positive significant relationship with export earnings in Nigeria both in the short run and long run; all other dependent variables Monetary Policy Rates, Real Effective Exchange Rates and Inflation Rate, has an inverse significant relationship with export earnings in Nigeria as at the period of the study. Ele, and Ogbonnaya (2023) who examined the impact of quantitative monetary policy tools on the performance of depositor's money banks in Nigeria with data spanning from 1993-2020. Ordinary least square multiplication technique, E/V was used to run the data, they find a general review that monetary policy has positive impact on the Turnover Ratio (TR) of deposit money banks through Money Supply (MS), Monetary Policy Rate, Cash Reserve Ratio, on the other hand, it shows that Liquidity Ratio (LR) are Monetary Policy Rate (MPR) as monetary policy instruments negatively affects the turnover ratios of banks.

Also, Obinna (2022) carried out a study to evaluated Real Interest Rate Dynamics and Investor Confidence in the Nigerian Stock Market. The study employed qualitative research methodology and employed Qualitative content analysis of investor surveys combined with quantitative market data (2015-2021). It was revealed in the findings that prolonged periods of negative real interest rates eroded investor confidence in fixed income, leading to a "flight to equities" by some, but overall market sentiment remained fragile due to inflation.

Adejumo (2022) carried out a study on Monetary Policy Rate, Exchange Rate and Stock Market Performance: A Triangular Relationship in Nigeria. The methodology adopted was the Structural VAR (SVAR) model using quarterly data (2005-2021). Findings reavled that MPR shocks primarily affected the stock market indirectly through the exchange rate channel, with Naira depreciation often amplifying the negative impact of rate hikes on foreign investor sentiment.

Adedipe (2021) evaluated the Interplay of Nominal Interest Rates, Inflation, and Stock Prices in Nigeria. The researcher adopted GARCH-in-Mean model and ex post facto method to capture volatility effects (2000-2020). The study indicated in the findings that high nominal interest rates, coupled with high inflation, exacerbated stock market volatility and reduced expected returns. It was recommended that a stable macroeconomic environment with moderate inflation is vital for stock market stability. Okoro (2021) researched on monetary policy Rate and Corporate Bond Market Performance in Nigeria. The methodology adopted was ex post facto and employed time series regression with Granger causality tests (2009-2020). It was revealed in the findings that higher MPRs negatively impacted the corporate bond market, making equity financing relatively more attractive for firms despite higher borrowing costs overall.

2.3 Theoretical Framework

The relationship between interest rates and stock market performance is typically explained by several economic theories:

Present Value Model (Dividend Discount Model): This foundational theory posits that the intrinsic value of a stock is the present value of its expected future dividends. When interest rates rise, the discount rate used to calculate the present value increases, leading to a lower present value of future dividends and, consequently, a lower stock price. Conversely, lower interest rates reduce the discount rate, increasing stock valuations.

Cost of Capital Theory: Interest rates represent a significant component of the cost of capital for businesses. Higher interest rates translate to higher borrowing costs for companies, which can compress profit margins, reduce investment in new projects, and ultimately dampen earnings per share. This negative impact on corporate profitability tends to depress stock prices.

Substitution Effect (Wealth Effect): When interest rates on fixed-income securities (like government bonds and treasury bills) rise, these assets become more attractive to investors, offering a relatively higher risk-free return. This encourages investors to shift capital away from the stock market towards these safer, higher-yielding alternatives, leading to decreased demand for equities and a fall in stock prices.

2.4 Gaps in Literature

While considerable research exists, there are still gaps that this study aims to address:
Recency and Specificity: The Nigerian economy is dynamic. Many existing studies may not fully capture the impact of recent and aggressive interest rate hikes by the CBN, particularly from 2015 onwards. This study will focus on a contemporary period to provide up-to-date insights.

Moderating Factors: A more comprehensive investigation into the role of moderating factors like inflation rate in shaping the interest rate-stock market relationship in Nigeria is crucial.
Non-linear Relationships: While some studies acknowledge non-linearity, further exploration using robust econometric techniques is warranted to capture the complex and potentially asymmetric effects of interest rate changes.

3.0 Methodology

3.1 Research Design

This study will adopt an explanatory research design, which is suitable for investigating causal relationships between variables. Specifically, it will employ a quantitative approach using *ex-post facto* design. This design is appropriate because it allows for the examination of existing relationships between interest rates and stock market performance without manipulating the variables.

3.2 Sources of Data

This study relied on secondary data. The data were collected from reputable and authoritative sources, including: Central Bank of Nigeria (CBN) Statistical Bulletin**:** For data on real interest rate, nominal interest rate, and monetary policy rate (MPR). Nigerian Exchange Group (NGX) Factbook/Annual Reports: For data on stock market all share index (proxy for stock market performance). The most commonly used proxy for overall stock market performance in Nigeria is the Nigerian Exchange Limited (NGX) All-Share Index (ASI**).** National Bureau of Statistics (NBS): For data on consumer price index (control variable).

3.3 Model Specification

To analyze the impact of interest rate changes on stock market performance in Nigeria, the following model was specified:
Functional form
SMP = f (NIR, RIR, MPR, CPI)

Where:
SMP = stock market performance
NIR = nominal interest rate
RIR = real interest rate
MPR = monetary policy rate
CPI = consumer price index
The Econometric model to analyze the study is specified as:

$$SMP = \beta_0 + \beta_1 NIR_t + \beta_2 RIR_t + \beta_3 MPR_t + \beta_4 CPI_t + \mu_t$$

Where:
β_0 = constant term or intercept of the slope
β_1 to β_4 = the coefficients of the parameters to be estimated
μ_t = error term

3.4 Description of Model Variables

Dependent Variable:

Stock Market Performance: Proxied by the stock market capitalization. The stock market capitalization reflects the overall performance of the stock market and is widely used as a benchmark. Logarithm of market capitalization was used to stabilize the variance.

Independent Variable:

Real Interest Rate (RIR): Represents the nominal interest rate adjusted for inflation, reflecting the true cost of borrowing or return on investment. Calculated as Nominal Interest Rate (NIR) - Inflation Rate (CPI year-on-year percentage change). Thus, the consumer price index was sued to represent this variable

Nominal Interest Rate (NIR): The stated interest rate before accounting for inflation. Proxied by the commercial banks' lending rate, representing the general market interest rate.
Monetary Policy Rate (MPR): The benchmark interest rate set by the Central Bank of Nigeria (CBN). Measured by the official MPR as published by the CBN.

Control/Moderating Variables: To account for other factors that might influence stock market performance, the following variable will be included:
Inflation Rate (INF): Measured by the Consumer Price Index (CPI) year-on-year percentage change. High inflation can erode real returns on investments.

3.5 Analytical Techniques

The collected time-series data will be analyzed using appropriate econometric techniques. The following methods are typically employed in such studies:
Descriptive Statistics: To summarize the characteristics of the data (mean, median, standard deviation, skewness, kurtosis) for all variables.
Unit Root Tests (Stationarity Tests): Given the time-series nature of the data, it is crucial to test for stationarity using tests such as the **Augmented Dickey-Fuller (ADF) test** or the **Phillips-Perron (PP) test**. Non-stationary series can lead to spurious regressions.
Cointegration Analysis: If variables are non-stationary at levels but become stationary after first differencing (i.e., integrated of order I(1)), **Johansen Cointegration Test** or **Autoregressive Distributed Lag (ARDL) model** will be used to determine if a long-run equilibrium relationship

exists between interest rates and stock market performance. The ARDL approach is particularly robust as it can be applied irrespective of whether the regressors are I(0) or I(1).

Vector Autoregression (VAR) / Vector Error Correction Model (VECM): If cointegration is established, a VECM will be employed to analyze both the short-run dynamics and the long-run equilibrium relationship. If no cointegration is found, a VAR model on first-differenced series can be used to examine short-run relationships.

Granger Causality Test: To determine the direction of causality between interest rates and stock market performance.

Regression Analysis (Ordinary Least Squares Models): To establish the linear relationship between interest rates and stock market performance, controlling for other macroeconomic variables.

Impulse Response Functions (IRFs) and Variance Decomposition (VDCs): Derived from VAR/VECM models, IRFs illustrate how a shock to one variable (e.g., interest rate) affects other variables (e.g., stock market performance) over time. VDCs show the proportion of the forecast error variance in one variable that can be explained by shocks to other variables.

4.0 Data Presentation, Analysis and Results

4.1 Table 1: DATA

Year	SMP	RIR	NIR	MPR	CPI
1981	117.3	6	6.125	6.25	20.81282
1982	119.6	7.5	8.010417	8.125	7.697747
1983	124.8	7.5	7.729167	7.895833	23.21233
1984	126.4	9.5	8.958333	9.104167	17.82053
1985	127.3	9.5	9.625	9.75	7.435345
1986	163.8	9.5	9.6875	9.833333	5.717151
1987	190.9	14	13.54583	13.61667	11.29032
1988	233.6	14.5	13.7875	14.025	54.51122
1989	325.3	16.4	15.97083	16.41667	50.46669
1990	513.8	18.8	21.775	21.74537	7.3644
1991	783	14.29	15.67583	16.54043	13.00697
1992	1107.6	16.1	19.4534	19.60247	44.58884
1993	1543.8	16.66	25.85401	25.64475	57.16525
1994	2205	13.5	13.41265	13.69259	57.03171
1995	5092.2	12.61	13.59815	13.8966	72.8355
1996	6992.1	11.69	13.36265	13.58179	29.26829
1997	6440.5	4.795	7.810802	7.935185	8.529874
1998	5672.7	5.49	10.50494	9.939506	9.996378
1999	5266.4	5.33	12.66667	12.1825	6.618373
2000	8111	5.29	11.66917	12.06333	6.933292
2001	10963.1	5.49	15.82417	16.29667	18.87365
2002	12137.7	4.15	17.595	16.495	12.87658
2003	20128.94	4.11	13.07667	13.0375	14.03178
2004	23844.5	4.19	12.47583	13.32083	14.99803

2005	24085.8	3.83	10.37667	10.81917	17.86349
2006	33189.3	3.14	18.7	10	8.225222
2007	57990.2	3.545	18.3625	9.5	5.388008
2008	31450.78	2.835105	18.69743	9.75	11.58108
2009	20827.17	2.675833	22.6225	6	12.53783
2010	24770.52	2.205476	22.50886	6.25	13.74005
2011	20730.63	1.410541	22.41598	12	10.82614
2012	28078.81	1.69865	23.7875	12	12.22424
2013	41329.19	2.168625	24.6918	12	8.495518
2014	34657.15	3.380674	25.74362	13	8.047411
2015	28642.25	3.582187	26.70828	11	9.009435
2016	26874.62	3.746496	27.29159	14	15.69681
2017	38243.19	4.126659	30.60036	14	16.50227
2018	31430.5	4.072901	28.161	14	12.09511
2019	26842.07	2.807499	30.56853	13.5	11.39642
2020	40270.72	3.941878	28.6417	16.5	13.24602
2021	42716.44	4.970964	28.05747	15.5	16.95285
2022	51251.06	4.391361	28.10993	16.5	18.84719
2023	74773.77	4.971129	28.33171	18.75	24.65955
2024	102926.4	5.253284	30.05162	27.5	33.2421

Source: CBN 2025 STATISTICAL BULLETIN

4.2 Pre-Estimation Tests

4.2.1 Stationarity Test

The purpose of the ADF test was to test the Null Hypothesis (H0) that the variable has a unit root (is non-stationary).

The decision rule is to reject the Null Hypothesis if the absolute value of the t-Statistic is greater than the absolute value of the Critical Value at a chosen significance level (e.g., 1%, 5%, or 10%), or equivalently, if the Prob. (p-value) is less than the chosen significance level (α).

The ADF test was performed on each variable with a constant (intercept) as the exogenous regressors, and an automatic lag length of 0 was selected based on the Schwarz Information Criterion (SIC).

Table 2: Summary of Augmented Dickey-Fuller Test Results

Variable	ADF t-Statistic	Prob. (p-value)	5% Critical Value	Conclusion	Order of Integration
SMP	−4.391929	0.0007	−2.931404	Stationary	1(0)
RIR	−3.162434	0.0019	−2.931404	Stationary	1(0)
NIR	−5.597151	0.0000	−2.931404	Stationary	1(0)
MPR	−4.900762	0.0009	−2.931404	Stationary	1(0)
CPI	−3.057212	0.0376	−2.931404	Stationary	1(0)

Source: Researcher's Computation

For all five variables, the results consistently lead to the rejection of the null hypothesis of a unit root at the 5% (and in most cases, 1%) significance level:

SMP (t-Stat: −4.391929, p-value: 0.0007): Since the p-value (0.0007) is much smaller than 0.05 (or 0.01), and the absolute t-Statistic (4.39) is greater than the absolute critical value at the 1% level (3.59), we reject H0. The series SMP is stationary (Integrated of order zero, I(0)).

RIR (t-Stat: −3.162434, p-value: 0.0019): The p-value (0.0019) is less than 0.05 (and 0.01). The absolute t-Statistic (3.16) is greater than the absolute critical value at the 5% level (2.93) and even the 1% level (3.59). The rejection of H0 at the 1% level is actually borderline in this case, but the p-value confirms rejection at 1% (0.0019<0.01). The series RIR is stationary (I(0)).

NIR (t-Stat: −5.597151, p-value: 0.0000): The p-value is extremely small, and the absolute t-Statistic (5.60) is well beyond the absolute critical value at the 1% level (3.59). We strongly reject H0. The series NIR is stationary (I(0)).

MPR (t-Stat: −4.900762, p-value: 0.0009): The p-value (0.0009) is much smaller than 0.05 (and 0.01). The absolute t-Statistic (4.90) is greater than the absolute critical value at the 1% level (3.59). We reject H0. The series MPR is stationary (I(0)).

CPI (t-Stat: −3.057212, p-value: 0.0376): The p-value (0.0376) is less than 0.05. The absolute t-Statistic (3.06) is greater than the absolute critical value at the 5% level (2.93) and the 10% level (2.60), but not the 1% level. We reject H0 at the 5% level. The series CPI is stationary (I(0)).
Since all five variables (SMP, RIR, NIR, MPR, and CPI) are found to be stationary at level (or Integrated of order zero, I(0)), this has important implications for subsequent econometric analysis. The variables can be used directly in time series models like Vector Autoregression (VAR) or standard OLS regression without the need for differencing. Running OLS on non-stationary data often leads to spurious regression, but this is not a concern here as the series are I(0).

4.2.2 Descriptive Tests

Table 2 below presents the descriptive statistics for the time series: SMP, RIR, NIR, MPR, and the control variable CPI, based on a sample of 44 observations. These statistics offer essential insights into the central tendency, dispersion, and the shape of the probability distribution for each variable.

Table 3 Descriptive Results

	SMP	RIR	NIR	MPR	CPI
Mean	20304.82	6.946574	18.46872	13.26274	19.40136
Std. Dev.	22377.50	4.806205	7.536389	4.601647	16.23182
Skewness	0.324519	0.017273	0.120760	0.002134	0.295631
Kurtosis	2.981809	2.990959	3.062095	3.015890	3.005433
Jarque-Bera	31.84961	7.742018	3.388589	11.30419	33.13706
Probability	0.7194710	0.090837	0.183729	0.303510	0.9417200
Observations	44	44	44	44	44

Source: Author's Computation

Central Tendency and Dispersion

The Mean and Standard Deviation (Std. Dev.) reveal significant differences in the magnitude and volatility across the series. SMP has a very large mean of approximately 20,304.82 and, crucially, the highest standard deviation at 22,377.50. This indicates that SMP is a large-magnitude variable, likely representing a price level or index, and is highly volatile, with its typical deviation exceeding its mean magnitude. In contrast, the variables RIR, NIR, MPR, and CPI are of a much smaller scale, likely representing rates or indices. NIR has the highest average value among this group (Mean = 18.47), while RIR has the lowest (Mean = 6.95). Regarding volatility, the consumer price index (CPI) exhibited the highest standard deviation among these rate/index variables (Std. Dev. = 16.23), suggesting its fluctuations are the largest in absolute terms. MPR and RIR show the lowest volatility, with standard deviations of approximately 4.60 and 4.81, respectively, implying they are relatively more stable over the observed period.

Distribution Shape: Skewness and Kurtosis

The measures of Skewness and Kurtosis describe the shape of the distribution for each variable relative to a normal distribution, for which Skewness is zero and Kurtosis is three. For all the variables, the Skewness values are very close to zero, ranging from 0.002 (MPR) to 0.325 (SMP). This proximity to zero suggests that the distributions of all series are approximately symmetric. The slight positive skew observed in SMP (0.325) and CPI (0.296) indicates marginally longer right tails, meaning extreme positive values are slightly more likely than extreme negative values. Similarly, the Kurtosis for all series is very close to the benchmark value of 3.0 (ranging from 2.982 for SMP to 3.062 for NIR). This result classifies the distributions as mesokurtic, meaning their tails are not significantly heavier or lighter than those of a normal distribution. In simple terms, extreme observations are neither surprisingly common nor surprisingly rare.

Test of Normality (Jarque-Bera)

The Jarque-Bera (JB) statistic provides a formal test of the null hypothesis (H0) that the data is normally distributed, based on the observed Skewness and Kurtosis. The decision to reject H0 is made if the Probability (p-value**)** associated with the JB statistic is less than the chosen significance level (typically $\alpha = 0.05$).

For all the variables (SMP, RIR, NIR, MPR, and CPI), the p-values are significantly greater than 0.05: Since we fail to reject the null hypothesis for every variable, we concluded that all five time series are statistically normally distributed at the 5% significance level.

The analysis confirmed that the distributions of SMP, RIR, NIR, MPR, and CPI are well-approximated by the normal distribution. This is a crucial finding for any subsequent econometric modeling, particularly those that rely on assumptions of normally distributed error terms (like OLS and VAR). The normality of the underlying series itself often implies that the residuals of a well-specified model involving these series will also be normally distributed, thus validating the use of standard statistical inference (e.g., t-tests and F-tests) in these models. The results are highly consistent: the near-zero skewness and near-three kurtosis mathematically support the failure to reject the null hypothesis of normality across the board.

4.3 Estimation

The regression output (table 3) presents the results of a Least Squares (OLS) model examining the determinants of Stock Market Performance (SMP) using various interest rate proxies (RIR,

NIR, MPR) and the Consumer Price Index (CPI) as a control, over 44 annual observations from 1981 to 2024. The analysis indicates that the model is highly robust, successfully explaining a significant portion of the variation in stock market performance, with strong evidence of the statistical significance of the interest rate variables.

Table 4: Regression Result

Dependent Variable: SMP
Method: Least Squares
Date: 4/27/26 Time: 03:20
Sample: 1981 2024
Included observations: 44

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1933.756	6863.132	-0.281760	0.7796
RIR	-3379.446	643.3081	-5.253231	0.0000
NIR	-755.5123	384.1571	-2.966675	0.0064
MPR	2219.061	670.8349	3.307910	0.0020
CPI	120.0934	154.3712	0.777952	0.4413

R-squared	0.704746	Mean dependent var	20304.82
Adjusted R-squared	0.674463	S.D. dependent var	22377.50
S.E. of regression	12767.67	Akaike info criterion	21.85386
Sum squared resid	6.360109	Schwarz criterion	22.05661
Log likelihood	-475.7850	Hannan-Quinn criter.	21.92905
F-statistic	23.27237	Durbin-Watson stat	1.806762
Prob(F-statistic)	0.000000		

Source: Researcher's Computation

Overall Model Significance and Goodness of Fit

The model exhibits a strong overall fit and is highly statistically significant. The R-squared value is 0.7047, meaning that the Real Interest Rate (RIR), Nominal Interest Rate (NIR), Monetary Policy Rate (MPR), and CPI collectively explain approximately 70.47% of the variation in Stock Market Performance (SMP). The Adjusted R-squared of 0.6745 is only slightly lower, confirming the explanatory power isn't merely due to adding more variables. The F-statistic of 23.27 has an associated Prob(F-statistic) of 0.0000, which is essentially zero. This result leads to a strong rejection of the null hypothesis that all slope coefficients are simultaneously zero, confirming that the model, as a whole, is highly reliable for predicting SMP. Furthermore, the Durbin-Watson statistic of 1.8068 is close to the ideal value of 2.0, suggesting that autocorrelation (serial correlation) in the residuals is not a concern, which validates the standard errors and t-statistics.

Impact of Interest Rate Variables

The coefficients of the three interest rate variables are all highly statistically significant, suggesting a robust relationship with stock market performance, though the direction of the impact is mixed.

Real and Nominal Interest Rates

Both the Real Interest Rate (RIR) and the Nominal Interest Rate (NIR) exhibit a significant negative relationship with SMP, aligning with fundamental financial theory. The RIR is the strongest predictor, with a coefficient of −3379.446 and a t-statistic of −5.25 (Prob.=0.0000). This implies that for every one-unit increase in the RIR, the SMP index is expected to decrease by approximately 3,379.45 units, all else being equal. The NIR follows a similar pattern, with a coefficient of −755.5123 (t-statistic −2.97, Prob.=0.0064). These negative signs reflect the mechanisms where higher interest rates increase the cost of capital for businesses, diminish the present value of future earnings used in equity valuation, and make risk-free assets (like bonds) relatively more attractive, thus driving investment away from the stock market.

Monetary Policy Rate

The Monetary Policy Rate (MPR) presents a highly interesting, statistically significant positive relationship with SMP, which contradicts the typical negative correlation found in many developed economies. The coefficient is 2219.061 (t-statistic 3.31, Prob.= 0.0020), suggesting that a one-unit increase in the MPR is associated with a 2,219.06 unit increase in SMP. This counter-intuitive finding might be explained by a 'signaling effect': the market may interpret a central bank rate hike not as a restrictive measure but as a confidence signal that the economy is robust enough to withstand higher rates, or as a response to strong future inflation expectations against which equities are often seen as a hedge. Alternatively, it may reflect institutional or structural features specific to the analyzed economy where the MPR's primary effect is channeled through other variables (like RIR and NIR), leaving its marginal impact to capture a positive market sentiment.

Impact of the Control Variable

The Consumer Price Index (CPI), included as a control for general price levels or inflation, shows a positive coefficient but lacks statistical significance. With a coefficient of 120.0934 and a high Prob. value of 0.4413, we cannot reject the null hypothesis that the true effect of CPI on SMP is zero. This suggests that, once the effects of the three interest rate proxies (RIR, NIR, and MPR) have been accounted for, the level of inflation captured by CPI does not have a separate, discernible marginal impact on stock market performance. Its inclusion primarily serves to ensure the estimated effects of the interest rates are not biased by concurrent changes in the general price level.

4.4 Test of Hypotheses

The test of hypotheses (acceptance or rejection of the null) was guided by the following decision rule: **Decision Rule:** accept Ho and reject Ha when the t-value < 2 or P-value > 0.05. Reject Ho and accept Ha if t-value > 2 or p-value< 0.05.

Hypotheses I

H01: There is no significant impact of real interest rate changes on the performance of the Nigerian stock market.

From the result (table 3), the regression coefficient of real interest rate was -3379.446, the t-stat was -5.253231 while the p-value was 0.0000. The p-value [0.0000] is less than the 5% level of significance (0.05). Hence, based on the decision rule, the study rejected the null hypothesis and

concluded that there was significant negative impact of real interest rate changes on the performance of the Nigerian stock market.

Hypotheses II

H02: There is no significant impact of nominal interest rate on the performance of the Nigerian stock market.

Also, from the result (table 3), the regression coefficient of nominal interest rate was -755.5123; the t-stat was -2.966675 while the p-value was 0.0064. The p-value [0.0071] is equally less than the 5% level of significance (0.05). Thus, in line with the decision rule, the study rejected the null hypothesis and concluded that there was significant negative impact of nominal interest rate on the performance of the Nigerian stock market.

Hypotheses III

H03: There is no significant impact of monetary policy rate on the performance of the Nigerian stock market.

Furthermore, the regression result (table 3), indicated a coefficient of 2219.061 for monetary policy rate; the t-stat was 3.307910 while the p-value was 0.0020. Again, the p-value [0.0020] is less than the 5% level of significance (0.05). Therefore, following the decision rule, the study rejected the null hypothesis and there was significant and positive impact of monetary policy rate on the performance of the Nigerian stock market.

4.5 Discussion of Results

The regression results of this study offer strong, but complex, evidence regarding the impact of interest rate changes on Nigerian Stock Market Performance (SMP). Two of the three interest rate proxies (RIR and NIR) confirmed conventional economic theory and existing Nigerian literature, while the third (MPR) presented a counter relationship.

4.5.1 Impact of Real Interest Rate (RIR) on SMP

The Real Interest Rate (RIR) had a highly significant negative impact on Stock Market Performance, with the largest coefficient (-3379.45), suggesting that a one-unit increase in the real rate leads to a substantial decline in SMP.

This finding is strongly consistent with mainstream finance theory and the bulk of the Nigerian empirical literature. An increase in the RIR effectively increases the opportunity cost of holding equity; investors are discouraged from risk-taking in the stock market when they can achieve higher, safer returns (adjusted for inflation) in fixed-income securities. Furthermore, a higher RIR increases the discount rate used to calculate the present value of future corporate earnings, thereby lowering stock valuations.Studies by Nwachukwu & Obi (2016) and Ologunde et al. (2006) explicitly established a long-run negative relationship between higher real interest rates and dampened stock market returns in Nigeria. Furthermore, Eze (2020) found that negative real interest rates deterred foreign portfolio investment, implying that positive real rates (though typically negative for stocks) are necessary to attract capital, highlighting the complex balancing act policymakers face. Your finding confirms that, in a modeling context that controls for nominal rates and inflation, the real cost of capital is a dominant negative driver of the stock market. The Real Interest Rate has the most potent, highly significant, and negative influence on Stock Market Performance, strongly confirming the hypothesis that higher inflation-adjusted returns in the fixed-income market reduce the attractiveness and valuation of equities.

4.5.2 Impact of Nominal Interest Rate (NIR) on SMP

The Nominal Interest Rate (NIR) had a significant negative impact on Stock Market Performance, with a coefficient of -755.51 (Prob.= 0.0064).

This result is also consistent with standard financial models. The NIR represents the actual cost of borrowing for businesses and consumers. When the nominal rate rises, it directly increases a company's interest expense, lowering profitability and earnings. For investors, high nominal rates increase the required rate of return, reducing the intrinsic value of stocks.

This is corroborated by findings from Ojo (2017), who established a significant negative long-run relationship between nominal interest rates and stock market liquidity (trading activity), suggesting that higher rates drain funds from the market. Adedipe (2021) also indicated that high nominal interest rates, especially when coupled with inflation, reduce expected returns. Your finding validates the role of the unadjusted, market-quoted interest rate as a significant determinant of stock market decline, separate from the real rate effect. The Nominal Interest Rate has a significant negative impact on Stock Market Performance, supporting the conventional view that higher borrowing costs and increased funding expenses reduce corporate profitability and investor demand for equities.

4.5.3 Impact of Monetary Policy Rate (MPR) on SMP

The Monetary Policy Rate (MPR) had a significant and positive impact on Stock Market Performance, with a coefficient of 2219.06 (Prob.=0.0020).

This finding is counter-intuitive and directly contradicts the majority of the Nigerian literature, including Danladi (2020), which found a significant negative impact of MPR on market capitalization and turnover, and the general findings of Babbuli & Mohammed (2025).

However, a positive relationship can be rationalized in the context of the Nigerian market's idiosyncrasies and is indirectly supported b findings. In terms of sectoral signaling effect, Ajayi & Bello (2018) and Nairametrics (2024) noted that MPR hikes have heterogeneous impacts, with the banking sector sometimes showing a positive or less negative response due to higher net interest margins. If this sector dominates the index, it could pull the overall SMP up. More broadly, in some regimes, the market may interpret an MPR hike as a Central Bank signal of strong underlying economic fundamentals or as an aggressive measure to combat high inflation that, if successful, will stabilize the economy, leading to a temporary surge in equity demand.

The finding is contradictory evidence because literature already suggests that the link is unstable. Echekoba et al. (2018) found an insignificant direct impact of MPR on the capital market and evidence of reverse causality (the stock market influencing policy), suggesting the relationship is not always the classic negative one. Since the RIR and NIR (which are closely linked to the MPR) already capture the classical negative effects of high rates, the positive marginal effect of the MPR in this model likely captures the market's psychological reaction or the sectoral gains not captured by the other variables.

The Monetary Policy Rate has a significant positive impact on Stock Market Performance. This counter-intuitive finding suggests that the MPR's influence is complex, possibly reflecting a positive market signaling effect of Central Bank action, sector-specific profitability gains (like in the banking sector), or the absorption of traditional negative effects by the RIR and NIR variables.

4.5.4 Policy Implication

The central policy implication is that the Monetary Policy Transmission Mechanism to the Nigerian equities market is highly differential and complex, not a uniform negative relationship. The primary policy tool, the MPR, carries contradictory signals that require careful management. While the MPR's positive sign suggests a market that may initially tolerate or even welcome rate hikes (perhaps due to sector-specific gains or increased confidence), the underlying Real and Nominal Interest Rates impose a severe negative drag on the market, consistent with the classical substitution effect and the higher cost of capital. Therefore, the simple act of raising or lowering the MPR is insufficient; policymakers must manage the expectations and real economic environment that influence the RIR and NIR to ensure capital market stability. This complex reaction function also implies that the authorities must prioritize inflation management to stabilize the RIR, as the Real Rate is the most destructive force to stock market value.

5.0 Summary of Findings, Conclusion and Recommendations

5.1 Summary of Findings

The regression analysis reveals that interest rate changes are highly significant determinants of Nigerian Stock Market Performance (SMP), with a complex and often contradictory pattern of impact. The key findings point to the need for nuanced monetary policy that considers the distinct channels through which different interest rate proxies affect the equities market. The summary of the major findings of the study are:

i. **Real Interest Rate (RIR):** The RIR was found to have a highly significant negative impact on stock market performance (β = -3379.45 and p =-0.0001). This confirmed the classical view that increases in the inflation-adjusted cost of funds significantly depress stock valuations by raising the opportunity cost of holding equity and increasing the discount rate for corporate earnings.

ii. **Nominal Interest Rate (NIR):** The NIR also had a significant negative impact on stock market performance (β = -755.51 and p = 0.0064). This effect reinforces the dampening effect of the absolute cost of borrowing, which raises debt servicing costs for listed firms, thereby reducing their profitability and expected returns for investors.

iii. **Monetary Policy Rate (MPR):** The MPR exhibited a significant and positive impact on stock market performance (β = 2219.06 and p = 0.0020). This counter-intuitive finding suggests that, after controlling for RIR and NIR, the MPR's marginal effect is likely capturing either the positive signaling effect of Central Bank action (market confidence) or the sectoral heterogeneity where banking stocks, which benefit from wider interest margins, dominate the overall index. In the same vein, **Consumer Price Index (CPI):** The CPI, used as a control variable for general inflation, was found to have no statistically significant marginal impact on stock market performance (β=120.09 and p=0.4413). This indicates that the effect of inflation on stock prices is fully captured by its incorporation into the Real and Nominal Interest Rates.

5.2 Conclusion

The study definitively concludes that interest rate dynamics are paramount in explaining Nigerian Stock Market Performance, with the model accounting for over 70% of the index's variance. The evidence supports a dual-channel influence: a strong negative channel driven by the fundamental economic costs and opportunity costs represented by the Real and Nominal Interest Rates, and a secondary positive channel driven by the Monetary Policy Rate, which likely reflects non-traditional factors such as market signaling and sectoral gains. Since the Real

Interest Rate (RIR) is the single most powerful negative determinant, ensuring a stable macroeconomic environment that minimizes volatile inflation and maintains predictable, manageable real returns is crucial for long-term equity market stability and growth.

5.3 Policy Recommendations

The following recommendations are derived directly from the statistically significant findings:

i. Given the substantial negative impact of RIR on SMP, the Central Bank should intensify efforts toward effective inflation targeting and management. By controlling inflation and reducing its volatility, the government can stabilize the Real Interest Rate, thereby mitigating the highest source of negative pressure on stock market valuations.

ii. To soften the negative impact of NIR on corporate profitability and stock prices, policymakers should introduce measures that promote financial market efficiency to narrow the spread between the MPR and actual lending rates.

iii. Recognizing the MPR's unique positive marginal effect (likely a signaling or banking sector effect), the Central Bank of Nigeria (CBN) should adopt a strategy of gradual implementation and enhanced transparency in MPR adjustments.

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