

Investigating the Impact of Oil Price Volatility on Stock Market Performance in Nigeria

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ABSTRACT

In recent years, the financial press, investors, policymakers, researchers, and the public have all been intrigued by the intricate and time-varying relationship between oil prices and stock markets. As a mono-product economy, Nigeria has been heavily influenced by crude oil price changes. In this paper, attempt is made to investigate the impact of oil price volatility on stock market performance in Nigeria over the period 1986 to 2024. Interest rate and inflation rate were incorporated in the model as control variables, while ARCH/GARCH 11 technique was used to generate the volatility series for oil prices. The findings, based on ARDL bound test cointegration and ECM affirmed the existence of long-run relationship among the variables as well as the short-run dynamics. The study showed that oil price volatility has a strong positive long-run effect on stock market performance, and a non-significant positive short-run effect in the short run. This implies that changes in oil prices may cause the stock market to become more volatile, which may then impact stability and economic growth. However, interest rates and inflation demonstrate significant negative relationships with stock market performance. The study offers valuable insights on the need to design effective economic management strategies to mitigate risks and ensure stock market stability and growth in Nigeria.

Keywords: *Oil price volatility, Stock market performance, ARCH/GARCH, ARDL, ECM, Nigeria.*

1. INTRODUCTION

According to Mishkin and Eakins (2018), the stock market is an important mechanism that facilitates the transfer of surplus capital from lenders who are saving to borrower-spenders who are spending. These borrower-spenders include individuals, businesses, governments, and foreigners for the purpose of investing. Typically, this market reflects the general trust that people have in the economy and the financial system. It also serves as an indicator of the productivity of the productive sector and the expectations that people have regarding the stability of the financial system. It plays a pivotal role in mobilising individual resources and directing them towards investors, facilitating the rapid acquisition of essential capital by firms (Uford, 2017; Osinubi, 2004; Akemiyefa, et al., 2025). This mechanism speeds up capital allocation, encourages investment, fosters economic growth, and reduces investment risk due to stocks' ease of trading (Gylych *et al.*, 2020).

Global stock markets have seen enormous growth in recent decades, with emerging nations playing a vital role. In Africa, new stock markets have emerged in Ghana, Malawi, Swaziland, Uganda, and Zambia. In contrast to the situation prior to 1989, there were only five stock markets in sub-

Saharan Africa and three in North Africa. The contemporary environment has 19 stock exchanges (Yartey, 2007). The development of stock markets has become a focal point in the domestic financial liberalisation initiatives undertaken by most African nations. For example, Ghana's stock market growth was specifically driven by "domestic financial liberalisation and reform programs" (Owusu-Antwi & Barasa, 2023). As the hub of the Nigerian capital market, the Nigerian Stock Exchange mobilises both public and private deposits and makes money available for profitable endeavors (Olusegun & Abimbola, 2016). The equity market serves as a feedback channel for policymakers by reflecting investors' opinions of changes in economic activity, even while economic fundamentals also have an impact on equity market performance (Pastor & Veronesi, 2012).

On the oil market, roughly 83% of Nigeria's foreign exchange profits come from the export of crude oil (Momodu & Nwajide, 2020). So, Nigeria's condition is twofold: it is a significant oil importer in addition to significantly depending on oil exports to finance government spending and as a vital source of foreign exchange earnings essential for preserving domestic currency stability. This dual nature puts the Nigerian economy more susceptible to shocks in the worldwide oil market, as shown in the performance of the stock market (Abubakar, 2019). The Nigerian stock market, which is a vital indicator of the country's economic health, is particularly affected by fluctuations in global crude oil prices, which have the potential to affect not just the financial markets but also the economic landscape (Gylych *et al.*, 2020).

Nigeria's economy is naturally vulnerable to economic volatility due to its strong reliance on crude oil exports and its sensitivity to changes in the price of oil globally. According to the research conducted by Bawa *et al.* (2021), oil accounts for over 95.7% of Nigeria's total exports, and on average, oil profits make up 73.3% of the country's total revenue. Because of this strong reliance on oil, the macroeconomic performance of the nation is strongly correlated with the success of the oil industry. The Central Bank of Nigeria in 2006, as quoted in the work of Asaolu and Ilo (2012), reported a 2.6% reduction in the industrial sector output in 2006 and was principally ascribed to the dip in crude oil production. This emphasises how crucial it is to include the impact of crude oil price volatility as a relevant factor when building a multi-factor model for Nigerian share pricing. The impact of oil price volatility on stock prices has not received as much attention as the numerous empirical research on the relationship between oil price volatility and macroeconomic factors (Eryigit, 2009). One rationale for utilising oil prices as a factor determining stock values is that, in theory, the value of shares is equal to the total of discounted expected future cash flows. Macroeconomic developments that may be impacted by oil shocks have an impact on these discounted cash flows. Thus, fluctuations in the price of oil could affect stock values (Rault & Arouri, 2012). As a result, policymakers, investors, and stakeholders will be better able to formulate effective strategies for mitigating potential risks and capitalising on opportunities if they have a thorough understanding of the relationships and interactions between oil price volatility and stock market performance. The primary goal of this paper is to investigate the impact of oil price volatility on stock market performance in Nigeria over a 38-year period. The findings and implications of this study underscore the significance of comprehending the dynamics of oil price volatility and its impact on the Nigerian stock market, as well as the necessity of effective economic management to ensure economic stability and growth.

The next sections of the paper are arranged as follows: Section 2 presents the conceptual literature and empirical review, while section 3 describes the methodology. Empirical result is presented and discussed in section 4, while section 5 concludes the paper and offers policy recommendations and new research avenues.

2. LITERATURE REVIEW

Conceptual Literature

According to Toronto Dominion Bank (2025), the stock market is a trading network that links investors seeking to purchase and sell equities and their derivatives. It is a structured marketplace where buyers and sellers congregate to exchange shares of publicly traded companies. Fundamentally, these markets function on the basis of supply and demand, with share prices varying according to the perceived value of the companies and general market conditions (Charles & Uford, 2023; Investopedia, 2025). The opportunity to own and potentially profit from a variety of businesses is provided by stock markets to both individuals and institutions. One of the most important economic indicators and a measure of investor confidence is the performance of the stock markets. The cited literature supports this viewpoint (Yartey & Adjasi, 2007; El-Wassal, 2013; Lawal & Ijirshar, 2013).

Oil price volatility can be viewed as the unpredictable and frequent fluctuations in crude oil prices caused by factors such as global supply-demand imbalances, geopolitical tensions, macroeconomic uncertainties, and speculative trading, all of which have a significant impact on macroeconomic stability and financial markets (Hamilton, 2009). According to a study by Mensi *et al.* (2013) and Oladunni (2020), oil price volatility has a major impact on financial markets and economic stability, particularly in oil-dependent countries. However, the impact of oil price volatility varies by country, with the economic consequences for oil-exporting countries differing significantly from those for oil-importing countries, as demonstrated in studies by Adaramola (2012), Wang *et al.* (2013), and Degiannakis *et al.* (2018).

Empirical Literature

A paper by Joo and Park (2021) employed quantile regression and quantile-on-quantile regression approaches to investigate the effects of oil price volatility on stock markets of ten major oil-importing countries: China, France, Germany, India, Italy, Japan, Korea, the Netherlands, Spain, and the U.S. The authors found that increasing oil price volatility has a negative effect on stock returns when both oil price volatility and stock returns are low. However, when stock returns are high and oil price volatility is low, rising oil price volatility causes an increase in stock returns.

Agbo (2021) explored the effect of oil price fluctuation on the trading volume of the Nigerian capital market using monthly time series data that covered the period from January, 1997 to August 2020. The study employed the Non-linear Autoregressive Distributed Lag (NARDL) approach for data analysis. The results of the empirical analysis suggest that oil price fluctuations have significant and positive effect on the market volume in the Nigerian capital market and that there was no asymmetric effect between the variables.

Nwude *et al.* (2021) employed Vector autoregression (VAR), variance decomposition and impulse response function to examine the influence of oil price fluctuations on stock market of developing economies with a focus on Nigeria, using monthly data for the period, January 1, 1997, to

December 31, 2016. The result revealed that international crude oil price is strongly exogenous to Nigerian stock market performance variables, which indicated that the oil price fluctuations in the international crude oil market have weak influence on stock market performance variables in Nigeria. The results from the variance decomposition analysis also indicated a very weak relationship between the crude oil price shocks and stock market variables in Nigeria. In the international crude oil market, the impulse analysis reveals that variation in oil price is slowly transmitted to the Nigeria stock market.

Using monthly data for the period 1970 to 2014, Diaz *et al.* (2016) explored the relationship between oil price volatility and stock returns in the G7 economies (Canada, France, Germany, Italy, Japan, the UK and the US). The study employed Vector Autoregressive Model, taking into account the structural break in the year 1986. Findings of the study revealed a negative response of G7 stock markets to an increase in oil price volatility. Results also indicated that world oil price volatility is generally more significant for stock markets than the national oil price volatility.

Caporale *et al.* (2015) studied the time-varying impact of oil price uncertainty on stock prices in China using weekly data on ten sectoral indices namely: Healthcare, telecommunications, basic materials, consumer services, consumer goods, financial, industrial, oil and gas, utilities, and technology over the period January 1997 to February 2014. The estimation of a bivariate VAR-GARCH-in-mean model suggested that oil price volatility affects stock returns positively during periods characterised by demand-side shocks in all cases except the consumer services, financial, and oil and gas sectors. The latter two sectors were found to exhibit a negative response to oil price uncertainty during periods with supply-side shocks instead. By contrast, the impact of oil price uncertainty appeared to be insignificant during periods with precautionary demand shocks.

A study carried out by Agbo (2019) investigated the effect of oil price volatility on the volatility of all-share index in Nigeria using secondary time series data covering the period from January 1997 to December 2016. The study employed the EGARCH [1,1] model, and used official exchange rate and inflation rate as control variables to strengthen the explanatory power of the model. The findings of the study show that oil price volatility has a negative and significant effect on the volatility of all-share index.

Akinlo (2014) assessed the relationship between changes in oil prices and stock market growth over the period 1981-2011 using Vector Error Correction Modeling approach. The results of the study suggest a long-term relationship between oil price, exchange rate and stock market growth. A unidirectional causality runs from oil price change to stock market development, while the impulse response function shows that oil price has a temporary positive impact on stock market. The variance decomposition shows stock market development to be very much dependent on shock on oil price change.

Ojikutu *et al.* (2017) conducted a study on crude oil price volatility and its impact on Nigerian Stock market performance using annual time series data covering the period of 1985-2014. The variables for study included all- share index (ASI) which served as a proxy for market performance, crude oil price and exchange rate. An Ordinary Least Square (OLS) estimation technique was employed for the study. The regression result showed that the R-squared = 0.505; showing that 50.5% of the variation in stock market performance could be explained by crude oil price and exchange rate. The F-statistic value of 2.17 ($P < 0.05$) showed that all- share index, crude

oil price and exchange rate are jointly significant. The Johansen cointegration test showed the convergence of all- share index, crude oil price and exchange rate in the long run thereby depicting the existence of a long run relationship amongst them.

Asaolu and Ilo (2012) investigated the relationship between the Nigerian stock market return and the world crude oil price from 1984 to 2007, using cointegration and Vector Error Correction (VECM) frameworks. Findings from the study shows that the Nigerian stock market return and oil price are tied together in the long run as anticipated given the dominance of the oil sector on the Nigerian economy. It was, however, inferred from the study that result was contrary to expectation.

In a paper by Alimi and Ekpenyong (2021), empirically explored the nexus between crude oil price variations and stock market performance in Nigeria for the period 1981-2019. Exchange rate, inflation rate, and interest rate were introduced into the model. The empirical findings, based on Fully Modified Ordinary Least Squares (FMOLS) approach and Error Correction Model (ECM) showed that both crude oil price variations and the exchange rate have a beneficial impact on Nigerian stock market performance, whilst inflation and interest rates have a negative impact.

Okere *et al.* (2021) explored the linear and non-linear impact of Nigeria's oil price and exchange rate on stock market performance using time series data from January 1995 to December 2019. The study employed the nonlinear autoregressive distributed lag (NARDL) method. The findings of the study revealed that; from the linear ARDL, a long and short-run positive relationship between the Nigerian stock market and crude oil prices, while the exchange rate showed an insignificant long-run effect but a significant positive relationship in the short run. While the non-linear ARDL showed that the impact of positive shocks in crude oil price has a significant increasing effect on stock market performance in Nigeria, while negative shocks in crude oil prices have a significant increasing effect.

3. METHODOLOGY

In line with the objective of this paper, the method and technique of data analysis entailed conducting a unit root test for stationarity, obtaining the appropriate lag through the lag structure criteria, estimating GARCH model to generate the volatility series, and then conducting ARDL Bound test to determine the long run and short run forms of the model.

Model Specification

The model for this study was adapted from the work of Ojikutu *et al.* (2017) on crude oil price volatility and its impact on Nigerian stock market performance using annual time series data covering the period of 1985-2014. The variables for the study were All Share Index (ASI) which serves as a proxy for market performance, Crude oil price (COP) and Exchange Rate (EXR). Ordinary Least Square (OLS) estimation technique was employed for the study. However, the model is modified thus: While the former used only exchange rate as a control variable and employed Ordinary Least Square OLS as technique of data analysis, the present study introduced interest rate and inflation rate as control variables to strengthen the explanatory power of the model; it also employed ARDL Bound cointegration approach to determine the long run and short run relationships among the variables. Therefore, given the functional form of the relationship between All- Share Index, Oil prices volatility, Interest rate and Inflation rate, the econometric form of the relationship can assume the following form:

$$ASI = \beta_0 + \beta_1 OPV + \beta_2 INT + \beta_3 INFL + \epsilon_t \quad (2)$$

Where:

ASI = All Share Index, OPV = Oil Price Volatility, INT = Interest Rate, INFL = Inflation rate

β_1 = Constant term, β_2 --- β_5 are the parameter estimators, and ϵ_t = the disturbance or error term

The ARDL model is specified as follows:

$$\Delta LASI = \beta_0 + \beta_1 OPV + \beta_2 INT + \beta_3 INFL + \sum_{i=1}^p \alpha_{1i} \Delta LASI_{t-1} + \sum_{i=1}^q \alpha_{2i} \Delta LOPV_{t-1} + \sum_{i=1}^q \alpha_{3i} \Delta INT_{t-1} + \sum_{i=1}^q \alpha_{4i} \Delta INF_{t-1} + \epsilon_t$$

Where, Δ is the first-difference operator, ϵ_t is the error term with zero mean and constant variance-covariance. The optimal lag lengths (p,q) were selected based on the Akaike information criterion (AIC). The parameters in the summation signs are the short-run of coefficients of the ARDL model, while the long-run multipliers are represented by β_{is} parameters.

(3)

If there is cointegration, the short run coefficient can be examined by incorporating the error correction model (ECM) by Engle and Granger (1987) into the ARDL framework as thus:

$$LASI = \alpha_0 + \sum_{i=1}^p \alpha_{1i} LASI_{t-1} + \sum_{i=1}^q \alpha_{2i} LOPV_{t-1} + \sum_{i=1}^q \alpha_{3i} INT_{t-1} + \sum_{i=1}^q \alpha_{4i} INF_{t-1} + \lambda ECT_{t-1} + \epsilon_t \quad (4)$$

Where λ is the speed of adjustment, and is expected to be negative, less than one, and significant.

4. RESULTS AND DISCUSSIONS

Preliminary Analyses

Stationarity test was first conducted to ensure that the time series variables employed are either level stationary or co-integrated of order I(1) to avoid spurious results. The study used the Augmented Dickey-Fuller (ADF) to test stationarity. The result of the unit root test is presented in Table 1. The findings indicate a mix of I(0) and I(1) variables, which supports the suitability of the Autoregressive Distributed Lag (ARDL) bounds testing approach for co-integration, as the ARDL methodology accommodates variables with different orders of integration, provided none is integrated at order two, I(2).

Table 1 Augmented Dickey-Fuller (ADF) Unit Root Test

Variables	T-statistic at level	P-value	T-statistic at First Difference	P-value	Remark
LNASI	-2.999573	0.0442	-	-	I (0)
LNCOP	-2.081436	0.5388	-6.200290	0.0001	I (1)

INT	-4.177334	0.0113	-	-	I (0)
INF	-4.625789	0.0037	-	-	I (0)

Source: Authors' computation using E-views 10.

The study employed Variance Inflation Factor (VIF) to test for multicollinearity among the regressors. The result is presented in Table 2. All the values of centered VIF fall below the critical threshold of 5, indicating no serious multicollinearity problem among the independent variables. This suggests that the explanatory variables are not highly correlated and can independently explain variations in the dependent variable without inflating the standard errors of the coefficients.

Table 2. Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LNCOP	0.0489	75.7273	4.0612
INF	3.91E-05	2.9995	1.2968
INT	5.26E-29	1.8525	1.7576
C	0.4092	48.6801	NA

Source: Authors' computation, using Eview10.

Table 3 presents the result of the ARCH/GARCH 01 model employed to examine the volatility behavior of crude oil prices, with the logarithm of crude oil price (LNCOP) serving as the dependent variable. The model was estimated using the Maximum Likelihood (ML) method under the assumption of a normal distribution, covering the sample period from 1986 to 2024 with a total of 39 observations.

Table 3: GARCH = C(2) + C(3)*RESID(-1)^2

Dependent Variable: LNCOP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
LOG(COP)-1	1.3404	0.0110	121.6768	0.0000
Variance Equation:				
C	0.0067	0.0127	0.5292	0.5966
RESID(-1)^2	1.3280	0.6885	1.9289	0.0537

R-squared: 0.85; Adjusted R-squared 0.85; Durbin-Watson: 0.37

Source: Authors' computation using Eview10.

Mean Equation, the coefficient of the lagged dependent variable (LOG(COP(-1))) is 1.3404, and the corresponding probability value is 0.0000, indicating statistical significance at the 5% level. This result implies a strong positive relationship between past and current crude oil prices. In essence, an increase in previous oil prices significantly raises current prices, suggesting a high degree of price persistence in the oil market. The finding aligns with the notion that oil prices exhibit momentum effects, where shocks in one period tend to influence subsequent periods due to market rigidity and supply–demand imbalances.

In the Variance equation, the constant term ($C = 0.0067$) is positive but statistically insignificant ($p = 0.5966$), indicating a low level of unconditional volatility in crude oil prices. The ARCH (1) term ($\text{RESID}(-1)^2 = 1.3280$) is marginally significant at the 10% level ($p = 0.0537$), suggesting the presence of volatility clustering. This implies that large price changes (shocks) tend to be followed by other large changes either positive or negative, while small changes tend to be followed by small ones. Such behavior is typical of financial markets, where volatility is not constant but evolves over time in response to new information and market uncertainty. The model exhibits strong explanatory power, with an R-squared and Adjusted R-squared of 0.85, indicating that approximately 85% of the variations in crude oil prices are explained by the model.

Appropriate optimal lags to be included in the model was determined using several standard information criteria. Ultimately, the model with lag length 1 was selected as optimal by the majority of criteria. Specifically, the AIC (7.0334), SC (7.9313), HQ (7.3396), FPE (0.0134), and the LR statistic (116.9835) all identify lag 1 as the most appropriate. These criteria suggest that a one-period lag captures the dynamic structure of the relationship between oil price volatility and stock market performance more efficiently than alternative lag structures.

Having identified the number of lags to be included in the model, the study proceeded to estimate the ARDL bound test to ascertain whether the variables modelled have a long-run relationship or they are not co-integrated. In this test, the computed F-statistic of 6.67 exceeded the upper bound critical values at all conventional significance levels, hence the null hypothesis was decisively rejected. This outcome confirms the existence of a statistically significant long-run relationship among the variables included in the model, namely, stock market performance (LNASI), oil price volatility (LNCOPVOL), interest rate (INT), and inflation rate (INF). Therefore, the ARDL modeling approach is justified, and the study can proceed to estimate both long-run and short-run dynamics of the model.

ARDL Long-run Result

The long-run coefficients from the ARDL model (Table 4) shows that oil price volatility (LNCOPVOL) emerges as the most potent long-run driver of stock market performance, with a 1% increase associated with a 195.8 percent rise in stock market performance ($p < 0.01$).

Table 4: ARDL Long-run Result

Dependent Variable: LNASI

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCOPVOL	195.8385	33.7199	5.8078	0.0000
INT	-0.3511	0.2056	-1.7079	0.0980
INF	-0.0996	0.0657	-1.5159	0.1400

Source: Authors' computation Using E-views10.

Interest rate exhibits a marginally significant negative long-run effect ($\beta = -0.351$, $p < 0.10$), implying that higher interest rates dampen long-run stock market performance, likely through increased borrowing costs and portfolio rebalancing away from equities. This finding is consistent with theoretical expectations that higher borrowing costs constrain economic activity. Inflation, however, exhibits a negative effect but statistically insignificant long-run coefficient ($p = 0.14$).

Short-Run Analysis: Error Correction Model (ECM)

Table 5 presents the short-run dynamics of the relationship between oil price volatility and stock market performance in Nigeria. Oil price volatility exerts a positive and non-significant short-run effect on stock market performance, while interest rate (D(INT)) has a negative and statistically significant effect ($\beta = -0.0152$, $p = 0.0024$). This is consistent with conventional economic theory.

The coefficient of the error correction term, ECM (-1), is 0.0685 and statistically significant at the 1% level ($p = 0.0000$). The negative sign and high significance confirm the presence of a stable long-run relationship among the variables, as established by the bounds testing procedure. The magnitude of the coefficient indicates that approximately 6.84% of the disequilibrium is corrected each period, implying a relatively slow speed of adjustment toward long run equilibrium.

Table 5: Result of Error Correction Model (ECM) & Coefficient of Short-Run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCOPVOL)	0.5647	6.1618	0.091654	0.9276
D(INT)	-0.0152	0.0046	-3.314993	0.0024
CointEq(-1)*	-0.0685	0.0118	-5.796445	0.0000

R-squared: 0.39; Adjusted R-squared: 0.38; Durbin-Watson stat: 1.93

Source: Authors' computation Using E-views 10.

Diagnostic Tests

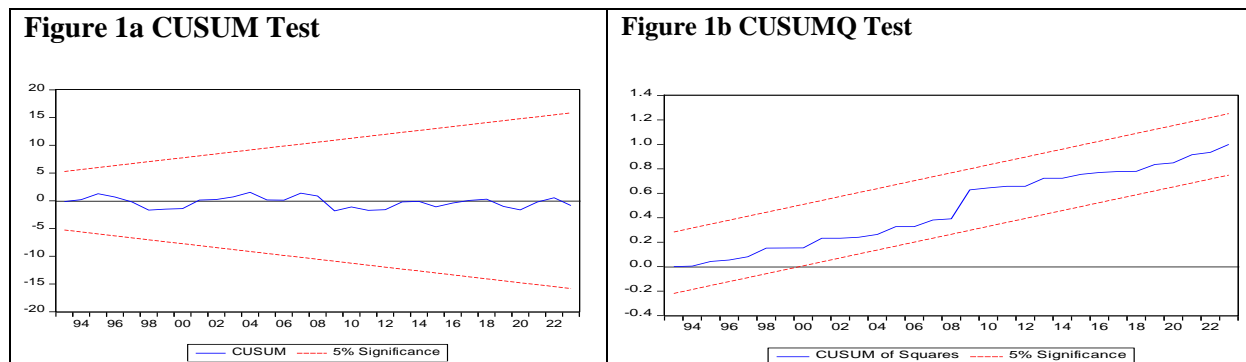
Diagnostic tests were conducted to ensure that the model satisfy the underlying assumptions of the Classical Linear Regression Model (CLRM). Table 6 presents the outcome of the Breusch-Godfrey Serial Correlation Lagrange Multiplier (LM) test, Breusch-Pagan-Godfrey heteroskedasticity test, Ramsey Regression Equation Specification Error Test (RESET) and Jarque-Bera (JB) test for normality. The result revealed that the probability values of the respective test statistics were greater than 5% threshold. This implies that the model is fit and free from issues like; serial correlation, heteroskedasticity and the functional form of the relationship is well specified, and the model is normally distributed.

The Cumulative Sum of Recursive Residual (CUSUM) and Cumulative Sum of Square (CUSUMQ) proposed by Brown *et al.* (1975) were conducted to check the stability of the coefficients in the regression model. The result is represented in a figure 1a and 1b.

Table 6: Result of the Diagnostics Tests

Test	F-Stat	D.F	Probability
Serial Correlation (Breush-Godfrey LM Test)	0.0191	F(1,30)	0.8910
Heteroskedasticity (Breush-Pagan Godfrey Test)	1.2158	F(5,31)	0.3251
Model Specification Test (Ramsey RESET Test)	2.4285	F(1,30)	0.1296
Normality Test (Jarque-Bera Statistics)	0.5158	NA	0.7782

Source: Authors' Computation, using EViews 10.



Source: Authors' Construct, using EViews 10.

The null hypothesis of both tests asserts that the estimated parameters are stable. Graphical plots of the CUSUM and CUSUMQ statistics are evaluated against the 5% critical bounds. Stability is confirmed when the cumulative plots lie within the upper and lower bounds of the confidence interval throughout the sample period.

Discussion of Major Findings

This study assessed how fluctuations in crude oil price influence the Nigerian stock market. The ARDL bounds test provided evidence of a long-run equilibrium relationship among oil price volatility, interest rate, inflation, and stock market performance. This implies that oil price shocks are not merely short-lived disturbances but long-term forces shaping financial market behaviour.

The long-run coefficient for crude oil price volatility was positive and statistically significant ($\beta = 195.8$; $p = 0.0000$). This result is consistent with a study by Agbo (2021) who explored the effect of oil price fluctuation on the trading volume of the Nigerian capital market and found that oil price fluctuations have significant and positive effect on the market volume in the Nigerian capital market. The finding indicates that increases in oil price volatility enhance stock market performance over time. Given that Nigeria is a major oil-exporting economy, periods of oil market turbulence often result in foreign exchange gains, higher government revenues, and increased liquidity in the financial system all of which may boost investor confidence and stock valuations. This result aligned again with the resource-flow and liquidity transmission theories, which posit that oil revenue shocks stimulate economic and financial activity. Empirically, the finding is consistent with the works of Olowe *et al.* (2011) and Basher *et al.* (2012) who found that oil price movements significantly influence stock markets in oil-dependent economies.

A study by Ajeigbe (2022) showed that long run relationships were established for oil price, exchange rate and the stock market performance of the industrial sectors in Nigeria from 1990 to 2020. Kumar *et al.* (2023) also revealed positive relationship between crude oil price and Indian stock market from January 1994 to December 2019. However, the finding contradicts Joo and Park (2021) who found that increasing oil price volatility has a negative effect on stock returns when both oil price volatility and stock returns are low in ten major oil-importing countries: China, France, Germany, India, Italy, Japan, Korea, the Netherlands, Spain, and the U.S. from May 2001 to December 2019.

In contrast, inflation exhibited a negative but statistically insignificant long-run effect, suggesting that price instability did not significantly alter long-term stock market behaviour within the study

period. Interest rate, however, had a significant negative long-run impact ($\beta = -0.0241$; $p = 0.0122$), demonstrating that higher interest rates reduce stock market performance by increasing the cost of capital and encouraging portfolio substitution into fixed-income instruments.

In the short run, oil price volatility had no significant immediate effect on stock market performance, implying that the market reacts slowly to oil shocks. Meanwhile, changes in interest rate (D(INT)) had significant negative effects as demonstrated in the work of Adebowale and Akosile (2018) who investigated the impact of interest rate, foreign exchange rate, and stock market development in Nigeria and found that interest rate has a significant negative effect on Nigerian stock market development, indicating that monetary policy adjustments transmit more rapidly to the equity market compared to oil volatility. The short-run ECM coefficient (-0.0478 ; $p < 0.01$) confirmed a slow but stable speed of adjustment toward long-run equilibrium. The findings suggest that: Long-run oil price movements matter more than short-run fluctuations for the Nigerian stock market.

5. CONCLUSION AND RECOMMENDATIONS

This paper investigated the effect of oil price volatility on Nigerian stock market performance using ARDL bounds cointegration approach for the period spanning 1986 to 2024. The findings indicate that oil price volatility has a considerable, positive, and statistically significant long-term impact on stock market performance. This finding suggests that fluctuations in oil prices can result in heightened volatility in the stock market, which can subsequently affect economic growth and stability. However, in the short run, oil price volatility has no meaningful impact on stock market performance. This reflects a delayed adjustment mechanism, in which the Nigerian market absorbs oil shocks gradually rather than immediately. Furthermore, interest rates had a negative and large impact on stock market performance in both the short and long run, while inflation had a small long-term effect. The rate of adjustment was sluggish, indicating a steady but gradual return to equilibrium aftershocks.

In light of the empirical findings of this study, the following policy recommendations are offered to improve stock market stability and economic outcomes:

1. The government should improve macroeconomic buffers like the Sovereign Wealth Fund and the Excess Crude Account to cushion revenue variations caused by global oil price shocks. A more organised strategic reserve and hedging framework will help to stabilise public spending, maintain liquidity in financial markets, and reduce long-term volatility spillovers into the stock market.
2. The Central Bank of Nigeria should implement flexible monetary policies that encourage productive investment while lowering excessive borrowing costs. Because high interest rates continuously decrease stock performance, a balanced rate regime is required to maintain equity market expansion and increase financial inclusion.
3. The Nigerian Exchange Group (NGX) and the Securities and Exchange Commission (SEC) should strengthen real-time data transmission, reporting standards, and market disclosure policies. Better transparency during oil price changes reduces speculative trading, boosts investor trust, and improves stock market pricing efficiency.

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