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Financial Market Frictions and Stock Market Performance in Nigeria: Evidence from ARDL Bounds Testing

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Abstract

This study examined the effect of financial market frictions on stock market performance in Nigeria from 1990 to 2024. Specifically, the study assessed how transaction costs, bid-ask spreads, regulatory quality, and trading volume influence the All-Share Index (ASI) of the Nigerian stock market. Annual time-series data were obtained from the Central Bank of Nigeria, Nigerian Exchange, World Bank databases, and related official sources. The study employed the Autoregressive Distributed Lag (ARDL) bounds testing approach to analyse both short-run and long-run relationships among the variables. The findings revealed the existence of a long-run relationship between financial market frictions and stock market performance. In the long run, regulatory quality and trading volume had significant positive effects on stock market performance, while inflation had a significant negative effect. Transaction costs showed a negative but weak influence, whereas bid-ask spread was not statistically significant. The study concludes that improved market regulation, lower trading costs, and stronger market participation are essential for enhancing stock market performance in Nigeria. The Nigerian capital market should continue to rationalise explicit trading costs so that entry and exit become less expensive for both retail and institutional investors. Regulators should deepen enforcement consistency, disclosure discipline, and investor-protection mechanisms because regulatory quality has a measurable long-run payoff for ASI. Macroeconomic authorities should recognise that inflation and exchange-rate conditions feed into stock market performance.

Keywords: *Financial market frictions, stock market performance, All Share Index, ARDL, Nigeria*

1. Introduction

Financial market frictions have attracted growing scholarly attention across advanced and emerging economies because of their implications for market efficiency, liquidity, and price formation. Beyond the Nigerian context, cross-national studies such as Tran et al. (2024) and Chengying et al. (2022) have highlighted the multidimensional character of these frictions by linking stock market performance with macroeconomic shocks, economic policy uncertainty, and liquidity constraints. However, the institutional, regulatory, and structural differences between these markets and Nigeria's stock market environment limit the direct applicability of such findings to Nigeria. Within Nigeria, studies such as Mafiejor (2023); Oshadare et al. (2022); and Igbinedion and Abudu (2023) have provided useful evidence on the influence of market frictions, yet many of these studies rely on static estimation techniques such as Ordinary

Least Squares and short panel-based approaches that may not adequately capture the dynamic interactions among variables over time (Wooldridge, 2016). Empirical evidence on the relationship between financial market frictions and stock market performance in Nigeria remains mixed and inconclusive. Fasola and Paseda (2023), for example, found that earnings announcements during the COVID-19 period did not generate significant abnormal returns, suggesting weaknesses in the market's ability to efficiently absorb publicly available information. In contrast, Ikponmwosa and Edo-Osagie (2021) reported that transaction costs significantly influence stock prices, implying that cost-related frictions hinder efficient price adjustment. Alalade et al. (2021) also showed that dividend announcements generated predictable price reactions, pointing to the persistence of information asymmetry and strategic trading behaviour. Similarly, Uhunmwangho (2022); Uhunamure and Uhunmwangho (2022) concluded that regulatory bottlenecks and informational inefficiencies exert significant effects on stock market volatility and returns. These divergent findings suggest that the magnitude and direction of the relationship between financial market frictions and stock market performance in Nigeria remain unsettled.

This study addresses these gaps by adopting the Autoregressive Distributed Lag (ARDL) bounds testing framework, which is appropriate for examining both short-run dynamics and long-run equilibrium relationships among variables with mixed orders of integration, $I(0)$ and $I(1)$ (Pesaran et al., 2001). Using annual time-series data from 1990 to 2023, the study captures structural changes and long-term movements in the Nigerian stock market, as reflected in the All-Share Index.

2. Literature Review

2.1 Conceptual Review

2.1.1 Stock Market Performance

Stock market performance refers to the extent to which an equity market functions effectively in carrying out its central financial roles within the wider economy. These roles include price discovery, liquidity provision, valuation, capital mobilisation, and the incorporation of information into security prices (Brealey et al., 2023; Mishkin & Eakins, 2024). In many studies, stock market performance is discussed narrowly in terms of changes in stock prices, market returns, or index movements. However, the concept is much broader than simple price appreciation or decline. It also reflects how well the market supports savings mobilisation, facilitates the transfer of funds to productive investment, sustains investor confidence, and responds efficiently to both firm-level and macroeconomic developments (Goldstein, 2023).

2.1.2 Financial Market Frictions

Financial market frictions refer to the range of imperfections, constraints, and distortions that prevent financial markets from operating in the idealised manner assumed in frictionless financial theory. In such ideal settings, information is costless and evenly available, transactions are executed instantly, and buyers and sellers interact without meaningful barriers.

2.2 Theoretical Review

2.2.1 Efficient Market Hypothesis

The Efficient Market Hypothesis, advanced by Fama (1970), is one of the most influential theories in finance because it explains how information is reflected in security prices. The theory holds that stock prices adjust rapidly and appropriately to available information, such that no investor can consistently earn abnormal returns from information already known to the market. Fama (1970) distinguished among the weak, semi-strong, and strong forms of

efficiency. Thus, in this study, the Efficient Market Hypothesis is useful mainly as a benchmark theory. It provides the standard against which the consequences of financial market frictions can be judged. The more pronounced the frictions, the more likely it is that stock market performance will deviate from the conditions implied by market efficiency.

2.2.2 Market Microstructure Theory

While the Efficient Market Hypothesis explains how prices should behave under efficient conditions, Market Microstructure Theory explains how prices are actually formed within the trading process. The theory developed as a response to the limitations of broad equilibrium models that paid little attention to the institutional and procedural details of exchange. O'Hara (1995) and Madhavan (2000) are central to this literature. They show that stock prices do not emerge in abstraction from the market. Rather, they are produced through the interaction of traders, dealers, brokers, liquidity suppliers, order-processing systems, and market rules. The theory helps connect market-level performance with trading-level realities.

2.3 Empirical Review

2.3.1 Transaction Cost and Stock Market Performance

Brière et al. (2019) investigated how transaction costs affect the profitability of investment strategies based on widely known asset-pricing anomalies in the United States. Using institutional investor data covering 1 January 2010 to 30 September 2011, the study examined anomaly-based strategies linked to size, value, investment, profitability, and momentum. The results indicated that transaction costs reduced net returns, especially for momentum-driven strategies and very large portfolios, although some anomalies remained profitable for average-sized funds. The study therefore highlighted that transaction costs can materially weaken strategy performance even where abnormal returns initially appear strong. Oshadare et al. (2022) investigated the effect of transaction costs, regulatory burdens, and asset indivisibility on stock market performance in Nigeria from 1981 to 2018. Using unit root tests, co-integration analysis, and regression estimation, the study found that these frictions significantly affected investor participation, capital flows, and pricing mechanisms. The study therefore suggested that stock market performance in Nigeria is closely tied to the quality of the trading and regulatory environment. Ogbeifun (2024) examined the effect of financial market frictions on the performance of the Nigerian bourse using data covering 1992 to 2021 and an ordinary least squares framework. The study focused on transaction costs, asymmetric information, regulatory burdens, and taxation as the main friction variables. The findings revealed that asymmetric information and transaction costs negatively affected market performance, while taxation and regulation produced small positive effects. This implies that although some institutional interventions may support the market marginally, core frictions tied to information and trading costs continue to weaken performance.

2.3.2 Bid-Ask Spread and Stock Market Performance

Debata and Mahakud (2018) explored the connection between economic policy uncertainty and stock market liquidity in emerging markets using a vector autoregressive framework alongside Granger causality tests, impulse response analysis, and variance decomposition. Their study showed that policy uncertainty became more influential during crisis periods, while investor sentiment explained a notable share of liquidity variation under stressed market conditions. This suggests that liquidity should be viewed not only as a transactional issue, but also as a behavioural outcome shaped by uncertainty. Tran et al. (2024) examined the causal links among economic policy uncertainty, economic growth, and stock market liquidity across six ASEAN countries over the period 2004 to 2023. Using Granger causality tests with both price-based and volume-based measures of liquidity, the study found that policy uncertainty

did not directly affect liquidity or growth in the immediate sense. However, economic growth influenced price-based liquidity, while liquidity also fed back into uncertainty, indicating that stock market liquidity and macroeconomic conditions interact dynamically and reciprocally.

2.3.3 Regulatory Quality and Stock Market Performance

Oshadare et al. (2022) investigated the effects of transaction costs, regulatory burdens, and asset indivisibility on stock market performance in Nigeria over the period 1981 to 2018. Using unit root tests, co-integration analysis, and regression estimation, the study found that these frictions significantly affected investor participation, capital flows, and pricing mechanisms. The study therefore suggested that stock market performance in Nigeria is closely tied to the quality of the trading and regulatory environment. Igbiniedion and Abudu (2023) assessed the micro- and macro-level implications of market frictions for portfolio investment performance in Nigeria using panel least squares and two-stage least squares estimation. The study combined five years of firm-level data with eleven years of macro-level data to capture both corporate and national dimensions of market behaviour. Their findings showed that transaction costs, exchange-rate instability, and inconsistent regulatory conditions distorted capital allocation and reshaped risk-return expectations, thereby prompting investors to alter their portfolio choices defensively. Ogbeifun (2024) examined the effect of financial market frictions on the performance of the Nigerian bourse using data covering 1992 to 2021 and an ordinary least squares framework. The study focused on transaction costs, asymmetric information, regulatory burdens, and taxation as the main friction variables. The findings revealed that asymmetric information and transaction costs negatively affected market performance, while taxation and regulation produced small positive effects. This implies that although some institutional interventions may support the market marginally, core frictions tied to information and trading costs continue to weaken performance.

2.3.4 Trading Volume and Stock Market Performance

Nurhayati (2018) investigated trading frictions on the Indonesian Stock Exchange using high-frequency data and correlation analysis. The sample comprised 38 stocks in 2006, representing 10.9% of 348 listed firms, 43 stocks in 2007, equivalent to 12.0% of 357 firms, and 50 stocks in 2008, accounting for 12.3% of 406 listed firms. The observation windows covered August to October in 2006 and 2008, and July to August in 2007, while the 2006 segment averaged 51 trading days and 541,875 transactions. The findings showed that trading frictions were negatively related to stock prices, market capitalisation, and number of trades, whereas their relationship with trading volume was not statistically significant. Mupondo (2022) examined the relationship among liquidity, trading activity, inflation, and stock price volatility in Zimbabwe using data from 2009 to 2021. The study adopted a five-equation structural model estimated with the generalised method of moments and supported by Hausman's specification test. The results showed that inflation was positively related to stock price volatility, implying that equities could serve as an inflation hedge, while the consistency of findings across random effects, fixed effects, and pooled OLS reinforced the robustness of the conclusions. Tran et al. (2024) examined the causal links among economic policy uncertainty, economic growth, and stock market liquidity across six ASEAN countries over the period 2004 to 2023. Using Granger causality tests with both price-based and volume-based measures of liquidity, the study found that policy uncertainty did not directly affect liquidity or growth in the immediate sense. However, economic growth influenced price-based liquidity, while liquidity also fed back into uncertainty, indicating that stock market liquidity and macroeconomic conditions interact dynamically and reciprocally.

3. Methodology

The study adopted an ex post facto research design because it relied on already existing time-series data and did not involve manipulation of the variables. This design is appropriate for macro-financial studies in which the objective is to explain observed relationships within historical data (Creswell & Creswell, 2018). The population of the study is the Nigerian economy as represented by the time-series behaviour of the selected market and macro-financial variables over the study period. Given the aggregate nature of the investigation, the study used census sampling, meaning that all available annual observations for 1990 to 2024 were utilised. Secondary annual data were sourced from the Central Bank of Nigeria Statistical Bulletin, the Nigerian Exchange, the World Bank databases, and related official market publications.

Model Specification

This study adapted the model proposed by Mafiejor (2023). His model was econometrically specified thus:

$$TVM = \beta_0 + \beta_1 TB + \beta_2 AIP + \beta_3 MKD + \beta_4 NTDA + \mu \dots \dots \dots (3.1)$$

This study modifies the above model to reflect the Nigerian context by utilising the Autoregressive Distributed Lag (ARDL) framework, which is well-suited for analysing both short-run dynamics and long-run relationships in time series data, particularly when variables are integrated at different levels (Pesaran et al., 2001). The modification entails measuring the dependent variable, stock market performance, using the All-Share Index (ASI). The core independent variables include financial market frictions such as bid-ask spread (BAS), transaction cost (TC), regulatory quality index (RQI), and trading volume (TV). Inflation (INF), interest rate (INTR), and exchange rate (EXR) are incorporated as macroeconomic control variables.

The functional form of the model is:

$$ASI_t = f(BAS_t, TC_t, RQI_t, TV_t, INF_t, INTR_t, EXR_t) \dots \dots \dots (3.2)$$

The ARDL ($p, q_1, q_2, \dots, q_7$) representation of the model is expressed as:

$$\begin{aligned} \Delta \ln(ASI_t) = & \alpha_0 + \sum_{i=1}^p \beta_i \Delta \ln(ASI_{t-i}) + \sum_{j=0}^{q_1} \theta_j \Delta \ln(BAS_{t-j}) + \sum_{k=0}^{q_2} \phi_k \Delta \ln(TC_{t-k}) + \\ & \sum_{l=0}^{q_3} \gamma_l \Delta \ln(RQI_{t-l}) + \sum_{m=0}^{q_4} \delta_m \Delta \ln(TV_{t-m}) + \sum_{n=0}^{q_5} \psi_n \Delta \ln(INF_{t-n}) + \\ & \sum_{o=0}^{q_6} \omega_o \Delta \ln(INTR_{t-o}) + \sum_{r=0}^{q_7} \rho_r \Delta \ln(EXR_{t-r}) + \lambda_1 \ln(ASI_{t-1}) + \lambda_2 \ln(BAS_{t-1}) + \\ & \lambda_3 \ln(TC_{t-1}) + \lambda_4 \ln(RQI_{t-1}) + \lambda_5 \ln(TV_{t-1}) + \lambda_6 \ln(INF_{t-1}) + \lambda_7 \ln(INTR_{t-1}) + \\ & + \lambda_8 \ln(EXR_{t-1}) + \varepsilon_t \dots \dots \dots (3.3) \end{aligned}$$

Where:

$\ln(ASI_t)$: Natural logarithm of the All-Share Index; $\ln(BAS_t)$: Natural logarithm of the Bid-Ask Spread; $\ln(TC_t)$: Natural logarithm of Transaction Costs; $\ln(RQI_t)$: Natural logarithm of the Regulatory Quality Index; $\ln(TV_t)$: Natural logarithm of Trading Volume; $\ln(INF_t)$: Natural logarithm of the Inflation Rate; $\ln(INTR_t)$: Natural logarithm of the Interest Rate; $\ln(EXR_t)$: Natural logarithm of the Exchange Rate; Δ : First difference operator, accounting for short-run dynamics; α_0 : Constant term; ε_t : Error term assumed to be white noise; $p, q_1, \dots, q_7$: Optimal lag lengths for each variable, determined by model selection criteria (e.g., AIC, BIC).

4. Results

4.1 Stationarity Tests

Table 4.1 reports the ADF and PP results at level, while Table 4.1b reports the corresponding results at first difference.

Table 4.1: ADF and PP unit root test results at level.

Variable	ADF (Level)	t-stat	ADF Prob.	PP (Level)	t-stat	PP Prob.	Decision at 5% (Level)
ASI	-0.652436		0.9688	-1.175421		0.8997	Not stationary
BAS	-5.535505		0.0001	-5.564285		0.0001	Stationary (I(0))
TC	-4.949669		0.0003	-5.427387		0.0001	Stationary (I(0))
RQI	-3.519367		0.0532	-3.706283		0.0355	Mixed (ADF not, PP yes)
TV	-4.548894		0.0010	-4.580966		0.0008	Stationary (I(0))
INF	-2.101968		0.2452	-2.430484		0.1413	Not stationary
INTR	-5.586933		0.0003	-5.586808		0.0003	Stationary (I(0))
EXR	-2.269078		0.5432	-8.684207		0.0000	Mixed (ADF not, PP yes)

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Table 4.1b ADF and PP unit root test results at first difference.

Variable	ADF statistic (1st diff.)	t-ADF p-value	PP adj. statistic (1st diff.)	t-PP p-value	Decision at 5%
ASI	-4.345022	0.0067	-4.442710	0.0029	Stationary
BAS	-11.130390	0.0000	-11.931490	0.0000	Stationary
TC	-7.757479	0.0000	-17.763320	0.0001	Stationary
RQI	-8.177412	0.0000	-9.531274	0.0000	Stationary
TV	-3.635964	0.0109	-8.940809	0.0000	Stationary
INF	-4.642507	0.0007	-4.625010	0.0008	Stationary
INTR	-6.297145	0.0001	-15.216800	0.0000	Stationary
EXR	-5.591855	0.0032	-0.995750	0.9998	Mixed (ADF stationary; PP not)

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Tables 4.1a and 4.1b present the ADF and Phillips–Perron unit root test results and show that the variables are integrated at mixed orders, with none appearing to be integrated beyond the first difference. At level, ASI is clearly non-stationary because both the ADF and PP statistics are insignificant, with p-values of 0.9688 and 0.8997, respectively. Inflation also remains non-

stationary at level under both tests, with p-values above 0.05. By contrast, BAS, TC, TV, and INTR are stationary at level under both ADF and PP, which means they are $I(0)$ variables. RQI and EXR produce mixed outcomes at level: RQI is non-stationary under ADF at the 5 per cent level but stationary under PP. At the same time, EXR is also non-stationary under ADF but stationary under PP. By comparison, BAS and INTR show the strongest evidence of level stationarity because their test statistics are highly significant under both procedures, whereas ASI and INF show the weakest evidence of stationarity at level.

At first difference, the results become much stronger and confirm that all variables, with only one residual inconsistency, attain stationarity after differencing once. ASI becomes stationary under both ADF and PP, implying that it is integrated of order one, $I(1)$, while INF also becomes stationary under both tests at first difference, confirming it as $I(1)$. BAS, TC, RQI, TV, and INTR remain stationary at first difference as well, although they had already shown evidence of stationarity at level, reinforcing their $I(0)$ status. EXR still presents a mixed outcome at first difference, being stationary under ADF but not under PP, yet the broader pattern of results still suggests that the series does not exceed first-order integration. Overall, the unit root evidence indicates a combination of $I(0)$ and $I(1)$ variables in the model, which supports the appropriateness of the ARDL approach since ARDL is specifically suitable where regressors are integrated at mixed orders, provided none is $I(2)$.

4.2 Descriptive Statistics

Table 4.2 Descriptive statistics

Statistic	ASI	BAS	TC	RQI	TV	INF	INTR	EXR
Mean	24489.72	1.498377	0.581057	-0.771112	152005.1	18.70406	18.03482	219.6928
Median	23432.62	1.490000	0.620000	-0.888000	150180.0	13.01000	17.58562	132.8500
Maximum	99523.11	2.440000	0.990000	0.630000	491000.0	72.84000	29.80000	1535.820
Minimum	423.6600	0.570000	0.200000	-1.292820	12992.00	5.400000	11.48313	9.000100
Std. Dev.	21080.20	0.609879	0.239684	0.403572	102062.2	15.87624	3.676565	285.0143
Skewness	1.351220	0.099592	-0.203861	1.917589	1.025713	2.068678	0.956878	3.300605
Kurtosis	5.725437	1.648084	1.683310	6.855920	4.594168	6.487917	4.889173	14.82966
Jarque-Bera	21.48298	2.723220	2.770704	43.13271	9.843340	42.70478	10.54584	267.6287
Probability	0.000022	0.256248	0.250236	0.000000	0.007287	0.000000	0.005129	0.000000
Observations	35	35	35	35	35	35	35	35

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The skewness statistics show that most variables are positively skewed, meaning that their distributions are characterised by longer right tails. ASI has a skewness of 1.351, indicating that high values in some years pulled the distribution to the right. BAS is only slightly positively skewed at 0.100, making it one of the most symmetric variables in the table. TC is the only variable with negative skewness, at -0.204, although the value is small and suggests only mild left-skewness. RQI is strongly positively skewed at 1.918, implying that although

regulatory quality was generally poor, a few relatively improved values pulled the upper tail outward. TV is also positively skewed at 1.026, indicating the presence of some exceptionally high trading years. Inflation and exchange rate are highly positively skewed, at 2.069 and 3.301, respectively, which confirms that both variables experienced sharp upward spikes during the period. Interest rate, with a skewness of 0.957, is also positively skewed but less extremely than inflation and exchange rate.

The Jarque-Bera statistics and their associated probabilities indicate which variables are normally distributed and which are not. ASI has a Jarque-Bera value of 21.483 with a probability of 0.000022, showing that it is not normally distributed. RQI, TV, INF, INTR, and EXR also fail the normality test since their probability values are below 0.05.

Table 4.3 Short-run ARDL error-correction estimates for the ASI model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ASI(-1))	0.254055	0.122848	2.068040	0.0542
D(BAS)	432.1874	1102.510	0.392003	0.6999
D(TC)	-5036.558	3818.588	-1.318958	0.2047
D(TC(-1))	10196.57	3721.422	2.739966	0.0140
D(INTR)	-389.0950	329.2692	-1.181692	0.2536
D(INTR(-1))	903.0212	339.5143	2.659745	0.0165
D(EXR)	-8.171178	10.22806	-0.798898	0.4354
CointEq(-1)*	-0.659388	0.090181	-7.311828	0.0000
R-squared	0.795689			
Adjusted R-squared	0.738482			
Durbin-Watson stat	2.190061			

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The above table presents the short-run ARDL error-correction estimates for the ASI model and shows that, in the short run, only some of the explanatory variables exert statistically meaningful effects on stock market performance. The lagged change in ASI has a positive coefficient of 0.254055 and is only marginally significant at the 10 per cent level with a probability of 0.0542, suggesting mild short-run persistence in stock market movements. Bid-ask spread has a positive but highly insignificant contemporaneous coefficient of 432.1874, indicating that short-run changes in BAS do not meaningfully explain ASI movements within the period. Transaction cost shows a negative contemporaneous coefficient of -5036.558, but this effect is statistically insignificant at the 5 per cent level. However, its first lag is positive and significant, with a coefficient of 10196.57 and a probability of 0.0140, implying that transaction cost affects stock market performance with a delay rather than immediately. A similar pattern appears for interest rates: the current change in INTR is negative and insignificant at -389.0950, while its lagged value is positive and significant at 903.0212 with a probability of 0.0165. This suggests that interest rate shocks do not influence the ASI instantly, but their short-run effect emerges after one period. The exchange rate carries a negative but

insignificant coefficient of -8.171178, showing that short-run exchange rate changes do not have a statistically reliable immediate effect on stock market performance in this specification.

The most important result in the table is the error-correction term, $CointEq(-1)$, which is negative, correctly signed, and highly significant, with a coefficient of -0.659388 and a probability of 0.0000. This confirms the existence of a valid long-run relationship and indicates that about 65.9 per cent of any short-run disequilibrium in ASI is corrected within one period, implying a fairly strong speed of adjustment back to long-run equilibrium. In other words, deviations from the equilibrium path are not persistent, as the system corrects more than half of the imbalance each year. The overall explanatory power of the model is also reasonably strong, with an R-squared of 0.795689 and an adjusted R-squared of 0.738482, indicating that nearly 79.6 per cent of the short-run variation in ASI is explained by the included dynamics of the model, and about 73.8 per cent after adjusting for the number of regressors. The Durbin-Watson statistic of 2.190061 is close to 2, which suggests the absence of serious autocorrelation in the residuals. Overall, the short-run evidence implies that transaction cost and interest rate are the most influential short-run drivers in the model, but mainly through their lagged effects, while bid-ask spread and exchange rate do not show significant short-run explanatory power.

4.4 Long-Run Estimates

The table presents the long-run coefficients for the ASI model.

Table 4.4 Long-run ARDL estimates for the ASI model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BAS	-3629.684	5373.903	-0.675428	0.5085
TC	-40384.90	20174.49	-2.001781	0.0615
RQI	28795.05	10138.90	2.840057	0.0113
TV	0.081558	0.028312	2.880638	0.0104
INF	-727.1711	248.0174	-2.931936	0.0093
INTR	-1496.818	1207.659	-1.239437	0.2320
EXR	90.09889	26.96590	3.341215	0.0039
C	91273.45	29969.24	3.045571	0.0073

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The table presents the long-run ARDL estimates for the ASI model and shows that stock market performance in Nigeria responds differently to the explanatory variables over time. Bid-ask spread carries a negative coefficient of -3629.684, which is consistent with the expectation that wider spreads, as a proxy for poorer liquidity and higher trading friction, may weaken stock market performance. However, its probability value of 0.5085 shows that this effect is not statistically significant, implying that BAS does not exert a reliable long-run influence on the All-Share Index in this model. Transaction cost also has a negative coefficient of -40384.90, suggesting that higher trading costs may depress market performance by discouraging participation and reducing trading efficiency. Although this effect is not significant at the 5 per cent level, its probability of 0.0615 indicates marginal significance at the 10 per cent level, meaning that transaction cost may still matter in the long run, but the evidence is weaker than for the more strongly significant variables. Regulatory quality, by contrast, has a positive and significant coefficient of 28795.05 with a probability of 0.0113, showing that improvements in

institutional and regulatory conditions are associated with higher stock market performance. Trading volume is also positive and significant, with a coefficient of 0.081558 and a probability of 0.0104, which implies that deeper market activity and stronger participation support the long-run behaviour of the ASI.

The control variables also reveal important long-run effects. Inflation has a negative and significant coefficient of -727.1711 with a probability of 0.0093, indicating that persistent inflation weakens stock market performance, likely through uncertainty, erosion of real returns, and valuation pressure. Interest rates are also negative, with a coefficient of -1496.818, but it is statistically insignificant at 0.2320, which suggests that although higher rates may theoretically reduce equity attractiveness, that long-run effect is not strong enough to be confirmed in this model. Exchange rate, however, shows a positive and highly significant coefficient of 90.09889 with a probability of 0.0039, making it one of the strongest long-run drivers of ASI in the equation. Comparatively, the most statistically powerful positive influences are exchange rate, trading volume, and regulatory quality, while the clearest negative long-run effect comes from inflation. The constant term is also positive and significant at 91273.45, implying that other omitted long-run factors still support stock market performance. Overall, the long-run evidence suggests that the Nigerian stock market performs better when market activity is stronger and the regulatory environment improves, but suffers under rising inflation and, to a weaker extent, higher transaction costs, while bid-ask spread and interest rate do not show statistically dependable long-run effects in this specification.

5. Discussion

The findings show that transaction costs exert a meaningful influence on stock market performance in Nigeria, although the effect is not uniform across time. In the short run, the contemporaneous transaction cost coefficient is negative but insignificant, whereas the lagged coefficient is positive and statistically significant. In the long run, transaction costs become negative and marginally significant. This pattern suggests that the Nigerian stock market does not adjust instantly to cost shocks. This outcome is broadly consistent with market microstructure theory, which argues that costly trading reduces participation incentives, slows portfolio rebalancing, and weakens the efficiency of price adjustment (Madhavan, 2000; O'Hara, 1995).

Bid-ask spread did not emerge as a statistically significant determinant of stock market performance in either the short run or the long run. Although the long-run coefficient is negative, which is theoretically consistent with the expectation that wider spreads reflect poorer liquidity and higher trading frictions, the effect is not strong enough to be statistically confirmed in the ASI model. This suggests that, at the level of a broad annual market index, bid-ask spread may not be the most decisive channel through which financial market frictions affect stock market performance in Nigeria. This result should not be interpreted to mean that bid-ask spread is unimportant in financial markets. On the contrary, market microstructure literature treats spread as a classic indicator of liquidity risk, adverse selection, and execution cost (Glosten & Harris, 1988; O'Hara, 1995; Pan & Misra, 2021).

One of the strongest findings of the study is the positive and significant long-run effect of regulatory quality on stock market performance. This implies that improvements in the institutional and supervisory environment are associated with stronger performance of the Nigerian stock market over time. The result is theoretically persuasive because stock markets depend not only on trading activity, but also on the credibility of rules, the consistency of enforcement, the reliability of disclosures, and the extent of investor protection. This finding is consistent with the broader literature that links institutional quality with market confidence

and financial development. Abaidoo and Agyapong (2023) emphasize that regulatory quality reflects a country's ability to formulate and implement policies that support market-based activity.

The study also finds that trading volume has a positive and statistically significant long-run effect on stock market performance. This means that a more active market, characterised by stronger trading intensity and deeper participation, supports the long-run movement of the stock market. This finding fits well with market microstructure reasoning and with prior empirical work. Tran et al. (2024) found that economic growth and liquidity are dynamically connected in Association of Southeast Asian Nations (ASEAN) markets, while Mupondo (2022) emphasised the importance of liquidity and trading activity in shaping market conditions in Zimbabwe.

6. Conclusion and Recommendations

6.1 Conclusion

As per the study, the study concludes that stock market performance in Nigeria is shaped less by spread conditions alone and more by the broader cost of market participation, the quality of the regulatory environment, and the depth of trading activity. This implies that sustained improvements in market institutions, a reduction in transaction-related burdens, and stronger trading activity are essential for improving stock market performance in Nigeria.

6.2 Recommendations

The study recommends that the Nigerian capital market should continue to rationalise explicit trading costs so that entry and exit become less expensive for both retail and institutional investors. Regulators should deepen enforcement consistency, disclosure discipline, and investor-protection mechanisms because regulatory quality has a measurable long-run payoff for ASI. Market operators should pursue policies that deepen trading activity, including improved liquidity support, product diversification, and technology-driven access that broadens participation. Macroeconomic authorities should recognise that inflation and exchange-rate conditions feed into stock market performance.

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