

**RISK HEDGING INSTRUMENTS AND CAPITAL MARKET PERFORMANCE:
EMPIRICAL EVIDENCE FROM DERIVATIVES FINANCE IN THE NIGERIAN
EXCHANGE GROUP**

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Abstract

The development of a vibrant financial derivatives market on the Nigerian Exchange Group faces critical structural, liquidity and awareness challenges that limit its effectiveness in modern risk management. This study examined risk hedging instruments and capital market performance in Nigeria, with specific emphasis on derivatives finance in the Nigerian Exchange Group. The study focused on the effects of interest rate swaps and spot exchange rate on market capitalisation, while money supply and inflation rate were included as control variables. Monthly time-series data covering January 2021 to December 2025 were obtained from Central Bank of Nigeria, Nigerian Exchange Group data library and analysed using descriptive statistics, Augmented Dickey-Fuller unit root test, ARDL bounds test, short-run and long-run ARDL estimates, and diagnostic tests. The unit root results showed a mixture of variables integrated at level and first difference, justifying the application of the ARDL approach. The bounds test confirmed the existence of a long-run relationship among market capitalisation, interest rate swaps, spot exchange rate, money supply, and inflation rate. The findings revealed that interest rate swaps had a significant negative effect on market capitalisation in the short run but a significant positive effect in the long run. Spot exchange rate and money supply exerted positive and significant effects on market capitalisation, while inflation was significant in the long run. The study concluded that risk hedging instruments improved Nigerian Exchange Group performance when it is well designed and well regulated. Based on the findings, this study suggested that regulators should strengthen derivatives market through increasing the disclosure obligations, standardising derivatives contract documentation, deepening central clearing and strengthening the supervision of counterparty risk. The NGX, SEC, CBN and market operators should also conduct regular investor education programmes, print simplified futures, swaps and currency hedging manuals and make it a requirement for brokers to explain risk before investors trade derivative products.

Keywords: Derivatives finance, exchange rate (spot rate), interest rate swaps, market capitalisation, nigerian exchange group.

1.0 Introduction

Financial derivatives are now a part of the contemporary financial systems as they are used in risk management, price discovery and deepening of the financial markets (Adeloye & Olawoyin,

2025). Derivatives finance is the utilisation of financial agreements which encompass futures, options, and swaps that are based on the underlying assets like interest rates, currencies, and equities. Derivatives have become more relevant in emerging economies such as Nigeria, where macroeconomic volatility especially changes in the interest rates and foreign exchange rates have grown (Efanga et al., 2020). These variations have great effect on capital market performance, particularly market capitalisation that is an aggregate total value of listed equities that are a major indicator of stock market development (Efanga et al., 2020).

The Nigerian Exchange Group (NGX) is a central part in gathering long term investment and easing economic development. Nevertheless, the NGX, as indicated by market capitalisation, has been affected by macroeconomic factors, inconsistencies in policies, and exogenous shocks (Ewubare et al., 2022). Interest rates have effect on cost of borrowing and investment decisions, which are mostly influenced by actions of monetary policy, directly impacting the valuation of stocks in the stock market (Musa et al., 2020). On same note, fluctuations in exchange rates affect confidence of investors, capital flows, and value of firms that are exposed to foreign currency (Ewubare et al., 2022).

Interest rate derivatives, more so, interest rate swaps have become an essential instrument for managing an exposure to interest rate risks. The tools enable the market participants to trade fixed and floating interest rate commitments, hence even the cash flow becomes steadier, and uncertainty is minimised (Folkerts-Landau, 1989). Ideally, interest rate swaps are good at boosting financial stability and firm valuation that may in turn translate into increased market capitalisation. Nevertheless, the derivatives market in Nigeria is not sufficiently developed, which restricts the ability of such instruments to affect overall market performance (Osayi et al., 2018).

Spot exchange rate, Currency swaps and forwards also form part of the exchange currency derivatives that are essential in alleviating risks associated with foreign exchange rate (Chima & Obiah, 2018). Nigeria has suffered a lot due to the instability of its exchange rates as most of its economic activities are largely dependent on imports and exporting of crude oil. It has been found that exchange rate instability has a negative impact on stock market performance in terms of raising uncertainty and warding off investment (Farounbi et al., 2021). However, the establishment of currency derivatives and bilateral swap agreements like the China-Nigeria currency swap have offered certain stability and have helped trading with the rest of the world (Alphonsus, 2020).

Although derivatives have hypothetical advantages, the empirical data on effect of derivatives in stock market in Nigeria is inconsistent. The research indicates that derivatives are beneficial because they make markets more efficient and capitalised (Agbaeze et al., 2023) but at the same time scholar point at structural issues of low market participation, regulatory limitations and poor financial literacy as obstacles to their success (Efanga et al., 2020). In addition, most of the current literature is concerned with the performance of the banking sectors and not the stock market therefore, there is a gap in knowledge on the macro-level implications of derivatives finance on the NGX.

To fill this gap, this study analysed risk hedging instruments and capital market performance evidence from Nigerian Exchange Group namely interest rate derivatives and foreign exchange derivatives on Nigerian Exchange Group performance. The research concentrated on market capitalisation as a performance indicator sheds some light on effect of derivative instruments

on capital markets growth in Nigeria. The results have impacts on policy making, development of financial markets, and decision-making in emerging economies in terms of investments.

Nigerian capital market has been volatile over the years as evident in its changing market capitalisation and a lack of investor confidence, especially during periods of exchange rate instability, macroeconomic uncertainty and policy inconsistency (Ewubare et al., 2022; Farounbi et al., 2021). Regardless of the different reforms, which have focused on strengthening the financial system, the performance of Nigerian Exchange Group (NGX) is highly susceptible to macroeconomic shocks particularly fluctuation of the interest rates and exchange rates (Ewubare et al., 2022). These instabilities bring an element of insecurity to investors and prevent the market from effectively using capital to develop the economy.

Poor use and development of derivatives finance as a risk management tool is one of the challenges. Interest rate volatility, which is caused by the regular changes in monetary policy, influences the cost of borrowing and investment, thus, it influences performance of stock market (Aroghene & Obiekea, 2025). Although interest rate swaps can be used to hedge against risks, there are limited adoption in Nigeria because of the poor financial infrastructure and regulatory barriers (Osayi et al., 2018). This concerns regarding how well interest rate derivatives may be effectively used to capitalise the market in the NGX need to be explored.

On the same note, exchange rate volatility remains a major challenge to the Nigerian economy and the capital market. There has been a constant naira depreciation and instability that is of detriment to investor confidence and inflows of foreign portfolio investments (Farounbi et al., 2021). Though there are foreign exchange derivatives like currency swaps that are designed to address these risks, their influence on the general performance of stock market is not clearly known (Chima & Obiah, 2018; Alphonsus, 2020). Available literature contains some inconclusive evidence given by some scholars that exchange rate stability has a positive effect on market capitalisation and their negative impacts are indicated by other scholars (Chima & Obiah, 2018; Alphonsus, 2020; Dauda et al., 2021).

In addition, majority of empirical research on derivatives in Nigeria had concentrated on the performance of firms or the banking industry but has not taken the capital market into consideration. This leaves gaps in the literature on the impacts of risk hedging instruments and capital market performance evidence from derivatives finance to the aggregate performance of the NGX. Also, there is lack of financial data that concurrently analyses both interest rate and foreign exchange derivatives in one framework. Considering these gaps, there is a necessity of detailed research that can assess the effectiveness of derivatives finance on the work of the Nigerian Exchange Group. This relation is pivotal to the policymakers, regulators, and investors to understand to make markets more stable and help to achieve sustainable economic growth.

Research Questions

- i. What is effect of interest rate swaps on market capitalization?
- ii. What is impact of foreign exchange derivatives on market capitalization?

Objectives of the Study

The broad objective of this research is to examine risk hedging instruments and capital market performance evidence from the Nigerian Exchange Group. Specific Objectives are to:

- i. examine how interest rate swaps influence market capitalization.
- ii. determine how foreign exchange derivatives impacts on market capitalization.

Research Hypotheses

H₀₁: There is no significant impact of interest rate swaps on market capitalization.

H₀₂: There is no significant effect of foreign exchange derivatives on market capitalization.

2.0 Literature Review

Interest rate swaps are derivative contracts whereby the interest payment obligations are exchanged between two parties, typically a fixed interest rate for a floating interest rate, on a notional principal amount for a stipulated period (Meibo & Qiang, 2025). This allow a firm, bank and institutional investor to deal with the impact of interest rate fluctuations by turning future and uncertain interest payments into more certain cash flows. Interest rate swaps can provide a way for businesses to manage uncertainty in their borrowing rates, facilitate improved business planning, and enhance the value of listed companies. They are effective, however, when they are backed by the market depth, benchmarked rates that are reliable, counterparty credit quality, legal enforceability, and adequate regulatory oversight (Osayi et al., 2018; Meibo & Qiang, 2025).

Exchange rate options are foreign exchange derivatives that allow the option holder to purchase or sell a currency at a fixed exchange rate during a certain period, but not to sell or buy the currency if the exchange rate is unfavorable (Farounbi et al., 2021). For investors and firms in risk management, currency call and put options can shield them from the chance of negative exchange rate shifts but also provide them with the potential to gain from positive exchange rate shifts. Exchange rate options can therefore be a useful tool for hedging foreign exchange risks in Nigeria in a controlled manner provided there is enough liquidity for trading of the options which in turn requires foreign portfolio inflows and investor confidence in the stability of exchange rates (Chima & Obiah, 2018; Farounbi et al., 2021).

A futures contract is a standardized contract that is traded on an organized exchange that is used to purchase or sell an underlying asset, currency or financial instrument later at a designated price (Wadinga, 2025). Futures are normally marked to market and have margin requirements and clearing systems, both of which lower the risk of counterparty default compared to forward contracts. Futures are used and traded in capital markets that enhance price discovery, risk transfer, and liquidity due to the ability to hedge against anticipated interest rate, exchange rate, or equity price fluctuations. However, their contribution to market performance hinges on their engagement, transparency, contract standardization and robust clearing framework (Wadinga, 2025).

A spot exchange rate is the prevailing rate of exchange for buying and selling one currency for another at the present time, with the intention of settling the transaction soon (Ewubare et al. 2022). Spot transactions create a reference price that is used to determine the value of foreign exchange forwards, futures, swaps and options (Dauda et al. 2021). Change in the spot rate affects the prices of currency derivatives and the value of foreign-currency exposure of investors, companies and financial institutions. Depreciation or volatility of the spot exchange rate in the Nigerian capital

market can lead to a decline in market capitalization which will create uncertainty in the market, dissuade foreign investors and affect investor confidence (Ewubare et al. 2022; Dauda et al. 2021).

Theoretical Review

Modern Portfolio Theory (MPT)

This research based on Modern Portfolio Theory (MPT) developed by Markowitz in 1952. According to the theory, investors are free to maximise returns by diversifying portfolios and dealing with risks using the relevant financial instruments. Derivatives are very important in this mechanism as they allow hedging against any market uncertainties like the exchange rates and interest rates fluctuation. Derivatives provide stability for the portfolio and a better valuation of assets which eventually affects market capitalization by lowering systematic risk exposure. With reference to Nigeria, when MPT is applied, it is fair to assume that market efficiency and investor confidence should increase because of using interest rate and foreign exchange derivatives. Nonetheless, the success of this mechanism is determined by the degree of market advancement and institutional capability. The theory, therefore, offers the basis for explaining the effect that derivatives financing may have on the operations of the Nigerian Exchange Group.

Risk Management Theory

Risk Management Theory tells how investors, firms and financial institutions manage their exposure to financial risk by using instruments like futures, swaps, options, foreign exchange derivatives, commodity futures, equity derivatives, and credit default swaps. The theory is based on the concepts of portfolio diversification and risk-return analysis (Markowitz, 1952; Sharpe, 1964), which assumes that economic agents act rationally and aim to reduce risks and safeguard returns. It is relevant to this study because the interest rate, exchange rate, commodity price, liquidity, credit risk and market risk affect the performance of the Nigerian capital market (Saunders & Allen, 2010). These risks can be mitigated with the use of derivatives, which enable better planning and contribute to market stability (Folkerts-Landau, 1989; Buyukkara et al., 2022). The theory, however, is criticized for its excessive dependence on risk models, as well as on speculation, weak regulation and low applicability in developing markets (Baker, 2022; Bomfim, 2023). The theory is applied to an emerging market for derivatives in Nigeria.

Empirical Review

The empirical research on derivatives financing and market performance has given contradictory results especially in the emerging economies like Nigeria. Lau (2016) investigated the effect of corporate application of derivatives on performance of firms in Asia-Pacific region. The sample used in the study included 680 non-financial companies that were listed in main market of Bursa Malaysia based on data obtained using Thomson Reuters Datastream. Using the analysis of firm-level panel data, the results indicated that derivatives are used to improve the performance of firms due to some successful risk management, which results in elevated stock valuations and enhanced total market capitalization. The study came up with the conclusion that use of derivatives plays critical role in capital market efficiency and advised the introduction of use of derivatives into the long-term corporate risk management procedures.

In the Nigerian case, Musa et al. (2020) examined how interest rates affect capitalization and share index of the stock market. The analysis carried out through time-series econometric methods demonstrated that there was significant negative correlation between interest rates and market

capitalization, which means that growth in interest rates lowers equity investment and market value in general. In the same way, Aroghene and Obiekea (2025) examined how interest rate changes influenced stock market performance in Nigeria. This paper used regression analysis and found that interest rate volatility has strong significant impact on the performance of the market, hence the significance of interest rate derivatives like swaps in reducing financial risk.

Agbaese et al. (2023) investigated effect of derivative securities on performance of Nigerian commercial banks. Through regression analysis of financial data, the research concluded that derivatives are a positive factor in increasing bank profitability and financial stability due to its effectiveness in improving risk management practices. Similarly, Osayi et al. (2018) evaluated the correlation between financial market derivatives and performance of deposit money banks in Nigeria. In the research, descriptive and inferential statistics were employed and the researchers concluded that derivatives have positive impact on the performance of a bank through exposure to financial risks minimization. The paper however indicated that the derivatives market in Nigeria is not well developed, this limits the overall effectiveness of the market.

Chima and Obiah (2018) discussed effect of currency swaps on economic development of Nigeria based on China Nigeria currency swap agreement. The research conducted quantitative analysis and established that currency swaps enhance the liquidity of trading, alleviate foreign exchange pressure, and indirectly facilitate capital market development. In the same manner, Alphonsus (2020) evaluated the economic consequences of the China-Nigeria currency swap. The results indicate that the agreement increases stability of the exchange rates and less reliance on foreign currencies and hence, the performance of the economic and financial markets.

Dauda et al., (2021) examined the market risk, and the stock returns of listed financial companies in Nigeria. Using regression analysis, research discovered that exchange rate risk was a major determinant of stock returns thus foreign exchange volatility a major determinant of the performance of the market. Besides, Efanga et al. (2020) also investigated influence of derivative securities on the Nigerian stock market. The study conducted a combination of a descriptive analysis and econometric analysis and concluded that derivatives have a positive impact on market performance through better risk management and market efficiency but with a limitation of limited participation in the market and the ineffectiveness of the regulating bodies.

Ewubare et al. (2022) studied the exchange rates in the determination of market capitalization in Nigeria. Through the econometric model, the study found that depreciation of exchange rate leads to a negative impact of high magnitude on market capitalization since it causes uncertainty and it discourages investment. This result aligns with Farounbi et al. (2021), who examined effects of the foreign exchange volatility on the corporate financing choices in Nigeria. The analysis of panel data conducted by study found out that exchange rate instability deterred investment and had an adverse impact on the capital market performance.

Meibo and Qiang (2025) evaluated the idea and use of interest rate swap in the contemporary financial systems. The paper used a conceptual and analytic methodology and concluded that interest rate swaps are essential in improving financial stability and liquidity. Nevertheless, the research forwarded that its success is heavily influenced by the level of market sophistication, market strength, and institutional development.

Although empirical literature on derivatives exists, several gaps remain. Most studies examine interest rate and exchange rate variables separately rather than integrating both within a single derivatives finance framework. In addition, existing research focuses largely on firm performance or the banking sector, with limited attention given to aggregate capital market indicators such as market capitalization. Moreover, recent empirical research is limited that portrays the dynamic nature of the derivatives markets in Nigeria. Consequently, this paper addresses these gaps by examined impact of the interest rate derivatives and the foreign exchange derivatives on market capitalization of the Nigerian Exchange Group.

3.0 Methodology

This study adopted an *ex- post facto* research design due to the use of inferential statistic to arrive at experimental inferences. The data used were obtained from the Nigerian Exchange Group (NXG) data library on the monthly basis, from January 2021-December 2025. This study adopted Abdulrauf et al (2026) model, with some degree of modification. The basic model of Abdulrauf et al (2026) is stated below;

$$\text{ROA} = f(\text{FOW}, \text{FUT}, \text{OPT}, \text{SWP}, \text{FSZ}, \text{LIQ}, \text{LEV}) \dots \dots \dots \text{(i)}$$

Where; ROA = Financial Performance, FOW = Forward Contract, FUT = Future Contract OPT = Option Contract SWP = Swap Contract FSZ = Firm Size LIQ = Liquidity LEV = Leverage

Modifying equation (i), we have equation (ii)

$$\text{MCAP} = f(\text{INTD}, \text{EXRD}, \text{MSSS}, \text{INF}) \dots \dots \dots \text{(ii)}$$

Where;

MCAP : Market capitalization, INTD: Interests rate swap, EXRD: Effective exchange rate
MSS: Money supply, and INF: Inflation rate

The equation (ii) was modified for two reasons. First, MCAP was included to replace ROA because the dependent variable was capital market performance. Second, both interest rate swap (INTD), andspot exchange rate (EXRD) served as proxy variables for risk hedging instruments, with, money supply (MSS) and inflation rate (INF) serving as control variables.

Putting equation (ii) in econometric form

$$\text{MCAP} = \partial_0 + \partial_1 \text{INTD} + \partial_2 \text{EXRD} + \partial_3 \text{MSS} + \partial_4 \text{INF} + \mu_t \dots \dots \dots \text{(iii)}$$

The autoregressive distributed lagged specification of equation (iii) above is presented in equation (iv) as:

$$\begin{aligned} \Delta \text{MCAP} = & \beta_0 + \sum_{i=1}^p \beta_1 \Delta \text{MCAP}_{t-i} + \sum_{i=0}^p \beta_2 \Delta \text{INTD}_{t-i} + \sum_{i=0}^p \beta_3 \Delta \text{EXRD}_{t-i} + \sum_{i=0}^p \beta_4 \Delta \text{MSS}_{t-i} \\ & + \sum_{i=0}^p \beta_5 \Delta \text{INF}_{t-i} + \omega_1 \text{MCAP}_{t-1} + \omega_2 \text{INTD}_{t-1} + \omega_3 \text{EXRD}_{t-1} + \omega_4 \text{MSS}_{t-1} + \omega_5 \text{INF}_{t-1} + \nu_t \end{aligned}$$

Where: $\omega_1 - \omega_5$ are the long run multipliers and ν_t is the white noise error.

Variable	Description	Measurement
Market capitalization (MCAP),	This is concerned with the total market value of all companies operating under the purview of NGX.	The sum of Price of Stock multiply by Outstanding Shares of Stock/GDP
Interest rate swap (INTD),	It is a financial derivative contract between firms/individual parties to exchange interest payment obligations on the basis of a specified principal amount, for a set period of time, without exchanging the principal itself.	Annual volume/value of interest rate derivatives traded
Spot exchange rate (EXRD),	The exchange rate of naira to a dollar.	SpotRate
Money supply (MSS)	Sum of money in circulation	Credit to private sector/GDP
Inflation rate (INF)	This is the percentage change in the general price level of goods and services in an economy..	Percentage (%)

Source: Author's Computation, 2026.

Descriptive Statistics

Table 1:

Descriptive Statistics

Statistics	MCAP	INTD	EXRD	MSS	INF
Mean	3.026850	2.680775	1132.088	35.74200	18.97425
Median	3.700000	1.874066	1081.893	32.04500	12.55000
Maximum	15.33000	8.841114	2384.007	89.39000	72.84000
Minimum	-13.13000	0.189165	129.2187	14.17000	5.380000
Std. Dev.	5.453872	2.505070	664.7587	19.18661	16.87954
Skewness	-0.801577	1.119125	0.112346	1.062211	1.823907
Kurtosis	4.502901	3.091918	1.930615	3.822958	5.157950
Jarque-Bera	8.048027	8.363688	1.990118	8.650710	29.93883
Probability	0.117881	0.015270	0.369702	0.113229	0.000000
Sum	121.0740	107.2310	45283.52	1429.680	758.9700
Sum Sq. Dev.	1160.044	244.7396	17234262	14356.91	11111.84
Observations	60	60	60	60	60

Source: Eviews Output, 2026.

The total sampled population was 60 months (2021-2025), with market capitalization (MCAP) and interest rate swap (INTD) showing a moderate mean value of 3.03% and 2.68% respectively. This suggests the present of moderate volatility in the total market value and interest rate swap of firms present on Nigerian Exchange group. However, spot exchange rate (EXRD), money supply (MSS) and inflation rate (INF) showed highly volatile pattern in mean values across years. Meanwhile, median values for all the sampled variables followed a similar pattern of mean. The maximum obtained value was from spot exchange rate (EXRD), while minimum was market capitalization (MCAP). Furthermore, standard deviation showed suitable covariance around the mean. The negative skewness and kurtosis indicate a left-skewed distribution among sampled population, with heavier tails than normal. This shows occasional large market declines. Lastly, Jarque-Bera showed normally distributed of sampled population across years.

Table 2:

Augmented Dickey Fuller (ADF)

Variable	Test-Value	5% critical value	Level	Remark
MCAP	/3.002489/ {0.0404}**	/2.911730/	I(0)	Stationary
INTD	/3.970300/ { 0.0030}**	/2.911730/	I(0)	Stationary
EXRD	/37.243686/ {0.0000}**	/2.912631/	I(1)	Stationary
MSS	/6.609803/ 0.0000}**	/2.912631/	I(1)	Stationary
INF	/3.726788/ {0.0011}**	/2.911730/	I(0)	Stationary
{ }** indicates p-value less than 5%				

Source: Eviews Output, 2026.

The results of Augmented Dickey-Fuller (ADF) test show that the MCAP, INTD and INF were stationary at the level, I(0), because their test values were higher than the critical values at the 5 percent level. This means that these variables consist of no unit roots and that these variables are consistent across time. But at first difference, I(1), EXRD and money supply (MSS) were stationary, which means that it only becomes stable after differencing. The combination of I(0) and I(1) variables justifies the application of Auto-Regressive Distributed Lag (ARDL) model that supports this order of integration. The given methodological decision aligns with previous research on the financial time series in Nigeria (Efanga et al., 2020).

Bound Test Estimate

Table 3:

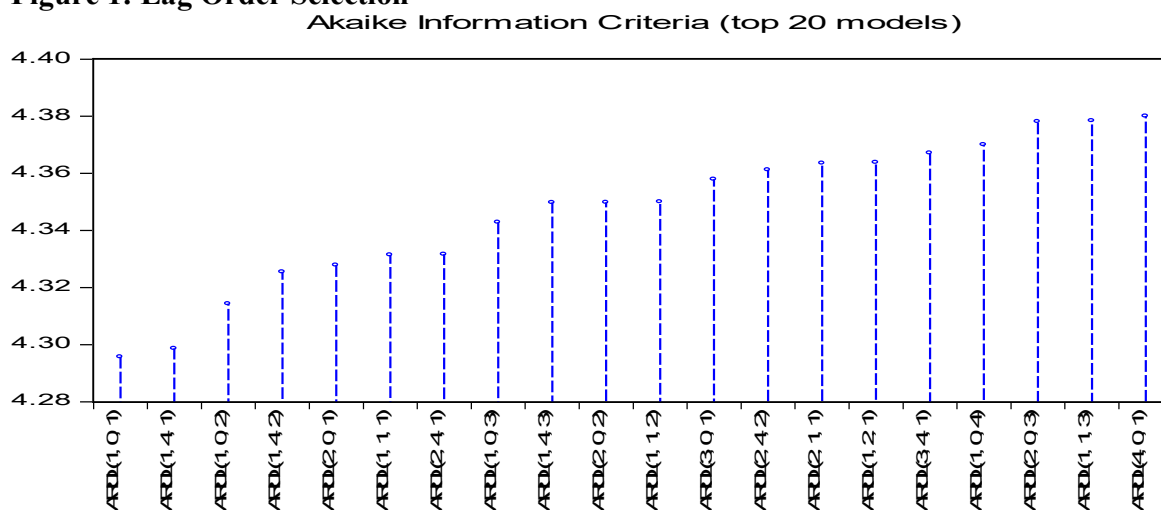
Bound Test Estimate

Test Statistic	Value	K
F-statistic	5.585652	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	3.17	4.14
5%	3.79	4.85
2.5%	4.41	5.52
1%	5.15	6.36

Source: Eviews Output, 2026.

The bound test value is 5.585652, which is greater than the upper bound critical value of 4.85 at the 5% level of significance. This implies that there is a long-run association between MCAP and INTD, EXRD, MSS and INF. The implication of this finding is that even though these variables fluctuate in short run, they move in the same direction in long run implying that there are equilibrium dynamics in Nigerian capital market. The existence of cointegration justifies the estimation of short-run and the long-run ARDL models.

Figure 1: Lag Order Selection



Source: Eviews Output, 2026.

Akaike Information Criterion that has been chosen is lag 4; therefore, the lagged values of the variables are sufficient to explain current changes in market capitalization. This is consistent with the ARDL results. This shows that the lag selection result validates the dynamic specification of ARDL model used in this study. It guarantees that the estimated coefficients are sound and that model captures temporal relationships amongst variables very well.

Auto-Regressive Distributed Lag (ARDL)

Table 4:

Short-run & Long-run Estimates

Short-run Estimates				
R ² = 0.988612; Adjusted R ² = 0.987769; Prob.(F-statistic)=0.00020				
Variables	Coefficient	Std. Error	t-Statistic	Prob.*
ΔINTD	-0.003478	0.001531	-2.271254	0.0338
ΔEXRD	0.266737	0.084231	3.166724	0.0046
Δ MSS	0.600711	0.211588	2.839058	0.0038
ΔINF	-0.479436	0.314567	-1.524113	0.1424
Constant	5.617086	3.710899	1.513673	0.1450
ECT _t	-0.669936	0.233727	-2.866319	0.0092
Long-run Estimates				
Variables	Coefficient	Std. Error	t-Statistic	Prob.*
INTD	0.534525	0.207760	2.572798	0.0177
EXRD	0.754153	0.237898	3.170071	0.0046
MSS	0.652839	0.172448	3.785714	0.0011
INF	0.070072	0.029838	2.348449	0.0287
Constant	4.798432	0.78492	5.325133	0.0000**

Note: ** indicates significance @ 5%

Source: Eviews Output, 2026.

Diagnostic Result

Table 5:
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.898425	Prob. F(2,52)	0.4134
Obs*R-squared	1.970639	Prob. Chi-Square(2)	0.3733

Source: Eviews Output, 2026.

The Breusch-Godfrey test shows that there is no serial correlation ($p > 0.05$), which implies that there are no autocorrelation issues in the model.

Table 6:
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	5.264576	Prob. F(4,54)	0.0012
Obs*R-squared	16.55300	Prob. Chi-Square(4)	0.0024
Scaled explained SS	41.01748	Prob. Chi-Square(4)	0.0000

Source: Eviews Output, 2026.

The Breusch-Pagan-Godfrey test, however, indicates the existence of heteroskedasticity ($p < 0.05$) which means that the variance of the error term does not stay constant. This can have an influence on the efficiency of the estimates and indicates that strong standard errors are required.

Discussion of Findings

It was discovered as shown in the short-run estimate that interest rate swap (INTD) was inversely related to market capitalization (MCAP), with a significant effect; while in the long-run, a significant and positive link was established between them. These findings depict two implications for Nigerian exchange market. First, an increase in interest rate derivatives trading in the market initially creates uncertainty due market risk, resulting in declining market capitalization. Second, continuous moderate increase in INTD in-line with economic reality brings stability to hedging costs for firms operating in Nigerian exchange group market, which boosts market capitalization. Considering this, Efanga et al. (2020) revealed that derivatives have become more relevant in emerging economies such as Nigeria, where macroeconomic volatility especially changes in the interest rates and foreign exchange rates have grown. As such, these variations as shown from both the short-run and long-run estimates have great effect on capital market performance, particularly market capitalisation that is an aggregate total value of listed equities that are a major indicator of stock market development. These findings align with Osayi et al. (2018), which revealed that the underdevelopment and a low market share restrict the efficacy of derivatives in Nigeria. It also supports Agbaese et al. (2023) who observed that derivatives enhance the performance of firms but the overall effect is limited to the market.

However, spot exchange rate (EXRD) estimates for both short-run and long-run were both significant at 5% conventional level, with a direct effect on market capitalization (MCAP). The

implication implies that a rise in exchange rate derivatives in Nigerian trading market, especially on the basis of a naira (₦) to a dollar (\$) make the market more attractive to both foreign and domestic investors. The rationale for the positivity is due to investors appraising FX derivatives to hedge currency risk, prior to investing in the market. On this basis, Chima and Obiah (2018) revealed that currency swaps and forwards also form part of the currency derivatives that are essential in alleviating risks associated with an exchange rate. This finding was contrary with Ewubare et al. (2022), who found that exchange rate depreciation negatively affects market capitalisation. Meanwhile, Farounbi et al. (2021), who have found that foreign exchange volatility deters investment and dampens the performance of the market. Also, the results are consistent with those of Dauda et al. (2021), who confirmed the importance of exchange rate risk in stock returns determination.

It was also discovered that the money supply (MSS) had a positive coefficient, with a *p*-value less than 5% significant level. This suggests that expansionary monetary policy in the short-run boost local investment by making more funds available for borrowing, reducing interest rates, and stimulating economic activity, thereby encouraging businesses and individuals to invest in new capital project; while, the policy has a long effect on Nigerian Exchange group market. The finding was consistent with the work of Musa et al. (2020) and Aroghene, and Obiekea (2025), hich discovered a direct link between the two. Furtherance, inflation rate (INF) has a negative coefficient and is insignificant for short-run estimate; while, a long-run estimate showed a negative coefficient and statistically significant (*p*-value = 0.0287). This suggests that moderate inflation can be growth-promoting in the long run to boost market capitalization. Agbaese et al. (2023) and Chima and Obiah (2018) discovered that moderate inflation is growth promoting, which boost market capitalization.

5.0 Conclusion and Recommendations

This study investigated risk hedging instruments and capital market performance where market capitalization was used as a measure of market performance, using a monthly data set from January 2021-December 2025. From the ARDL estimate, it was discovered that interest rate swap (INTD) was inversely related to market capitalization (MCAP) and significant for the short-run estimate, while it was significant and positive related in the long-run; spot exchange rate (EXRD) and money supply (MSS) were positive and significantly related to market capitalization (MCAP); while inflation rate (INF) was positive and significant at a long-run. The study concluded that hedging instruments improve Nigerian Exchange Group performance through moderate increases in interest rate swap and exchange rate derivatives.

It is advised that regulators at NXG should promote a steady and modest growth in interest rate swap trading by launching a standardised interest rate swap products with precise pricing guidelines, that would offer tax breaks to companies that hedge interest rate risk for more than two years, as well as conduct workshops to increase listed companies' ability to use INTD for risk management. As such, this will prevent speculative use and be in line with economic reality.

The Nigerian Exchange Group should encourage more non-bank participants, shorten settlement times, and enhance transparency through a central clearing system to increase liquidity in currency forwards and swaps, while the Central Bank Nigeria (CBN) should offer window guidance that promotes foreign investment hedging. This will maintain investor trust and solve the risk issues.

Central Bank of Nigeria should pursue gradual money supply expansion that reduces lending rates without causing uncontrollably high inflation for investors and traders at Nigerian Exchange Group. This can be accomplished by reducing the Cash Reserve Ratio for banks that lend to the real sector, implementing targeted lending programmes for listed companies, and coordinating fiscal policy to guarantee that borrowed money is effectively allocated to profitable capital projects.

The Central Bank of Nigeria and fiscal authorities should use disciplined monetary policy, better food and energy supply chains, and less deficit financing to target and sustain single-digit to moderate inflation. To control expectations, the government should also improve its information about inflation.

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