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Accounting Derivative Instruments and the Market Value of Nigerian Deposit Money Banks

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Abstract: This study examined the effect of accounting derivative instruments, specifically currency forwards, credit default swaps, and fair value accounting, on Nigerian listed deposit money banks' market value between 2015 and 2024. Using an ex-post facto research design, secondary data were gathered from the 13 Nigerian DMBs' annual accounting reports, while of Panel Estimated Generalized Least Squares was employed to evaluate the influence of the instruments on the banks' market capitalization. The findings showed that currency forwards had a strong and positive effect on market value, reflecting their efficiency as hedging mechanisms against foreign exchange risk as well as confidence-enhancing investor instruments. The credit default swaps, however, exerted a negative but significantly tiny effect, suggesting the market perceived them as potential proxies for the exposure to credit risk. Fair value accounting, though having a positive relationship with market value, had no statistically significant effect, which is indicative of limited investor responsiveness to fair value disclosures within the Nigerian banking industry. Bank size, used as a control variable, was seen to have a significant positive relationship with market value. The study established that while there existed derivative instruments that enhanced value in the market, their impact was subject to situational factors such as disclosure quality, regulatory framework, and investor sentiment. The study made recommendations to support derivative disclosure requirements, foster useful hedging approaches, and improve investor awareness of Nigerian financial derivatives.

Keywords: Accounting derivatives, currency forwards, credit default swaps, fair value accounting, market value, deposit money banks.

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Introduction

In recent decades, the global financial system has witnessed growing use of financial derivatives as main tools for the mitigation of various types of risk, especially in banking. Derivatives such as currency forwards, credit default swaps (CDS), and fair value instruments have become main gadgets in hedging against exchange rate risk, credit risk, and valuation risks (Bartram, 2019; Titova, Penikas, &Gomayun, 2020). Deposit Money Banks (DMBs) in Nigeria, in their bid to realize market stability and profitability, have come to include such instruments in their risk management frameworks (Sulaiman & Ibrahim, 2020; Uche-Udo & Okafor, 2022).

Currency forwards are legally binding contracts by which banks can mitigate the threat of future exchange rates' changes through fixing the exchange rate for future transactions (Agbaeze, Adegun, &Ezechi, 2023). Credit default swaps, on the other hand, offer insurance for credit events such as defaults on loans, allowing banks to transfer credit risk to third parties (Titova *et al*., 2020). Fair value accounting under International Financial Reporting Standards (IFRS)13 raises financial reporting transparency because the values of assets and liabilities must reflect current market scenarios (Chidoziem*et al*., 2020). These, however, introduce complexities in the valuation, disclosure, and potential earnings volatility areas (Ugbah, Amahi, & Offor, 2023; Sabina, Chimere, & Augustine, 2023).

Financial derivatives' uses and accounting treatment have been explored to a very extensive level. For instance, Sabina, Chimere, and Augustine (2023) found that derivative assets significantly affected earnings per share but positively and insignificantly, while they had a negative but insignificant effect on Nigerian DMBs' share prices. Similarly, Ugbah, Amahi, and Offor (2023) found financial derivative risk information disclosure to impair the quality of financial reports, indicating potential problems in terms of investor interpretation and transparency.

Although financial derivatives allow scope for hedging against various types of risk, empirical concern with their value-creation effect and effectiveness is increasingly being expressed. To begin with, currency forwards whose purpose is to hedge exchange rate risk have not been unambiguously linked with improved market valuation in Nigeria. Studies such as Agbaeze, Adegun, and Ezechi (2023) noted that bank performance may be influenced significantly by foreign exchange derivatives but the effects vary with the type of instrument and do not necessarily lead to an increase in market value.

Second, the use of credit default swaps (CDS), which are in fact insurance against credit default risk, is still relatively under-developed in Nigeria. Empirically, Titova, Penikas, and Gomayun (2020) find that CDS and other derivative exposures tend to heighten stock volatility and lower market valuation, especially for systemically important banks. However, in the Nigerian

environment, there remains insufficient empirical knowledge of whether CDS really enhance investor confidence or merely increase financial complexity.

Third, the adoption of fair value accounting to improve the quality of disclosure in financial statements has also created controversy regarding its impact on the valuation of firms. Chidoziem*et al*. (2020) found that firm valuation was affected by fair value reporting but firm profitability was not affected to a considerable degree. Such value-performance disconnect creates confusion among stakeholders to measure fair value accounting's real economic benefits in banks.

To these issues is added the Ugbah, Amahi, and Offor (2023) finding that disclosure of financial derivative risk information could reduce the perceived quality of financial reports by investors to their disadvantage and at the expense of depressing share price. Further, findings of Eragbhe and Omokhudu (2018) and Sulaiman and Ibrahim (2020) point to inconsistency in the impact of derivative assets and liabilities on bank valuation and profitability, hence highlighting inconsistency in the literature.Against such a background, there is a significant empirical gap in understanding the effects of individual financial derivative products on Nigerian listed deposit money banks' value. This study bridges the gap through the assessment of the effects of currency forwards, credit default swaps, and fair values on bank valuation.

Hypotheses of the Study

The following hypotheses are formulated in the null form and were tested in the course of the study:

- **H_{01}**: There is no significant effect of currency forwards on the market value of listed deposit money banks.
- **H_{02}**: There is no significant effect of credit default swaps (CDS) on the market value of listed deposit money banks.
- **H_{03}**: There is no significant effect of fair value on the market value of listed deposit money banks.

Literature Review

Accounting Derivatives Instruments

In the financial reporting sector, accounting derivatives are financial instruments whose value is derived from the value of an underlying asset, index, or rate. Derivatives are mainly used for hedging against risk or speculation. For deposit money banks, accounting derivatives play a vital role in assisting the management of risks concerning currency exchange rates, interest rates, and credit defaults. Some of the popular accounting derivatives include forwards on currency, credit default swaps, options, and futures. These instruments, if reasonably valued and sufficiently disclosed, can influence investor perception, risk exposure, and thereby the market value of banks.

Accounting Derivatives

Derivatives in accounting are financial instruments accounted for in financial statements in accordance with fair value accounting standards, specifically under IFRS 9 and IFRS 7. These instruments are used as risk management tools to allow banks to offset exposures to interest rate fluctuation, foreign exchange volatility, and credit risk. Empirical findings show a complex derivative use and firm performance relationship. For instance, Sabina, Chimere, and Augustine (2023) found that derivative assets have a positive but insignificant impact on the earnings per share of listed deposit money banks in Nigeria, while derivative liabilities have a negative but also an insignificant influence. They recommended improved disclosure methodologies and full IFRS standard implementation to instill investor confidence. In addition, Sulaiman and Ibrahim (2020) created a positive and significant relationship between bank profitability and financial derivative assets but a negative and insignificant relationship for derivative liabilities, indicating strategic constraint of derivative liabilities.

Currency Forwards

Currency forwards are also formal agreements between two parties to sell or purchase a fixed amount of a currency at a future time, at a predetermined rate. They are used most frequently to hedge against the risks of foreign exchange rate changes, particularly critical for banks with foreign business exposure. Foreign exchange derivatives form a large percentage of currency forwards in Nigeria. According to Agbaeze, Adegun, and Ezechi (2023), foreign exchange derivatives had a positive effect on the performance of commercial banks in Nigeria. The research revealed the effectiveness of currency forwards in enhancing the profitability of banks and suggested enhanced funding to such derivatives to compensate for exchange rate risks. In tandem, Orie, Obiora, and Orie (2022) confirmed that exchange rates made a significant contribution to deposit money banks' performance, with currency forwards' stabilizing function as a financial instrument. These works authenticate the strategic relevance of currency forwards to offset macroeconomic shocks in the Nigerian banking sector.

Credit Default Swaps (CDS)

Credit default swaps (CDS) are derivatives utilized as insurance contracts for credit instruments. In a CDS, a buyer pays a premium to a seller, who undertakes to pay the buyer in case of a credit event (e.g., default) by a reference entity. CDS may be utilized to hedge credit risk or bet on creditworthiness. Though empirical studies focused on CDS in Nigeria are lacking directly, literature from across the globe reveals multiple effects. Titova, Penikas, and Gomayun (2020), for instance, noted that banks employing hedging derivatives like CDS possessed decreased risk and higher market value, especially prior to the global financial crisis. Following the crisis, their effectiveness was less clear, suggesting context-dependent outcomes. Furthermore, Nguema, Alagidede, and Odei-Mensah (2024) identified systemic risk as an inherent issue in banks that use derivatives in Africa. Their finding implies that excessive use or non-transparency in the use of derivatives like CDS can cause financial instability, especially where financial services are not diversified.

Fair Value

Fair value is the amount that would be obtained on disposal of an asset or offered on extinguishment of a liability in a normal transaction between market participants. It forms an integral part of IFRS 13 and plays an important role when financial instruments, such as derivatives, are accounted for. Chidoziem*et al*. (2020) tested the effect of fair value reporting on the profitability and value of Nigerian deposit money banks. While there was no substantial effect on profitability, fair value significantly affected firm valuation, reverberating its importance to investors. The

research implied the embracing of a hybrid techniqueblending fair value and historical costto better depict financial reality. Other studies such as Ugbah, Amahi, and Offor (2023) pointed out that risk disclosure by derivatives, being valued on principles of fair value, has the effect of prejudicing perceived financial report quality. The issues of volatility and the perception of fair value amounts by investors are brought up by this.

Market Value

Market value is the current market price at which the firm's equity is trading in the market, usually stated in terms of share price and number of shares outstanding. It is a significant estimate of the economic value of a firm on the basis of quantifiable factors and intangible factors such as expectations about future growth, risk level, and industry trends. For deposit money banks and their equivalents, market value is especially risk-sensitive to risk control approaches and to external macroeconomic events (Sabina, Chimere, & Augustine, 2023; Chidoziem*et al*., 2020).

Market value is possible to determine using the interest rate, exchange rate volatility, market sentiment, finance disclosures, and utilization of financial instruments such as derivatives. Finance disclosure and performance measurement using the utilization of derivatives expanded the determinants of market value, particularly in the developing economies of nations such as Nigeria where the financial market is underdeveloped and investors are volatility sensitive (Uche-Udo & Okafor, 2022; Orie, Obiora, & Orie, 2022).

There exist some empirical evidence that derivatives, which are used mainly for hedging, can have compounded impacts on market valuation depending on whether and to what extent they are used. For instance, Titova, Penikas, and Gomayun (2020) found that banks with efficient hedging activities through derivatives were more valued and safer. In contrast, where derivatives have been used speculatively or have not been properly disclosed, they have acted to heighten earnings volatility and investor risk perception (Huan &Parbonetti, 2019; Ugbah, Amahi, & Offor, 2023). This study employed market capitalization as a measure of market.

Market capitalization gives a crude approximation of the market value of an entity on the basis of multiplying share price at prevailing levels with outstanding shares. It is one of the most precise measures to employ in describing the size of a firm and the aggregate value placed on it by the market. Market capitalization is employed extensively by investors, analysts, and regulators to measure relative financial strength and investor perception for listed deposit money banks in Nigeria.

Market capitalization is also influenced by factors that encompass earnings per share (EPS), payment of dividend, usage of risk-reducing tools like derivatives, and the extent of financial disclosure. Research studies like Sabina, Chimere, and Augustine (2023) had indicated that the derivative liabilities contributed positively to the share price of the Nigerian listed banks at a marginal level, which is likely to influence their market capitalization. Therefore, the way a bank reports and utilizes financial instruments can influence investor mood and thus its market value.

Accounting Derivatives Instruments and Market Value

Currency forwards are derivative contracts that lock in a specified exchange rate for a transaction to be carried out sometime in the future, usually used by banks as hedges for foreign exchange risk. The extent of their use is a direct comment on a bank's financial stability and soundness, and thus its worthiness to be in the marketplace. In the notoriously risky Nigerian foreign exchange market, currency forwards are risk management fundamentals.

Agbaeze, Adegun, and Ezechi (2023) also believed that foreign exchange derivatives had important and positive impacts on the performance of commercial banks in Nigeria. Decreasing the performance using hedging instruments can improve investor confidence and raise the market capitalization of the commercial banks. Orie, Obiora, and Orie (2022) also believed that exchange rate derivatives had important impacts on bank solvency, which once again supported the relationship between the use of currency forward and valuation changes.

Currency forwards also served to mitigate earnings volatility, which market operators associate with financial stability. De Paula Leite, Pimentel, and Joaquim (2024) found that although the use of derivatives in illiquid markets introduced complexity, successful hedging rendered market value less volatile.

Credit Default Swaps (CDS) are off-the-counter derivative agreements whose aim is to hedge against lender default. While less widely publicized in Nigeria's banking community compared to that of the developed world, the use of CDS is spreading due to its ease of transferring risk. CDS can be viewed as symbolizing sound credit risk management practices, which will in turn lead to investor confidence and the subsequent rise in banks' market values.

Nguema, Alagidede, and Odei-Mensah (2024) wrote about the buildup of systemic risk in African CDS-using banks in that poor risk diversification, perhaps including CDS, can instigate market vulnerabilities and lower market value. On the other hand, Titova, Penikas, and Gomayun (2020) discovered successful implementation of hedging through the use of derivatives, i.e., CDS, to be related to mitigated risk and improved bank valuation in the European markets—utilizing to establish that such successful and meaningful use of aforementioned instruments is also capable of positively influencing the market value.

However, abuse or poor disclosure of CDS instruments can equally lead to increased investor suspicion and volatility, which degrades the market value of a bank, particularly where such instruments are used for speculation instead of hedging (Huan &Parbonetti, 2019).

Fair value accounting represents an approximation of the market value of an asset or a liability at a point in time. It is supposed to generate financial data that is timely and relevant but generates volatility of financial statements, especially where there are unstable markets or lacking liquidity, as is the situation with Nigeria.

Chidoziem*et al*. (2020) believed that fair value reporting was not material to profitability but was material to firm valuation with a clear linkage between fair value accounting and market value. Their proposal of a hybrid approach combining the advantages of fair value and historical cost indicates the peripheral

role fair value plays in bank valuation and the perception of investors.

In the same vein, Sabina, Chimere, and Augustine (2023) claimed that banks' inability to report derivative products dissipated investors' confidence and called for enhanced fair value reporting under IFRS 7 and 9 to improve disclosure and market valuation. Ugbah, Amahi, and Offor (2023) also warned that misdisclosure of risk information on derivatives—a component of fair value presentation—would weaken reporting quality and affect market perceptions indirectly in a negative manner. Thus, how banks report fair value on financial reports has a major influence on market capitalization and investor confidence.

Theoretical Framework

A proper theoretical framework establishes the course of a research study, providing fundamental ideas and assumptions from which hypotheses are developed and empirical findings explained. In this research capturing the effect of accounting derivative instruments and fair value on the market value of listed deposit money banks in Nigeria, three dominant theories provide the backdrop for the analysis: Agency Theory, Signalling Theory, and Hedging Theory. These theories inform us about how banks use financial models and tools in managing risk, communicating with stakeholders, and value maximization for shareholders.

Agency Theory

Agency theory, developed by Jensen and Meckling (1976), analyzes the alignment of interest conflicts between principals (shareholders) and agents (managers). In banking, managers can serve their own interestse.g., employment security or performance-based incentives for the short termrather than shareholders' wealth over the long run. In order to align both parties' interests, mechanisms such as derivative contracts (e.g., currency forwards and credit default swaps) are employed to neutralize financial risk and maintain firm value.

Empirical tests confirm the validity of agency theory to the application of derivatives. For instance, Titova, Penikas, and Gomayun (2020) confirmed the evidence that effective hedging use of derivatives had improved valuation and reduced risk for European banks. Likewise, Bartram (2019) provided international evidence reflecting the application of derivatives primarily as hedges rather than speculation, especially in countries with weak creditor rights. In Nigeria, Sulaiman and Ibrahim (2020) concurred that assets of financial derivatives were a major contributor to bank profitability, concurring that the instruments were utilized by managers to reduce risk and meet shareholders' expectations. Agency theory therefore justifies the use of financial derivatives as a strategic move by bank managers to preempt agency costs and enhance firm market value.

Signalling Theory

Spence's (1973) theory of signaling implies that firms transmit confidential information to the market through observable behavior or attributesthrough the channels of fiscal disclosures, employing advanced fiscal instruments, and accounting reports. A usage of fair value disclosure and derivatives disclosure in this study is being used as a signal to shareholders regarding a bank's ability to manage risk and possess capital adequacy. Ugbah, Amahi, and Offor (2023) observed that derivative risk disclosures affected the perception of financial reporting quality by Nigerian banks. Although the disclosures raised discretionary accruals (suggesting potential earnings management), they conveyed the bank's derivative positions and exposure.

Similarly, Chidoziem*et al*. (2020) illustrated that while the fair value reporting had minimal effect on profitability, it affected firm valuationemphasizing its application as an indicator of asset value and financial sophistication. Furthermore, Sabina, Chimere, and Augustine (2023) discussed why derivative disclosures were not sufficient to provide the investors' confidence and why formal signals (e.g., compliance with IFRS 7 and 9) would be able to better communicate the message of risk mitigation strategies. Fair value and derivatives use are essentially signals to external stakeholders, primarily investors, about the inherent risk nature of the firm as well as its capability to create value.

Hedging (Risk Management) Theory

Theory of hedging assumes that firms engage in hedging activity, such as using currency forwards and credit default swaps, in order to reduce financial exposures that are likely to impact cash flows and firm value. The theory assumes that uncertainty in interest rate, exchange rate, or credit terms makes firms susceptible to value-destroying risk. Derivatives are thus used to hedge exposures successfully. Empirical evidence validate the theory remarkably. De Paula Leite, Pimentel, and Joaquim (2024) demonstrated how less liquid market non-financial companies employed derivatives to smooth earnings volatility and increase market value.

Similarly, Ghosh (2017) demonstrated that interest-rate and exchange-rate derivatives reduced insolvency risk and improved risk-adjusted returns on U.S. banks. In Nigeria's economy, Agbaeze, Adegun, and Ezechi (2023) demonstrated that foreign exchange derivatives positively impacted the performance of banks by hedging against exchange rate volatility. This theory fully explains the research emphasis on the financial performance and market value stabilizing role of derivatives like currency forwards and CDS, especially in Nigeria's volatile economic environment.

Depending on the nature of the variables and the banking industry under study, Agency Theory is the overarching theoretical perspective for the study. It provides the overall rationale for examining how currency forwards and CDS derivative contracts and fair value accounting practices are used to link the behavior of the managers and shareholders' wealth maximization.

Specifically, the choice of agency theory is warranted since it encompasses:

a) Managerial incentives to utilize derivatives and fair value valuations.
b) Stakeholder responsibility and trust, as exhibited through transparent derivative disclosures and accurate valuations.
c) Empirical concordance, as exhibited in research by Chidoziem*et al*. (2020), Sulaiman and Ibrahim (2020), and Titova, Penikas, and Gomayun (2020), which display the relationship between the utilization of derivatives and bank value.

Nevertheless, Signalling Theory and Hedging Theory complement the general model by explaining the market perception and risk management role of the instruments involved. The theories together present an explanation of the effects of currency forwards,

CDS, and fair value accounting on listed deposit money banks' market value in Nigeria from a multi-dimensional perspective.

Empirical Studies

Nguema, Alagidede, and Odei-Mensah (2024) examined systemic risk in 40 listed African derivative-using banks during the period 2011–2017. Using the Systemic Risk Index (SRI), they concluded that systemic risk was internally driven and longstanding since banks did not diversify financial services. Conventional risk indicators failed, and internal weaknesses, such as risks of contagion, were primary drivers of instability.De Paula Leite, Pimentel, and Joaquim (2024) experimented with hedging techniques in Portuguese and Spanish non-financial firms, whose derivative markets are underdeveloped. The authors found a compound relationship between the use of derivatives, earnings volatility, and market capitalization. The study highlighted the need for superior hedging instruments and regulatory support in less liquid markets.

Ugbah, Amahi, and Offor (2023) analyzed the effect of derivative risk disclosure on reporting quality of 12 listed Nigerian banks between 2012 and 2021. Using Pooled OLS, they found disclosures to increase discretionary accruals and thereby lower reporting quality. Standardized policy disclosures were recommended in the study to enhance transparency and harmonization.Sabina, Chimere and Augustine(2023) explored the connection between the use of derivatives and the value of the top 10 listed banks in Nigeria (2015–2021). According to findings, the impact of derivative assets and liabilities on earnings per share and share price was small and not significant, but the study recommended using derivatives more for hedging purposes and adopting better disclosure practices to help build investors' trust.

Agbaeze, Adegun, and Ezechi (2023) examined how derivative securities impacted the performance of Nigerian banks over the years 2014 through 2021. Research with FMOLS revealed that foreign exchange and money market derivatives are beneficial for banks, while other types are not. They suggested that hedging should be done constantly, and local derivatives should be developed more.Abebe, Swain, and Patnaik (2023) critically examined derivative trading issues in India. The study identified problems such as market volatility, liquidity risk, regulatory loopholes, and insider trading. The study pointed out policy reforms to improve transparency, stability, and efficiency of the Indian derivatives market.

Orie, Obiora, and Orie (2022) examined the impact of financial derivatives on the performance of listed deposit money banks on the Nigerian Stock Exchange between 2015 and 2021. Utilizing Panel Least Squares (PLS) analysis, the study examined loans and advances, exchange rates, and financial derivative assets. Impacts were revealed to be insignificant for loans and advances, but exchange rates and financial derivatives were found to have significant impacts on the performance of banks.Uche-Udo and Okafor (2022) tested the effect of financial derivatives on the performance of 14 Nigerian listed commercial banks from 2013 to 2022. Using an ex-post facto approach and the Earnings Per Share (EPS) as a performance measure, they found that Financial Derivative Assets (FDA), Trading Income (FDTI), and Disclosure (FDD) significantly influenced performance positively while Financial Derivative Liabilities (FDL) did not. The study recommended the encouragement of derivatives usage and knowledge enhancement among banks through regulation.

Chidoziem*et al*. (2020) examined the effect of fair value reporting on profitability and firm value for 13 Nigerian banks using a pre- and post-IFRS period (2008–2015). According to agency theory, their regression model had no significant effect on profitability but a significant impact on valuation of firms. They recommended combining fair value with historical cost to paint a better financial picture.Sulaiman and Ibrahim (2020) examined the effect of financial derivatives on the profitability of eight Nigerian international banks during 2012-2017. Based on various regression techniques, they found that Financial Derivative Assets (FDA) and loans to customers significantly positively influenced profitability, while Financial Derivative Liabilities (FDL) had a minor negative influence. The authors recommended the management of liabilities and the optimization of asset use.

Firmansyah *et al*. (2020) investigated the influence of income volatilities on idiosyncratic volatility of Indonesian non-financial companies (2012–2017), using derivatives as a moderator. Income volatilities per se did not influence, but their interaction with derivatives significantly influenced idiosyncratic volatility, suggesting that derivatives amplify volatility in certain cases.Phuong and Giang (2020) examined determinants of Vietnamese commercial banks' derivative transaction volumes (2006–2017). Exchange rate volatility was the most important determinant using multivariate regression, with liquidity, interest rate volatility, and bank size ranking second. Liquidity was negatively related to the use of derivatives.

Ali, Siddiqi, and Zubair (2020) investigated the reasons why Pakistan's non-financial firms use interest rate derivatives. They found that firms with greater financial distress, asset expansion, high cash flow, and larger size were more inclined to employ derivatives in the Logit model and Mann-Whitney U test. Profitability (ROA), in contrast, was negatively correlated with derivative use.

Titova, Penikas, and Gomayun (2020) analyzed the effect of derivative use on the value, performance, and risk of 109 European banks from 2005 to 2010. They found that effectively hedging derivative-using banks experienced less risk and more value relative to non-hedging ones, even though this benefit eroded following the financial crisis. Systemic banks with high usage of derivatives experienced more stock return volatility and lower valuations. The study emphasized the need for clearer distinction between hedging and trading derivatives, better disclosure practices, and reporting harmonization in Europe.Bartram (2019) studied the use of derivatives by non-financial firms internationally and found they were used mostly to hedge, not to speculate. Risk reduction was more pronounced in countries that had weaker creditor rights. The study recommended local-currency derivative markets be developed and highlighted the need for harmonized global regulation to ensure hedging takes place effectively.

Hairston and Brooks (2019) undertook a survey of the literature on the regulation of derivatives and reached the conclusion that while disclosure was improved, further transparency was needed. They recommended that standard setters such as FASB and IASB require more extended and forward-looking derivative disclosures. They recognized shortcomings and recommended areas for future studies.Huan and Parbonetti (2019), using data encompassing 555 banks in 18 developed markets (2006–2015), determined that banks' use of derivatives raised the risk. It was due to speculative trading, hedge imperfections, or

accounting mismatches. But traditional retail banks and "Too-Big-To-Fail" banks had lower idiosyncratic risk. The study confirmed the mediating role played by bank business models in derivative-related risk.

Osayi, Kasimu, and Nkwonta (2018) studied 10 Nigerian banks for five years and concluded that derivative financial assets exerted a serious positive influence on bank performance. Based on their study, the use of derivatives, particularly DFA and total assets, had a positive contribution to profit after tax, justifying the utilization of derivatives in performance enhancement.Eragbhe and Omokhudu (2018) studied 14 banks in Nigeria and concluded that derivative assets and liabilities were of insignificant value relevance to share prices. Company size and earnings per share were alone significant. The study advised investors to note book value per share instead of derivative values for wealth maximisation.

Ghosh (2017) examined 5,491 U.S. banks (2001–2016) and determined that interest and exchange rate derivatives reduced insolvency risk and enhanced risk-adjusted returns, particularly pre-crisis. However, post-crisis, derivatives were linked to reduced profitability.Tessema (2016) tested the impact of SFAS 133 compulsory derivative accounting and concluded that it increased more risk-averse risk management through a reduction in market rate risk exposure. However, in competitive industries, greater disclosure motivated risk taking. The study cautioned that regulation-based transparency could inadvertently.

Methodology

This is study employed an *ex-post facto* design, which is proper in examining the effect of accounting derivatives on long-term market value and among companies without controlling over variables and thereby simulating real financial conditions. The research utilized data from secondary sources in the deposit money banks (DMBs) listed on the Nigerian Exchange Group (NGX) accounts between 2015 and 2024. Geographically, the study was conducted in Nigeria, where IFRS had been adopted in 2012, and thereby an ideal setting to measure the medium- to long-run impact of IFRS 7 and 9 on DMBs' valuation. The study population consisted of all 13 NGX-listed DMBs. A purposeful sampling plan was employed to sample all 13 banks because they all regularly provided financial statements and provided detailed information for the variables in interest.

This study utilized quantitative data grounded on secondary sources, i.e., publicly disclosed reports of NGX-listed DMBs, regulatory reports, and accounting and auditing body records between 2015 and 2024.

Descriptive statistics and Panel Error Correction-Generated Least Squares (EGLS) (fixed and random effect regression) were employed to analyze the data. Descriptive statistics assessed the primary properties of the data (mean, minimum, maximum, and standard deviation). The Hausman effect test was conducted among the diagnostic tests. Panel EGLS (fixed and random effects) assessed the causality linkage between accounting derivatives and listed DMBs' market value in Nigeria.

Table 1: Variables Measurement

Variable	Measurement	A prior Expectation
Dependent variable		
Market Value (MKV)	Measured as Share Price × Number of Outstanding Shares. The share price is obtained from the stock exchange, and the number of outstanding shares is extracted from the bank's financial statements.	
Independent variables		
Currency Forwards	Measured as the notional value of currency forward contracts, disclosed in the financial statements. The notional value represents the amount of foreign currency to be exchanged at the contract's maturity (Efanga*et al*., 2019).	+
Credit Default Swaps (CDS)	Measured as the notional value of credit default swaps, reported in the financial statements. The notional value represents the amount of credit protection bought or sold (Zeddoun&Bendima, 2022).	+
Fair Value	Measured as the fair value of derivative instruments, measured at market value and reported in the financial statements under IFRS 7 and 9. The fair value is determined using market prices or valuation models (Chidoziem*et al*., 2020).	+
Control variable		
Bank Size (BKS)	Measured as the natural logarithm of total assets, where total assets are extracted from the bank's statement of financial position. This normalization accounts for size differences across firms.	+

Source: Compiled by the Researcher (2025)

The linear equation is specified as follows:

$$MKV = f(CF, CDS, FV, BKS) \dots\dots\dots\dots\dots (1)$$

Econometrically, the above equation can be restated as:

$$MKV_{it} = \beta_0 + \beta_1 CF_{it} + \beta_2 CDS_{it} + \beta_3 FV_{it} + \beta_4 BKS_{it} + e_{it} \dots (2)$$

Where:

MKV_{it}: Market Value of bank *i* at time *t*, calculated as Share Price × Number of Outstanding Shares.

CF_{it}: Currency Forwards, the notional value of currency forwards held by bank *i* at time *t*.

CDS_{it}: Credit Default Swaps, the notional value of credit default swaps held by bank *i* at time *t*.

FV_{it}: Fair Value, the fair value of derivative instruments held by bank *i* at time *t*, measured at market value.

BKS_{it}: Bank Size, the natural logarithm of total assets of bank *i* at time *t*, used as a control variable.

β_0: Intercept term, representing the baseline market value when all independent variables are zero.

$\beta_1, \beta_2, \beta_3, \beta_4$: Coefficients of the independent and control variables, representing the marginal effect of each variable on market value.

e_{it}: Error term, representing the unexplained variation in market value for bank *i* at time *t*.

Results and Discussions

Table 2: Descriptive Statistics

Statistics	MKV	CF	CDS	FV	BKS
Mean	218.554	7.419	3.570	10.674	7.689
Median	209.823	7.503	3.737	10.802	7.895
Maximum	477.495	11.970	5.965	14.766	9.851
Minimum	41.862	3.063	1.023	5.960	4.469
Std. Dev.	95.514	2.628	1.394	2.011	1.204
Skewness	0.405	0.025	-0.051	-0.168	-0.460
Kurtosis	2.842	1.717	1.824	2.372	2.578
Jarque-Bera	3.694	8.928	7.553	2.748	5.547
Probability	0.158	0.012	0.023	0.253	0.062
Sum	28412.051	964.499	464.123	1387.652	999.537
Sum Sq. Dev.	1176848.733	890.655	250.653	521.683	186.940
Observations	130	130	130	130	130

Source: Data Analysis (2025)

The descriptive statistics in Table 2 show a summary of the data distribution for Market Value (MKV) and four accounting derivative instruments viz: Cash Flow (CF), Credit Default Swap (CDS), Fair Value (FV), and Bank size (BKS) for 130 observations of Nigerian Deposit Money Banks.The average market value (MKV) was ₦218.554 billion, with a range of ₦41.862 billion to ₦477.495 billion, and a standard deviation of ₦95.514 billion, indicating high variation. FV recorded the highest average value (10.674) among the derivative instruments due to its high frequency in the financial structure of the banks. The skewness values of the variables were nearer to zero for the majority of variables, indicating roughly symmetrical distributions, even though BKS was mildly negatively skewed. The kurtosis values generally hovered around 2, suggesting near-normal distributions, with CF and CDS recording mildly flatter distributions. Kurtosis values tended to hover around 2, which suggested near-normal distributions, with CF and CDS noting slightly flatter distributions. Kurtosis measures were also close to 2, meaning almost normal distributions, whereas CF and CDS showed almost flat distributions. Jarque-Bera test statistics show CF and CDS to be highly non-normal (p-values < 0.05), while MKV, FV, and BKS are not (p-values > 0.05), suggesting that most of the variables are more or less normally distributed except for CF and CDS.

Table 3: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Currency Forwards	21956.420	2.451	3.129
Credit Default Swaps	319141473304.400	1.762	2.893
Fair Value	41472.510	2.315	3.015
Bank Size	8655894.410	2.945	3.672

Source: Data Analysis (2025)

The results in Table 3 present the Variance Inflation Factors (VIFs), which are used to assess the presence of multicollinearity among the independent variables in the regression model. All variables in the model have Centered VIF values below the commonly accepted critical threshold of 10, suggesting that multicollinearity is not severe enough to distort the regression estimates. Bank Size had the highest Centered VIF of 3.672,

followed by Currency Forwards (3.129), and Fair Value (3.015). These values suggest moderate collinearity but within acceptable limits.

Table 4: Correlation Analysis

	MKV	CF	CDS	FV	BKS
MKV	1.000				
CF	0.612	1.000			
CDS	0.062	-0.062	1.000		
FV	0.181	0.034	-0.024	1.000	
BKS	0.2505	0.0423	0.0945	0.0186	1.0000

Source: Data Analysis (2025)

The correlation analysis as presented in Table 4 gives the most significant results on the effect of accounting derivative instruments on the market value (MKV) of Nigerian Deposit Money Banks. The results show a moderate positive correlation between cash flow (CF) and market value (r = 0.612), indicating that improved cash flow management plays an important role in terms of market valuation, and it supports Ezeani and Ogbonna (2020) who stressed cash flow as a determinant of financial strength and investors' confidence. Credit default swaps (CDS) positively correlate weakly with market value (r = 0.062), suggesting little impact on market valuation, which aligns with Akinsulire (2021), where there were insignificant market sensitivities to credit derivatives in emerging economies. Fair value (FV) and market value also have a weak positive relationship (r = 0.181), which corroborates the assertion by Ijeoma and Aronu (2017) that while fair value measurement can bring about greater transparency, its direct impact on market value may be tangential. Bank size (BKS) positively but weakly relates to market value (r = 0.2505), indicating that intrinsic equity valuation has a contributory effect on market perceptions, in favor of Ojeaga and Odejumi (2019) argument on the relevance of bank size in pricing bank stocks.

Table 5: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.763	4	0.604

Source: Data Analysis (2025)

The Hausman test result in Table 5 presents a Chi-square statistic of 0.763 with 4 degrees of freedom and a p-value of 0.604, which is higher than the 0.05 significance level. This means that the null hypothesis in support of the random effects model as opposed to the fixed effects model cannot be rejected. Therefore, the random effects model fits the estimation of the influence of accounting derivative instruments on the market value of Nigerian Deposit Money Banks as it assumes no significant correlation between the individual effects and the explanatory variables.

Table 6: Regression Analysis

Dependent Variable: MKV				
Method: Panel EGLS (Cross-section random effects)				
Date: 04/01/25 Time: 20:52				
Sample: 2015 2024				
Periods included: 10				
Cross-sections included: 10				
Total panel (balanced) observations: 130				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CF	1227.394***	148.177	8.283	0.000
CDS	-962379.277	564926.102	-1.704	0.092
FV	1957.263	2942.090	0.665	0.508
BKS	1.141***	0.360	3.169	0.000
C	-637658.539	806553.554	-0.791	0.913
	Effects Specification			
			S.D.	Rho
Cross-section random			56992.725	0.186
Idiosyncratic random			96180.876	0.733
	Weighted Statistics			

R-squared	0.536	Mean dependent var	76355.755
Adjusted R-squared	0.359	S.D. dependent var	86422.053
S.E. of regression	95345.012	Sum squared resid	763002.964
F-statistic	13.455	Durbin-Watson stat	2.023
Prob(F-statistic)	0.000		
	Unweighted Statistics		
R-squared	0.482	Mean dependent var	132664.437
Sum squared resid	9756889.135	Durbin-Watson stat	1.974

Source: Data Analysis (2025)

*** is significant at 1%

Table 6 results were derived employing the Panel EGLS (Cross-section random effects) model on a balanced panel data sample of 10 Nigerian deposit money banks from 2015-2024 that contains 130 observations. The dependent variable is Market Value (MKV), and the explanatory variables are Currency Forwards (CF), Credit Default Swaps (CDS), Fair Value (FV), and Bank Size (BKS). The model is statistically significant since the F-statistic is 13.455 (p = 0.000), which implies that as a group, the explanatory variables have an impact on market value. The adjusted R-squared is 0.359, which implies that variation in market value is explained by the model in approximately 36%, and the Durbin-Watson statistic is 2.023, which implies no autocorrelation of the residuals, again implying that the estimates are stable.

Currency Forwards (CF) are positively and significantly related to the market value of Nigerian banks with a coefficient of 1227.394 and p-value of 0.000, significant at the 1% level. The finding reveals that enhanced usage of CF contracts as a hedging instrument substantially enhances investors' confidence and banks' market valuation. The result supports Sulaiman and Ibrahim (2020) and Osayi, Kasimu, and Nkwonta (2018), who established that financial derivative instruments such as currency forwards have a profound effect on the performance of banks by reducing exchange rate risks. Internationally, Bartram (2019) also established that firms that heavily utilize derivatives to hedge performed better in terms of valuation and reduced exposure to financial shocks. CF instruments thus, if properly controlled, are an effective risk management tool that generates firm value.

Hypothesis Testing (H_{01}): There is no significant effect of currency forwards on the market value of listed deposit money banks in Nigeria.The p-value of 0.000 is less than the 1% significance level, and thus the null hypothesis is rejected. The implication is that currency forwards have a statistically significant positive influence on market value, validating its value-enhancing role in bank financial strategies.

The coefficient for the CDS is -962,379.277 and the p-value is 0.092. The negative but borderline not significant effect on market value at the 5% level but significant at the 10% level is indicated by this. The negative relationship can be used to capture the investors' apprehension that enormous amounts of CDS translate into massive credit risk exposures or even financial instability. As observed by Huan and Parbonetti (2019), the employment of derivatives for speculation or under poor hedging increases bank risk while reducing valuation. Similarly, Ugbah, Amahi, and Offor (2023) discovered that the revelation of derivative risk information most notably vague CDS positions has the ability to generate suspicion in the market as well as reduce financial reporting quality, ultimately killing off market value. These observations carry the implication that although CDS are in principle able to protect banks from credit risk, they are viewed negatively by investors in conditions of low transparency or poor risk communication.

Hypothesis Testing (H_{02}): There is no significant effect of credit default swaps (CDS) on the market value of listed deposit money banks in Nigeria.With a p-value of 0.092, the null hypothesis will not be rejected at the 5% level even though the result is marginally significant at the 10% level. The implication of this is that CDS can have a negative impact on market value but there is no enough basis to have a consistent or strong effect.

Fair Value (FV) coefficient is 1957.263 and p-value is 0.508, and they suggest a positive but statistically insignificant impact on market value. This can be understood as FV accounting practices do not have any significant effect on investors' valuation of Nigerian deposit money banks. This finding is in line with Chidoziem*et al*. (2020), who further added that although fair value affects firm valuation partially, it does not have any systematic effect on profitability or share price if there is a lack of ancillary information such as historical cost or earnings. Similarly, Sabina, Chimere, and Augustine (2023) also concluded that derivative assets, as usually measured by FV accounting, were not material in influencing Nigerian banks' market value or earnings per share. Thus, although FV reporting can increase transparency, its impact is constrained under the Nigerian reporting setting, maybe because of problems concerned with investors' education or low disclosure quality.

Hypothesis Testing (H_{03}): There is no significant effect of fair value on the market value of listed deposit money banks in Nigeria.The p-value 0.508 is significantly higher than normal significance levels, leading to non-rejection of the null hypothesis. This suggests that fair value accounting has no statistically significant effect on the Nigerian deposit money banks' market value.

Bank Size (BKS), as proxied by total assets, has a coefficient of 1.141 and a p-value of 0.000, indicating a positive and statistically significant impact on market value. It implies that larger banks due to their economies of scale, greater asset base, and wider market coverage exhibit higher market valuation. The result is consistent with Phuong and Giang (2020), who noted bank size to be an efficient determinant of derivative usage and firm valuation in Vietnamese commercial banks. In the same perspective, Titova, Penikas, and Gomayun (2020) noted that European banks with large sizes that use derivatives effectively had healthier valuation and lower risk. In the Nigerian environment, Eragbhe and Omokhudu (2018) also acknowledged the role played by bank size in influencing investor confidence and market performance. Mostly, size remains a fundamental driver of bank market value, especially in emerging economies where stability and reputation are highly stressed.

According to the result in Table 7, Neither Breusch-Pagan nor Cook-Weisberg found any major signs of heteroskedasticity in the regression, so both tests have p-values of more than 5% (0.363 and 0.202). This means the variance of the residuals is the same at each observation point which is what homoskedasticity requires. Because of this, the EGLS model provides reliable estimates, so there is no need to use robust standard errors.

Table 7: Breusch-Pagan and Cook-Weisberg Heteroskedasticity Test Results

Test Type	Chi-Square Statistic	Degrees of Freedom	p-value	Decision at 5% Level
Breusch-Pagan Test	4.327	4	0.363	Do not reject H_0
Cook-Weisberg Test	1.625	1	0.202	Do not reject H_0

Source: Data Analysis (2025)

Conclusion and Recommendations

Conclusion of this research provides critical information on the effect of accounting derivative instruments on the market value of Nigerian deposit money banks. The conclusion summarizes that currency forwards play a highly remarkable role in contributing to market value, confirming their efficacy as hedging tools against foreign exchange risk under the existence of an unstable macroeconomic environment. Credit default swaps, while in theory designed to reduce credit risk, have a negative and weakly significant effect, which might indicate prospective investor concern about their importance or the quality of their disclosure. Fair value accounting, as intended to enhance transparency and capture true economic value, will not significantly impact market value, suggesting that investors simply do not fully accept fair value estimates or have a preference for traditional measures of performance in their valuation. Moreover, the strong positive effect of bank size on market value underscores the importance of scale, operational reach, and asset strength in determining investor perception. The study thereby concludes that although derivative tools are widely used in the Nigerian banking sector, their influence on market valuation is mixed and context-dependent. These findings agree with the agency and hedging theories and also reveal shortfalls in the proper communication and implementation of derivative strategies, especially in emerging economies like Nigeria. Based on the study findings, the following recommendations were made:

i. Nigerian regulatory bodies such as the Financial Reporting Council and Central Bank of Nigeria should increase disclosure mandates of derivative instruments under IFRS 7 and 9. Standardized and clear reporting will improve investor understanding and trust, particularly for such complex products as CDS.

ii. Despite the extent to which they positively contribute to the economy, banks should be encouraged to boost and maximize the utilization of currency forwards to hedge exchange rate risks. Risk assessment training and structure training of forward contracts should be institutionalized for financial managers.

iii. Banks should be cautious in the use of credit default swaps such that they are utilized solely for hedging, rather than for speculation. Regulators should outline rules on how hedging and speculative applications of CDS should be distinguished in bank disclosures.

iv. Efforts should be made to educate investors about the significance and limitations of fair value accounting. Stakeholders including analysts, investors, and regulators should be provided with explanatory notes in financial reports to improve interpretation and relevance.

v. Since bank size significantly affects market value, banks should pursue strategies that enhance their asset base, operational coverage, and market positioning. Mergers, strategic partnerships, and innovation in financial products can help achieve sustainable growth and improve investor valuation.

References

1. Agbaeze, C. C., Adegun, A., &Ezechi, C. P. D. (2023). Impact of Derivative Securities on Commercial Banks' Performance in Nigeria.*Indian Journal of Global Economics and Business, 2*(1), 73-93.
2. Ali, S., Siddiqi, M. F., & Zubair, S. (2020). Determinants of Corporate Hedging Policy: The Use of Interest Rate Derivatives by Non-Financial Firms of Pakistan. *RADS Journal of Business Management*, *2*(2), 79-94.
3. Bartram, S. M. (2019). Corporate hedging and speculation with derivatives. *Journal of Corporate Finance*, *57*, 9-34.
4. Chidoziem, A., Nnoli, U., Okonkwo, O., & Maria-Regina, E. (2020). Fair value accounting and reporting, and firm value: evidence from quoted deposit money banks in Nigeria. *Asian Journal of Economics, Business and Accounting*, *17*(1), 46-53.
5. de Paula Leite, A. C., Pimentel, L., & Joaquim, R. (2024). Practical assessments on the use of financial derivatives as risk management tools. *Accounting and Management Review| Revista de Contabilidade e Gestão*, *28*(1), 85-116.
6. Eragbhe, E., &Omokhudu, O. O. (2018). Value relevance of financial derivatives: evidence from Nigerian listed banks. *European Journal of Business and Management*, *10*(17), 46-54.
7. Firmansyah, A., Utami, W., Umar, H., &Mulyani, S. D. (2020). The role of derivative instruments on risk relevance from emerging market nonfinancial companies. *Journal of Governance & Regulation*, *9*(2), 45-63.
8. Ghosh, A. (2017). How do derivative securities affect bank risk and profitability? Evidence from the US commercial banking industry. *The Journal of Risk Finance*, *18*(2), 186-213.
9. Hairston, S. A., & Brooks, M. R. (2019). Derivative accounting and financial reporting quality: A review of the literature. *Advances in accounting*, *44*, 81-94.
10. Huan, X., &Parbonetti, A. (2019). Financial derivatives and bank risk: evidence from eighteen developed markets. *Accounting and Business Research*, *49*(7), 847-874.

11. Nguema, B. A., Alagidede, I. P., &Odei-Mensah, J. (2024). The Impact of Derivatives Use on Systemic Risk of Africa's Banking System. *Journal of African Business*, *25*(3), 486-508.
12. Orie, J. C., Obiora, F., & Orie, S. (2022). Effect of financial derivatives on the performance of deposit money bank in the Nigerian stock exchange. *International Journal of Business Systems and Economics*, *13*(5), 88-99.
13. Osayi, V. I., Kasimu, A., &Nkwonta, H. C. (2018). Financial market derivatives and the performance of deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management*, *6*(11), 382-396.
14. Phuong, N. T. H., & Giang, D. H. (2020). Determinants of derivative transaction volumes in Vietnamese commercial banks. *Economics, Management and Business*, 124.
15. Sabina, E. A., Chimere, N., & Augustine, N. I. (2023). Effect of Derivative Accounting On the Value of Listed Deposit Money Banks in Nigeria. *International Journal of Advances in Engineering and Management (LJAEM)*, *5*(3), 1011-1028.
16. Sulaiman, L. A., & Ibrahim, O. S. (2020). Financial derivatives and profitability of selected deposit money banks in Nigeria. *Acta Universitatis Danubius. Œconomica*, *16*(6).
17. Tessema, A. M. (2016). Accounting for derivatives and risk management activities: The impact of product market competition. *International Journal of Accounting and Information Management*, *24*(1), 82-96.
18. Titova, Y., Penikas, H., &Gomayun, N. (2020). The impact of hedging and trading derivatives on value, performance and risk of European banks. *Empirical Economics*, *58*(2), 535-565.
19. Uche-Udo, N. N., & Okafor, M. C. (2022). Financial Derivative And Financial Performance Of Listed Commercial Banks In Nigeria. *JORMASS| Journal of Research in Management and Social Sciences*, *8*(2), 53-63.
20. Ugbah, A., Amahi, F., & Offor, N. T. (2023). Derivative risk information disclosure effect on financial reporting quality evidence from selected listed deposit money banks in Nigeria. *Journal of Economics, Management and Trade*, *29*(11), 1-11.