

# Innovations

## Effect of Market Risk on Firm Value of Deposit Money Banks in Nigeria

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**Abstract:** *The incidence of high volatility caused by market risk in deposit money banks in Nigeria is the motivation that prompted this study. In spite of the attention given to risk in the last few years, the recent financial crisis caused by market risk in Nigeria has brought this subject matter to limelight. Therefore, it is imperative to uncover how market risk affects deposit money banks in this contemporary era in Nigeria. Therefore, this study investigated the effect of market risk on firm value of listed deposit money banks in Nigeria. The market risk was measured by stock price, interest rate and inflation rate risks while Tobin Q was the surrogate for firm value of deposit money banks. The study adopted an ex-post facto research design method. The target population of the study comprised all the deposit money banks listed in Nigeria Stock Exchange. The study used secondary source of data from Central Bank of Nigeria as well as from annual reports and financial statement of accounts of deposit money banks under review from 2016-2024. Structural equation modeling was the statistical technique used to estimate the nature, direction, strength, significance and effect of explanatory variables on the outcome variable at 0.05 level of significance. The study found that stock price risk had a significant but negative effect on firm value of deposit money banks in Nigeria. The finding showed that interest rate risk had a significant but negative effect on firm value of deposit money banks in Nigeria. The study also found that inflation rate risk had a significant but negative effect on firm value of deposit money banks in Nigeria. The researchers recommended among others that bank managers and other stakeholders in the banking industry should try to invest more on the utilization of financial instruments so as to reduce risk exposures. They should plan carefully and diversify and also be cautious of factors that can affect stock prices. They should also be more careful when investing in fixed income securities so as to prevent high interest charges as experienced in Nigeria and beyond.*

**Keywords:** *Market risk, Stock price risk, Interest rate risk, Inflation risk, Firm value, Deposit money banks in Nigeria.*

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## Introduction

Market risk is multifaceted and complex in nature which cut across many operations, strategies, and reputations (Obalola, Akpan & Abass, 2014). The financial market in Nigeria is saddled with stiff competition which has heightened attention on market risk and its effect especially in the banking sector because of the risky nature of its businesses. The macroeconomic environment is burdened with market risk which directly or indirectly affect the success and survival of deposit money banks in Nigeria. Market risk is the risk that a firm may incur losses due to variations in the price of assets held because of changes in interest rate, securities, foreign exchange rate, commodity prices as well as other market risk factors (Odubasi et al., 2020). Specifically, the alarming rate of high incidence of financial as well as economic volatility caused by market risk in deposit money banks in Nigeria is the problem that motivated this study. However, deposit money banks in Nigeria are faced with various market risks which include: stock price risk, inflation risk, currency risk and so on (Anetoh et al., 2021). Pertinently, market risk is connected with the fluctuation in the market price of assets. It encompasses exposure to movements in the price level of financial variables, such as interest rates, stock prices, exchange rates or commodity prices. It contains options prices exposure to movements in the underlying asset price. Market risk encompasses exposure to other unforeseen fluctuations in financial and macro-economic variables like interest rate and inflation rate (Kamau & Njeru, 2016). Due to the distinctive roles of deposit money banks in economic development, their profitability indices are often affected by market risk factors (Osamwonyi & Chijuka, 2014).

Significantly, inflation rate, exchange rate and interest rate changes are factors that affect the profitability of banks anywhere in the world. This is because these market risk factors are macroeconomic factors that affect the entire economy and are usually outside the control of deposit money banks. Market risk is a serious challenge facing survival of banks in a developing economy like Nigeria. The non-diversifiability and uncertainty of market risk has prompted this study. Therefore, it becomes germane to investigate how deposit money banks operate in the turbulence of this market risk especially in this contemporary era in Nigeria. Furthermore, the fluctuations in foreign exchange rates, interest as well as inflation rates pose significant challenges in the banking business. These have affected not only banks' performance but banks' financial stability and survival especially in this contemporary era. Incontrovertibly, market risk exists in any economy because of changes as well as fluctuations in macro-economic variables. Market risks are in form of the following; interest rate, exchange rate, inflation rate, oil price (Abubakar, Dantsoho & Suleiman, 2025). Stock price risk is the risk involved in the changing prices of stock investments. It is the possibility of a decline in the value of a stock or investment portfolio due to many factors such as market conditions, economic downturns, changes in interest rate. Interest rate risk is the potential loss to the revenue or income as well as economic value of equity due to adverse fluctuations/movements in interest rates (Akinagbe, 2024). Inflation risk is the risk that inflation will erode the value of the investments or assets, resulting in a decrease in their purchasing power. This will make the price of goods and services to increase, thereby making

the investments less valuable. Undeniably, all these indicators and parameters identified are the major market risk parameters that have significantly affected the performance of all firms operating in that particular economy including the banking sector in Nigeria (Igbinosa & Ogiemudia, 2020; Akinselure & Akinola, 2019; Bishnu, 2019).

However, the harmful or deleterious effects of market risk factors are of utmost importance in developing economies and regions like Nigeria because of highly fluctuations and volatility of macro-economic forces. Nevertheless, the effects of market risks in Nigeria such as inflation-rate risk, interest rate risk, exchange rate risk and also oil price fluctuation risk on bank value can be direct or indirect, positive or negative, and significant or insignificant (Ajakpo Anetoh et al., 2023; Akinnnagbe, 2024; Anetoh Ajakpo et al., 2025). Specifically, the direct effect of market risk includes but not limited to price increases resulting in banks paying higher cost for labour, consumables and equipment while the indirect effect of market risk on performance comes through changes in interest rate and asset values (Ike & Anuolam, 2023). Firm value is an economic measure of a firm's performance which reflects the worth of the entire business (Abubakar, 2020). Hence, firm value focuses on the entire capital structure of the firm. Consequently, permitting or allowing the use of firm value in undertaking or comparing a firm with other firms of have different structures of capital (Quiry, Le Fur, Salvi & Dallochio, 2011). It is an appreciation or award given by investors against a company which is reflected in the stock prices of companies in the capital market (Odubasi et al., 2020; Ramazan & Gulden, 2019).

Although many empirical studies have been conducted on effect of market risk on firm value but there are varying findings by different researchers because of varying ways, procedures and methods of conceptualization, operationalization and measurement in different sectors as well as in different geographical locale which has created a knowledge gap. The findings of (Diby, 2019; Murty, 2018 and Osundina, 2016) revealed that market risk has a significant but negative effect on the value of banks contrary to the findings of (Abdul, 2019; Ekinci, 2016 and Tajalli, 2014) that found a negative and insignificant effect of market risk on firm value of deposit money banks. Ofosu-Hene (2016) and Malik (2014) found that market risk has a positive and significant effect on firm value as opposed to (Kolapo, 2015) that found that market risk has a positive but insignificant effect on firm value of deposit money banks. Apparently, these varying reports and contradictory findings as well as abysmal inconsistency in the literature concerning the nature, direction and effect of market risk on firm value suggest further empirical investigation and justification. Therefore, this research is an attempt to close the research gaps identified from the literature so as to contribute to knowledge especially in the context of market risk and firm value.

### **Objectives of the Study**

The main objective of the study is to investigate the effect of market risk on firm value of deposit money banks in Nigeria. The specific objectives of the study are to;

1. Determine the effect of stock price risk on firm value of listed deposit money banks in Nigeria in this contemporary era.
2. Assess the effect of interest rate risk on firm value of listed deposit money banks in Nigeria in this contemporary era.
3. Ascertain the effect of inflation risk on firm value of listed deposit money banks in Nigeria in this contemporary era.

### **Research Questions**

Based on the objectives of this study, the following research questions were formulated;

1. How does stock price risk affect firm value of listed deposit money banks in Nigeriain this contemporary era?
2. To what extent does interest rate risk affect firm value of listed deposit money banks in Nigeriain this contemporary era?
3. To what extent does inflation risk affect firm value of listed deposit money banks in Nigeriain this contemporary era?

### **Statement of Hypotheses**

The following hypotheses were formulated in their null structures to guide the study;

HO<sub>1</sub>: Stock price risk does not significantly affect firm value of listed deposit money banks in Nigeriain this contemporary era.

HO<sub>2</sub>: Interest rate risk has no significant effect on firm value of listed deposit money banks in Nigeriain this contemporary era.

HO<sub>3</sub>: Inflation risk has no significant effect on firm value of listed deposit money banks in Nigeriain this contemporary era.

### **Scope of the Study**

This study covered a period of 9 years from 2016-2024 and also concentrated on listed deposit moneybanks in Nigeria.The study is concentrated on investigating the effect of market risk indicators namely; stock price risk, interest rate risk and inflation risk on firm value. The dependent variable is the firm value of deposit money banks in Nigeria measured using Tobin Q.

### **Literature Review**

#### **Conceptual Review**

##### **Market Risk**

Market risk is a serious challenge facing survival of banks in a developing economy like Nigeria. It is the risk that a firm may incur losses due to variations in the price of assets held because of changes in interest rate, securities, foreign exchange rate, commodity prices as well as other market risk factors (Odubasi et al., 2020). Systematic risk or market risk is the possibility of an investor experiencing losses due to factors that affect the overall performance of the financial markets in which he or she is involved (Lake, 2013). Market risk which is also called "systematic risk," cannot be eliminated through diversification, though it can be hedged against in other ways (Aruwa, 2014). Hence, the sources of market risk include recessions, political turmoil, changes in interest rates, natural disasters and terrorist attacks.

Systematic or market risk tends to influence the entire market at the same time (Aruwa, 2014). Furthermore, market (systematic) risk and specific risk (unsystematic) constitute the two major categories of investment risk. Moreover, the most common types of market risks include interest rate risk, equity risk, currency risk and commodity risk (Chukwunulu, 2018). In addition, market risk refers to the risk to an institution resulting from movements in market prices, in particular, changes in interest rates, foreign exchange rates, equity and commodity prices. Other form of market risk also arises where banks accept financial instruments exposed to market price volatility as collateral for loans (Anetoh et al., 2021).

### **Dimensions of Market Risk**

Interest rate risk covers the volatility that may accompany interest rate fluctuations due to fundamental factors, such as central bank announcements related to changes in monetary policy. This risk is most relevant to investments in fixed-income securities, such as bonds (Muteti, 2014). Stock price risk is the risk involved in the changing prices of stock investments, while commodity risk covers the changing prices of commodities such as crude oil and corn (Akinagbe, 2024). Currency risk, or exchange-rate risk, arises from the change in the price of one currency in relation to another; investors or firms holding assets in another country are subject to currency risk. However, exchange rate, inflation and interest rate risks are form of market risk which have impacts on performance of banks across the entire industry (Lake, 2013). Thus, market risk is determined by different factors which affect the whole economy hence this makes it to be outside the control of most commercial banks in Nigeria (Abubakar et al., 2025, Anetoh et al., 2021). Importantly, the degree of financial leverage, foreign exchange rate exposure and interest rate risk are used as indicators of market risk. Interestingly, the degree of financial leverage (DFL) is best used to help a company determine financial leverage risk. Nevertheless, many changes which might happen within the economic environment or among the interest rate will definitely have an extremely negative impact on how the business will evolve hence the higher the ratio, the riskier the firm is considered to be as it relies too much on debts (Tarfi, 2013). Market risk denotes the risk that affects institution resulting from movements in market prices, in particular, changes in interest rates, foreign exchange rates, credit spreads, equity and commodity prices (Ofosu-Hene, 2016; Abubakar, 2020). However, market risk often arises from other forms of financial risk such as credit, liquidity and operational risks (Odubasi, 2020). For example, a downgrading of the credit standing of an issuer could lead to a drop in the market value of securities issued by that issuer. Similarly, a major sale of a relatively illiquid security by another holder of the same security may appear to affect the price of the security.

### **Firm Value**

Firm value is an economic measure of a firm's performance which reflects the worth of the entire business (Sarma & Rao 2009). Firm value focuses on the entire capital structure of the firm, thus allowing for its use in undertaking comparisons between



firms of different structures of capital (Quiry, Le Fur, Salvi & Dallochio, 2011). Firm value is an appreciation or award given by investors against a company which is reflected in the stock prices of companies in the capital market (Silveira & Barros, 2007). Appreciation means that stock price is above the book value per share, while depreciation occurs when stock price is below book value per share (Nuraina, 2012). High stock market prices make the firm value to increase and ultimately increase confidence in the company's performance not only in the present but also the future prospects of the company (Hermuningsih, 2013). Interestingly, it seems to be an assumption that maximizing firm value represents a viable objective of many firms especially deposit money banks in Nigeria (Sundaram & Inkpen 2004). Thus, the effectiveness of risk management initiative within a firm may be based on an assessment of its capability to raise firm value against market competition.

### **Measurement of Firm Value using Tobin Q**

Tobin's Q is a ratio that compares a firm's market value of assets to their replacement cost. That is to say, Tobin's Q can only be used for publicly traded firms, because it requires the assets' value in the market. TQ (Tobin, 2009) is the ratio between a physical asset's market value and its replacement value. The market value of a company's assets is measured by the market value of its outstanding stock and debt, whilst the replacement cost of assets is measured using their book value. A ratio of 1 or more indicates that the firm's market value exceeds that of its recorded assets (Tobin, 2009). Tobin's Q has been used as a measure of firm value in empirical risk management studies (Anetoh et al., 2021). Tobin's Q is calculated as the market value of equity plus the book value of liabilities divided by the book value of assets. However, the long term goal of every firm involved in business is to increase its value. If the value of the firm increases, it will also increase the income of its owners (stakeholders). This will ultimately increase the prosperity of the owner (Nelson, 2013). Investors usually see firm value as stock prices, stock returns, earnings per share (EPS), price earnings ratio, Tobin's Q, and price to book value (PBV). Tobin's Q is used to measure firm performance, especially for the firm value which shows a management performance in managing the firm assets. Tobin's Q value describes a condition of investment opportunities owned by the company (Lang, Stulz, & Walkling, 2009) or the firm growth potential (Tobin, 2009). Hence, potential investors can judge it well if it will invest in the capital market. Consequently, it will not lose in investing although there is still the systematic risk that is usually influenced by external factors firms, especially macroeconomic conditions. In addition to the external factors of firm, its value is also influenced by its internal factors which are commonly referred to as fundamental factors of the firm, including liquidity (Azmat 2014).

### **Theoretical Underpinning**

The study of market risk on firm value is anchored on the Modern Portfolio Theory (MPT) propounded by Markowitz in 1952. Portfolio theory is a mathematical framework that facilitates the classification, estimation and control of the sources of investment risk and returns. According to this theory, a portfolio of assets is

selected in such a way that the expected return is maximized for a given level of risk. The modern portfolio theory assumes that investors are risk-averse and emphasizes that risk is an inherent part of a higher reward. Investors prefer a less risky portfolio to a riskier one for a given level of returns. The implication here is that an investor will be ready to take on more risk only when more reward is expected. The modern portfolio theory is a formalization of the concept of diversification in investing. The core of this theory is that a collection of different kinds of financial assets is less risky than just one type of asset. The aim of diversification is to create a portfolio of multiple investments in order to limit or reduce the overall risk which any one of the investments poses to the portfolio. Furthermore, fluctuations in asset value can result from changes in economic factors such as equity, commodity prices, exchange rates and interest rates. Such fluctuations constitute a risk to the general public, investors and business organizations like banks. For the fact that these fluctuations affect the entire economy they are named 'market risk'. However, market risk is capable of altering the value of a bank. The occurrence of any of these risks improves or hampers the value of banks depending on whether it is to the bank's advantage or disadvantage. For instance, for banks that have a long position, an increase in the foreign exchange rate (which means a loss in local currency value), would result in a gain for a bank.

In addition, in the face of the relative expectations regarding relative purchasing power disparity, Deniz and Hiiseyin(2016) averred that foreign exchange risk is the most widely used instrument to increase after-tax returns; firms can leverage on periods of disparity when local currency is overvalued to realize substantial foreign exchange gains, but they will incur substantial losses when markets adjust themselves. Consequently, foreign exchange risk is more or less a double-edged sword, one leading to improved firm value and the other harmful to corporate value. Nonetheless, extant literature has demonstrated that risk management enhances reputation, efficiency and value of banks by building their portfolio of funds resources. This implies that risk management is expected to improve bank value; therefore, risk management has a positive relationship with firm value. This is supported in the assertion that risk management is a portfolio of business activities specially designed to improve firm value as well as reduce the possible of losses faced by organizations (Bashet al., 2017). Obviously, Adeusiet al. (2014) posited that risk management does not only have a great impact on bank value but also on national economic growth and general business development. Importantly, the key or bottom line is for this theory is effectiveness. Consequently, provided that risks are effectively managed, the value of any firm especially deposit money banks will increase.

### **Empirical Review**

Diby, Dilesha, Pierre and Ning (2019) examined the effect of market risk on the financial performance of 31(thirty-one) non-financial companies listed on the Casablanca Stock Exchange (CSE) over the period 2000-2016. The research work utilized three alternative variables to assess financial performance, namely, the return on assets, the return on equity and the profit margin. Degree of financial

leverage, book-to-market ratio, and the gearing ratio was used as the indicators of market risk. The study employed the pooled OLS model, the fixed effects model, the random effects model, the difference-GMM and the system-GMM models. The results show that the different measures of market risk have significant negative influences on the companies' financial performance. The elasticities are greater following the degree of financial leverage compared with the book-to-market ratio and the gearing ratio. In most cases, the firm's age, the cash holdings ratio, the firm's size, the debt-to-assets ratio, and the tangibility ratio have positive effects on financial performance, whereas the debt-to-income ratio and the stock turnover hurt the performance of these non-financial companies. The study recommends that decision-makers and managers should mitigate market risk through appropriate strategies of risk management, such as derivatives and insurance techniques.

Abdul, Dhamayanthi and Suppiah (2019) conducted a study on the impact of market risk and fair value on the financial performance of public corporations in Malaysia. The study covered the period from 2007 to 2016. Market risk was measured by the interest rate and inflation while financial performance was measured by return on equity (ROE). Regression analysis was used to analyze data collected from secondary source. Results gathered from the findings showed that there is no relationship between market risk and financial performance of public corporations in Malaysia. Additionally, another hypothesis revealed a strong relationship between fair value measurement and financial performance. However, the study also suggested the inclusion of other variables such as exchange rate and financial leverage which could be further analyzed. Anyalechi, Ezeaku, Onwumere, and Okereke (2019) examined the responsiveness of the stock market returns to fluctuation in oil price in Nigeria using monthly dataset from January 1994 to December 2016. The autoregressive distributed lag estimation technique was applied to analyze the long-run model as well as the short-run dynamics whereas test for co-integrating relationships was conducted using the Bound testing method. The findings revealed that changes in oil price have positive but insignificant impact on stock market returns both in the long-run and the short-run. Impact of inflation was positive and insignificant in the long-run but positively significant in the short-run. Real interest rate and log of exchange rate exerted negative influence on the stock market returns, where the short-run effect of real interest rate was significant, the long-run impact was found to be insignificant.

Murty and Chowdary (2018), acknowledging that interest rate risk represents one of the key forms of financial risk faced by banks, examined how changes in interest rates affect the profitability of the banking sector in the Indian economy with data covering a period of 30 years using regression analysis. Using return on asset, return on capital employed and return on equity as dependent variables and interest rate as an independent variable, the simple regression result showed that interest rate changes have a significant negative effect on all the bank performance variables. Ekinci (2016) carried out a study to investigate the effects of credit and market risk on firm value in the Turkish banking sector. The study used exchange



rate and interest rate risks as a proxy for market risk, and credit risk was represented by return on the industrial stocks. Firm value, the dependent variable was operationalized by Tobin Q. The explanatory variables were regressed on firm value. The findings showed that foreign exchange rate has a positive effect, but interest rate has an insignificant effect on firm value of banks in India.

Murithi et al. (2016) carried out a study to assess the effect of market risk on the financial performance of commercial banks in Kenya for a period often (10) years from 2005 to 2014. Market risk was measured by the degree of financial leverage, interest rate risk and foreign exchange exposure while the financial performance was measured by return on equity. Panel data techniques of random effects, fixed effects estimation and generalized method of moments (GMM) were used to purge time-invariant unobserved firm-specific effects and to mitigate potential endogeneity problems. Results of the study showed that financial leverage, interest rate and foreign exchange exposure have negative and significant relationships with bank profitability. In Ghana, Ofosu-Hene and Amoh (2016) investigated the relationship between risk management and bank performance among the banks listed on Ghana Stock Exchange over the period 2007- 2014. The performance of banks was measured using ROE and ROA while the explanatory variables used were risk index, bank size, bank solvency, bank liquidity, non-performing loans, inflation as well as exchange rate. The regression result showed that risk management is positively related to bank performance in Kenya.

Osundina et al. (2016) examined the effect of exchange rate fluctuation on banks' performance in Nigeria covering 5(five) deposit money banks for ten years from 2005 to 2014. Bank performance was measured in terms of liquidity and return on assets of deposit money banks while the independent variables were measured using exchange rate and a log of total asset (size). The result of ARCH LM test confirmed the fluctuating nature of the exchange rate in Nigeria. Hausman Test was conducted to determine fixed and random effect preference. The result revealed that exchange rate fluctuations had an insignificant effect on banks' profitability and a significant negative effect on banks' liquidity. Kolapo and Fapetu (2015) examined the effect of interest rate risk on the performance of DMBs in Nigeria between 2002 and 2011. Data obtained from a sample consisting of six (6) Tier 1 capital banks and adopted return on assets to measure bank performance as a function of interest rate risk indexed with loans to asset ratio, average lending ratio, and risk of interest diversity. Results from the fixed effect regression method showed that each measure of interest rate risk is found to have an insignificant effect on bank performance in Nigeria.

## Methodology

This study adopted an *ex-post facto* research design method which focuses mostly on secondary data. Therefore, this study utilized this research design method by collecting already existing data thereby averted any form of manipulations. Secondary source of data was used while the area of the study is concentrated on all deposit money banks listed in the Nigerian Stock Exchange (NSE). The target

population for the study consists of deposit money banks in Nigeria. Accordingly, the study adopted a purposive sampling technique and used the thirteen deposit money banks listed in Nigeria Stock Exchange namely; First City Monument Bank, Fidelity Bank, Guaranty Trust Bank, Stanbic IBTC, Sterling Bank, Union Bank, Access Bank, First Bank, Zenith Bank, Unity Bank, Wema Bank, Ecobank and United Bank (Source: Nigerian Stock Exchange Facts Book, 2024). In addition, the researchers utilized secondary data in which data were collected from the annual reports and the financial statement of accounts of all the deposit money banks listed in Nigerian Stock Exchange for the period from 2016 to 2024. The study adopted Partial Least Square Structural Equation Modeling; an advanced as well as a second generation statistical technique specially developed for the test of complex model or complex relationships that involved many dependent variables and many independent constructs. It is also used when the dependent variable has many proxies which regression analysis cannot estimate simultaneously in one model. PLS-SEM is used in this study to test for the hypothesized significance as well as effect of market risk parameters on firm value (Tobin Q) of all deposit money banks listed in Nigeria. Although, its usage is still unique in Nigeria but many accounting and financial studies have used it in their work (Gadzo et al., 2019; Saeidi et al., 2018 and Maruhun et al., 2018). Decision Rule: accept null hypothesis if the P-value is greater than the stipulated level of significance of 5% (0.05). Also, reject null hypothesis and accept the alternative hypothesis if the P-value is less than or equal to the stipulated significant level 5% (0.05)

### Model Specification and Operationalization

Firm Value (Tobin Q) =  $\beta_0 + \beta_1 \text{STPR} + \beta_2 \text{INTR} + \beta_3 \text{INFR} + \mu$

Where

STPR = Stock price risk

INTR = Interest rate risk

INFR = Inflation risk

$\mu$  = error term (0.05 ie 5%)

### Results

The hypotheses earlier postulated were tested at 0.05 (5%) level of significance. Partial least square structural equation modeling statistical technique was used to estimate the direction of effect, strength of the effect and the significance of the explanatory variables on the outcome variable. The goodness of fit of the model was determined by SRMR value of 0.033, RMS theta value of 0.025 and NFI value of 0.916. The coefficients of determination ( $R^2$ ) value is 0.723 (72.3%) for TBQ. However, the values obtained are above the threshold proposed by (Hair et al., 2017). Moreover, taking cognizance that the path coefficient should equal to or greater than 0.20 to have strong effect, t-value should be  $\geq 1.96$  while the p-value should be  $\leq 0.05$  to be significant as proposed by (Wong, 2013). Thus, the PLS-SEM bootstrapping result is presented on table 1.

**Table 1: PLS-SEM Bootstrapping Results**

Hypotheses	Coefficients	T-values	P-values	Decision	Remark
STPR -> FV(TBQ)	-0.304	5.976	0.000	Significant	Supported
INTR -> FV(TBQ)	-0.245	3.417	0.001	Significant	Supported
INFR -> FV(TBQ)	-0.229	2.830	0.004	Significant	Supported

*Note: Path is significant at 5% level of significance; if the t-value is  $\geq 1.96$ , or p-value  $\leq 0.05$ .*

NB:STPR = stock price risk; INTR = interest rate risk; INFR = inflation risk; FV = firm value.

**Source:** PLS-SEM Output, 2025.

A careful look on the results as shown on table 1 revealed that stock price risk has a coefficient value of -0.304; the t-value of 5.976 which its corresponding p-value of 0.000. Therefore, the null hypothesis one is rejected while the alternative hypothesis which states that stock price risk has a significant effect on firm value of deposit money banks in Nigeria accepted. Therefore, the decision is that stock price risk has a significant but negative effect on firm value of deposit money banks in Nigeria. A cursory assessment of the results as shown on table 1 indicates that interest rate risk has the coefficient value of -0.245; the t-value of 3.417 which its corresponding p-value of 0.001. Therefore, the null hypothesis two is rejected while the alternative hypothesis which states that interest rate risk has a significant effect on firm value of deposit money banks in Nigeria accepted. Therefore, the decision is that interest rate risk has a significant but negative effect on firm value of deposit money banks in Nigeria. In addition, a careful look on the results as shown on table 1 portrays that inflation risk has the coefficient value of -0.229; the t-value of 2.830 which its corresponding p-value of 0.004. Therefore, the null hypothesis three is rejected while the alternative hypothesis which states that inflation risk has a significant effect on firm value of deposit money banks in Nigeria accepted. Therefore, the decision is that inflation risk has a significant but negative effect on firm value of deposit money banks in Nigeria. The implication of the findings is that market risk has a significant but negative effect on firm value of deposit money banks in Nigeria. The findings of this study agree with the findings of the following researchers (Diby, 2019; Murty, 2018; Muriithi, 2016; Osundina, 2016 and Amenawo, 2016) that found that market risk has a significant but negative effect on firm value. The finding of this study contradicts the findings of the following studies (Ofosu-Hene, 2016 and Malik, 2014) that found that market risk has a positive and significant effect on firm value as well as the finding of (Kolapo, 2015) that found that market risk has a positive but insignificant effect on firm value of deposit money banks.

### Conclusion and Recommendations

The uncertainty nature of market risk characterized by volatility and fluctuations has instigated this study. This research therefore investigated the effect of market risk and how deposit money banks operate in the turbulence of this risk especially in this contemporary era in Nigeria. This study has provided an in-depth knowledge that market risk has significant but negative effect on firm value of deposit money banks in Nigeria. The study therefore concludes that stock price risk has a significant but negative effect on firm value of deposit money banks in Nigeria. The high incidence of stock price volatility discourages investors from investing in stock market which has adversely affected the performance of deposit money banks in Nigeria. The study concludes that interest rate risk has a significant but negative effect on firm value of deposit money banks in Nigeria. The study also concludes that inflation rate risk has a significant but negative effect on firm value of deposit money banks in Nigeria. Therefore, all the stakeholders, bank managers, regulators, investors should be more attentive and cautious on market risk red flags and devise means of managing it. Based on the findings and conclusion drawn from the findings, the researchers offered the following recommendations;

1. Bank managers and other stakeholders in the banking industry should try to invest more on the utilization of financial instruments so as to reduce risk exposures, plan carefully and diversify.
2. They should be more cautious and careful when investing in fixed income securities so as to avert high interest charges in Nigeria and beyond.
3. Policy and decision-makers and bank managers should try to reduce, lessen or mitigate market risk through appropriate strategies of managing risk through derivatives and insurance techniques. Banks should also use other forms of financial engineering strategies such as the use of options, futures and swaps so as to manage their market risk exposures.
4. Bank should engage in periodic assessment of market risk and also engage in forensic reporting and re-engineering practices so as to reduce the effect of market risk in Nigeria.

### Conflict of Interest and Address of the Researchers

The researchers have no conflict of interest to declare

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