

Effect of Derivative Accounting On the Value of Listed Deposit Money Banks in Nigeria.

¹Eyisi Adanma Sabina, ²Nwabueze Caritas Chimere and
³Nwaorgu Innocent Augustine
^{1&2&3} Michael Okpara University Of Agriculture Umudike. Abia State, Nigeria.

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ABSTRACT

This study examines the effect of derivative accounting on the value of listed deposit money banks in Nigeria. The research design adopted is ex-post facto research design. Using a sample of 10 listed commercial banks data from 2015 to 2021, the study analyzed the data using a multiple regression approach. The study found that, Derivative asset has a positive insignificant effect on earnings per share of listed deposit money banks in Nigeria. While, derivative liability has a negative insignificant effect on earnings per share of listed deposit money banks in Nigeria.. While, derivative asset has a negative insignificant effect on share price of listed deposit money banks in Nigeria. While, derivative liability has a positive insignificant effect on share price of listed deposit money banks in Nigeria. Thus, it is recommended that, More funds should be committed to the use of derivatives for hedging against interest rate fluctuations that possibly affects the earnings of the banks. Also, the information disclosure about the use of derivatives by the listed banks is not enough to attract investors, since investors in the banking sector are often sceptical about the volatility of bank investment due to interest rate and foreign exchange fluctuation. If the banks improve on accounting for derivative by fully adopting the prescription made by IFRS 7 and 9, this will give confidence to intending investors that the banks can adequately hedge against volatility risk thus will improve the demand for the banks shares which will in turn be reflected in the prices of the shares.

Keywords: derivative accounting, derivative asset, derivative liability, earnings per share, share price.

I. INTRODUCTION

The use of derivatives in business is as old as the history of mankind. Derivatives instruments were initially created to promote trade and protect

the supply of commodities to cover farmers against crop failures in the early agro based economy of mankind (Njorogo, Matumo&Maina, 2013). Over the years, derivatives were being used as a source of business funding and also as a means to search for quick profits. In order to protect the supply of commodities and promote trade, both in geographical distance and time, the rulers' codes as a matter of fact demanded a written form of buying, selling and other trade related agreements so as to give sellers and buyers the best conceivable lawful assurance to take part in trade in Ancient Mesopotamia and other ancient kingdoms (Nguyen & Faff, 2002). The primary reason for this was to minimize the "your word against mine" saying in the event of disagreements which tend to give reasonable assurances for contractual agreements in business that will serve as hedge instrument and possibly drive extra value for business (Stev& Christian, 2012). This is the birth history of contemporary derivative instruments in business.

As Oler, Oler and Skousen (2010) pointed out that derivatives are sometimes embedded in new investment vehicles of debt and equities, which is typically one of the reasons why the complexities of these instruments make them highly risky. Furthermore, the total notional amount of all derivatives held by the 25 world's largest holding companies was valued at \$308 trillion in 2012, that is more than four times the world's GDP combined, which is valued at only \$74 trillion as stated (Torbira& Joshua, 2017). Globalization has created strong linkages in financial markets that risks can spill over very quickly, especially when one considers the havoc caused by the 2007-2008 financial crisis. There then became a need for corporate managers to develop better risk management strategies that can withstand the test of times. In the studies of Morgan, Shome and Smith (1998); Bartram, Brown

and Fehle (2009); Chernenko and Faulkender (2011), hedging using derivatives is considered a noble activity by many in the finance industry as it is an effective way for reducing, mitigating and transferring risks.

Accounting for derivative instruments have intensified substantially over the past decades but there are challenges associated with its measurement and disclosure in the financial reports of corporate managers (Chen & Lee, 1995). Firms have made their position known on the challenges they face in the measurement and disclosure especially in line with the earlier disclosure requirements in Financial Accounting Standard Board Statement (FASB) No. 133, which did not furnish sufficient input about how derivative influence a firm's financial position and Firm value. The FASB issued Statement No. 161 which was an amendment of FASB Statement No. 133. In 1986, this added some major project of financial instruments to its agenda. According to Chau, Phua, Kee and Char (2018) the project was added as a result of the emergence of innovative new financial instruments used by companies for risk management and by companies and investors for speculation and between 1990 and 2008, the FASB issued numerous accounting standards pertaining to financial instruments which centralized on the credit risk for all derivative instruments representing the first phase on disclosing information about the extent, nature, and terms of financial instruments with off-balance-sheet credit or market risk.

The use of derivatives instruments by commercial banks has risen in the previous two decades. In spite of broadly accessible information on derivative utilization, empirical research evidence on its effects is mixed and inclusive. According to Torbira and Joshua (2017) the reason to such opposing outcomes is whether the banks utilize derivatives for hedging or trading function and whether this translates to higher firms' value and data unveiled by a wide range of firms, including banking industries and nonfinancial firms have been used by previous studies in attempting to enhance understanding of how the firms utilize derivatives. Although the major assumption that hasn't been refuted is that firms, including financial firms, utilize derivatives for hedging. However, The main objective of this study is to examine the effect of derivative accounting on the value of listed deposit money banks in Nigeria. The specific objectives of the study are to:

- i. Examine the effect of derivative accounting (Derivative asset & derivative liability) on the

earnings per share of listed deposit money banks in Nigeria.

- ii. Determine the effect of derivative accounting (Derivative asset & derivative liability) on the share price of listed deposit money banks in Nigeria.

II. LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

Concept of derivative accounting

Lookman (2004) defines derivative as a financial instrument whose pay-off is derived from some other asset which is called an underlying asset. In his work he referred to derivatives as those items that do not have their own independent values; rather it has a derived value. Therefore, a derivative has a significant place in finance and risk management. According to Lukka and Kasanen (1995) the increasing globalization of businesses is exposing firms to various financial risks, unrelated to their lines of business. According to Marsden and Prevost (2005) derivative instruments have mushroomed very quickly from simple financial futures to a wide variety of exotic and complicated securities around the world. Derivatives markets can facilitate the management of financial risk exposure, since they allow investors to unbundle and transfer financial risk. In principle, such markets could contribute to a more efficient allocation of capital and cross-border capital flow, create more opportunities for diversification of portfolios, facilitate risk transfer, price discovery, and more public information (Hull, 2011).

Bartram et al. (2009) on the use of derivatives by nonfinancial firms examined some 7,300 nonfinancial firms from 48 countries, using corporate reports from 2000 and 2001. In their studies they found out that 60 percent of these firms used derivatives. Wayne and Kothari, (2003) found out in a similar study that when firms started using derivatives, average stock return volatility fell by 5 percent, their interest-rate exposure fell by 22 percent, and their foreign-exchange exposure fell by 11 percent. Clearly, firms do use derivatives for hedging, although if firms hedged systematically, the evidence suggests they would use derivatives much more than they actually do.

In a simple term, derivatives can be defined as something that is derived or obtained from some other source, imminent from a source; not original by itself. But in the field of financial economics, financial derivatives referred as a financial contract for which its value is derived from the underlying asset's value (Rene, 2004). There are so many financial assets used by firms which are called underlying assets. These

underlying includes; equities or equity index, fixed-income instruments, foreign currencies, commodities, credit events and it could also be other derivative securities. Therefore, the value of derivatives can be derived depending on the types of underlying assets which might correspond to equity price, interest rates, exchange rates, commodity prices and the prospects of certain credit events (Rashid, 2009). Over the life of the contract, the value of derivatives fluctuates in line with the underlying asset price movements (Mathew & Quetsch, 2014).

The use of derivatives has increased over the past ten years. It is believed that the relevance of using these derivatives is as a several reasons such as; rejecting the Modigliani and Miller's (1958) market perfection hypothesis because of certain proves of imperfection in market operations and the presence of bankruptcy costs, agency conflict, market risks and the need to manage such risks (Charlse & Darne, 2009). Firms, especially those in the developed market economy are using derivatives as a means of hedging against various financial instrument risks. Another argument that necessitates the use of derivatives is the argument that effective and efficient risk management can increase the firm's value through the use of derivatives (Carter, Roger & Simkins, 2006).

According to Creswell (2014) the latest financial crisis around the world also can be considered as one reason of such growing importance in the use of derivatives. In the corporate business world, the economic environments that firms operate have over time grown more complex as a result of business globalization, increased volume of trade and market uncertainty (Cowles, 1993). As stated in Brown, (2001) the world economic environment has grown to a point where market uncertainty and frequent changes have created challenges for firms to be able to forecast their business transactions and earnings against the backdrop of uncertainties. As a result of these challenges, corporate managers have developed means to hedge against such challenges and here in lies the methods that organizations utilize financial vehicles in an effort to offset any unforeseen financial risks that may arise which the use of derivatives becomes eminent (Dan, Gu & Xu, 2005).

The use of derivatives is one way of shielding risk in order to improve firm value. If the market is perfect, derivatives would have no value but we operate an imperfect market globally (Fiordelisi, Marques-Ibanez, 2013). According to George and Lelucka, (2015) it is a statement of fact that in real world, the financial market is imperfect and the use

of derivative can directly affect the cash flow of the firm and subsequently the firm's value. The use of derivatives reduces the variability of expected cash flows about the mean of the distribution with reduction of risk as a result. This is positive for a single firm because the higher prediction of future cash flow improves the planning capability of the firm and the firm may be able to undertake activities of specific investments that will improve the value of the firm which otherwise might not have been considered (Gitogo, 2012).

Most firms involved in cross border transactions make use of derivatives or certain strategies to stabilize financial earnings and improve firm value especially when there are obvious inconsistencies and volatility in global exchange movements. Baker, Robin, and Jeffrey (2008) assert that actions conducted by these firms will directly affect the resulting firm value. However, researchers such as Bartman et al., (2009) assert that hedging can only have a minor impact on a firm's earnings volatility and value.

Boot and Marinc (2018) explored issues that arise from using derivatives by studying the pros and cons. They laid a foundation on question regarding when to why and when the various derivatives can be used with empirical results of top line performing firms. Boot et al., (2008) in their studies found that across all circumstances, the optimal combination of the various forms of derivatives should outperform the use of a single derivative in a business circle. There are various opinions regarding which form of derivative to use. Some firms feel derivative combination techniques are speculative or do not fall in their area of expertise and hence do not venture into the use of derivatives. Other firms are unaware of being exposed to financial instrument risks. There are a set of firms who only use derivatives on some of their risks, while others are aware of the various risks they face, but are unaware of the methods to guard the firm against the risk (Barker & Jeffrey, (2002). There is yet another set of companies who believe firm value cannot be increased by the use of derivatives as shareholders can themselves individually shield themselves against the same risk using the appropriate financial instruments available in the market or diversify such risks out by manipulating their portfolio (Barry, Hirsch & Terry 1993). Thus; accounting for derivatives is an important issue in recent corporate world that cannot be overemphasized.

The four primary kinds of derivatives instruments are options, forwards, swaps, and futures. The users of these instruments are permitted to fulfill the need for efficient protection

against risks caused by the underlying security price changes. That is, those who use derivatives are able to protect themselves against uncertainties in interest and exchange rates, credit worthiness, as well as commodity and equity prices. Clearly, derivative transactions include the transferring of risks from entities that are unable or less willing to manage them to entities that are able or more willing to do so. Derivatives instruments are currently popular amid a large number of both financial and non-financial firms (Meenakshi, 2015).

The history of derivatives shows that it was first instruments developed for insurance of supply of commodities; that facilitates trade and protection of farmers against crop failures (Njorogoet al., 2013). Over time, it starts serving for other purposes which includes; help as a source of funding and method for quick profits (John, 2015). Derivatives are totally different when we compare it to securities because unlike ordinary securities derivative is a financial instrument that mainly used by firms in protecting them from risk and often also helps in arbitrage and investment reason ((Njorogoet al., 2013). Initially, derivatives were first traded in over-the-counter market (OTC) and later derivative exchange also becomes another market for derivative trade (Ismail, 2014). OTC derivatives are generated from an agreement made between buyer and seller. OTC derivatives agreement ranges from highly standardized (which is usually called “exchange look-alike” to tailor-made contracts with an individualized feature about underlying, contract size, maturity and other (Irwin & Sanders, 2012). Unless otherwise as stipulated by the contract between the two parties, derivatives are mostly held until maturity by the original buyer, but some of them changed during their life or cleared before termination.

Currently, there are many types of derivative contracts traded in OTC market as well as exchange markets. Some of these derivative contracts include:

- i. Forwards Derivatives: forwards are contractual agreement between two parties, basically called “counterparties” for a transaction agreed today for a future exchange and it is a bilateral contract exchanged in OTC market (Jin & Jorin, 2006).
- ii. Futures Derivatives: Futures are a standardized and exchange guarantee performance contracts that counterparties agreed upon to buy or to sell a certain commodity or financial instruments at a pre-determined future price and a claims settlement of position daily (Kamenchu, 2013).
- iii. Option: Option is a kind of derivative that gives the holder a right to buy or to sell underlying

assets. This financial security does not obligate the holder to buy or to sell, rather the holder has a right to exercise the option or leave it depend on the underlying asset’s future price, but the issuer is obliged to buy or to sell if the holder wants to exercise his/her right (Jarrow & Turnbull, 2000). Hull (2006) indicates that a major innovation in securities trading took place with the opening of the Chicago Board Options Exchange (CBOE) in April 1973. The CBOE began with call options on 16 heavily traded common stocks and has subsequently evolved into one of the largest exchanges in the world in terms of the value of securities traded. This was the first organized trading of options on an exchange. The American Stock Exchange and the Philadelphia Stock Exchange started trading options in 1975, and the Pacific Stock Exchange introduced option trading in 1976. In 1977, put options became exchange listed and expanded the benefits of options (Ken, 1990).

iv. Swaps: Swap derivatives are like a forward contract which is non-standard and exchanged in the OTC market, and it is a derivative contract that shows an agreement between two parties to exchange financial instruments (Hiren, 2016). These financial instruments can be anything but it usually deals with cash flows.

5. Exotics Exotic is a kind of derivative which is different from the above derivative types and it usually refers those derivatives which are complex, unusual and specific contracts (Hoa & Robert, 2010).

According to Jalilvard (1999) the use of derivatives have a lot of benefits, drawback, and costs associated with it. Many scholars have argued that the use of derivative use has drawback as well as costs besides its benefits. For instance, Enron Corporation, which reported the biggest bankruptcy in American history, was dealing with energy derivative trading (Brown & Toft, 2002). This is due to high speculation and manipulation of price on energy derivative trading which led the company for a loss of 66 billion US dollar. It implies that improper use of derivative leads firms to significant amount of losses that will affect the value of the firm adversely. Also, looking at the case of Berkshire Hathaway which incurred a loss of \$1.1 billion in the second quarter of 2012 and this loss was related to failure of proper uses of derivatives (Berkshire Hathaway, 2012). Therefore, firms expected to give due attention on how and to what extent they have to use derivative in their operation because there are potentials that derivative use lead firms to bankruptcy and higher transaction costs. However, derivatives make

potential risks tradable and contribute to the rise of two main useful applications. First, it eliminates future uncertainty by switching market risks, commonly called hedging. Corporates organizations that engage in manufacturing and financial firms for instance use derivatives in protecting themselves from a change in raw materials price, interest rates, exchange rates, and other market risk (Bessembinder, 1991). That means derivatives serve as insurance to protect from unwanted price movement and reduce the volatility of firm's cash-flow (Njorogo et al., 2013). The reduction in cash-flow volatility enables the firm to make more reliable forecasting, lower capital requirements, higher capital productivity and a higher market value (Belal, Baaquie, Cui, Mitel and Warachka, 2007). According to Njorogo et al., (2013), the second use of derivatives is that of an investment alternative tools to invest in a given assets rather than buying and owning it directly. Additionally, derivatives allow the firm to invest in the underlying asset and risks that a firm cannot purchase the asset directly. A credit derivative that gives compensation could be a good example of the kind of investment as derivative holder receives compensation payment when a creditor defaults (Berrrospite, Parananandam, Amiyatosh&Rajan, 2008)

It has been established that derivatives allow parties to trade a given financial risks like interest risk, currency, equity, commodity price, and credit risk to other party or firm who has a willing to take or manage that risk (Fleming et al., 1999). Moreover, the use of derivatives is not limited by its widening of the investment but also has significance in lowering the cost of investment. For example, Gay and Nam (2013) asserts that the transaction cost of buying derivatives contract that has been incurred on a major European stock index is 60 percent lower than that of the underlying portfolio shares. Besides that, if we compare the cost of obtaining exposure to an asset which is a less liquid-like real estate, we can clearly find significantly higher cost differential between the derivative and the direct investment in the asset itself. Additionally, Graham and Roger, (2002) pointed out the rapid growth of the derivative market as the benefit from the use of its help in risk mitigation and risk transfer have become gradually vital. In line with this, Nigeria is a key region for derivatives that have recently become the main part of African economy drive and financial services sector and have got direct as well as an indirect contribution toward the economic growth of the this nation (Nguyen et al., 2002).

Uses of derivatives

According to Daniel et al., (2017); DeMarzo et al., (1991); Dew et al., (1981) the uses of derivatives are classified into two broad classes which are; risk management or hedging and speculation purposes. Daniel et al.,(2017); DeMarzo et al., (1991) classified participants in derivatives markets as hedgers and speculators. He defined Hedgers as those who join a derivative market to protect themselves from adverse changes in the values of assets or liabilities they hold. Meaning, they enter the market with the expectation that a fall in the value of their asset will be compensated by an increase in the value of the derivative contract. On the contrary, speculators enter the derivative market transaction with the anticipation of gaining from changes in market price or rates or credit events. However, these speculators activities naturally riskier and require close monitoring by financial regulators since the effect might be a savior for the speculators as well as to the market too.

i. Hedging: Hessebiber (2010) asserts that companies are required to take risks if they want to survive and prosper. So, the primary responsibility of risk management (Hedgers) is to understand currently undertaken risk and the risks that the firm plan to take in the future. Also, many of risk management ideas applied to financial firms equally is applicable to non-financial firms as well, hence risk management is becoming more important for all firms in the last decades. Beside that financial firms are mainly dealing with most liquid assets and are at higher risk compared to non-financial firms, so they are required to implement an efficient risk management system. For this reason, Purnanandam (2007) identified a fact that shows financial firms that are users of derivatives are larger than those of non-users. This implies that financial firms' uses derivatives in order to hedge potential risks that they face in their operations. Furthermore hedging as a universal thought in the process of minimizing risks, if not eliminating it, that an investor's exposed to due to his/her construction of portfolio related investments. Applying effective risk management system beneficent financial firms in protecting themselves from different kinds of risks which includes; credit risk, interest rate risk, foreign currency, stock index and commodities. In alleviating these risk factors, derivative contracts like options, forward or future contracts, and swaps are used by financial firms. These contracts allow the holder company to transfer risk that it bears to the counterparty. For example, if a firm has an

outstanding interest-bearing debt and predicts that interest rate moves up, then the firm goes for hedging to protect itself from the future unfavorable move in an interest rate. Usually, hedging is used in minimizing risks of given cash market position, for this Pennings and Meulenberg, (1997) were of the opinion that the importance of future trading lies on effective hedging, and the fluctuation in return explains the risk that the firm bears. A part of deviation of return of the hedged position that a firm can alleviate by hedging is called 'hedge effectiveness' which means a decrease in hedged and un-hedged return discrepancies (Ederington, 1979). Moreover, in hedging the most important point is that identification of this hedging effectiveness with the help of optimal hedging ratio (Meenaskshi, 2015). Basically, for firms to protect themselves from those three major risks they use; foreign currency hedging, interest rate hedging and commodity or product hedging.

(a) Foreign exchange hedging: A global problem faced by businesses is the volatility of individual firm countries' currencies against other global currencies and the intensive global competition in the financial market which has created complication on foreign exchange hedge decision making process and has contributed much toward an increase in uncertainty of the outcome of business performance in the global market (Mello & Parsons, 2003). Undeniably, some countries' economy has proven to be robust to substantial exchange rate fluctuations. Furthermore, this robustness has been strengthened over time, and currently, companies are expert-oriented and have learned to become accustomed to exchange rate fluctuations, which includes the improvement of hedging practices. Additionally, Mello et al., (2003) asserts that the main reason for the rise of foreign exchange risk is the currency difference in a company's assets and liabilities, and a difference in cash flow. So, this risk lasts until the foreign exchange position is settled and the cause for such risk is a foreign currency cash transaction. Those transactions include; foreign exchange trade, foreign currency denominated investments, and investment made in foreign companies (Mefteh, Boubaker & Labegorne, 2012). A study carried out by Lazarus. (1997) on the uses of derivatives by US corporations classified foreign exchange risk management instruments into three generations; first generation includes forward contracts; futures, options, futures-options, warranties. While the second-generation section are swaps while range, compound options, synthetic products and foreign exchange agreements have taken the third-

generation class. Then Miguel and Ara (2011) made a conclusion that the uses of the third-generation risk management tools were less than that of the second generation, and uses of first generation outperform from all the three.

Lo (2008) carried out a study which covered 18 industries with a response from 501 Indian companies, of which 53% of respondents said they are using derivatives in foreign exchange hedging, and the study revealed a wide usage of derivatives in risk management with the intention of reducing volatility of cash flow. On doing this, the study identified that many of the respondents use forward contracts in managing foreign exchange risk. Besides this, Anurag and Nitika (2012) in their study also investigated whether various alternatives exist for Indian corporations to hedge financial risks and the perceptions, fears, and expectations of common investors who invest in currency derivative markets. Their result shows that only 100 respondents who were operating in Punjab state were held for analysis and results. The outcome shows that many of those individual respondents perceived uses of currency derivative trading for hedging.

(b) Interest rate hedging: Uncertainty and deregulation in the financial market led firms to become a prominent user of financial future contracts and as a consequence optimal use of derivative gained attention from many scholars and practitioners (Morgan et al., 1988; Picou, 1981). These scholars have performed an investigation on ways of reducing or eliminating different types of risks through the use of derivatives. Arak and McCurdy (1979) suggested two ways of a protective strategy of a portfolio from interest rate change risks, which are deduction and immunization. Deduction strategy ground on exact cash-flow and immunization ground on the corresponding of firm assets and liabilities with the fluctuation of the interest rate, for this the overall impact of the changes in portfolio value would be minimized thus explain the concept behind hedging interest rate. More specifically, to make immunization effective two elements must be assessed, which are unpredicted shifts of yield curve assumption and its impact on firm value. Therefore, immunization strategy depends on the degree of these two elements' anticipations. Allen and Saratomo (1997) performed hypothetical tests on banks with riskier loans and exposed to higher interest rate risk. He found out that those banks that chose risky loans and deposit rates are related to the aim of achieving higher interest margins. His result shows consistency with the

hypothesis that interest rate margin of the banks shows default in interest rate premium.

(c) Commodity or product hedging: Uncertainty in commodity market led commodity producer to face various risks like production yield, spot market prices, and the financial distress cost. Due to this fact, the significant commodity price fluctuation also has promoted the relevance of derivatives in hedging both products and consumers. Moreover, in relation to derivatives usage in the commodity market, many scholars identified a tremendous increase in commodity futures markets both in size of the market and price since the mid of 2000 scholars such as; Shleifer, Moles and Shin(2010); Steveet al.,(2010) Irwin et al.,(2012). Further, Lo (2004) in his study of hedging and speculation on commodity price concluded that the explanatory power of hedging and speculations is little with regard to the price of commodity future market; further he identified the revers on hedging and speculation position behaviour and said hedging could be well explained by price in commodity future market.

Johanna, Maria and Johanna, (2012) in their study pinpointed that substantial source of risk for manufacturers is the dependency on the key components supply and the demands for their outputs. Brown et al., (2002) also contributed their study in line with this manufacturers' risk by suggesting an exotic hedging structure that does not have market flexibility. On this, the only thing that the value maximiser can do is by applying financial hedging to avoid financial distress costs riskier states this explains the concept of commodity hedging. Therefore, commodity or product hedging helps in securing farmers and manufacturers from a different product (commodity) related risks. The use of hedging in risk management by these firms directly linked to the financial firms as they are major sources of financing for those manufacturing companies as well as farmers. Risks that potentially exist around products of the farmers and manufacturers also affect the performance of financial firms for the reason that those parties might default to settle their loan due to the injury they received from the risk that they have been involved in (Zhang, 2009).

(ii) Speculative or profit making: According to Wetson and Brigham (1992) who explained speculation as a way of betting on market price movement. Ziets (1995) sees speculation as being exposed to price movements in other to make gains. This can exist whenever a given firm or individual has a position in a spot, future, forward,

option, or other asset or liability which bring change in firm's revenue or expenses, or change in loss position due to change in market value (Yen and Lee, 2008) this explains the concept of speculative derivative use. For instance, a speculator who thought the price of coal would go up, want to purchase an option from the coal owning firm to sell it at a higher price. Unlike hedgers seeking to smooth things out, speculators usually show less interest on hedging (Rashid, 2009). Even if speculative transactions are riskier by themselves due to market uncertainty, it provides profit by chance to the speculator. Further, Rangaratan and Surderan (2012) found that speculative hedging strategies enable the hedgers to lower risk aversion, with a longer lasting horizon and positive expected returns.

Beside the benefits discussed above, derivative use has also drawback and costs. As pointed out earlier unless derivative are properly managed they may lead firms to bankruptcy and other unfavorable outcomes. Moreover, Halibegovic and Elvisa (2016) argued that derivatives are redundant assets for that reason derivative is used for building of cloned portfolio. Therefore, firms or individuals who are non-derivative users are considered as the active individuals in this redundancy theory for reasons such as; not having a will to face higher transaction costs, due to a binding contract that leads to portfolio replacement taking place when the underlying price changes and strategy for replication is problematic (Lin, Pantzalis & Park, 2013). For such firms are forced to incur additional cost on hiring specialists to handle those cases.

Value of firms

The value of firm according to Modigliani (1980) is the sum of its debt and equity and this value depends solely on the income streams acquired by the assets of the firm. Thus, firm value is a financial measure indicating the valuation by the market for the entire firm. According to Ross (1976) the value of a firm is the total of claims from all the investors both secured and unsecured creditors and both preferred and common equity holders. While, Shleifer and Vishny (1997) asserts that the value of firm represented by its equity is calculated by multiplying the annual net earnings by share price to earnings ratio.

It is a parameter relating the share price to the earnings. In trying to decide what firms value is in a comprehensive way, the use of this the Modigliani (1980) theory of firms valuation allows one to resolve the issue of differentiating between firms value as a market performance antecedents

and outcomes. Argument by Stuls (1996); Campello, Lin, Ma, and Zou (2011) posit that firm value is a market performance indication in a way to satisfy investors and stakeholders and can be represented by share price, earnings growth and shareholders' wealth maximization as these three aspects complement each other. Firms' value measures a firm's past ability to generate returns to shareholders and market appreciation (Brewer, Milton & Moser, 2000).

According to Boroklovich, Brunarski, Crutchy and Simkims (2004) market value of firms represents the external assessment and expectation of firms' future performance by investors. They further state that market values should have a correlation with historical profitability and growth levels, but also incorporate future expectations of market changes and competitive moves and by doing this firms test how properly they can utilize the assets from its essential business operations to create incomes and increase its value. Firm value measurement is typically utilized as the measure of the general financial health a firm throughout a particular time period (Brown & Toft, 2002). A firm with good valuation ensures that the shareholders are rewarded for their investment and the business is sustained thus, motivates them to bring in additional investment and hence leads to economic and business growth (Charlse&Darne, 2009). Firm value in an efficient market is determined by investors' rationality which takes the view of many investment theories; which the informative theory is the one which these investors are more concerned about as it gives them the relevant information needed for investment decision (Creswell, 2015).

Derivative Accounting and Firms' Value

From the past decade, firms are well aware of derivatives as they are using them in risk management and speculative reasons. For this, firms' financial statements have been showing a gradual change in uses of these derivatives and reporting them with disclosure required by financial reporting regulatory bodies (Graham & Rogers, 2002). The awareness was specially developed since 2008/2009 global crisis, which left its mark on the world economy, and many countries are still straggling from the injury (Danial et al., 2017). After the crises, scholars also have given attention towards investigation of derivatives' role in world economic crisis and devoting much effort in finding ways how it affects firms' value and can be tackled if similar situation exist in the future. On the other view, firms, which stand for profit making objectives, are working

hard to ensure their sustainability by using derivatives (Michael, 2015).

This means that they are involved in a kind of business operation, which makes their stakeholders satisfied from the services provided or products delivered to them in the form of derivative utilization. In return, the firms, investors expect some kind of accountability among others on the use of such high risk financial instruments (Michael, 2015). High utilization of derivative instruments helps the firm in pledging competitive advantages that lead to better performance results, which contributes to the increase in firm value. Firms, which are operating both in financial and non-financial markets, are facing a tougher computation and accounting for this financial instrument (Figlewski, 2017).

According to Meenakshi (2015) the major concern about the use and accounting for derivatives in relation to firm's value, is how much a given firm is worth at the current market pool if the right accounting is done in line with the accepted reporting standard. In achieving this, firms trade cautiously in derivatives and apply innovative products and services to beat the market risk. However, this requires a continuous process and it is also riskier because markets are experiencing fast inflow of newly innovated products and services. With this, derivatives are one of the newly created financial instruments that firms use for many reasons including speculation and risk management (Chui, 2012). According to (Mai, 2008) these two elements have an effect on firm value and many scholars have been researching on them in order to identify the existence of those effects. Scholars who have carried out studies on the importance of derivatives argued for and against its use as they made various findings on the relationship that exist between derivatives and firm value.

Authors such as Halilbegovic and Mekić (2016) say that as derivatives are financial instruments in risk management they contribute to the firm value because effective risk management helps the firm in assuring its future perspectives. This effective risk management also creates better performance achievement, which motivates investors to invest as the prospective of the firm is positive.

Also, Onesmus and Faith (2017) argued that the key purpose of derivatives is management of risk and hedging, which arose as a strong method of segregating or relocating risk, from which we can see the effective function of derivatives. In addition Leland (1998) in his study asserted that the use of derivatives for hedging

would make contribution toward increase in firm's debt capacity, and as borrowing increase it leads to increase in the effect of tax savings and contribute to firm value. On the other hand, Nguyen and Faff (2010) in their study on the impact of derivative on firm value arrived on a conclusion that the use of swap contracts in particular has statistically significant and negative effect on firm value. Even some of the scholars such as Stulz (2004) linked it and argued on the existence of derivatives behind the fall of different large firms like Enron, Queen's banker (Barings) and others.

The increasing propensity of banks to take part in derivative activities is one of the notable developments in the present day financial markets. Also, the financial innovation improvements deregulation and development of the financial markets and banks margins decreases, due to low-quality loan applicants, this motivate the commercial banks to provide advanced services and products to expand their gains (Nasumtia, 2013). According to Pelen (2016) profits from traditional banking activities has been decreasing whilst the competitiveness of markets have been increasing thus forcing banks to utilize derivative activities. Hasan et al., (2017) found out that the improvement of the banks' non-interest earnings was as a result of developing new sorts of financial instruments. As stated in Joseph (2017) other banking service activities such as derivatives, commitments and guarantees are at times the primary revenues sources of the bank.

Commercial banks can avoid taxes or regulatory costs and generate high earnings by participating in derivative markets due to the fact that deposit insurance premiums and reserve requirements are not enforced on off balance sheet activities (John, 2015) Nevertheless, these activities can attract market, credit and operational risks and other risks, which may influence liquidity and solvency of the commercial banks. Conversely, notable increase in commercial banks' derivatives activities might be due to increased credit, interest and foreign exchange rate risk exposures banks encountered in international and domestic markets (Nwaorgu & Iorombagah, 2018). Derivatives provide a means to hedge these risks without needing to make comprehensive adjustments to their statement of financial position. Managing risks by using financial derivatives is less costly and could substitute for expensive capital and give banks the flexibility to achieve their desired risk exposures without changing their original business objectives. However, the use of derivatives also exposes investors to additional risks and to build investors' confidence there's need for proper accounting for

derivatives. Entering a position in derivatives does not need much initial investment, but future cash flows given fluctuation of the underlying assets could be huge due to the high leverage behind the contracts (Johanna et al., 2011). Thus, speculating and inappropriate hedging with derivatives have the potential to cause severe financial losses and even bankruptcy.

2.2 THEORETICAL REVIEW

The signaling theory

Information signaling model developed by (Merton Miller and Kevin Rock 1985) suggest that derivatives trading convey information to individual and institutional investors regarding the firm's future prospects. Indeed when a company listed on the New York Stock Exchange (NYSE) makes pronouncement about its trading on derivatives, the expectations of the public especially speculators tend to rise. This theory refers to the idea that the agents send information to the principal in order to create credible relationship. Managers have more first-hand information about the firm than firm's investors do but they are always reluctant to provide transparent information to the shareholders. So, accounting for derivatives, book value, earnings and share prices of a firm can be used for information purpose and it also act as a signal for the firm's future projection proficiently.

Generally, there are many literatures which focus on relationship of accounting figures and stock valuation. In general the studies regarding this issue can be classified into event studies and regression studies. Event studies focus on the investors' reaction on events and regression studies which focus on accounting figure and their explanatory power on the market measure of value as used by (Filip & Raffournier, 2010). Regression study is spitted into returns and price model. The price model investigates the impact of derivatives accounting on the market valuation of firms, rather than return on investment; furthermore, a price model examines the effect of not only derivatives on share prices but also on market performance. While the return model assumes that accounting for derivatives have information linked to future cash flow and return on investment.

2.3 EMPIRICAL REVIEW

Pierce (2020) examined determinants of hedge accounting use and the effects of hedge accounting on financial reporting and capital markets. Using European FAS 161 disclosures, he found variation in firms' hedge accounting use and provide evidence that compliance costs of applying

hedge accounting affect firms' decision to use hedge accounting. Firms decrease their reported earnings volatility via derivatives that receive hedge accounting and could further decrease their earnings volatility if hedge accounting were applied to all their derivatives. Inconsistent with arguments given for using hedge accounting, the study fail to find a decrease in investors' assessments of firm risk from using hedge accounting.

Jerome and Hang (2020) presents a quantitative review of the empirical literature analyzing the firm value effects of corporate financial hedging. Using meta-regression analysis to accumulate a hand-collected data set of 1016 estimates for the hedging premium reported in 71 previous studies, they found that the reported firm value effects of hedging are systematically higher for foreign exchange hedgers as compared to interest rate and commodity price hedgers. Their results also suggest that hedging premiums increase significantly when a study also considers operational hedging strategies in addition to financial hedging.

González, Santomil and Herrera (2020) evaluates the effect of enterprise risk management (ERM) on the performance and the financial stability of a sample of non-financial Spanish listed companies. The information about ERM is taken from the annual reports, management reports and annual corporate governance reports disseminated over four years (2012–2015). The data on performance and financial stability have been obtained through the SABI (Iberian Balance Sheet Analysis System) and Morningstar Direct. The results obtained show that the adoption of ERM is not associated with a change in the performance of Spanish companies (measured through the return on equity, return on assets and Tobin's Q) nor does it reduce the probability of bankruptcy. Having a chief risk officer (CRO) can actually reduce performance, although it can improve the degree of financial health measured as the distance to default. Regarding the relationship between the hedging of risks on the profitability and the level of risk, we find evidence of improvement through the hedging of exchange risk.

Phana, Dang, Nguyena, Ngo and Hoang (2020) consider 77 Vietnam industry listed enterprises from 2012 to 2018 as research samples to establish indicators for evaluating the relationship between enterprise risk management (ERM) and firm value among industry enterprises in Vietnam. Using simple regression, their results show that the implementation of ERM in the previous year has strong positive relationship with firm value. These findings support the recent

pressure on businesses to adopt more comprehensive risk management systems like the use of derivatives.

Nwaorgu, Ezenwanka and Okpalukeje (2019) explores the relationship between accounting derivatives and its value to the information provided in companies financial statements among listed banks in Nigeria. They employed a panel data set spanning through the period of 2012 and 2016. Using ordinary least square regression technique they found that derivative assets have no significant relationship with value relevance among listed commercial banks in Nigeria. Further investigation reveals that the variable of earnings per share and book value per share significantly enhances value relevance of quoted banks in Nigeria but book value per share was observed to be insignificantly related to value relevance.

Ekadjaja and Ekadjaja (2019) seek to examine the relationship between variables (derivatives) that can increase company value. Using a population of all companies listed in the Sharia Stock Index on the Indonesia Stock Exchange in 2014-2016. Multiple linear regression analysis is used to test the hypothesis. The result of the test showed that the Return on Asset and firm size variables have a significant positive effect on the firm value of derivative users. While capital expenditure and dividend yield showed that there is no significant effect on firm value and the leverage variable showed a significant negative effect on firm value.

Chua, Phua and Lok (2018) examined the effect of financial derivatives, director remuneration and board independence on earnings volatility. By using the top 100 non-financial listed companies in Malaysia, multiple regression analysis was conducted on the research model. The results exhibit that 54% of the top 100 Malaysian listed companies use derivatives. While, out of the top 100 listed companies, around 46 companies or 46% of firms are not using derivatives instrument. This shows that the usage of derivatives in Malaysia is not very common. In addition, the results show that the usage of derivatives is negatively related to earnings volatility while the directors' remuneration and board independence have no significant relationship with earnings volatility. The findings provide empirical evidence that the usage of derivatives can mitigate earnings volatility.

Hassan, Michael and Mena (2018) explored International Accounting Standards IFRS 7 to investigate the usage and motivation of hedging by non-financial Australian firms.

they examined the usage of derivative instruments in relation to features such as firm size, the firm's return on equity, leverage, and growth characteristics using a panel data logistic regression model. The results of our panel data logistic regression indicate that the use of hedging instruments in Australia is influenced positively by the firm's gearing ratio and negatively by its propensity to growth.

Affaf, Sajid, Hamera and Aamer (2018) examined the determinant of hedging; the role of ownership concentration in risk management using derivative instruments by using a sample data of 101 non-financial firms listed on the Pakistan Stock Exchange (PSX) for six years, ranging from 2010–2016. The Mann-Whitney test for difference in users and no-users is applied along with logistic regression to check the effect of ownership concentration on derivative usage. The finding of the study reveals that concentrated owners are less likely to use derivatives for hedging purposes due to concentrated owners' interests (top five shareholders & largest shareholder, family owners). Whereas executives are more likely to engage in the use of derivatives to increase the value of their stocks. However, associated companies are significantly less involved in hedging activities. These results are extremely advantageous for policymakers in corporations to create a more stable corporate environment.

III. METHODOLOGY

3.1 RESEARCH DESIGN

The study made use of the ex-post facto design. The ex-post facto design is a non-experimental research technique in which pre-existing data are compared on some variables (Akpa, & Angahar, 1999). The sample size of the study is determined using a judgmental sampling technique. According to Akpa et al., (1999) a judgmental/purposive sampling technique involves using certain predetermined criteria in selected a number of samples from the population to be examined during a course of research. Thus, the sample size of this study is based on the following criteria;

- i. The deposit money banks used must be listed on the Nigerian stock exchange market as at the period of the investigation and must also be operational during the relevant period (2015-2021).
- ii. Each listed deposit money bank must also have complete published financial statement covering the period under investigation (2015 to 2021).
- iii. Each listed deposit money bank used must also

have complete data covering derivative asset and liability reported in line with IFRS 9 for the period under investigation (2015 to 2021).

- iv. Each listed deposit money bank used must report its financial statement using the Nigerian Naira as its reporting currency.

After considering the above criteria, the following 10 banks are selected for the study; Access bank PLC, First bank PLC, FCMB PLC, Fidelity bank PLC, Guarantee Trust Bank PLC, Sterling bank PLC, Stanbic IBTC bank PLC, United Bank for Africa, Union Bank and Zenith bank PLC.

Data for this study is obtained from secondary sources.

Data on Derivative asset, Derivative liability, Earnings, and Share price were all collected from 2015-2021. These data were obtained through the annual reports of the sampled banks. The study also gathered useful secondary data through internet as well as the use of publications and reports of their financial statement through the website of the Nigerian Stock Exchange Market.

Multiple panel regression technique using ordinary least square regression (OLS) and the Vector Error Correction Model are carried out to test for the effect of derivative asset and liability on the value of listed deposit money banks in Nigeria.

$$EPS_{it} = \beta_{0it} + \beta_1 DA_{it} + \beta_2 DL_{it} + FS_{it} + LIQ_{it} + \mu_{it} \quad 1$$

$$SHP_{it} = \beta_{0it} + \beta_1 DA_{it} + \beta_2 DL_{it} + FS_{it} + LIQ_{it} + \mu_{it} \quad 2$$

Where:

EPS = Earnings per share (The reported earnings per share of the firm at a time)

SHP = Share Price (The reported share price of the firm at a time)

DA = Derivative Asset (The log of total derivative asset of the firm at a time)

DL = Derivative Liability (The log of total derivative liability of the firm at a time)

B₀ = constant (intercept) term

B₁ and B₂ = coefficient parameters

i = i_{th} cross-sectional unit

t = t_{th} time period

μ_{it} = error term

Decision rule: Accept the null hypothesis if the calculated probability value of significance is greater than 0.05

IV. RESULTS AND DISCUSSIONS

Regression of the Estimated Model Summary Effect of derivative accounting (derivative assets & derivative liability) on earnings per share of listed deposit money banks in Nigeria.

Table 1: Model Summary 1

Correlated Random Effects - Hausman Test				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random		1.496973	3	0.6830*
Period random		2.798427	3	0.4238
Cross-section and period random		4.859811	3	0.1824**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.593801	2.543049	-3.379330	0.0012
LOGDA	0.043839	0.033433	1.311245	0.1943
LOGDL	-0.060263	0.037750	-1.596365	0.1152
FS	1.139889	0.273843	4.162565	0.0001

R-squared	0.241022			
Adjusted R-squared	0.199114			
F-statistic	6.692250	Durbin-Watson stat		1.876212
Prob(F-statistic)	0.000494			

Source: E-View Output Appendix II

Table 1, presents the regression result between LOGDA, LOGDL and LOGEPS, controlled by FS. From the model summary table above, the following information can be distilled.

To enable the study chose between the fixed effect model and the random effect model, a Hausman Test is conduct with the comparable results placed in the appendix ii at the end of the work. The result of the Hausman correlation test above shows a period random probability value of 0.4238 with a Chi-square statistic of 2.798427 which is not significant thus informs the study decision to choose the random effect model in other to capture firms specific characteristic not included in this study that might cause variations in the model specified.

The R^2 which measure the level of variation of the dependent variable caused by the independent variables stood at 0.241022. The R^2 otherwise known as the coefficient of determination shows the percentage of the total variation of the dependent variable (LOGEPS) that can be explained by the independent or explanatory variables (LOGDA & LOGDL). Thus the R^2 value of approximately 0.24 indicates that 24% of the variation in the LOGEPS of listed deposit money banks can be explained by a variation in the derivative assets and derivative liability while the remaining 76% (i.e. $100-R^2$) could be accounted by

other variables not included in this model like the credit policies of the banks and general foreign exchange rates as well as interest rates.

The adjusted R^2 of approximately 0.18 indicates that if other factors are considered in the model, this result will deviate from it by only 0.03 (i.e. 0.23 – 0.20). This result shows that there will be a further deviation of the variation caused by the independent factors to be included by 5%.

The regression result as presented in table 4.4 above to determine the relationship between LOGDA, LOGDL and LOGEPS shows that when all the independent variables are held stationary; the LOGEPS variable is estimated at -8.53801. This simply implies that when all independent variables are held constant, there will be a decrease in the earnings per share of listed deposit money banks up to the tune of 8.593801 units occasioned by factors not incorporated in this study. Thus, a unit increase in LOGDA will lead to an increase in LOGEPS by 4.4%. Also, a unit increase in LOGDL will lead to a decrease in LOGEPS by 6%.

Finally, the result shows that there is a significant variation of Fisher's statistics (6.692250) at 0.000494 which means the model as a whole is statistically significant at an autocorrelation level of 1.87 (Durbin-Watson), which is approximately 2.

Effect of derivative accounting (derivative assets & derivative liability) on share price of listed deposit money banks in Nigeria.

Table 4.2: Error Correction Model Table 2

Long run equilibrium	Coefficient	Short run equilibrium	Coefficient
LOGSHP (-1)	1.0000	LOGSHP (-1)	0.107027
LOGDA (-1)	-0.933034	LOGDA (-1)	-0.012113
LOGDL (-1)	0.008317	LOGDL (-1)	0.005884
FS (-1)	1.687727	FS (-1)	-0.002011
Const	-0.008803		

Source: E_View Output Appendix II

Table 2 above present result of the Vector Error Correction Model (VECM) for LOGSHP and both LOGDA & LOGDL controlled by FS to test for long run and short run shocks correction as a result of non cointegration of the data set in model 2 above. The various coefficient values of the short run equilibrium is compared against the long run equilibrium to ascertain the level of bounce backs in addressing non long run cointegration issues of the model.

After differencing, the adjustment coefficient (Const) value of -0.008803 shows that,

the previous period deviation from long run equilibrium is corrected in the short run at an adjustment increased speed of 0.008803. For LOGDA coefficient, a unit change in LOGDA is associated with a 0.01213 unit decrease in LOGSHP in the short run Ceteris Paribus against the long run coefficient of -0.933034. For LOGDL coefficient, a unit change in LOGDL is associated with a 0.005884 unit increase in LOGSHP in the short run Ceteris Paribus against the long run coefficient of 0.008317.

Table 3: Panel Error Correction Model Regression for Model 2

VAR Variable	Coefficient	Probability	Statistic	Value
LOGSHP (C2)	0.107027	0.5596	R ²	0.077744
LOGDA (C3)	-0.012113	0.1575	R ² Adjusted	-0.027058
LOGDL (C4)	0.005884	0.5629	Fisher Statistic	0.741820
FS (C5)	-0.002011	0.9934	F Probability	0.596335
Constant (C6)	-0.000228	0.9867	DW	1.245184

Source: E_View Output Appendix II

To ensure that the set of data was free from serial auto-correlation, the Durbin Watson statistic for the model specified was computed. The Durbin Watson statistics for the model specified is estimated at 1.245184. The Durbin Watson statistics for this series data is below the standard of 2 indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the problem of auto-correlation. Gujarati and Sangeetha (2007) explained that the value for Durbin Watson should not be above the standard of 2. Thus, this model exhibit low risk of potential autocorrelation problem as the model shows a DW statistics below 2.

For model fitness, the R² value is used to establish the level of overall fluctuation the study independent variables (LOGDA & LOGDL) can collectively cause LOGSHP as the dependent variable to change. The R square value of 0.0777 shows that LOGDA and LOGDL cause LOGSHP to fluctuate at approximately 8%; this means that

92% fluctuation of the banks share price is caused by other factors not considered in this study like; credit policies of the banks and interest rate fluctuations. The R² adjusted value of approximately -0.027 revealed shows that, there will be a 0.050 (0.077 – 0.027) variation from the sampled result of R square if the other omitted factors are considered. This means that if credit policies and interest rate fluctuations come to play, there will be either 5% increase or decrease in the level of fluctuation LOGDA and LOGDL can cause LOGSHP to change. The Fisher statistic reveal a value of 0.741820 with a probability value of 0.596335 prove that the overall model is statistically insignificant.

The constant value of -0.000228 revealed that, if all the independent variables are held constant; the LOGSHP of the banks will decrease by 0.000228. Furthermore, a unit change in LOGDA will cause LOGSHP to decrease by -0.012113 while a unit change in LOGDL will cause LOGSHP to increase by 0.005884.

4.3 Discussion of Result

For the first model specified objective is set to ascertain the effect of derivative asset and derivative liability on earnings per share of listed deposit money banks in Nigeria. The result reveals that both derivative assets and derivative liability have no significant effect on earnings per share of listed deposit money banks in Nigeria. This result is in line with the findings of Chua, Phua and Lok (2018) who examined the effect of financial derivatives, director remuneration and board independence on earnings volatility in Malaysia by using the top 100 non-financial listed companies in Malaysia. They employed the use of multiple regression analysis. Their results exhibit that 54% of the top 100 Malaysian listed companies use derivatives. While, out of the top 100 listed companies, around 46 companies or 46% of firms are not using derivatives instrument. This shows that the usage of derivatives in Malaysia is not very common. In addition, the results show that the usage of derivatives is negatively related to earnings volatility. On the other hand, the result contradicts the findings of Talat and Atai (2016) who examined the relationship between Foreign Currency Derivative (FCD) instruments and firm value by using the data of 181 Pakistani nonfinancial firms for the period 2004-2010. They employed a simple linear regression model and some controlling firm specific variables. Their empirical findings support value increasing effects of usage and extent of such derivative usage. Detailed analysis indicates that corporations with exchange rate exposure, measured by Foreign Sales, can enhance their firm value by using FCD instruments. The findings remain same for alternative specifications like endogeneity and self-selection problem, that use of FCD instruments gives value premium effects on Pakistani firms.

For the second model specified objective is set to ascertain the effect of derivative asset and derivative liability on share price of listed deposit money banks in Nigeria. The result reveals that both derivative asset and derivative liability have no significant effect on share price of listed deposit money banks in Nigeria. This result contradicts the findings of Affaf, Sajid, Hamera and Aamer (2018) who examined the determinant of hedging; the role of ownership concentration in risk management using derivative instruments by using a sample data of 101 non-financial firms listed on the Pakistan Stock Exchange (PSX) for six years, ranging from 2010–2016. They employed the use of Mann-Whitney test for difference in users and no-users, applied along with logistic regression to check the effect of ownership concentration on derivative

usage. The finding of the study reveals that concentrated owners are less likely to use derivatives for hedging purposes due to concentrated owners' interests, whereas, executives are more likely to engage in the use of derivatives to increase the value of their shares prices.

V. CONCLUSION AND RECOMMENDATION

CONCLUSIONS

Based on the findings of this study from the test of the three research hypotheses earlier formulated in the study, the researcher has therefore come to the following conclusions outlined in respect to each hypothesis:

- i. Derivative asset has a positive insignificant effect on earnings per share of listed deposit money banks in Nigeria. While, derivative liability has a negative insignificant effect on earnings per share of listed deposit money banks in Nigeria.
- ii. Derivative asset has a negative insignificant effect on share price of listed deposit money banks in Nigeria. While, derivative liability has a positive insignificant effect on share price of listed deposit money banks in Nigeria.

RECOMMENDATIONS

In consonance with this study's findings, the following recommendations become imperative:

- i. More funds should be committed to the use of derivatives for hedging against interest rate fluctuations that possibly affects the earnings of the banks. Result has shown that the amount of derivative assets and derivative liability used by the banks have no effect on shielding the earnings of the bank against interest rate on investment in loans, thus, the banks should give more forward contracts that are probable to be derive more earnings to the banks.
- ii. Also, the information disclosure about the use of derivatives by the listed banks is not enough to attract investors, since investors in the banking sector are often sceptical about the volatility of bank investment due to interest rate and foreign exchange fluctuation. If the banks improve on accounting for derivative by fully adopting the prescription made by IFRS 7 and 9, this will give confidence to intending investors that the banks can adequately hedge against volatility risk thus will improve the demand for the banks shares which will in turn be reflected in the prices of the shares.

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