

FINANCIAL SERVICES SECTOR RISKS MANAGEMENT: THE DERIVATIVES OPTION

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Abstract: *The paper examines risk associated with financial services sector (FSS) and suitability of derivatives to manage these risks in Nigeria. Derivatives enable firms to hedge against systemic and non-systemic risks. The main types of derivatives are: forwards, futures, options and swaps. To develop derivatives market in Nigeria, the Central Bank of Nigeria (CBN) issued guidelines for foreign exchange derivatives in the Nigerian on 22 March 2011. Using CBN publications and the literature, the study concludes that derivatives products are suitable for managing FSS risk exposures; derivatives provide massive economic benefits, if properly engaged; and, development of derivatives market in Nigeria is necessary to enhance liquidity and mobilise the required capital for economy growth. The study is imperative in two major ways: first, it facilitates the understanding of derivatives market, products and participants; and second, it advocates the development of derivatives market and the use of derivatives to manage FSS risks. The study contributes to knowledge, as no study has been conducted on the use of derivatives in Nigeria FSS.*

Keywords: *Risk, Risk management, Derivatives, Financial services sector, Systematic risks, unsystematic risks, Nigeria.*

I. INTRODUCTION

Risk is at the centre of economic activity. The financial market is broader, encompassing bonds, foreign exchange, real estate, commodities and numerous other assets classes and financial instruments. A developed financial market promotes economy and institutional stability. Likewise, a healthy financial system facilitates economic growth and development. An economy that experience sustainable growth is likely an active financial sector and high incentives for investment. Moreover, a healthy financial system provides effective structural linkages necessary for economic growth. Hence, there is greater responsibility on the financial sector of an economy to mobilise the required capital to generate employment and income (Sutton and Jenkins, 2007; Kasekende *et al.*, 2009; Dalis, 2010). FSS is an important part of a country financial system; and derivative market is a segment of the financial market. Following the recent global financial crisis, the derivatives market has attracted more attention. Although the financial crisis is caused by structured credit-linked securities that are not derivatives, but there is need for countries to maintain a functional and virile derivatives markets. Consequently, governments and regulators all over the world are working to strengthening regulations in order to increase transparency and safety both for derivatives and other financial instruments.

The use of derivatives in developing countries, including Nigeria, is not yet as widespread as in developed economies. The developed countries have used financial derivatives to share risks among financial institutions; thereby reduced the impact of financial crisis significantly. Specifically, derivatives are not understood or traded anywhere in Africa, except South Africa, and marginally Ghana (Global Analytics, 2012). To develop derivative markets in Nigeria, the CBN issued the guidelines for foreign exchange derivatives in Nigeria on 22 March 2011 (CBN, 2011). CBN is responsible for regulating and developing the Nigerian financial markets and assuring the stability of the nation's financial system. Derivatives provides firms the opportunity to hedge (insure) against systemic and non-systemic risks. Consequently, a thorough understanding of derivatives market, products and participants is necessary. The questions to be addressed in the paper include:

- a) What is derivative?
- b) Who are the participants in the derivatives market?
- c) How does derivatives market operate?
- d) What are the use, and benefits of derivatives?
- e) Can financial derivatives be used to manage risks associated with FSS activity?

f) Does Nigeria need to develop its derivatives market?

The paper is organised into eight sections. Section one introduces the study and states the research questions to be addressed. Section two highlights scope, objectives and significance of study. Section three states the methodology, and section four establishes the study theoretical framework. Section five identifies and explains risks associated with FSS activity. Section six provides an overview of derivatives market, products and participants in derivative markets. The section discusses the meaning of derivatives; the use of derivatives; underlying assets in a derivative contract; the derivative markets participants; classification and types of derivatives; factors that contribute to rapid growth of derivative markets; and potential benefits of derivatives for Nigeria economy. Finally, section seven highlights conclusions and recommendations.

II. SCOPE, OBJECTIVES AND SIGNIFICANCE OF STUDY

The paper examines management of FSS risk exposures through derivatives in Nigeria. Specifically, objectives of the study include:

- a) To identify and explain risks associated with FSS operations;
- b) To examine the meaning of derivatives;
- c) To highlight the underlying assets in a derivative contract;
- d) To identify classes of derivatives and derivative market participants;
- e) To explore commodity derivatives and financial derivatives;
- f) To identify factors that contribute to the rapid growth of derivative markets; and
- g) To outline the potential benefits of derivatives for Nigeria economy.

Derivatives are forms of risk management tools. Little research has been done on the subject in developing countries, including Nigeria. Specifically, no study has been conducted on management of FSS risk exposures with derivatives in Nigeria. Moreover, there is low level of aware of derivative products in Nigeria. Beside high transaction costs and volatile market conditions, financial services firms in Nigeria are reluctant to use derivatives due to the lack of awareness about derivatives products and their benefits. The study intends to fill this gap and contribute to knowledge on the benefit and adoption of derivatives to manage risks associated with Nigerian FSS. Considering the benefits of derivatives to the economy; the study is imperative to facilitate adequate understanding of derivatives market, its products and participants.

III. METHODOLOGY

The study is done mainly by collecting and analysing secondary data. The main sources of these data are website and publications of the CBN. In addition, relevant literature is reviewed to obtain knowledge working procedure of the study. Essentially, the adoption of secondary data for the study is reasonable as there is little or no data on derivatives in Nigeria because the nation's derivative market is relatively new and passive.

IV. THEORETICAL FRAMEWORK

The services sector is a dynamic sector in most economics (Oyejide and Bankole, 2001). The service sector is distinct from other sectors because it offers intangible services; but the other sectors, like manufacturing, offer tangible products. The economic importance of services sector cannot be over-emphasised, because the sector provides auxiliary services to other sectors of the economy. Moreover, substantial parts of the sector's services are highly tradable; thus, nations are increasing becoming significant exporters of services (Bankole and Oyejide, 2005; Steuart and Cassim, 2005). FSS is an integral part of the services sector. Financial services encompass financial intermediation offered by financial services firms including: investment firms, leasing enterprises, credit institutions, insurance and pension funding firms and other auxiliary services such as the financial markets administration, security broking, and fund management. The financial sector generally refers to the wholesale, retail, formal and informal institutions in an economy offering financial services to consumers, businesses and other financial institutions (DFID, 2004). This implies that financial services firms include banks, stock exchanges, insurers, credit unions, microfinance institutions, and money lenders. Financial services are fundamental to economic growth and development. The expansion of financial services that can be accessed by the public can increase income growth; thereby, reducing the direct impact of poverty (Jalilian and

Kirkpatrick, 2001; DFID, 2004). FSS has witness significant changes over the last few decades. The changes are due to the interplay of some factors including: financial sector reform, technological development, consolidation, internationalisation of financial services, changing roles of financial services providers, and competition and outsourcing (WTO, 2012). Financial services firms operate in dynamic, complex, competitive and global markets. Consequently, the risks associated with FSS operations should be effectively managed. Risks associated with financial services operations can be effectively managed through derivatives. Moreover, derivatives are an integral part of the corporate risk management system among the world’s leading companies (Yilmaz and Kurun, 2011).

V. FINANCIAL SERVICES SECTOR RISK EXPOSURES

Risk is the extent to which an assets or investment portfolio deviates from its expected value, and probability of that deviation. Basically, there are two types of risks associated with the FSS operations: systematic risk and unsystematic risk (Kannan and Thangavel, 2008; Rowe and Kim, 2010; Iqbal and Shah, 2011). These risks, as illustrated in figure 1, are examined below.

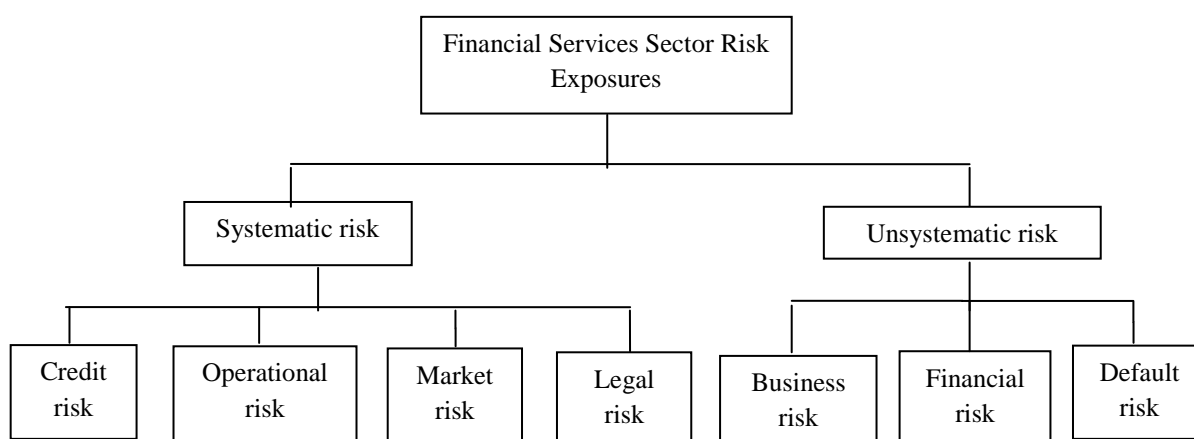


Figure 1: Financial Services Sector Risk Exposures

1 Systematic Risks

Systematic risks are risks associated with the overall market or the economy. These risks, sometimes identified as uncontrollable or unavoidable risks, are outside the control of firms operating in the market. Financial services firms must monitor systematic risks for four main reasons: one, they can impact on cost of capital and traded value of firms (Iqbal and Shah, 2011); two, they are prominent factors in measuring risk associated with financial decision-making; three, they are inherent in the market within which firms operate (Zou *et al.*, 2003); and, they vary from one firm to another (Rowe and Kim, 2010). According to Iqbal and Shah (2011), systematic risk cannot be eliminated by applying diversification technique. However, Al-Tamimi and Al-Mazrooei (2007) argue that some systematic risk can be reduced through the use of risk mitigation and transmission techniques. Financial services firms, among others, are exposed to several systematic risks, including: credit risk, operational risk, market risk, and legal or regulatory risk. These risks are described below.

1.1.1 Credit Risks

Credit risks are potential losses resulting from uncertainty in counterparty’s (borrower) ability or willingness to meet its contractual obligations (Kannan and Thangavel, 2008; Apostolik *et al.*, 2009). Such events are associated with risks of not receiving payments owed by debtors. For example, credit risks occur when customers’ fail to pay for goods or services supplied on credit. Financial services firms are exposed to credit risk; particularly where both short-term and long-term lending are essential (Michael, 2008).

1.1.2 Operational Risks

Operational risks are potential losses resulting from inadequate or failed process, people and system or from external events (BIS 2004). Operational risk is concerned with the uncertainty inherent in the execution of firms' activity in order to fulfil their goals and objectives (Raz and Hillson, 2005). Financial services firms are exposed to operational risks, as they can incur losses due to internal system failures, mechanical problems (e.g. machines malfunctioning) or human errors (e.g. poor allocation or mismanagement of resources).

1.1.3 Market Risks

Market risks are potential losses associated with changes in market conditions and underlying economic factors, such as fluctuation in interest rates, exchange rates, equity and commodity prices (Kanwar, 2005; Skipper and Kwon, 2007; Apostolik *et al.*, 2009). Market risk is the financial risk of uncertainty in the future market value of assets and liabilities. Market risk is associated with FSS operations because financial services firms operate in a market that is mainly concerned with financial exposure or uncertainty. Consequently, derivatives are suitable for managing market risks associated with financial services firms operations.

1.1.4 Legal or Regulatory Risks

Legal or regulatory risk is the possibility of loss resulting from a firm's and its representatives (contractors or employees) failure to meet their statutory and/or contractual obligations (Triantis, 2000; Kannan and Thangavel, 2008; Collard and Roquilly, 2011). Financial services firms are exposed to legal or regulatory risk because their operations are subject to laws and regulations. For example, new regulations could introduce profitable opportunities for some firms, but could also impose significant costs on some firms. Change in political landscape could lead to expropriation of property and other claims in a foreign country. Changes in tax regime may also alter the after-tax profitability of many firms.

2 Unsystematic risks

Unsystematic risks are related to a specific asset or firm. Unsystematic risks are potential losses attributable to firm-specific events fuelled by factors specific to an industry or a firm; for example research and development, marketing strategy, pricing, and labour union (Gu and Kim, 2003; Rowe and Kim, 2010). Unsystematic risk is also known as diversifiable or controllable risk because it can be removed or reduced by applying diversification techniques (Zou *et al.*, 2003; Iqbal and Shah, 2011). Financial services firms, among others, are exposed to the several unsystematic risks, including: business risk, financial risk, and default or performance risk. These risks are described below.

2.1 Business Risks

Business risk, sometimes referred to as operating risk, is risk associated with the market or industry within which a firm operates (Zou *et al.*, 2003; Raz and Hillson, 2005; Kannan and Thangavel, 2008). Business risk is fundamental to a firm, as it is inherent in the firm's operations (Falemi and Luft, 2002). Ordinarily, financial services firms assume business risks to exploit a competitive advantage in their operations. Assumption of business risk by a firm is inevitable because it is impossible to create a business without taking risks (Boulton *et al.*, 2000). Moreover, business grows through greater risk taking (Drucker, 1977); and getting rid of risk undermines the sources of value creation and potential opportunities (Knight and Petty, 2001; Graziano and Aggarwal, 2005; Garvan, 2007). In a broader sense, the inability of company managers to effectively manage business risk can result to financial distress or insolvency (Doherty, 2000; Zou *et al.*, 2003).

2.2 Financial Risks

Financial risk entails a firm's ability to secure the funding it requires; for example, access to sufficient credit from its bank. Financial risks are inherent in financial services firms operations (Triantis, 2000). According to Falemi and Luft (2002), financial risk arises from adverse changes over relatively shorter term horizons in interest rates, commodity process, equity prices and foreign currency value. Financial risk is directly linked with liquidity risk and cash flow risk. Liquidity risk relates to its ability to fulfil its financial commitments; whilst cash flow risk relates to the volatility of the firm's operating cash flow (Michael, 2008; Woods and Dowd, 2009). Financial derivatives are highly suitable for managing FSS financial risks.

2.3 Default or Performance Risks

Default or performance risk is a potential loss resulting from failure to discharge a contractual obligation, to properly monitor employees or to adopt appropriate procedures to execute a task. As financial services firms increasingly enter into long-term contracts (with suppliers, buyers and subcontractors) they assume performance risk (Triantis, 2000). For example, buyers may breach their contracts to purchase pre-specified quantities of a product; subcontractors may delay delivery of key components or may compromise on quality of deliverables; and financial counterparties may default on their obligations. In addition, the outcome of the judicial process and the ability to collect damages from the breaching party may be highly uncertain (Triantis, 2000).

VI. DERIVATIVES MARKET, PRODUCTS AND PARTICIPANTS

Having highlighted risks associated with FSS operations; derivatives market and characteristics of the market are examined in this section.

1 Meaning of Derivatives

Derivatives refer to a broad class of financial instruments which derive their value from the value of an underlying asset or market variable (Triantis, 2000; Kapitsinas, 2008; Micheal, 2008; Vashishtha and Kumar, 2010). They do not have worth of their own, but derive their value from the claim they give to their owners to own some other financial assets or security. Derivatives are financial instruments used in hedging. Derivatives are just one form of hedging instruments which comes in form of contracts or agreements between two parties. The basic meaning of derivatives is to derive something from something else. A simple example of derivative is butter, which is a derivative of milk. The price of butter depends upon the price of milk, which also depends upon the demand and supply of milk. Size is an important factor influencing the decision of firms to use derivatives (Nauce *et al.*, 1993; Hanshalter, 2000; Purnanandam, 2005). Hence, the huge initial cost of establishing a derivative position can discourage small firms from using them (Kapitsinas, 2008). Nevertheless, derivatives are highly suitable managing risks associated with the FSS operations, if appropriately employed.

2 The Use of Derivatives

Derivatives are good risk management tools. Derivatives can be used for hedging, speculating and arbitrage purposes. With a hedge, an investor can protect himself against risk he is routinely exposed to. Since there are two parties to a derivative deal, a speculator needs to find someone who holds the opposite view or would like to transfer a particular risk. Hedging provides an investor the option of passing on some of the risk that he bears to another party. He either takes on another risk in return or makes cash payment in exchange for the risk transfer. Risks that can be hedged with derivatives include movements in market variables, such as exchange and interest rate, share and commodity prices. Derivatives can also be useful for speculating movement of market variables. Speculators add liquidity to the market by taking a view on the direction of the movement; consequently, what is often called taking a bet can be called taking a risk.

Derivatives can also be used for arbitrage, to make arbitrage profits. Arbitrage profit provides risk-free, zero net investment profits, opportunities by capitalising on price differentials on the same commodity in different markets. Arbitrage profit accrues from differential profit emanating from the intention to buy low and sell high in two different markets. Derivatives allow for large portfolio position changes without incurring the buying and selling transaction costs. Derivatives can be combined to replicate other financial instruments, thus they can be used to connect markets by eliminating pricing inefficiencies between markets. Derivatives are suitable for managing risks associated with FSS operations, because the primary aims of financial derivatives are to enhance profitability and mitigate risks.

3 Underlying Asset in a Derivative Contract

While forwards, futures, options and swaps can be viewed as the mechanics of derivation, the value of these contracts (derivative instruments) depends upon the prices of the underlying assets. The underlying asset in a derivatives contract may assume many forms, such as: commodities including orange juice, coffee beans,

grain; precious metals, e.g. gold and silver; foreign exchange rates or currencies; bonds of different types, including medium to long term negotiable debt securities issued by governments, companies, etc; short term securities such as Treasury bills (T-bills); shares and share warrants of companies traded on recognised stock exchanges and Stock Index; and Over-the-Counter (OTC)¹ money market products such as loans or deposits (Kapitshinas, 2008; Triantis, 2000; Vashishtha and Kumar, 2010). Depending on the type of underlying, the values of the derivative contracts can be derived from the corresponding equity prices, interest rates, exchange rates, commodity prices and probabilities of certain credit events. In view of the advancement of financial innovation, the variety of derivatives products (commodities) have increased significantly (Anderson and McKay, 2008).

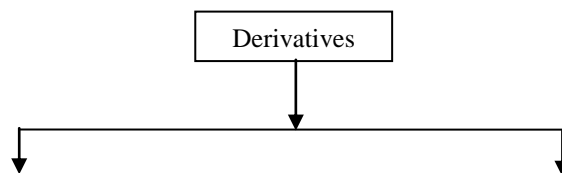
4 Derivatives Market Participants

Basically, derivatives can be used for hedging, speculating and arbitrage purposes. There are three main participants in derivatives market: hedgers, speculators, and arbitrageurs (Debasish, 2010; Vashishtha and Kumar, 2010).

1. Hedgers: are those who counterbalance one transaction against another to protect against loss. They use the derivatives markets to reduce or eliminate the risk associated with price of an asset. Majority of the participants in derivatives market belongs to this category.
2. Speculators: are risk-takers which assume risk of losses for the possibility of considerable gains. They transact 'futures' and 'options' contracts to secure extra leverage in betting on future movements in the price of an asset. They can increase both the potential gains and potential losses by usage of derivatives in a speculative venture.
3. Arbitrageurs: engage in arbitrage by purchasing securities in one market for immediate resale in another market with an intention to profit from the price difference. Their behaviour is guided by the desire to take advantage of a discrepancy between prices of more or less the same assets or competing assets in different markets. For example, if they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions to profit from the price differential.

5 Classification of Derivatives

Basically, derivatives can be categorised into two, commodity derivatives and financial derivatives, as illustrated in Figure 2. The most common types of derivatives are: forwards, futures, options and swaps. Commodity derivatives underlying asset can be silver, gold, grain, etc; but financial derivatives underlying assets are stocks, bonds, currencies and other interest rates bearing securities, etc.



¹ Over-the-Counter (OTC) security is a security which is not traded on an exchange, usually due to inability to meet listing requirements. For such securities, broker/dealers negotiate directly with one another over computer networks and by phone. Consequently, OTC market security transactions are made via telephone and computer rather than on floor of exchange.

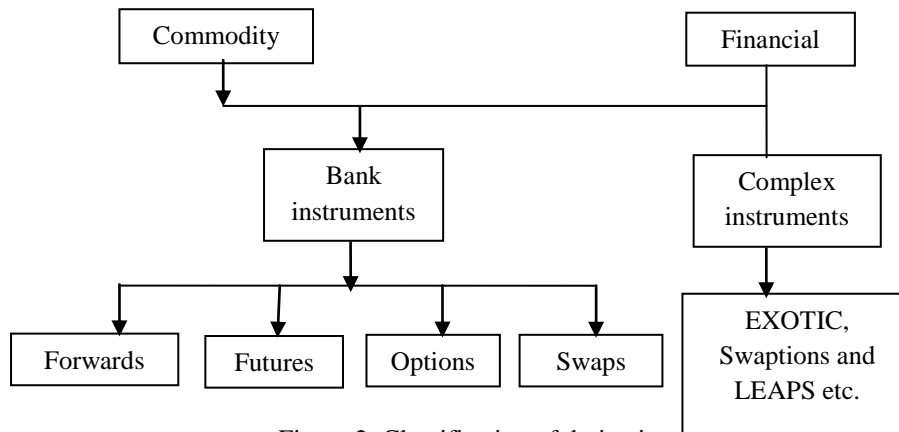


Figure 2: Classification of derivatives

6 Types of Derivatives

The main types of derivatives (forwards, futures, options and swaps) are examined below.

6.1 Forward Contract

A forward is a contract whereby two parties agree to exchange the underlying asset at a predetermined point in time in the future at fixed price. The buyer agrees today to buy a certain asset in the future and the seller agrees to deliver that asset at that point in time, in the future. Forward contract is the simplest form of derivative contract. In addition, forward contract is a cash market transaction, the price of which is determined on the initial trade date, but the delivery is made in the future. The contract must be honoured by the parties whether the real price increases or decreases. Although forward contracts can help reduce volatility in certain market; however, they are not easily transferred or cancelled, i.e. not liquid (Triantis, 2000; Michael, 2008; Vashishtha and Kumar, 2010).

6.2 Future Contract

Futures is a standardised forward contract to buy (long) or sell (short) the underlying asset at a specified price at a specified future date through a specified exchange (Debasish; 2010; Vashishtha and Kumar, 2010; Kumari, 2011). Futures are standardised forwards traded on-exchange. Such contracts are traded on exchange (clearinghouse), which sets the standardised terms regarding the quality, price quotation, date and delivery (in case of commodity). The exchanges work as a buyer or seller for the counterparty. The clearinghouse provides a mechanism that guarantees the honouring of the contract, thus ensuring very low level of default (Michael, 2008; Vashishtha and Kumar, 2010; Kumari, 2011; Nirmal Kumar and Balaji, 2011). The major types of financial futures contract include: stock future or equity futures, stock index futures, currency futures, and interest rate bearing securities such as bonds, Treasury bill futures.

6.3 Options Contract

An option is a contract that gives the buyer the right, but not the obligation, to buy (call) or sell (put) the underlying asset at or within a certain point in time in the futures at a predetermined price (strike price) against the payment of a premium, which represent the maximum loss for the buyer of an option (Michael, 2008; Vashishtha and Kumar, 2010; Kumari, 2011; Nirmal Kumar and Balaji, 2011). Both parties are under obligation to perform their contractual obligations. However, an options contract, as the name suggests, is rather an optional contract. This is because an option is the right, but not the obligation, to buy or sell something at a stated date at a stated price. What distinguishes option from forwards and futures is that, options settle only if exercised and will be exercised only if in-the-money, i.e. if the strike price is lower/higher than the current market price for a call/put. Options, if employed properly, are a cost effective and economical practice to hedge against market exposures. The main strength of options is their flexibility; but they are expensive and risky. Consequently, options afford financial services firms' a robust strategy to protect themselves from potential negative effects of market fluctuations. Basically, there are two types of options contracts: call options and put options. A 'call option' gives one the right to buy; and a 'put option' gives one the right to sell. Options can also

be classified as Over-the-Counter (OTC) options and exchange traded options. The exchange traded options contracts are customised contracts trades on recognised exchanges; whereas the OTC options are customised contracts traded privately between parties (Vashishtha and kumar, 2010; Kumari, 2011; Nirmal Kumar and Balaji, 2011).

6.4 Swap Contract

Swap is a contract whereby the parties (known as counter parties) agree to exchange a predetermined series of payments, or exchange interest payments or one set of interest payment (fixed with floating or vice-versa) with another, for a specified time (Vashishtha and Kumar, 2010; Kumari; 2011). A swap is like a barter or exchange. The two commonly used swaps are: interest rate swaps and currency swaps. The interest rate swaps entail swapping only the interest related cash flows between the parties in the same currency; while the currency swaps entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than the cash flows in the opposite direction (Kumari; 2011; Vashishtha and Kumar, 2010).

7 Factors that contribute to rapid growth of derivative markets

According to Chui (2011), some fundamental changes in global financial markets have contributed to rapid growth in derivative markets. First, the collapse of the Bretton Woods system of fixed exchange rates in 1971 increased the demand for hedging against exchange rate risk. Consequently, trading in currency futures is allowed at the Chicago mercantile Exchange in the following year. Second, emerging market financial crises substantially influence the demand for hedging against credit risk. Third, innovation in financial theory and advancements in options pricing research also contribute to rapid development of the derivative markets. Lastly, rapid improvements in computer technology enabled asset managers to design and develop increasingly sophisticated derivatives as part of their risk management tools.

8 Potential Benefits of derivatives for Nigerian economy

Derivatives are useful risk management tools when used appropriately. Derivatives market creates a platform for transferring financial risks to other parties who are more willing or better suited to take or manage those risks. Thus, purchasing derivatives can be a safer choice (of hedging risks) if there is a possibility of a looming bear market. In other words, a derivatives market can benefit the Nigeria economy in three major ways. First, effective derivatives market can help Nigeria economic agents to manage risks, thereby enhancing the nation's economic efficiency. Some of the risk Nigeria economy is exposed include: inflation, excessive dependency on foreign economics, foreign trade prices, foreign currency and foreign interest rates. Second, effective derivative market can enhance liquidity in Nigeria economy through shift of risk (currency and default) and futures contract or option before the expiration date at the derivative exchange. Finally, a derivatives exchange can attract more foreign investments to Nigeria. Thus, provides a medium through which foreign investors can reduce foreign-exchange risk regarding investments return.

Derivatives, however, have some drawbacks. If derivatives are used as a speculative instrument, it is possible to incur financial loss if the market changes dramatically. Similarly, with regard to options, the party that hold the put option are obliged to adhere to it if the holder of the call chooses to exercise its right to sell or buy; thus resulting to financial loss. Furthermore, derivatives have been associated with some high-profile corporate events that off-balanced the global financial markets over the past two decades, resulting to global financial crisis (Chui, 2011). Warren Buffet views derivatives as time bombs for the economic system and called them financial weapons of mass destruction (Berkshire Hathaway Inc, 2002). Similarly, derivatives have played an important role in the near collapses or bankruptcies of Barings Bank in 1995, Long-term Capital Management in 1998, Enron in 2001, Lehman Brothers in and American International Group (AIG) in 2008.

VII. CONCLUSIONS AND RECOMMENDATIONS

1 Conclusions

Derivatives provide an opportunity to transfer risk from the one who wish to avoid it, to one who wish to accept it. The paper examines risks associated with the FSS and the suitability of derivatives to manage these

risks in Nigeria. The FSS is an important parts of a country financial system, hence the necessity to effectively manage risks associated with the sector's activity. The study identifies risks associated with FSS operations. It also explores derivatives market, products and participants to facilitate thorough understanding and workability of derivatives markets. In this context, its explores the meaning of derivatives; the use of derivatives; underlying assets in a derivative contract; the derivative markets participants; classification and types of derivatives; the factors that have contributed to the rapid growth of derivative markets; and potential benefits of derivatives for Nigerian economy. The study findings suggest that: derivatives products are suitable for managing FSS risk exposures; derivatives provides huge economic benefits to a nation, if properly engaged; and, the development of derivatives market in Nigeria is necessary to enhance liquidity and mobilise the required capital for economy growth.

2 Recommendations

To facilitate rapid growth of Nigeria derivatives market, the following are recommended:

- The main challenge to CBN is to ensure that derivatives transactions are properly traded and prudently supervised. The CBN should, therefore, regulate and monitor the nation's derivatives market participants to ensure compliance with the market guidelines.
- Development of derivatives markets in Nigeria will attract foreign investment. The CBN must strengthen regulations to increase transparency and safety of the nation's derivatives market.
- The government and CBN must prevent the market participants from excessive risk-taking, while not slowing the financial innovation aspect of the market.
- There is urgent need to improve the quality of data of derivatives contracts. This calls for improved data quantity and quality to enhance the understanding of derivatives markets.

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