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Risk and Profitability Considerations in Off-Balance Sheet Engagements: A Comparative Analysis of Deposit Money Banks in Nigeria

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Abstract

This study investigated how off balance sheet engagements of deposit money banks affect risk and profitability compositions of such banks. The study employed secondary data obtained from financial statements of five deposit money banks (namely, Access, Zenith, UBA, GTB and First Bank) for eleven years period (2004 to 2014). The descriptive and content analysis of the financial statements of the selected banks investigated revealed that Zenith Bank has the highest amount of off balance sheet engagement. It therefore concludes that in spite of the huge profit that may accrue to the deposit money bank for engaging in off balance sheet activities, it may be exposed to a very high risk if the unexpected happens. In view of this, this study recommends a prudent management and monitoring of off balance sheet activities by management, the board and Central Bank of Nigeria. This is necessary to ensure that banks remain within the approved threshold or limits of off balance engagements in order not to compromise the confidence reposed on the banks by depositors and investors.

Keywords: Off balance sheet engagement, profitability, risk, assets and liabilities

Introduction

Off Balance Sheet refers to items that are effectively assets or liabilities of a company but do not appear on the company's balance sheet. Items that are considered off balance sheet are generally ones in which the company does not have legal claim or responsibility for. Off-balance-sheet items include assets that the bank does not control, but where it may have some exposure to losses — for which it is most likely being paid a fee or is remunerated in some other way. However, they can result in future losses for the company who held them and by this, determine the financial health of a company. For banks and financial institutions (relevant to our study), these items often materialize in securitizations, liquidity lines, guarantees, acceptances, committed credit lines and total other potential liabilities, to the extent that these are disclosed. Off-balance sheet (OBS) items for banks include forward contracts of clients, bank guarantees and bankers' acceptances (acceptance is a bill of exchange drawn on and 'accepted' by a bank as its commitment to pay a third party in international trade). These exposures earn fee income; however, any slippage in this portfolio would affect the bottom-line.

The increase in Off Balance Sheet throughout many banking systems may be due to banks' desire to mimic the business strategies of their peers. Farhi and Tirole (2009) suggest that the maturity mismatch within SIVs and conduits (between long-term mortgage backed assets and the short term commercial paper used to finance them) was a structural feature of the business models of most banks who displayed strategic complementarities with their peers. When authorities use monetary policy to bail out failing banks, society incurs a fixed cost which is only justified if sufficient banks need bailing out. Therefore each individual bank correlates its risk exposure with other banks, such that Off Balance Sheet risks can become systemically high. In the last decades, markets came up more and more complex, innovative and competitive. Off-balance sheet items, especially securitization came to be seen by a technique to manage risk, but also to gather liquidity for other investments, by converting the illiquid loans into marketable securities.

It is therefore a critical contemporary issue in financial and regulatory institutions and markets to understand the effects of off balance sheet in risk and liquidity and consequently, on performance and regulation. Because of the accounting treatment established, these items are harder to track, and can become hidden liabilities or so called "Incognito Leverage", due to risk exposure that they normally pose as seen in Enron accounting fraud. To understand the extent of the usage of these items, for example in 2010, Citibank had USD \$960 billion in off-balance sheet assets, which amounts to 6% of the GDP of the United States.

Sanusi (2012) asserted that the IMF observed, the extent and severity of the crisis that began with the bursting of the housing bubble in the United States in August 2007 reflects the confluence of myriad of factors some of which are familiar from previous crises, while others are new. Expansion of securitization (not itself a new phenomenon), which changed incentives for lenders and lowered credit standards caused the crisis. Systems became fragile because balance sheets became increasingly complex (further complicated by increased use of off-balance-sheet instruments). In this study, we tried to study what constitute bank's exposures under Off-balance sheet engagements, the probability of crystallization of the related risks, possible mitigants by banks to forestall the occurrence of such contingent liabilities and impact of such Off-balance sheet on continued existence of the banking institutions, should the risk occur. The study covered data obtained from some selected deposit money banks between 2004 and 2014.

Chapter one which is the introduction looked at the statement of research problem. Chapter 2 will discuss the literature review. Chapter 3 will deal with the research method, followed by specification of the models. The 4th chapter will deal with data analysis and interpretation while the 5th chapter is the summary of our findings, conclusion and recommendations.

Literature Review

Off-balance sheet engagements are essentially contingent liabilities which banks face in the course of their operations when they are acting as agents of their customers. Brandao and Martins (2013) posited that the purpose of Off-balance sheet items is to generate some kind of income for the banks while transferring the associated and contingent risk which is outside the control of the issuing bank.

Mills and Newberry (2005) argued that firms with poor bond ratings are more likely to engage in off balance sheet financing. Aside the reason adduced for the need for the use of off balance sheet financing, under the banker-customer relationship, banks often act its customer's agent and the customer becomes the principal. Often this is necessitated by the need for a bank to substitute its credit or financial soundness for that of its customers in respect of contracts between its customers and third parties. In cases of international (or trans-boarder) trading relations where buyers and sellers may not know themselves and are thousands of miles away, trust may not be taken for granted especially when the parties are unrelated. There may be a need to engage banks in the two nations who have been relating together to give some assurances for the seller (exporter) to be willing to part with his consignment; or the buyer (importer) to make advance payment to the exporter before the former part with his funds prior to receiving consignment.

There are cases when counterparty risks are avoided by banks coming in to substitute its financial reliability of its customers. Examples are in cases of say a court requiring a bail bond, or surety bond to enable them discharge or grant a bail. A bank is usually considered a fair risk than an individual or a firm. Hence, this may give rise to bank issuing its guarantee or agreeing to act as a surety or indemnifier for its customer. In whatever case a bank may wish to take on this liability, it is usually at a cost to the customer and a fee is charged. This improves the issuing bank's profitability. Lozano-Vivas and Pasiouras (2008) argued that banks profitability and efficiency is boosted with non-interest income or fees from off-balance sheet engagements. Siems and Clark (1997) estimated bank profit efficiency measures that included OBS activities and found that failing to account for OBS activities has important statistical and economic effects on derived efficiency measures by seriously understating bank output. Rogers (1998) estimated cost, revenue and profit efficiency of US commercial banks by using models with and without OBS items. The author used non-interest income as a proxy for OBS items and employed the distribution free frontier (DFA) estimation method. He found that the standard models that omit OBS items understate bank efficiency.

Similarly, Stiroh (2000) found that the efficiency estimates of bank holding companies over 1991-97 are particularly sensitive to output specification and failure to account for OBS activities leads profit efficiency to be understated. In a recent study, Clark and Siems (2002) tested the impact of OBS activities on the measurement of cost and profit X-efficiency in the US banking industry and found strong support for including OBS activities in X-efficiency studies especially on the cost side. European studies seem to corroborate US results. Rime and Stiroh (2003) examine the performance of large Swiss banks over 1996-99 and found that failure to account for OBS items, trading, and brokerage portfolio management activities leads profit efficiency to be dramatically understated. Tortosa-Ausina (2003) examined the importance of non-traditional activities in the analysis of bank cost efficiency for a sample of Spanish banks over 1986-1997. The author finds that average cost efficiency is enhanced when considering an alternative model which includes the OBS items especially for savings banks.

Off-Balance Sheet Lending Activities

An evaluation of off-balance sheet lending activities should apply the same general examination techniques that are used in the evaluation of a direct loan portfolio. For example, banks with a material level of contingent liabilities should have written policies addressing such activities adopted and approved by their board of directors. The policies should cover credit underwriting standards, documentation and file maintenance requirements, collection and review procedures, officer and customer borrowing and lending limits, exposures requiring committee or board approval, and periodic reports to the board of directors. Overall limits on these contingent liabilities and specific sub-limits on the various types of off-balance sheet lending activities, either as a dollar amount or as a relative percentage (such as a percent of total assets or capital), should also be considered.

In reviewing individual credit lines, all of a customer's borrowing arrangements with the bank (e.g., direct loans, letters of credit, and loan commitments) should be considered. Additionally, many of the factors analyzed in evaluating a direct loan (e.g., financial performance, ability and willingness to pay, collateral protection, future prospects) are also applicable to the review of such contingent liabilities as letters of credit and loan commitments. When analyzing these off-balance sheet lending activities, examiners should evaluate the probability of draws under the arrangements and whether an allowance adequately reflects the risks inherent in off-balance sheet lending activities. (Such allowances should not be included in the allowance for loan and lease losses (ALLL) since off-balance sheet items are not included within the scope of FAS 5 and 114.) Allowances for off-balance sheet items should be made to "Other liabilities

Off-Balance Sheet Contingent Liabilities

Asset-Backed Commercial Paper Programs

Asset-backed commercial paper programs are usually carried out through a bankruptcy-remote, special-purpose entity, which generally is sponsored and administered by a bank to provide funding to its corporate customers. Some programs will qualify for consolidation onto a bank's general ledger. For programs that are not consolidated, a bank should report the credit enhancements and liquidity facilities it provides to the programs as off-balance sheet liabilities.

Bankers Acceptances

The following discussion refers to the roles of accepting and endorsing banks in bankers acceptances. It does not apply to banks purchasing other banks' acceptances for investment purposes, which is described in the other assets and liabilities section of this Manual. Banker's acceptances may represent either a direct or contingent liability of the bank. If the bank creates the acceptance, it constitutes a direct liability that must be paid on a specified future date. If a bank participates in the funding risk of an acceptance created by another bank, the liability resulting from such endorsement is only contingent in nature. In analyzing the degree of risk associated with these contingent liabilities, the financial strength and repayment ability of the accepting bank should be taken into consideration. Further discussion of bankers acceptances is contained in the International Banking section of this Manual under the heading Forms of International Lending.

Revolving Underwriting Facilities

A revolving underwriting facility (RUF) (also referred to as a note issuance facility) is a commitment by a group of banks to purchase at a fixed spread over some interest rate index, the short-term notes that the issuer/borrower is unable to sell in the Euromarket at or below this predetermined rate. In effect, the borrower anticipates selling the notes as funds are needed at money market rates, but if unable to do so, has the assurance that credit will be available under the RUF at a maximum spread over the stipulated index. A lead bank generally arranges the facility and receives a one-time fee, and the RUF banks receive an annual commitment or underwriting fee. When the borrower elects to draw down funds, placement agents arrange for a sale of the notes and normally receive compensation based on the amount of notes placed. The notes usually have a maturity range of 90 days to one-year and the purchasers bear the risk of any default on the part of the borrower. There are also standby RUFs, which are commitments under which Euro-notes are not expected to be sold in the normal course of the borrower's business.

Inability to sell notes in the Euro-market could be the result of a financial deterioration on the part of the borrower, but it could also be due to volatile short-term market conditions, which precipitate a call by the borrower on the participating banks for funding under the RUF arrangement. The evaluation of RUFs by the examiner will follow the same procedures used for the review of loan commitments. An adverse classification should be accorded if it is determined that a loan of inferior quality will have to be funded under a RUF.

Data Collection and Methodology

Data was obtained from annual reports of 5 major deposit money banks in Nigeria comprising of Access Bank, First Bank, Guaranty Trust Bank, United Bank for Africa and Zenith Bank. These banks were carefully chosen in view of the fact that their data were available and the magnitude of their share of off balance sheet engagement was high. The method of data analysis employed was descriptive and content analysis approach.

Model Specification

$$\text{OBS} = f(\text{PAT}, \text{GRSL}, \text{LLPR}, \text{TOTA})$$

The model is explicitly re-specified as

$$\text{OBS} = \beta_0 + \alpha_1\text{PAT} + \alpha_2\text{GRSL} + \alpha_3\text{LLPROV} + \alpha_4\text{TOTA}$$

Definition of Variables

VARIABLE	DEFINITION
OBS	Off-balance sheet
B	Constant
PAT	Profit after tax
GRSL	Gross loan
LLPR	Loan Loss Provisioning Reserve
TOTA	Total Asset
$\alpha_1 + \alpha_2 + \alpha_3 + \alpha_4$	Coefficient of the independent variables

Data Analysis and Discussion of Rersult

Table 1: Performance Indices of Select DMBs

All figures in N billion	GROSS LOAN	LOAN LOSS PROV. RESERVE	OFF BAL. SHEET	PROFIT AFTER TAX	TOTAL ASSETS
ACCESS BANK	4,453,245,346	0.436,998,791	3,127,365,347	0.142,614,926	9,212,374,577
FIRST BANK	8,782,482,000	0.342,426,000	2,522,633,000	0.408,504,000	18,759,990,000
GT BANK	5,562,216,969	0.163,013,425	2,779,418,663	0.437,556,244	11,355,816,303
UBA	5,072,708,000	0.152,245,000	4,010,623,000	0.237,102,000	14,920,320,000
ZENITH	6,970,477,141	0.196,527,766	10,700,367,155	0.452,566,630	17,966,911,106
TOTAL	30,841,129,456	1,291,210,982	23,140,407,165	1,678,343,800	72,215,411,986

Source: Author Compiled

From table 1 above, ACCESS Bank issued approximately N4.5tn loan which is about 14.43% of the total gross loan offered by the five banks between 2004 and 2014, First Bank recorded N8.78 trillion to clinch 28.48% of the total gross loan for the period under review while GTB, UBA and Zenith Bank offered N5.6tn, N5tn and N7tn showing about 18.03%, 16.45% and 22.6% of the total gross loan offered for the period. Using Loan Loss Provisioning Reserve as a proxy for risk assessment, Access Bank loan provision reserve showed the sum of N437b, First Bank recorded the sum of N342.4b, GTB recorded N163b, UBA recorded N152.2b while Zenith made a reserve provision of N196.5b. The result shows 33.8%, 26.5%, 12.62%, 11.78%, and 15.2% of the total loan loss provisioning reserve accrue to Access, First Bank, GTB, UBA and Zenith Bank respectively for the period under review. Using Off Balance Sheet activities as a dependent variable, the record shows N3.12tn, N2.52tn, N2.78tn, N4tn and N10.7tn which is about 13.5%, 10.90%, 12.10%, 17.29%, 46.24% of the total off balance engagements for the five banks for the period 2004 to 2014 respectively (that is ACCESS, FBN, GTB, UBA and Zenith). For Profit After Tax, ACCESS Bank recorded a PAT of N142.6b, First bank made a PAT of N408.5b, GTB made a PAT of N437.6b, UBA had a PAT of N237.1b whereas Zenith made a PAT of N452.6b this figure shows that 8.5% of the total PAT for the five banks for the period under review accrues to ACCESS Bank, 24.3% of the total PAT accrues to First Bank, 26.1% of the total PAT accrue to GTB, 14.1% of the total PAT belongs to UBA while 27% of the total PAT accrues to Zenith.

Discussion of Results

From the analysis above, Access Bank issued the sum of N4.5 trillion and a loan loss provision reserve of N436 b at a PAT of N142b for the five years period. The difference between PAT and off balance sheet activities shows that better proportion of the DMBs revenue earnings emanate from off-balance sheet engagements. This result is not too healthy because of the risk exposures involved with transactions of such magnitude and nature. The portfolio theory posits that the higher the returns the higher the risks. Of all the banks, Zenith Bank appear to be highly exposed due to the high amount of its gross loan and off balance sheet activities with a paltry loan loss provisioning. In the face of market shocks and volatility, it will be difficult for Zenith Bank to readjust quickly. Second to Zenith Bank is UBA with off balance sheet amount of N4tn and a gross loan and loan loss provisioning of N5.1tn and N152.2b respectively. First Bank , GTB and Access Bank appears to be the safest and less riskiest of the five banks investigated. Although First Bank has the highest gross loan of N8.8tn, better part of that loan was issued in the ordinary course of business and not as a result of off balance sheet activities. The loan loss provisioning reserve also appear to be adequate when compared to other banks. Its total asset stood at N18.8 tn which is the highest among the five banks compared. Likewise GTB and Access banks respectively.

Table 2: Gross Loans of Selected DMBs

GROSS LOAN	=N='000	%
ACCESS BANK	4,453,245,346	14.4%
FIRST BANK	8,782,482,000	28.5%
GT BANK	5,562,216,969	18.0%
UBA	5,072,708,000	16.4%
ZENITH	6,970,477,141	22.6%
TOTAL	30,841,129,456	100.0%

Source : Adapted from the annual financial statement of DMBs

From table 2 above First Bank and Zenith Bank account for more than 50% of the gross loan issued by the five banks. The implication is that any merger between the two banks may resort to a kind of monopoly because of their financial muscle and huge asset deposits. This also shows that First Bank has the highest number of depositors seconded by Zenith Bank.

Table 3: Off Balance Sheet of selected DMBs

OFF BAL. SHEET	=N='000	(%)
ACCESS BANK	3,127,365,347	13.5%
FIRST BANK	2,522,633,000	10.9%
GT BANK	2,779,418,663	12.0%
UBA	4,010,623,000	17.3%
ZENITH	10,700,367,155	46.2%
TOTAL	23,140,407,165	100.0%

Source: Adapted from the annual financial statement of DMBs

The off-balance sheet table above showed that Zenith Bank recorded about 46% of the total off-balance transactions of the five banks under investigation. The implication is that in the event of market shocks and uncertainties, Zenith Bank will be highly exposed. It is also an indication that most of its transactions are not in their primary function of financial intermediation.

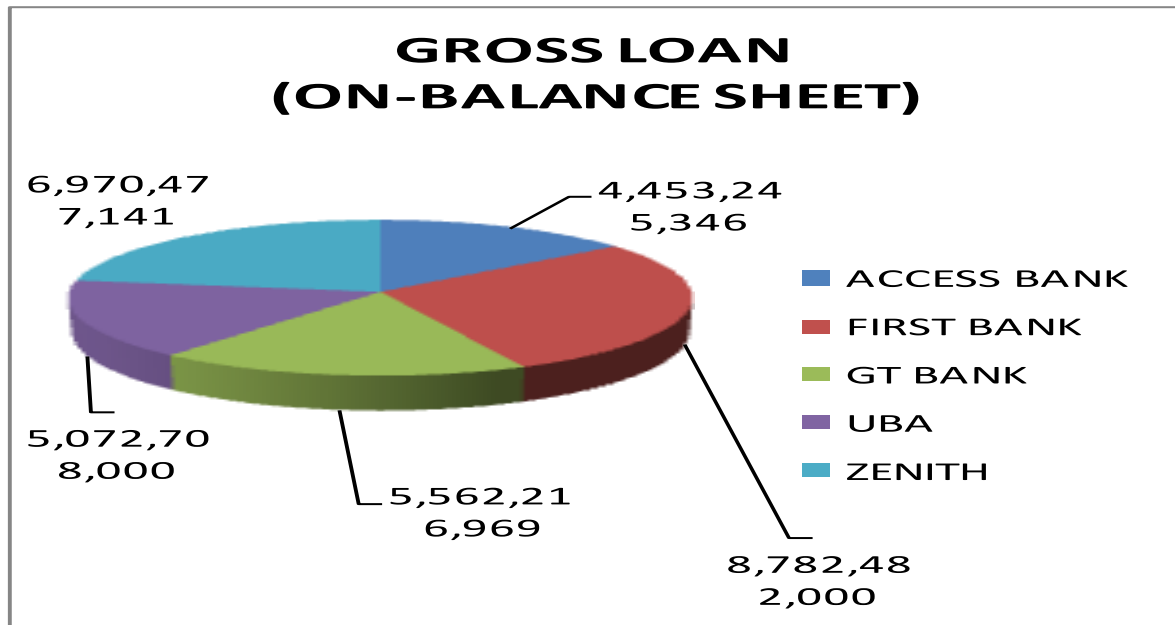
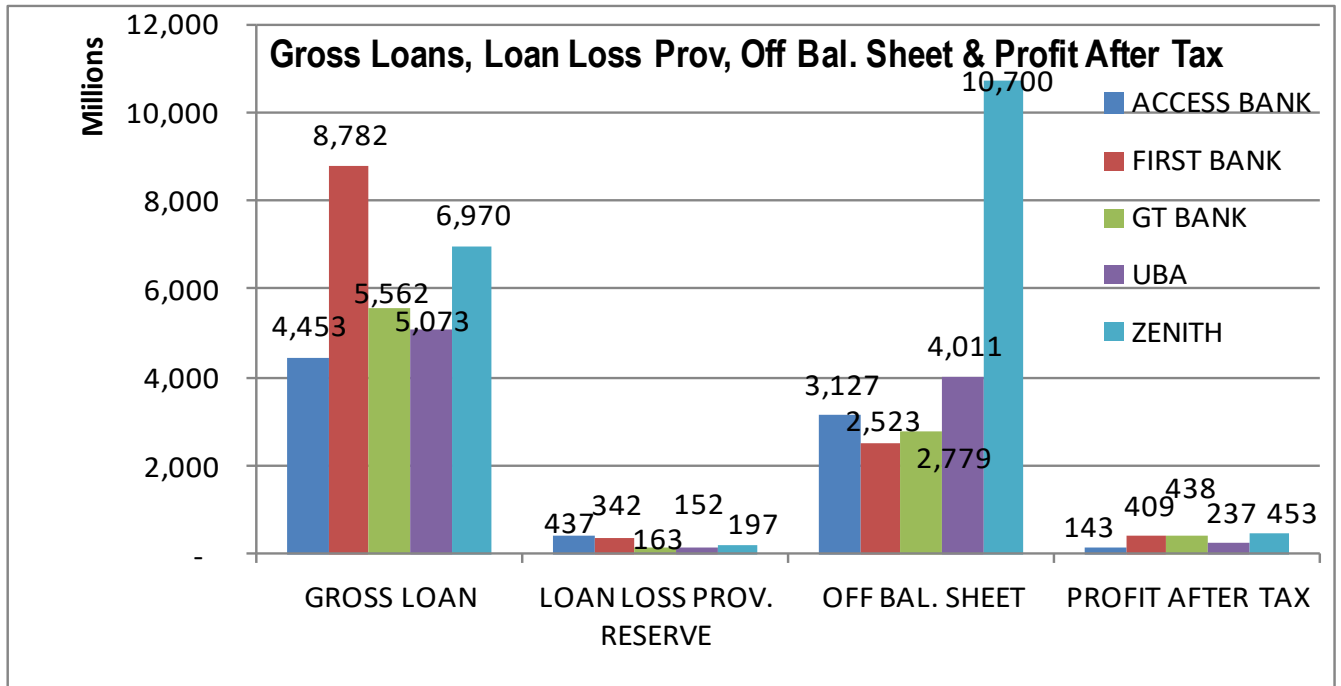
Table 4 : Profit After Tax of Selected DMBs

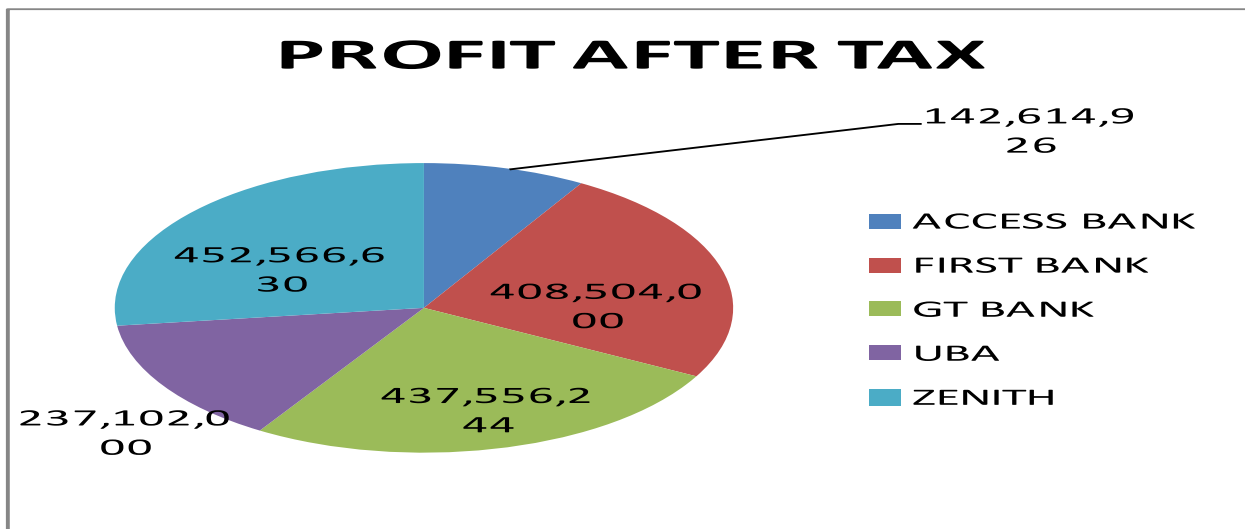
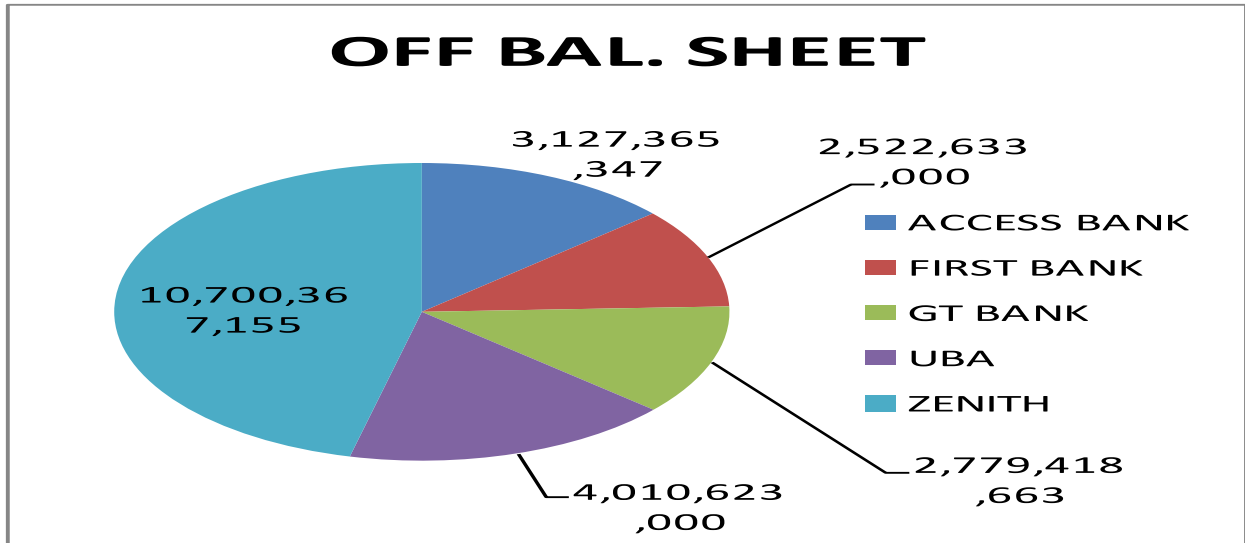
PROFIT AFTER TAX	=N='000	PAT SHARE (%)
ACCESS BANK	142,614,926	8.5%
FIRST BANK	408,504,000	24.3%
GT BANK	437,556,244	26.1%
UBA	237,102,000	14.1%
ZENITH	452,566,630	27.0%
TOTAL	1,678,343,800	100.0%

Source: Adapted from the annual financial statement of DMBs

Table 4 shows the profit after tax amount earned by the five banks. Zenith recorded 27% , GTB, 26.1% while First bank is 24.3%. The implication of this result is that GTB performed very well using the risk and return criteria method of assessment. While GTB recorded a lower amount of off balance sheet engagement and lower gross loan its profit after tax remained very high when compared to the other banks. Zenith Bank recorded a highest amount of return at 27% of the total PAT for the five banks for the period under review. However this high return may be wiped off by the high risk potentials indicated by the huge amount of off balance sheet activities and low loan loss provisioning as shown in table 1.

Bar chart representing the tables above





5. Findings, Conclusion and Recommendations

From the above result it was found that Nigeria deposit money banks gross loan increased when compared to previous years as a result of their active involvement in off-balance sheet activities. More than 50% of the gross loan for the period under review were from two major banks Zenith and First Banks. The increase in the gross loan for the period may be connected to the huge amount accrued from the off-balance sheet activities. The study also established that the low amount recorded as loan loss provisioning indicates that the banks are not adequately covered. For instance, Zenith Bank with a huge amount of off balance sheet engagement at 46% only made provisions on loan loss of 15%. This shows that in the event of market volatilities or shocks, the exposure of Zenith Bank will be too high. The PAT also showed a remarkable improvement when compared to previous figures.

This study therefore recommends that the management and the board of Directors of the five banks should exercise caution when engaging in off balance sheet activities in order to avert imminent abuse and possible losses. The board should not abdicate their oversight functions in order to curtail the risk exposures of the affected banks. Also the monetary authorities should make and enforce laws that will benchmark the total amount allowed by a bank in off balance sheet activities.

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