

# The Impact of Non-performing Loans on the Performance of Commercial Banks: A Case Study of GTB, Skye Bank and Zenith Bank

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## Abstract

The study examines the impact of non-performing loans on the performance of commercial banks in Nigeria. The study made use of time series data on non-performing loans and total assets of the banks from 2005 to 2015 deriving the data from Annual Report of GTB, Skye Bank and Zenith Bank for various years. The study examines the trend of the non-performing loans of each bank. The study also investigated the impact of non-performing loans on bank performance proxy total assets of the bank using Ordinary Least Squares technique. The findings of the study show that Zenith Bank performed relatively better than Skye Bank and GTB in terms of loan management from 2010 onward when the CBN Policy on non-performing loans came into existence. The findings further showed that the non-performing loans did not have any significant impact on the total assets of the banks in the period under study. The study therefore recommends that there is need for the CBN to intensify her effort on ensuring that commercial banks with policy on non-performing loans.

**Keywords:** *.Non-performing loans .CBN .Commercial banks .Finance*

## Introduction

Financial performance could be defined as a measurement of the results of a firm's policies and operations in monetary terms. In assessing the overall financial condition of a company, the income statement and the balance sheet are important reports, as the income statement captures the company's operating performance and the balance sheet shows its net worth. From the words of Ngugi, Amanja and Maana (2005) as cited by Sindani (2013), the financial sector has the tendency to promote economic growth by increasing economic efficiency, investment and growth. This makes the financial sector to be the intermediary agency of the economy ensuring that funds are channeled from surplus units to the deficit units. The financial sector is "characterized by a sophisticated network of intermediaries that play a pivotal role in transmitting resources between lenders and borrowers and creating multiple layers of financial derivatives that deepen the financial system and reinforce the multiplier of credit growth" (Naceur, Cherif & Kandil, 2014, p. 212).

Several studies (Aghion, Fally and Scarpetta, 2007; & Ayyagari, Demirgüç-Kunt and Maksimovic, 2011) have shown that finance has significant impact on entrepreneurship and enhance entrant of new firms into industries and enables existing firms to exploit growth and investment opportunities. Provision of funds to the seekers requires that the recipients fulfill repayment obligations. In circumstances whereby, depositor banks could not get back their funds and other surcharges may lead to stunt growth of the banks. Adebisi and Matthew describe non-performing loan as those loans that are not paid up as

at when due. They cited Caprio and Klingebiel (1996) who suggested that non-performing loans are those loans that do not generate income for a relatively long period of time that is, the principal and or interest on these loans have been left unpaid after the due dates of repayment.

The objective of this study therefore is to investigate the impact of non-performing loans on the performance of commercial banks in Nigeria. The aim of the study is to examine the impact of non-performing loans on the performance of Guaranty Trust Bank, Zenith Bank and Skye Bank. The specific objectives are to (1) conduct the trend analysis of the non-performing loans for the three banks; (ii) examine the impact of non-performing loans on the performance of each of the banks; (iii) ascertain the impact of non-performing loans on the performance of these banks combined.

### **Review of Related Literature**

Rabeya (2015) attempts to find out the time series scenario of NPLs, its growth, provisions and relation with banks profitability by using some ratios and a linear regression model of econometric technique. The empirical results represent that NPL as a percentage of total loans of SCBs is very high and they hold more than 50 % of total NPLs of the banking industry from Financial Year 2006 to Financial Year 2013. Moreover it is one of the major factors of influencing banks profitability and it has statistically significant negative impact on Net Interest Income of SCBs for the study periods. The study can be a means to understand the effect of excess NPLs on the performance of banks and to take initiatives to control it.

Hussain (2014) in his study said effective management of non-performing loans (to small and medium-scale industries) in financial institutions is critical for the survival and growth of the financial institutions. His study aimed at assessing the effect of non-performing loans to small and medium-scale industries on the performance of commercial banks. It also sought to determine if non-performing loans have effect on the profitability of Union Bank Plc. and covered the period of 2008-2013 financial year. The study concluded that non-performing loans affects the performance of Union Bank PLC with respect to the years under study. To maintain better performance, attention need to be given to credit risk portfolio management especially the lending philosophy of Union Bank Plc. The study recommended that Union Bank Plc should ensure that loans given out to customers should be adequately reviewed from time to time so as to assess the level of risk associated with disbursed loans. Further recommendations was that loans should be properly classified and monitored as this tended to mitigate the incidence of non-performing loans.

Mohd, Sok-Gee and Sallahudin (2010) investigated the relationship between non-performing loans and bank efficiency in Malaysia and Singapore. To achieve the objective, cost efficiency was estimated using the stochastic cost frontier approach assuming normal-gamma efficiency distribution model proposed by Greene (1990). The cost efficiency scores were then used in the second stage with Tobit simultaneous equation regression to determine the effect of non-performing loans on bank efficiency. The results indicated that there is no significant difference in cost efficiency between banks in Singapore and Malaysia although banks in Singapore exhibit a higher average cost efficiency score. The Tobit simultaneous equation regression results clearly indicate that higher non-performing loan reduces cost efficiency. Likewise, lower cost efficiency increases non-performing loans. Their result also supported the hypothesis of bad management proposed by Berger and DeYoung (1992) that poor management in the banking institutions result in bad quality loans, and therefore, escalates the level of non-performing loans.

Doriana (2015) aimed to understand the bank lending behavior during financial crisis, in particular whether an increase of credit risk during this period can lead banks to reduce their lending activity. A second object was to investigate whether cooperative and

commercial banks showed different behaviors. The analysis was based on a sample of Italian banks (listed and not listed), an example of a country undergoing a credit crunch. The sample consisted of 488 listed and unlisted Italian banks observed 2007-2013. Unlisted banks are included because they are the most numerous in the Italian banking system. Findings of the study showed a negative impact of credit risk on bank lending behavior, with regard to both credit risk measures: the non-performing loans and the loan loss provision ratio.

### Theoretical Review

#### Commercial Loan theory

The Commercial Loan or the Real Bills doctrine theory states that a commercial bank should forward only short-term self-liquidating productive loans to business organizations. Loans meant to finance the production, and evolution of goods through the successive phases of production, storage, transportation, and distribution are considered as self-liquidating loans. This theory also states that whenever commercial banks make short term self-liquidating productive loans, the central bank should lend to the banks on the security of such short-term loans. This principle assures that the appropriate degree of liquidity for each bank and appropriate money supply for the whole economy. The central bank was expected to increase or erase bank reserves by rediscounting approved loans. When business started growing and the requirements of trade increased, banks were able to capture additional reserves by rediscounting bills with the central banks. When business went down and the requirements of trade declined, the volume of rediscounting of bills would fall, the supply of bank reserves and the amount of bank credit and money would also contract (Mitchell, 1923).

#### Anticipated Income Theory

This theory was proposed by H.V. Prochanow in 1944 on the basis of the practice of extending term loans by the US commercial banks. This theory states that irrespective of the nature and feature of a borrower's business, the bank plans the liquidation of the term-loan from the expected income of the borrower. A term-loan is for a period exceeding one year and extending to a period less than five years. It is admitted against the hypothecation (pledge as security) of machinery, stock and even immovable property. The bank puts limitations on the financial activities of the borrower while lending this loan. While lending a loan, the bank considers security along with the anticipated earnings of the borrower. So a loan by the bank gets repaid by the future earnings of the borrower in installments, rather giving a lump sum at the maturity of the loan.

#### Research Methods

The functional form of the model is:

$$TAB = f(NPF) \quad (3.1)$$

Equation 3.1 is the functional form of their model while equation 3.2 is the econometric form.

$$TAB_t = \beta_0 + \beta_1 NPF_t + \mu_t \quad (3.2)$$
$$\beta_1 < 0$$

In equation 3.2, TAB = total assets of the banks, NPF = non-performing loans,  $\mu$  = error term.

The data are annual time series collected from Central Bank of Nigeria spanning from 2005 to 2015.

The analysis begins by examining the trend analysis of the non-performing loans. This study employs the Ordinary Least Squares Method of analysis (OLS) in determining and analyzing the relationship between the variables of the model. The estimation

procedures adopted in this study is the panel data mode of analysis for the ordinary least squares method. Thus, the best OLS estimator possesses the BLU properties of best linear, unbiased estimators which are consistent and significant. The Ordinary Least Squares method of analysis would be estimated using the E-Views package.

**Data Presentation and Analysis**

The section deals with the presentation and analysis of data on the study.

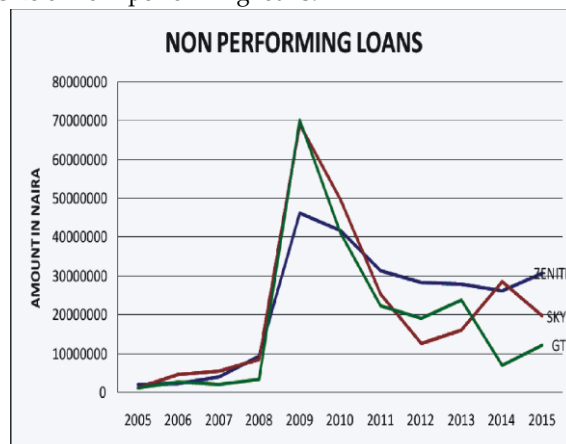
**Data Presentation**

**Table 4.1: Descriptive Statistics**

| Statistic          | Zenith       | Skye        | GTB         |
|--------------------|--------------|-------------|-------------|
| Mean               | 22841427.73  | 21928218.18 | 18758936.09 |
| Standard Error     | 4779669.652  | 6286938.875 | 6330956.782 |
| Median             | 27977000     | 16013000    | 12408194    |
| Standard Deviation | 15852370.86  | 20851417.33 | 20997408.21 |
| Sample Variance    | 2.51298E+14  | 4.34782E+14 | 4.40891E+14 |
| Kurtosis           | -1.34574844  | 1.580969272 | 2.918960383 |
| Skewness           | -0.160256602 | 1.41359388  | 1.687269998 |
| Range              | 44328077     | 67847497    | 68764494    |
| Minimum            | 2084923      | 1252503     | 1359293     |
| Maximum            | 46413000     | 69100000    | 70123787    |

We attempt to compare the statistics on non- performing loans among the banks. The mean and median displayed a high level of consistency, as their values are within the range of minimum and maximum values of the series for the three banks. The standard deviations have large values in all banks and this may be due to period of experiencing large non- performing loans. The Skewness and Kurtosis suggested that Zenith Bank might perform better than GTB and Skye Bank in terms of loans recovery. Both statistics are negative.

Figure 4.1 shows the chart to explain the trend of non- performing loans in three banks. The figure shows that from 2005 to 2008 all the three banks experienced swift rise in size of non- performing loans. From 2008 to 2010, this became very swift. All the three banks have large size of non- performing loans.



**Figure 4.1: Trend Analysis of Non- performing Loans**

The trend shows that Zenith Bank had moderate falling trend from 2010 onward having lowest peak in 2014. The GTB also experienced similar trend but there was a sharp rise in 2013. Skye Bank experienced the lowest peak in 2012 with a sharp rise that continued till 2014. The trend further confirmed that Zenith might have performed relative better in reducing the size of her non- performing loans.

**Data Analysis**

We analyzed the impact of non- performing on the total assets of each bank and also on the three combined using Ordinary Least Squares technique.

**Table 4.2: OLS**

| DV: TOTAL ASSET         | ZENITH                 | SKYE                     | GTB                     |
|-------------------------|------------------------|--------------------------|-------------------------|
| Intercept               | 1137738081<br>(1.9563) | 652093240.9*<br>(3.5249) | 913590488**<br>(2.2308) |
| NPF                     | 31.4647<br>(1.4818)    | 4.5835<br>(0.7335)       | 8.0568<br>(0.5397)      |
| R <sup>2</sup>          | 0.1961                 | 0.0564                   | 0.0314                  |
| Adjusted R <sup>2</sup> | 0.1068                 | -0.0485                  | -0.0763                 |
| F Statistics            | 2.1958                 | 0.5378                   | 0.2913                  |
| F Statistics (Prob)     | 0.1725                 | 0.4820                   | 0.6025                  |

**Note:** *t*- Statistic; \*1%, \*\*5% and \*\*\*10% Level of Significance

**Source:** Microsoft Excel 2007

We attempt to compare the OLS result of the three banks. The result in Table 4.2 shows that the coefficients of the intercept and non- performing loans are positive in all three banks. The coefficients of the non- performing loans are 31.467, 4.5884 and 8.0568. This shows that the size of non- performing loans has increase over the years with increase in total assets of the bank, though the result in each of the banks showed that the size of non- performing loans does not have significant impact on the banks' total assets at 5% level of significance. This is an indication that the banks are able to manage the size of the non- performing without any detriment to their total assets.

Further indication can be seen from the value of R<sup>2</sup> which are 0.1961, 0.0564 and 0.0314 for Zenith Bank, Skye Bank and GTB respectively. This shows that 19.61%, 5.64% and 3.14% of the variation in total assets of Zenith Bank, Skye Bank and GTB are explained by size of the non- performing loans.

**Table 4.2: PANEL OLS**

| DV: TOTAL ASSET         |                        |
|-------------------------|------------------------|
| Intercept               | 22831408**<br>(2.5725) |
| NPF                     | 0.0010<br>(0.2174)     |
| AR(1)                   | 0.3850<br>(2.2552)     |
| R <sup>2</sup>          | 0.1731                 |
| Adjusted R <sup>2</sup> | 0.1118                 |
| DW Statistic            | 2.0136                 |
| F Statistics            | 2.8257                 |
| F Statistics (Prob)     | 0.0769                 |

**Note:** *t*- Statistic; \*1%, \*\*5% and \*\*\*10% Level of Significance

We further carried out panel OLS on the three banks and the estimation is given in Table 4.2. From the table, it can be seen that the coefficients of the intercept and non-performing loans are positive. The value of the coefficient for non-performing loans is 0.0010 which means that one unit change in non-performing loans leads to 0.001 unit change in total assets of the three banks. The F-statistic showed that the model is statistically significant at 10% level of significance. As confirmed by the coefficient of determination  $R^2$ , non-performing loans explained only 17.31% of the variation in total assets of the banks.

### **Summary of Findings, Conclusion and Recommendation**

The objective of this study is to examine the impact of non-performing loans on the performance of Zenith Bank, Skye Bank and GTB using a time series analysis of two variables namely, total assets of the banks and non-performing loans from 2005 to 2015.

The empirical finding showed that Zenith has made concrete effort in minimizing the size of non-performing loans than other banks. The finding further showed that the CBN policy of 2010 on non-performing loans has made Zenith Bank, Skye Bank and GTB to minimize the adverse effect of non-performing loans because from 2010 the size of loans has reduced in each of the banks. In addition, the findings showed that non-performing loans does not have significant impact on total assets of the banks. Lastly, the finding showed that there has been an increasing trend in the size of the non-performing loans relative to total assets of the banks.

Considering the results of the findings of this study which is in agreement with most literature empirically reviewed, it is concluded that non-performing loans have a significant impact on the performance of commercial banks.

The study therefore recommends that effective monetary policy is needed to reduce the size of non-performing loans of banks.

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