

**EFFECTS OF NON PERFORMING LOANS ON THE PERFORMANCE OF  
COMMERCIAL BANKS IN NIGERIA**

**BY**

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## DECLARATION

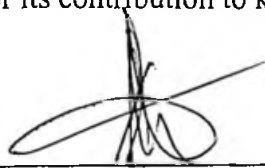
I hereby declare that this project has been written by me and it is a report of our research work. It has not been presented in any previous institution. All quotations are indicated and sources of information have been dully cited and specifically acknowledge by means of references.

  
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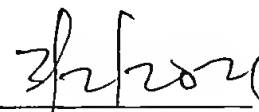
## CERTIFICATION

This project "Effects of Non Performance Loans on the Performance of Commercial Banks in Nigeria" meets the regulations governing the award of Postgraduate Diploma in Business Administration (PGD) of the School of Postgraduate Studies, Nasarawa State University, Keffi, for its contribution to knowledge and literary presentation.



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## **DEDICATION**

This research work is dedicated to God Almighty.

## ACKNOWLEDGEMENTS

I would like to express my very great appreciation to God Almighty, the source of my inspiration, help, health, safety and wisdom.

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## ABSTRACT

*Banking crises have often been associated with a massive accumulation of non-performing loans which account for a sizable share of total assets of banks and financial institutions. This study is aimed at examining the impact of nonperforming loans on the performance of Deposit Money Banks in Nigeria. Multiple regression models were used to carryout analysis of the relationship between non-performing loans and the performance of the banks in Nigeria using profit after tax as a proxy variable for bank performance. The finding indicated that there is a sign I can't negative relationship between non- performing loans and the performance of banks in Nigeria. Deposit Money Bank in Nigeria are therefore advised to reduce non-performing loans to the bearest minimum in order to maximize profit.*

## TABLE OF CONTENTS

Title Page - - - - -	i
Declaration -- - - - -	ii
Certification - - - - -	iii
Dedication - - - - -	iv
Acknowledgements - - - - -	v
Abstract - - - - -	vi
Table of Contents - - - - -	vii

### CHAPTER ONE:

#### INTRODUCTION

1.1 Background of Study - - - - -	1
1.2 Statement of Problem - - - - -	4
1.3 Research Questions - - - - -	7
1.5 Research Hypotheses - - - - -	8
1.6 Significance of the Study - - - - -	8
1.7 Scope of the Study - - - - -	8

**CHAPTER TWO:  
LITERATURE REVIEW**

2.1	Concept of Non-Performing Assets - -	-	-	-	-	-	10
2.2	Problem of non-performing loans and strength -	-	-	-	-	-	16
2.3	Objectives of credit risk management system --	-	-	-	-	-	28
2.4	Non-performing Loans and Terms of Credit -	-	-	-	-	-	28
2.4.1	Historical Background of Union Bank of Nigeria Pie -	-	-	-	-	-	45
2.5	Theoretical Review --	-	-	-	-	-	46

**CHAPTER THREE:  
RESEARCH METHODOLOGY**

3.1	Research Design	-	-	-	-	-	53
3.2	Population Size -	-	-	-	-	-	53
3.3	Method of Data Collection - -	-	-	-	-	-	53
3.4	Method of Data Analysis -	-	-	-	-	-	53
3.5	Model Specification - -	-	-	-	-	-	55
3.6	Summary - -	-	-	-	-	-	56

**CHAPTER FOUR:**

**DATA PRESENTATION AND ANALYSIS**

4.1	Presentation of Regression Models - - - - -	57
4.2	Analysis of the Regression Models ---	58
4.3	Analysis of the Table -- - - - -	61
4.4	Discussion on Finding -- - - - -	62

**CHAPTER FIVE:**

**SUMMARY, CONCLUSION AND RECOMMENDATIONS**

5.1	Summary of Findings - - - - -	64
5.2	Conclusion -- - - - -	64
5.3	Recommendations -- - - - -	65
	Bibliography -- - - - -	67

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

The banking system remains an important sector of the modern economy. It serves as the supplier of credit, which promotes economic growth. The occurrence of banking crises has often been associated with a massive accumulation of non-performing loans which can account for a sizable share of total assets of insolvent banks and financial institutions, especially during episodes of systematic crises. The late 1980s and early 1990s witnessed rising non-performing credit portfolios in banks and these significantly contributed to the financial distress in banking sector.

More recently, the apparent association between non-performing loan banking crises was further corroborated by the 1997, East Asia financial and banking crises which left the four countries severely affected with a more than threefold increase in their volume of non-performing loans in the period leading up to the crises. For instance in Indonesia where over 60 banks collapsed during the crises, non-performing loans represented about 75% of total loan portfolios. The banking system which affected a large number of sub-Saharan Africa countries in the 1990s was also accompanied by a rapid accumulation of non-performing loans.

In spite of this apparent association between banking crises and non-performing loans; the literature in banking crises had focused on the macroeconomic determinants of banking crises and less on the various sources of non-performing loans which are used as

an indicator variable to measure the intensity of the crises and may be viewed as one possible consequence of the crises rather than a critical factor leading to it.

The economic and financial costs of these inspired loans are significant. Potentially these loan may negatively affect the level of private investment, increase deposit liabilities and constraints the scope of bank credit to the private sector through a reduction of banks capital, following falling savings rates as a result of runs on banks, accumulation of losses and correlative increased provisions to compensate for these losses. These loans also have potential for reducing private consumption and in the absence of deposit guarantee mechanisms to protect small depositor can be a sources of economic contraction, especially when occupied with declining gross capital formation in the contest of a credit crunch caused by erosion of banks equity and assets.

The fiscal costs of these inspired loans are important as well, and vary with the scope and length of the crises (Cortavarria et al 2000). The resolution of these loans is generally made through the creation of assets management companies and/or deposit insurance schemes whose main function is to take over non- performing assets of distressed financial institutions. In most countries, these assets management companies and deposit insurance schemes are government owned entities set up through the budget to provide financial assistance to problem banks. The intervention of these assets management companies in support of distressed financial institutions to avert banking crises may therefore exacerbate the already high presence on government revenues, This pressure is likely to be more important in sub-Sahara Africa where most countries are confronted with narrow fiscal base and limited prospects for increase domestic resources mobilization. When left insolvent, non-performing loans can compound into financial

crises, the moment these loans exceed bank capital in a relatively large number of banks. In sub-Saharan Africa, the probability of banking crises occurring may be even more important because non-performing loan related risks are compounded by the structure of the banking system, which is dominated by a few large banks. To the extent that the outbreak of banking crises is associated with rising scope of non-performing loans, understanding the lending causes of these loans may be critical to improving the soundness of bank and financial institutions, and hence private investment and economic growth.

However, despite the implications of non-performing loans for banking crises for investment and economic growth and for anticipating future banking and financial crises, the lending causes of these loans remain known for most countries in Sub-Saharan Africa. In Nigeria, the late 1980s and early 1990s witnessed rising non-performing credit portfolios in banks and these significantly contributed to the financial distress in banking sector. Also identified was the existence of predatory debtors in the banking system whose modus operandi involved the abandonment of their debt obligations in some banks only to contract new debts in other banks. Furthermore the use of status enquires on bilateral basis between the banks was characterized by some weakness. Status enquiries were regarded as business courtesies to which some banks either did not respond to or gave vague replies. In spite of the systemic weakness, many banks continued to extend fresh facilities to customers who already had hardware and un-services debts with other banks and financial institution. On the part of the regulatory, the paucity of credit information had inhibited consistent classification of credits granted to certain borrowers and their associated companies. Consequently, the need for a central database from which

consolidated credit information on borrowers could be obtained became imperative. It was against this background that the central bank of Nigeria credit risk management or credit bureau was established. The decision to establish a credit bureau in Nigeria featured in the presidential budget speech of 1990. Therefore, it was given a legal backing by the central bank of Nigeria Act No.24 of 1991 (section 28 and 52) as amended. The enabling legislation empowered the central bank of Nigeria to obtain from all banks returns on all credits with a million outstanding balance of N 1,000,000 (now N 1,000,000 and above of principal and interest), for compilation and dissemination by way of status report to any interested party (that is operators or regulators). The Act made it mandatory for all financial institutions to render returns to the credit risk management system in respect of all their customers with aggregate outstanding debit balance of N 1,000,000 (one million naira) and above. It also required banks to update these credits on monthly basis as well as make status enquiry' on any intending borrower to determine their eligibility or otherwise. Banks are penalized for non-compliance with the provisions of the act. Presently, the credit risk management system web-enabled thus allowing banks and other stakeholder to dial directly into the credit risk management system database for the purpose of rendering status enquiry on borrowers, also the central bank of Nigeria is in the process of integrating the credit risk management system with other systems operating in the bank to make it more efficient.

## **1.2 Statement of Problem**

The need to correct the mistakes of rapid physical expansion of the banking industry in a non-growing economy has been felt since the early 1990s. The proliferation of banking licenses under the pretext that the economy was under-banked- the niantra of the period-

proved wrong headed. Since the early 1990s, macroeconomic indicators had been signaling that the real sector was stagnating. The population of banks leapt in an economy in which 70 percent of industrial capacity lay fallow.

Much of the difficulties facing banks reflects the inability to achieve stimulatory growth in the real sector as domestic output remains subdued and aggregate demand continues to thin down. This warrant heavy dependence by banks on government business in confirmation that private sector business is insufficient to support all the banks in operation. The stunted growth in the real sector resulted in significant credit losses for the banks as loan repayment difficulties impaired asset quality conditions severely. In response, bank shifted to money market trading and self-liquidating transactions as opposed to core banking activities. The number of players continued to grow to compete for a shrinking market share, leading to excessive competition in the industry. Ethics and decency were thrown overboard as bank executives set tough revenue targets at all levels of workforce, requiring workers to achieve or quit.

In the bid to meet high revenue targets out of a virtually stagnant economy, bank workers were groomed to discard commitment to honesty in banking. Many banks introduced various types of client cheating “innovations” that greatly belittled a once honorable profession. Under intense pressure to win deposits, unethical marketing practices become the norm form many banks, As the competitive struggle for survival intensified, marginal banks resorted to excessive risk taking and rampant breaking of regulatory rules. Then followed the bitter experience of financial distress resolution measures applied, the banking system remained vulnerable to a number of risks and serious concerns about the soundness and stability of the Nigerian banking system had remained.

In Nigeria, the rising cases of bank distress have become one of the major sources of concern for policy makers. It is not surprising to find banks to have non-performing loans that exceed 50 percent of the bank's loan portfolio. For instance, the Nigeria Deposit Insurance Corporation in its 1996 annual report put the number of distressed banks at 50 with N65.13 billion assets trapped. These banks have offered N50.55 billion loans. N40 billion or 79 percent of which were classified as non-performing credits. The recent liquidation of 26 banks put N16 billion or 32 percent at risk since only N5 billion is insured by Nigeria Deposit Insurance Corporation. More so that the N20 billion or 40 percent of loans disturbed by these banks were hardly recordable between 1994 and 2002, a total of 33 banks were closed.

The deregulation of the financial system embarked upon from 1986 allowed the influx of banks into the banking industry. As a result of attractive interest rate on deposit and loans, credits were given out indiscriminately without proper credit appraisal. The resultant effects were that many of these loans turn out to be bad. For instance, in the merchant banks between 1989 and 1992, the ratio of classified assets to total loans and advances rose from 14.7 percent to 37 percent and peaked at 63.9 percent in 1994 for commercial banks, the ratio rose from 47.4 percent in 1989 to 50.9 percent in 1990 and fell to 38.10 percent in 1994 (Nigeria Deposit Insurance Corporation Report, 1995). Asset quality degenerated, as classified assets increase from N11.91 billion in 1990 to N18.82 billion in 1992, moved to 446.9 billion in 1994 and further to 94.8 billion in 1999.

It is in realization of the consequence of deteriorating loan quality on the banking sector and the economy at large that this paper is motivated. Total credits granted by insured

banks increased by 20.56% (from N1,519.76 billion to N1,832.18billion) between December 2004 and December 2005. The bank's non-performing credits also increased from N350.82 billion to N368.76 billion within the period. There was slight improvement in the bank's assets quality as the ratio of non-performing credit to the total credit decreased from 23.08% in 2004 to 20.13% in 2005. The improvement in asset quality was further indicated by a decrease in the ratio of non-performing credits to shareholders found was mainly due to fresh capital injections in the industry and the heightened debt recovery efforts of banks towards the end of 1995 in a bid to meet the minimum recapitalization requirement.

### **1.3.1 Research Question**

The followings are research questions formulated:

- i. What are the trends of non-performing loans of Commercial banks in Nigeria in Nigeria?
- ii. What is the impact of non-performing loans on the assets quality in Nigeria commercial banks in Nigeria?
- iii. Is there any relationship between non-performing loans and profit after tax of Money Deposit Banks in Nigeria?

### **1.4 Objective of Study**

The major objective of the study is to discuss the impact of non-performing loans on the performance of Commercial banks in Nigeria in Nigeria. The specific objectives include.

- i. To examine the trend of non-performing loans in Nigeria Commercial banks in Nigeria
- ii. To determine the impact of non-performing loans on assets quality of Commercial banks in Nigeria in Nigeria.
- iii. To examine the relationship between non-performing loans and profit after tax in Nigeria deposit moxie' banks.

### **1.5 Research Hypothesis**

In this study, the following hypothesis is relevant:

**Ho:** Bank total loans to deposit ratio has no significant effect on banks non-performing loans.

**Hi:** Bank total loans to deposit ratio has significant effect on banks non- performing loans in Nigeria.

### **1.6 Significance of the Study**

This research effort hopes that on completion, the bank management, bank investors, the economy, prospective researchers, students and the general public will benefit from the adequate knowledge of credit policies and employ them to enhance result.

### **1.7 Scope and Limitation of Study**

The scope of this study reduce my ability to do the study exhaustively, despite the limitations efforts have been made to carry out discussions that would reveal the causes and impact of non-performing loans in banks in Nigeria.

The limitations of this study include inadequate finance, increasing cost of transportation and material, inadequate time and unavailability of data such as insider lending, frauds, lending to high risk borrowers, loss of confidence by borrowers and depositors etc.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Concept of Non-performing Loan

Non-performing loan is an embarrassment to lending institutions; they suffer not merely direct financial loss, but also damage to their reputation for sound judgment in picking borrowers. There is thus a temptation to camouflage non-performing debt by making fresh loans to finance repayment. Credit facility is deemed non-performing when any of the following conditions exists; interest or principal is due and unpaid for 90 days or more; and interest payments equal to 90 days interest or more have been capitalized rescheduled or rolled over into a new loan.

Non-performing debt has been defined by several writers including Central bank Nigeria (1990); Black (2002) Subrahmanyam (2003) Dhanusiodi (2006) and Otu (2005)

According to Central Bank of Nigeria (1990) prudential guidelines for licensed banks, credit facilities (which include loans, advances, overdrafts, commercial papers, banker's acceptances, bills discounted, leases, guarantees, and other loss contingencies connected with a bank's credit risks) should be classified as either "performing" or "non-performing" as defined below:

- a. A credit facility is deemed to be performing if payments of both principal and interest are up-to-date in accordance with the agreed terms;
- b. A credit facility should be deemed as non-performing when any of the following conditions exists:

- i. Interest or principal is due and unpaid for 90 days or more;
- ii. Interest payments equal to 90 days interest or more have been capitalized rescheduled or rolled over into a new loan (except where facilities have been reclassified as specified in 2.3 below).

The practice where by some licensed banks merely renew, reschedule or rollover non-performing credit facilities without taking into consideration the repayment capacity of the borrower is objectionable and unacceptable.

Non-performing credit facilities should be classified into three categories namely, sub-standard, doubtful or Lost on the basis of criteria below:

a. Sub-standard: The following objective and subjective criteria should be used to identify sub-standard credit facilities:

- i. Objective criteria: facilities as defined in 2.2 (b) on which unpaid principal and/or interest remain outstanding for more than 90 days but less than 180 days.

- ii. Subject criteria: Credit facilities, which display well defined weaknesses which could affect the ability of borrowers to repay such as inadequate cash flow to service debt, undercapitalization or insufficient working capital, absence of adequate financial information or collateral documentation, irregular payment of principal and/or interest, and inactive accounts where withdrawals exceeds repayments or where repayments can hardly cover interest charges.

- b. Doubtful: The following objective and subjective criteria should be used to identify doubtful credit facilities:
  - i. Objective criteria: Facilities on which unpaid principal and/or interest remain outstanding for at least 180 days but less than 360 days and are not secured by Legal title to lease assets or perfected realizable collateral in the process of collection or realization.
  - ii. Subject criteria: Facilities, which in addition to the weakness associated with sub-standard credit facilities, reflect that full repayment of the debt is riot certain or that realizable collateral values will be insufficient to cover bank's exposure.
  
- c. Lost Credit Facilities: The following objective and subjective criteria should be used to identify lost credit facilities:
  - i. Objective criteria: Facilities on which unpaid principal and/or interest remain outstanding for 360 days or more and are not secured by legal title to leased assets or perfected realizable collateral in the course of collection or realization.
  - ii. Subject criteria: Facilities which in addition to the weaknesses associated with doubtful credit facilities are considered uncollectible and are pf such little value that continuation as a bankable asset is unrealistic such as facilities that have been abandoned, facilities secured with unmarketable and unrealizable securities and facilities extended to judgment debtors with no means or foreclosable collateral to settle debts.

Black (2002) in Oxford Economics Dictionary defined non-performing debt as debt on which the interest and redemption payments due are not in fact being made. Non-performing debt is an embarrassment to lending institutions they suffer not merely direct financial loss, but also damage to their reputation for sound judgment in picking borrowers. There is thus a temptation to camouflage non-performing debt by making fresh loans to finance repayment of earlier ones.

Subrahmanyam (2003) in this paper titled "Treatment of non-performing assets in a macroeconomic statistic" stated that there is no uniform system of classification of loans and off-balance sheet items. Many countries have adopted, mainly through regulatory and supervisory framework, a three-tier approach towards classification of non-performing assets, corresponding to 'substandard', 'doubtful' and 'loss' categories, using delinquency period as the main benchmark. Thus, 'substandard' assets are those where principal and/or interest are more 90 days past due; 'doubtful' assets are those where principal and/or interest are at least 180 days past due; and 'loss' assets are those where principal and/or interest are at least 1 year past due. This classification category is also applied to contingent accounts or off-balance sheet items, since they are treated the same way as loans.

Otu (2005) in his paper titled: non-performing assets of the banking system in Nigeria states that assets are classified as either "performing". A credit facility is adjudged performing if payments of both principal and interest are paid up to date in accordance with the agreed repayment terms. On the other hand, a credit facility is deemed non-performing when any of the following conditions exists; interest or principal is due and

unpaid for 90 days or more; and interest payments equal to 90 days interest or more have been capitalized rescheduled or rolled over into a new loan.

Within the broad classification of non-performing credit, three sub-categories are recognized, namely; substandard, doubtful and lost. A substandard facility is one that displays a well-defined weaknesses which could affect the ability of borrowers to repay, such as inadequate cash flow to service debt obligations, under capitalization or insufficient working capital, absence of adequate financial information or collateral documentation, irregular payment of principal and or interest, and inactive accounts where withdrawals exceed repayments or where repayments can hardly cover interest charges (Central Bank Nigeria 2004) Doubtful facilities are those on which unpaid principal and/or interest remain outstanding for at least 180 days legal title to leased assets or perfected realizable collateral in the process of collection or realization. In respect of doubtful credit, in addition to weaknesses associated with the sub-standard facilities, there is also an indication that full repayment of the debt is not certain or that realization collateral values would be insufficient to cover banks exposure. The case of lost facilities is associated with credit, which the principal and/or interest remain outstanding for 360 days or more and are not secured by legal title to teased assets or perfected realizable collateral in the course of collection or realization.

### **2.1.1 Non-Performing Assets**

An asset which ceases to generate income of the bank is called non-performing asset. The past due amount remaining uncovered for the two-quarter consequently the amount would be classified as non-performing asset for the whole year. It includes borrowers' defaults or delays in interest or principal repayment. National Bank of Ethiopia

(Supervision of Banking Business Directives (Directive No. SBB/32 12002) defines, the term non-performing is, "loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment terms of the loan or advances is in question".

For purpose of this Directive, loans or advances with pre-established repayment programs are non-performing when principal and/or interest is due and uncollectible for 90 days or more beyond the scheduled payment date or maturity.

For purposes of this directive overdraft and loans or advances that do not: have a pre-established repayment program shall have considered as non-performing when:

- i. The debt remains outstanding for 90 consecutive days or more beyond the scheduled payment date or maturity
- ii. The debt exceeds the borrower's approved limit for 90 consecutive days or more
- iii. Interest is due and uncollected for 90 days or more or
- iv. For overdrafts, the account has been inactive for 90 consecutive days and, or deposits are insufficient to cover the interest capitalization during the period.

According to Fofack (2005), Non-performing loans generally refer to loans which for a relatively long period of time do not generate income; that is the principal and/or interest on these loans has been left unpaid for at least 90 days (Caprio and Klingebie 1999). In the context of the central bank of West African states, the lead- time from the status of standard to substandard loans (including doubtful and loss loans) is much longer. Substandard loans refer to loans which have been unpaid for six months at least and whose repayments cannot be undertaken by the debtor.

## 2.2 Problem of Non-Performing Loans and Strength (Japanese Economy)

The problem of non-performing loans that is plaguing Japanese banks is continuing. As the characteristics of the problem, the following three points are important:

- i. With cases of loans becoming fresh non-performing loans continuing, the balance of non-performing loans keeps increasing.
- ii. With the cost for disposal of non-performing loans (direct write-off costs, provisions for credit losses, etc) exceeding the profits from the core banking business (net business profits), it can be said that, in terms of profitability, banks are virtually in the red. The non-performing loans will continue to erode banks' profitability for some time to come.
- iii. Considerable amounts of the non-performing loans are concentrated in specific industries: real estate, construction, and wholesale and retail.

In this section, these characteristics of the problem of non-performing loans will be studied in detail and factors that give rise to fresh non-performing loans will be analyzed.

Characteristics of the problem of non-performing loans:

- Non-performing loans are still continuing to increase

The outstanding balance non-performing loans held by Japanese banks, as measured by the outstanding balance of "risk-management loans" of all banks, has been increasing since the fiscal year ending in March 1993. Even after the definition of risk management loans was revised to the present definition in the year ending in March 1998, non-performing loans have remained at the high level of around \$30 trillion and hit an all-

time high of about \$32.5 trillion in the ending in March 2001. During this period, the proportion of non-performing loans (risk management loans/total loans) has also been increasing and hit 6.6% in the year ending in March 2001. By comparison, the proportion of non-performing loans of U.S. commercial banks has stayed at around 1% in recent years. The total risk management loans of "deposit-taking institutions," including Shinkin Banks (credit associations) and credit cooperatives, amounted to \$43.4 trillion in the year ending in March 2001.

Why have the non-performing loans of Japanese banks been increasing for more than 10 years since the collapse of the bubble economy? Among the factors that increased non-performing loans are:

(1) The definition of non-economy, when land prices soared. Since the amount of land purchases by corporations in the three industries accounted for more than 50% of total land purchases by all industries (1987-1992, on the Financial Statement Statistics of Corporations by industry, quarterly base), it is believed that they are still suffering from the after effects of the collapse of the bubble economy.

Moreover, profits of the three industries have remained low since the collapse of the bubble economy. In the wholesale and retail industry, in particular, the disparity of corporation-by-corporation business performance has expanded due partly to the impact of distribution revolution and partly to the emergence of start-up companies. A study of retail sales by listed companies shows that the disparity between companies that increased sales and companies that decreased sales has been expanding and that most of the increased sales are contributed by startup companies.

Companies in the three industries are suffering from excessive debts as a result of their excessive investment in land and poor profitability. Although all of the excessive debts are not non-performing loans, they are closely related to banks' non-performing loans. An estimate of the extent of the excessiveness of the three industries' debts as measured by "financial debt (net)/values added" ratio of the three industries (real estate, construction and wholesale and retail) combined rose sharply during the bubble economy. Although the ratio is now lower than its peak, it is still considerably higher than the level in the first half of the 1980s, or before the bubble economy. In order to lower the "financial debts (net)/values added" ratio to the level in the first half of the 1980s or before the bubble economy, it is necessary to reduce the net financial debts of the three industries combined, which now stand at \$196 trillion, by about \$67 trillion, assuming that the present values added remain constant(s). In view of the fact that a similar estimate puts the amount of financial debts that has to be reduced by all industries is about \$70 trillion, this shows that most of the excessive debts are concentrated in the three industries. (The net financial debts of all industries as of the end of 2000 stood at \$403 trillion). A comparison of the "financial debts/values added" ratios by size of enterprises with those before the bubble economy shows that, although the ratios for both large enterprises and small and medium enterprises in the wholesale industry are not excessive, those for both large enterprises and small and medium —sized enterprises in the construction, real estate, and retail industries are excessive. However, the ratio for large enterprises is higher than that for small and medium sized enterprises in the construction industry and the ratio for small and medium —sized enterprises is higher than that for large enterprises in the retail industry. The debts of both large enterprises

and small and medium-sized enterprises in the three industries are believed to be excessive relative to their profitability due to the after effects of the bubble economy and worsening business performance caused by intensifying competition.

Secondly, non-performing loans have increased even in the manufacturing and other industries on which the impact of the collapse of the bubble economy was relatively small. Some of the loans to “losers” in these industries are believed to have become non-performing due to expanded disparity in industry-by industry amid (1) the prolonged economic stagnation and (2) intensifying industrial structural adjustment pressures. The excessive debts of non-manufacturers, excluding the three industries and manufacturers are on the whole, not large. The “financial debts/value added” ratio of manufacturers as a whole is almost at the same level as before the bubble economy.

As for corporate profitability, although the ratio of ordinary profit to sales improved significantly in 1999-2000, the ratio of net profit to sales that includes extraordinary profit/loss did not improve much. A study of the ratio of net profit to sales by type of industries and by size before and after the collapse of the bubble economy shows that the ratio, especially of non-manufacturers and small and medium-sized enterprises, has remained low amid the prolonged economic stagnation. Moreover, as was described earlier, liabilities of bankrupt companies in the manufacturing and other industries other than the three industries have been increasing since around 1997-1998. Amid the ongoing industrial structural adjustment, the disparity of company-by-company business performance has expanded as in the case of the retail industry, suggesting that some of the loans to “losers” in industries other than the three industries have become non-performing.

Lastly, as one of the factors that have increased fresh non-performing loans, non-performing has increased as a result of stricter classification of borrowers and assessments of loans by banks. Following the implementation of intensive inspections of banks by the Financial Supervisory Agency, Local Finance Bureaus of the ministry of Finance, and the Bank of Japan in and after July 1998 and the preparation of the Financial Inspection Manual by the Financial Supervisory Agency in July 1999, the accuracy of banks' assessment of their assets has increased. In 2000, all banks, in response to the inspections, adopted stricter standards for restructured loan. It is believed that this, coupled with sluggish business performance of corporate borrowers, has increased fresh non- performing loans.

It is a big problem that the amount of disposal of non-performing loans continues to exceed banks' net business profits. Banks must dispose of non- performing loans as early as possible and dispel market concerns about. A sharp increase in non-performing loans and a delay in the disposal of such loans. To that end, banks should speed up the final disposal of non-performing loans to corporate borrowers whose business performance is not expected to improve and ascertain losses by utilizing private/legal liquidation or selling the non- performing loans to the Resolution and Collection Corporation (RCC) as set forth in the basic policies and the front-loaded reform program. It is also important to promote measures focused on restructuring/rehabilitation of borrowers from the standpoint of turning non-performing loans into sound loans and preventing the incidence of fresh non-performing loans. At the same time, the banks should strive to increase profits while assuming a greater risk.

Real estate, construction, and wholesale and retail account for more than 50% of non-performing loans

As the third characteristic of the current problem of non-performing loans, it is pointed out that non-performing loans are concentrated in specific industries. According to Bank of Japan (2001), a total of 54% of the outstanding balance of risk-management loans (by 15 major and 54 regional banks that disclose industry-by-industry lending) as of the end of March 2001 were accounted for by three industries: real estate, construction and wholesale and retail. In view of the fact that loans to the three industries account for about 33% of banks' total loans outstanding, this shows how concentrated the problem of non-performing is in specific industries.

Incidentally, of the risk management loans outstanding as of the end of March 2001, those to manufacturers accounted for only 9%. But, the figure represented an increase of about 30% over a year earlier, indicating that non-performing loans have begun to expand to other industries. Corporate failures of manufacturers and in other industries other than the three industries have increased since around 1997-1998. Since loans to bankrupt companies in the industries other than the three industries above suggests that banks' non-performing loan have been expanding to other industries.

- Prolonged problem of non-performing loans

The reasons why the problem of non-performing loans, which is that a large amount of fresh non-performing loans continue to occur and non-performing loans erode banks' profitability, remains unsolved, despite disposal of a large amount of non-performing loans by banks. Against the background of the prolonged economic recession, the

following three points are important as factors that are prolonging the problem of non-performing loans;

- i. Corporations, mainly those in the three industries of real estate, construction and wholesale and retail, that made excessive investment in land etc. and borrowed heavily during the bubble economy say their balance sheets damaged due to the continued decline in land prices after the collapse of the bubble economy (a decline in the value of their land assets). Some of the loans to these corporations have become non-performing due to intensifying competition caused by the prolonged economic stagnation and distribution revolution.
- ii. Even loans to corporations that were less influenced by the collapse of the bubble economy, those to “losers” have become non-performing due to expanded disparity —by-industry or corporation-by-corporation business performance amid the prolonged economic stagnation and intensifying industrial structural adjustment pressures.
- iii. Financial institutions have implemented stricter classification of borrowers and assessments of their loans.

The industries were hard hit by the asset price deflation (declines in land prices and stock prices) after the collapse of the bubble economy. Land prices, mainly commercial land prices, have been declining for about 10 years since the collapse of the bubble economy. As a result, the balance sheets of the real estate and retail industries, whose land accounts for a large proportion of their total assets have deteriorated. The land assets held by the three industries account for 54% (real estate 27%, construction 7% and wholesale and retail 20%) of land assets held by all industries (on the financial statements statistics of corporation by industry, quarterly base). Incidentally, the value added by the three

industries account for 34% of the total values added by all industries. Many corporations made heavy investments in land during the bubble now on a par with the SEC (Securities and Exchange Commission) standard in the U.S.

Secondly, classified assets based on the financial reconstruction law: This consist of loans to borrowers in legal bankruptcy or under restructuring and their equivalents, risky loans, and monitor-requiring loans. The scope of such loans covered for disclosure is almost the same as risk-management loans, but the scope of assets covered is slightly wider than risk management loans.

(Note) classification of debtors for banks' self-assessment. Banks conduct self-assessment primarily to calculate the amount of write-offs and provisions required based on the credit exposure categories (I-IV) classified debtor-by-debtor by banks. With regard to the debtor classification (normal borrowers, borrowers that need attention, borrowers in danger of bankruptcy, and bankrupt and effectively bankrupt borrowers) for self-assessment, some new media classify loans to borrowers that need attention or riskier borrowers as non-performing loans. Loans to borrowers that need attention or riskier borrowers stood at about \$110 trillion (all banks, Bank of Japan, 2001) in 2000, far larger than the outstanding balance of risk-management loans or classified assets based on the financial reconstruction law. Since payments of principal and interest on much of the loans to borrowers that need attention are being made as originally contracted however, it is not appropriate to consider all of the loans to borrowers that need attention as non-performing loans. Moreover, among the corporations classified as borrowers that need attention, there are many corporations whose business performance, though sluggish under current business conditions, is expected to improve in the figure. The amount of

categories II-IV credits stands at about \$66 trillion (all banks, Bank of Japan 2001). But again, it is not appropriate to compare this amount with that of risk-management loans or of classified assets based on the financial reconstruction law, as it is different in that the amount includes loans to borrowers that need attention (excluding the portion of normal operating funds) and excludes the portions of provision and collateral on loans to borrowers in danger of bankruptcy and to bankrupt and effectively bankrupt borrowers.

- Disposal of non-performing loans eroding banks' profitability

Next, in order to see the second characteristic, that is to say, the problem of nonperforming loans eroding banks' profitability. A bank's "net profits" (before adjustment for tax, etc) is obtained by subtracting "the amount of disposal of non-performing loans" from "net business profits" (profits from core banking business, that is to say profits from lending and bond transactions minus fund procurement costs and other expenses) adding "stock-related profits/losses" (realization of stock profits etc.) and "other profits/losses". According to Bank of Japan (2001), banks' net profits had been sluggish after the collapse of the bubble economy. Banks suffered a net loss in 1995, 1997, and 1998. A comparison of net business profits and the amount of disposal of non-performing loans shows that banks were unable to cover the costs for the amount of disposal of non-performing loans with net business profits for seven consecutive years from 1994. That is to say, banks had to dispose of large amount of non-performing loans after the collapse of the bubble economy due to an increase in fresh non-performing loans and a decline in the value of collateral caused by falling land prices. As a result, it can be said that in terms of profitability, banks are virtually in the red. Virtually in the red means that the amount of disposal of non-performing loans are larger than banks net business

profits. With the incidence of fresh non-performing loans expected for some time to come, loss on disposal of non-performing loans will continue to put downward pressures on banks' profitability.

Incidentally, the banks treat loss on disposal of non-performing loans not only for recording provisions (what is called indirect write-offs) but also by making direct write-offs for a large proportion of the losses.

The amount of disposal of non-performing loans and fresh non-performing loans exceeded banks' initial estimates. A study of major banks' plans for loss on disposal of non-performing loans and actual results in 1999 and 2000 shows that the loss on disposal of non-performing loans planned at the start of a fiscal year were revised upward in the plans at a mid-term book closing and they were further revised upward to meet the actual results at the end of the fiscal year. It is true that behind the far larger amount of loss on disposal of non-performing loans than initially planned lies the fact that the economy remained stagnant longer than expected. But it may have something to do with the facts that corporate borrowers' business confidence and the business environment surrounding them have changed drastically and banks' understanding of the financial conditions of corporate borrowers may not be necessarily adequate. According to an estimate, a considerable number of bankrupt corporations had been assessed as normal borrowers that need attention six months or one year before they went bankrupt and the loans extended to them were not non-performing loans. However, we have to take note that an overwhelming proportion of total loans are accounted for by loans to normal borrowers and borrowers that need attention.

Performing loans (what should be included in non-performing loans) was expanded gradually until the year ending in March 1998 and the pace of banks' move to clear their non-performing loans off their balance sheets by such means as legal liquidation and credit waiver was slower than the pace of the incidence of fresh non-performing loans. Incidentally, clearing non-performing loans off one's balance sheets is also called "final disposal" or "clearing off balance sheet" of non-performing loans.

In studying why non-performing loans have increased, it is necessary to divide the time frame into two; one before the year ending in March 1998, when the definition of non-performing loans was expanded gradually, and one in and after the year ending in March 1998, when current definition of non-performing loans was adopted.

As was described in the above, the increase in the outstanding balance of risk-management loans before the year ending in March 1998 was, first and foremost, due to the fact that the definition of risk-management loans was expanded gradually. Specifically, during the period from 1992 to 1994, risk management loans referred to only loans to borrowers in legal bankruptcy and past due loans in arrears by six months or more, but during the period from 1995 to 1996, they also referred to interest-reduced loans, and in and after 1997, they referred to not only loans to borrowers in legal bankruptcy and past due loans arrears by six months or more but also loans in arrears by three months or more and restructured loans. As a result, disclosure is now on a par with the SEC standard in the U.S. Meanwhile, the balance of non-performing loans continued to increase during this period due partly to an increase in risk-management loans caused by the expansion of their definition and partly to the deterioration of loans caused by a decline in asset values and prolonged stagnation of the economy.

There has been no increase in non-performing loans caused by a change of the definition of risk management loans since 1997, as there has been no change in the definition since then. However, the outstanding balance of non-performing loans has remained at the high level of about \$30 trillion. The banks carried out final disposal of a considerable amount of non-performing loans, but the balance of non-performing loans has did not decrease because almost the same amount of loans became fresh non-performing loans.

Final disposal amount is the total of direct write-off costs that are incurred in the current term and involved in final disposal, the amount of existing bad loan provisions drawn down (what is called indirect write-off costs), and recovery at time of disposal, such as through sale of land put up as collateral.

The total of direct write-off and the amount of bad loan provisions drawn down amounted to \$38 trillion in four years from 1997 to 2000. This plus the amount of recovery is final disposal amount. Suppose that the recovery amount was 20% of total loans, it would mean that \$45 trillion of non-performing loans were removed from balance sheets and finally disposed. Even if the recovery rate was different, say 10% or 30%, the result of the calculation would not differ much. The balance of non-performing loans is the amount obtained by subtracting such final disposal amount from existing non-performing loans and adding the amount of fresh nonperforming loans. Since the balance of non-performing remained almost unchanged or increased only slightly during the four years, it is believed that there occurred fresh non-performing loans in the amount equal to or slightly more than the final disposal amount. In short, the banks made final disposal of slightly more than \$10 trillion of non-performing loans annually for the last four years, hut they incurred almost the same amount of fresh non-performing loans annually,

resulting in the total amount of non-performing loans staying at a high level of about \$30 trillion.

### **2.3 Objectives of Credit Risk Management System**

Strengthening the credit appraisal procedures of bank: This is achieved by generating accurate and reliable credit information on bank borrows from central database. With such information available, banks will be in a better position to appraise the repayment capabilities of customers seeking new or additional credit facilities from them. This will reduce or eliminate the granting of loans to customers who had no capacity to repay and/or already had no- performing and sometimes abandoned loans in other banks.

Monitoring of over-exposure to borrowers: The consolidated credit information generated by the credit Bureau will enable banks to identify borrowers who have contracted debts in excess of their repayment capabilities. Banks are thus put on notice to avoid putting their hinds into areas or sector that are already experiencing full or declining prospects. It will also assist banks in the evaluation of the viability or otherwise of proposals on loans from customers.

Facilitating consistent classification of credits: The credit Bureau will facilitate regulators' consistent classification of credits granted to the same borrower(s) by different banks and so on.

### **2.4 Non-Performing Loans and Terms of Credit**

The maturity profile of commercial banks deposits shows that less than one fifth is of a tenor of more than three years. On the asset side, nearly 40 percent has already been invested in assets of over three-year maturity. Banks also have some capacity to invest in longer term-assets, but this capacity will remain highly limited until the fiscal deficit

remains as high as it is and the government demand for investment in long dated bonds remains high. Some enhancement of their capacity to invest in infrastructure, industry and agriculture in longer gestation projects can be achieved by allowing a limited recourse to longer-term bond issues.

In another study, Mohan (2003) observed that lending rates of banks have not come down as much as deposit rates and interest rates on government bonds. While banks have reduced their prime lending rate to some extent and are also extending sub-prime lending rates loans, effective lending rates continue to remain high. 'this development has adverse systemic implications, especially in a country like India where interest cost as a proportion of sales of corporate are much higher as compared to many emerging economies.

The problem of non-performing assets is related to several internal and external factors confronting the borrowers (Muniappan, 2002). The internal factors are diversion of funds for expansion/diversification! modernization, taking up new projects, helping/promoting associate concerns, time/cost overruns during the project implementation stage, business (product, marketing and so on) failure, inefficient management, strained labour relations, inappropriate technology! technical problems, product obsolescence, etc, while external factors are recession, non-payment in other countries, inputs/ power shortage, price escalation, accidents and natural calamities. In the Indian context, Rajaraman and Vasishtha (2002) in an empirical study provided an evidence of significant bivariate relationship between an operating inefficiency indicator and the problem loans of public sector banks. In a similar manner, largely from lenders' perspective, Das and Ghosh (2003) empirically examined non-performing loans of India's public sector banks in

terms of various indicators such as asset size, credit growth and macroeconomic condition and operating efficiency indicators.

Sergio (1996) in a study of non-performing loans in Italy found evidence that, an increase in the riskiness of loan assets is rooted in a bank's lending policy adducing to relatively unselective and inadequate assessment of sectoral prospects. Interestingly, this study refuted that business cycle could be a primary reason for banks' non-performing assets. The study emphasized that increase in bad debts as a consequence of recession alone is not empirically demonstrated. It was viewed that the bank-firm relationship with thus; prove effective not so much because it overcomes information asymmetry but because it recoups certain canons of appraisal.

In a study of loan losses of US banks, McGoven (1993) argued that characters have historically been a paramount factor of credit and a major determinant in the decision to lend money. Banks have suffered loans losses through relaxed lending standards, unguaranteed credits, the influence of the 1 980s culture, and the borrowers' perceptions. It was suggested that bankers should make a fairly accurate personality morale profile assessment of prospective and current borrowers and guarantors. Besides considering personal interaction, the banker should (i) Try to draw some conclusions about staff morale and loyalty,

- (ii) Study the person's personal credit report (iii) Do trade credit reference checking
- (iv) Check references from present and former bankers and
- (v) Determine how the borrower handles stress.

In addition, banks can minimize risks by securing the borrower's guarantee, using government guaranteed loan programs, and requiring conservative loan-to value ratios.

Bloem and Gorter (2001) suggested that a more or less predictable level of non-performing loans, though it may vary slightly from year to year, is caused by an inevitable number of wrong economic decisions by individuals and plain bad luck (inclement weather, unexpected price changes for certain products and so on). Under such circumstances, the holders of loans can make an allowance for a normal share of non-performance in the form of bad loan provisions, or they may spread the risk by taking out insurance. Enterprises may well be able to pass a large portion of these costs to customers in the form of higher prices, or, for instance, the interest margin applied by financial institutions will include a premium for the risk of non-performance on granted loans.

Proff and Giovanniz and Grimardx (2002) using an accelerated failure time model in their study of Argentina's banking sectors weakness measured by the ratio of non-performing loans to total loans found that both bank specific indicators such as asset growth, the ratio of net worth to net assets, the ratio of operating cost to assets, exposure to peso loans, and institutional characteristics relating to private bank and foreign bank and macroeconomic variables including credit growth, foreign interest rate, reserve adequacy (imports/reserves) and monetary expansion (Broad Money Supply/Reserves), besides the tequila effects were reasons behind the banking fragility. Their empirical results suggested that bank size measured by log of assets had a positive effect but asset growth had a negative effect on non-performing loans. The variables such as operating cost, exposure to peso loans, credit growth and foreign interest rate had negative effect on non-

performing loans. The macroeconomic variables such as money multiplier, and reserve adequacy, institutional characteristics and tequila effect had positive influence on non-performing loans.

Fuentes and Maquieira (1998) undertook an in depth analysis of loan losses due to the composition of lending by type of contract, volume of lending, cost of credit and default rates in the Chilean credit market. Their empirical analysis examined different variables which may affect loan repayment (a) Limitations on the access to credit (b) Macroeconomic stability (c) Collection technology (d) bankruptcy mode (e) Information sharing (f) The judicial system (g) prescreening techniques; and (h) Major changes in financial market regulation. They concluded that a satisfactory performance of the Chilean credit market in terms of loan repayment hinges on a good information slumping system. an advanced collection technology, macroeconomic performance and major changes in the financial market regulation. In another study of Chile, Fuentes and Maquieira (2003) analyzed the effect of legal reforms and institutional changes on credit market development and the low level of unpaid debt the Chilean banking sector. Using time series data on yearly basis (1960-1997), they concluded that both information sharing and deep financial market liberalization were positively related to the credit market development. They also reported less dependence of unpaid loans with respect to the business cycle compared to interest rate of the Chilean economy.

Altman, Resti and Sironi (2001) analyzed corporate bond recovery rate adducing to bond default rate, macroeconomic variables such as Gross Domestic Product and growth rate, amount of bonds outstanding amount of default, return on default bonds, and stock return, it was suggested that default rate, amount of bonds, default bonds, and economic

recession had negative effective effect, while the Gross Domestic Product growth rate and stock return had positive effect on corporate recovery rate.

Lis, et al (2000) used a simultaneous equation model in which they explained bank loan losses in Spain using a host of indicators which included Gross Domestic Product growth rate, debt-equity ratios of firms, regulation regime, loan growth, bank branch growth rates, bank size (asset over total size), collateral loans, net interest margin, capital asset ratio and market power of default companies. They found Gross Domestic Product growth (contemporaneous, as well as one period lag term), bank size, and Capital Asset Ratio, had negative effect while loan growth, collateral, net-interest margin, debt-equity. Market power. Regulation regime and lagged dependent variable had positive effect on problem loans. The effect of branch growth could vary with different lags.

While examining the relationship between cyclical lending behaviour of banks in Australia argued that, the potential for banks to experience essential losses on their loan portfolios increases towards the peak of the expansionary phase of the cycle. However, towards the top of the cycle, banks appear to be relatively healthy- that is, non-performing loans are low and profits are high, reflecting the fact that even the riskiest of borrowers tend to benefit from buoyant economic conditions. While the risk inherent in banks' lending portfolios peaks at the top of the cycle, this risk tends to be realized during the contractionary phase of the business cycle. At this time, banks' non-performing loans increase; profits decline and substantial losses to capital may become apparent. Eventually, the economy reaches a trough and turns towards a new expansionary phase, as a result the risk of future losses reaches a low point, even though banks may still appear relatively unhealthy at this stage in the cycle.

Jimenez and Saurina (2003) used logic model for analyzing the determinants of the probability of default of bank loans in terms of variables such as collateral, type of lender and bank-borrower relationship while controlling for the other explanatory variables such as size of loans, size of borrower, maturity structure of loans and currency composition of loans. Their empirical results suggested that collateralized loans had a higher probability default, loans granted by savings banks were riskier and a close bank-borrower relationship had a positive effect on the willingness to take more risk. At the same time, size of bank loan had a negative effect on default while maturity term of loans, that is, short term loans of less than one-year maturity had a significant positive effect on default.

Goldstein and Turner (1996) cited in Fofack (2005) stated that the accumulation of non-performing loans is generally attributable to a number of factors, including economic downturns and macroeconomic volatility, terms of trade deterioration high interest rates, excessive reliance on high priced inter-bank borrowings, insider lending and moral hazard. They observed that in a context of low equity and absence of diversification, terms of trade deterioration and interbank loans played a key role in the accumulation of non-performing loans in Sub-Saharan African, and also increase the risks and prospects of moral hazard.

Moral hazard in the banking sector context refers to the adverse incentives created by the prospects of implicit cost at banks losses by governments. It can be particularly high when banks' capitalization is low, in such cases, it often leads to adoption of imprudent lending strategies with direct implications for banks loans portfolios, which tend to be heavily skewed toward high projects. Indeed, moral hazard was pervasive in the practice of banking in the nineties, and as such was singled out as one of the causes of a dramatic

increase of non-performing loans in Sub-Saharan African. In Nigeria, moral hazard which fueled insider lending is believed to have accounted over 65% of impaired loans in four banks liquidated in 1995 (Fofack, 2005).

Brownbridge (1998) identified insider lending as the single biggest contributor to the bad loans of many of the failed banks. He observed that at least half of the banks failures, insider loans accounted for a substantial proportion of the bad debts.

Most of the bank failures were caused by non-performing loans. Areas affecting more than half the loan portfolio were typical of the failed banks. Many of the bad debts were attributable to moral hazard; the adverse incentives on bank owners to adopt imprudent lending strategies, in particular insider lending and lending at high interest rates to borrowers in the most risky segments of the credit markets.

Nigeria Deposit Insurance Corporation (1994) cited in Brownbridge (1998) reported that insider loans accounted for 65 percent of the total loans of the four local banks liquidated in Nigeria in 1995, virtually all of which was unrecoverable. This insider loans were found to be related to moral hazard which is caused by several factors.

- a. Insider Lending: The single biggest contributor to the bad loans of many of the failed local banks was insider lending. In at least half of the bank failures referred to above, insider loans accounted for a substantial proportion of the bad debts. Most of the larger local bank failures in Kenya, such as the Continental Bank, Trade Bank and Pan African Bank, involved extensive insider lending often to politicians. Insider loans accounted for 65% of the total loans of the four local banks liquidated in Nigeria in 1995, virtually all of which was unrecoverable (Nigeria Deposit Insurance Corporation, 1994:48). Almost

half of the loan portfolio of one of the Ugandan local banks taken over by the bank of Uganda in 1995 had been extended to its directors and employees. The threat posed by insider lending to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached large-loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centers) with the result that the maturities of the bank's assets and liabilities were imprudently mismatched.

The high incidence of insider lending among failed banks suggests that problems of moral hazard were especially acute in these banks. Several factors contributed to this.

First, politicians were involved as shareholders and directors of some of the local banks. Political connections were used to obtain public-sector deposits: many of the failed banks, particularly in Kenya, relied heavily on wholesale deposits from a small number of parastatals. Because of political pressure, the parastatals which made these deposits are unlikely to have made a purely commercial judgment as to the safety of their deposits. Moreover, the availability of parastatal deposits reduced the need to mobilize funds from the public. Hence these banks faced little pressure from depositors to establish a reputation for safety. Political connections also facilitated access to bank licenses and were used in some cases to pressure bank regulators not to take action against banks when violations of the banking laws were discovered. All these factors reduced the constraints on imprudent bank management.

In addition, the banks' reliance on political connections meant that they were exposed to pressure to lend to the politicians themselves in return for the assistance given in

obtaining deposits, licenses, etc. Several of the largest insider loans made by failed banks in Kenya were to prominent politicians.

Second, most of the failed banks were undercapitalized, in part because the minimum capital requirements in force when they had been set up were very low. Owners had little of their own funds at risk should their bank fail, which created a large asymmetry in the potential risks and rewards of insider lending. Bank owners could invest the bank's deposits in their own high risk projects, knowing that they would make large profits if their projects succeeded, but would lose little of their own money if they were not profitable. Of the 13 distressed local banks taken over by the central bank of Nigeria in 1995, all except one had paid-up share capital which barely exceeded the minimum required by law of ₦50 million and 440 million, for commercial and merchant banks respectively, at the end of 1994. The average paid up share capital of the four commercial banks taken over by the Central bank of Nigeria was 5 1 million compared with an average of ₦94 million for all 36 private sector commercial banks, while the average paid-up share capital of the nine merchant banks taken over by the Central bank of Nigeria was N52 million compared to an average of 68 million for all 48 private-sector merchant banks (see table 2.!). The paid-up share capital of these 13 failed banks amounted to an average of only about 4 percent of their total loans.

The third factor contributing to insider lending was the excessive concentration of ownership. In many of the failed banks, the majority of shares were held by one man or one family, while managers lacked sufficient independence from interference by owners in operational decisions. A more diversified ownership structure and a more independent management might have been expected to impose greater constraints on insider lending,

because at least some of the directors would have stood to lose more than they gained from insider lending, while managers would not have wanted to risk their reputations and careers.

- b. Lending to High —Risk Borrowers: The second major factor contributing to bank failure was lending at high interest rates, to borrowers in high-risk segments of the credit market. This involves elements of moral hazard on the part of both the banks and their borrowers and the adverse selection of the borrowers. It was in part motivated by the high cost of mobilizing funds because they were perceived by depositors as being less safe than the established banks, local banks had to offer depositors higher deposit rates. The also had difficulty in attracting non-interest bearing current accounts because they could offer few advantages to current account holders, which could not also be obtained from the established banks. Some of the local banks relied heavily on high cost interbank borrowings from other banks and financial institutions, on which real interest rates of over 20 percent were riot uncommon.

The high cost of funds meant that the local banks had to generate high earnings from their assets; for example, by charging high lending rates, with consequences for the quality of their loan portfolios. The local banks almost inevitably suffered from the adverse selection of their borrowers, many of who had been rejected by the foreign banks (or would have been had they applied for a loan) because they did not meet the strict creditworthiness criteria demanded of them. Because they had to charge higher lending rates to compensate for the higher costs of funds, it was very difficult for the local banks to compete with the foreign banks for the “prime” borrowers (that is, the most creditworthy borrowers). As a result, the credit markets were segmented, with many of

the local banks operating in the most risky segment, serving borrowers prepared to pay high lending rates because they could access no alternative sources of credit. High —risk borrowers included other banks and non-bank's financial institutions, which were short of liquidity and prepared to pay above-market interest rates for interbank deposits and loans. In Nigeria some of the local banks were heavily exposed to finance houses, which collapsed in large numbers in 1993, as well as to other local banks (Agusto and Company, 1995:40). Consequently, bank distress had domino effects because of the extent to which local banks lent to each other.

Within the segments of the credit market served by the local banks, there were probably good quality (that is, creditworthy) borrowers as well as poor quality risks. But serving borrowers in this section of the market requires strong loan appraisal and monitoring systems, not least because information imperfections are acute; the quality of borrowers' financial accounts are often poor, many borrowers lack a track record of successful business, and so on. The problem for many of the failed banks was that they did not have adequate expertise to screen and monitor their borrowers, and therefore distinguish between good and bad risks. In addition, credit procedures, such as the documentation of loans and loan securities and internal controls were frequently very poor. Managers and directors of these banks often lacked the necessary expertise and experience (Maniman and Oluyemi, 1994). Recruiting good staff was often difficult for the local banks because the established banks could usually offer the most talented bank officials better career prospects. Moreover, the rapid growth in the number of banks in countries such as Nigeria outstripped the supply of experienced and qualified bank officials.

C. **Macroeconomic Instability:** The problems of poor loan quality faced by the local banks were compounded by macroeconomic instability. Periods of high and very volatile inflation occurred in all four of the countries covered here. During the 1990s, inflation reached in Zambia 191 percent, in Kenya 46 percent, and in Uganda 230 percent with interest rates liberalized (except in Nigeria), nominal lending rates were also high, with real rates fluctuating between positive and negative levels, often in an unpredictable manner, because of the volatility of inflation (Collier, 1993:1920). Macroeconomic instability would have had two important consequences for the loan quality of the local banks. First, high inflation increases the volatility of business profits because of its unpredictability, and because it normally entails a high degree of variability in the rates of increase of the prices of the particular goods and services which make up the overall price index. The probability that firms will make losses rises, as does the probability that they will earn windfall profits. This intensifies both adverse selection and adverse incentives for borrowers to take risks and thus the probabilities of loan default.

The second consequence of high inflation is that it makes loan appraisal more difficult for the bank because the viability of potential borrower depends upon unpredictable developments in the overall rate of inflation, its individual component, exchange rates and interest rates. Moreover, asset prices are also likely to be highly volatile under such conditions. Hence, the future real value of loan security is also very uncertain.

d. **Liquidity Support and Prudential Regulation:** Deposit insurance schemes were not crucial factors in contributing to moral hazard in the failed banks.

Kenya and Nigeria have provided deposit insurance since the late 1980s but only for deposits below a specified minimum amount. Many of the failed banks' deposits were not insured, because they were too large (as in the case of most of the institutional deposits) and/or because they were from sources not covered by the insurance scheme. But the willingness of the regulatory authorities to support distressed banks with loans, rather than close them down, was probably an important contributor to moral hazard. Many of the failed banks in Kenya, Uganda and Zambia had been able to borrow heavily from their respective Central Banks for several months and in some cases for more than a year before they were closed.

The extent of imprudent management in the failed banks indicates that there were serious deficiencies in bank regulation and supervision. When many of the banks were set up in the 1980s or early 1990s, banking legislation was outdated and Central Bank supervision departments were seriously understaffed in Kenya and Nigeria many banks avoided being inspected for long periods because the rapid expansion of banks in the second half of the 1980s overwhelmed supervisory capacities. Furthermore, political pressure was brought to bear on Central Banks to exercise regulatory forbearance. The central banks often lacked sufficient independence from the government to refuse liquidity support to politically connected banks and to strictly enforce the banking laws in particular, for those banks with strong political connections, the expectation that regulators could be pressured to exercise forbearance must have seriously undermined discipline and incentives for prudent bank management.

Nonperforming loans have negative impact on performance of banks. Studies by Nigeria Deposit Insurance Corporation (1992) and Dhanuskodi (2006.) indicated that, non-performing loans have negative impact on both internal and external factors.

The internal factors identifies by Dhanuskodi (2006) include; it increases total expenditure of banks; it reduces the earning capacity of banks; and it does not earn any income but rather they adversely affect capital adequacy ratio.

The external factors which are negatively affected by non-performing loans include:

- i. Regulatory agencies are not happy with high level of non- performing loans;
- ii. It develops indifferent or negative attitude in the mind of bank customers; and
- iii. It reduces the image of banks that have high level of non- performing loans.

Nigeria Deposit Insurance Corporation (1992) observed the following as the negative impact of non-performing loans on banks

#### Impact of Defaults on Banking

- i. Profitability: When a default of a particular bank is on the increase and it is left to persist, it affects the banks profit and reduces the amount of funds made available of disbursement. Most banks in the early nineties were faced with this problem and as a result left most of them distressed (inability of banks to meet financial needs of their depositors)
- ii. Shareholder's Funds: Investors in bank, both ordinary shareholder and preference shareholders are affected as a result of increase in default cases. This is so when a

bank does not give dividends to his shareholders because of low profit made or realized during a particular period.

- iii. **Survival:** For banks to remain in existence and survive it has to be efficient and effective. A bank that is therefore, faced with default problems would find it hard to cope with remaining in existence. Most of the banks tend to lay off some of their staff that is, reducing the staff strength and some even shut down some their branches and sell off their assets.
- iv. **Operations:** This is one of the things mostly affected by defaults in banks. This starts with the bank(s) not being able to cope with the welfare of the workers for example transportation provision, feeding and so on, and this is followed by non-payment of wages and salaries of their workers for months and eventually to laying off some of the workers. This tends to affect operations of the banks because the attitude of worker to work will change as a result of this, worker will be forced to go into fraudulent practices which will even affect the banks the more.
- v. **Image:** As a result of the banks not being able to meet the need of their depositors, it creates a bad image in the society and as a result of this information, the banks lose their customers and intending depositors to other intermediaries like insurance Companies and so on.
- vi. **Loss of Confidence:** When depositors go to their banks to withdraw some money for their immediate financial needs and are unable to get it or their needs are not being satisfied by their banks, most of them tend to lose confidence in their banks and people would prefer holding their money or keeping it at home than taking their money to the banks as deposits.

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- vii. **Diversion of Funds (Deposits):** When this problem of default is not taken care of dealt with depositors tend to withdraw their money and take to other institutions mainly non-bank financial intermediaries or invest in securities and this further worsens the position of the bank(s) that is affected by this default.
- viii. **Liquidity:** Defaults create a problem of banks not having enough cash to settle and meet the financial needs of the depositors. Also, this leads to the bank(s) turning down every or most of the proposals they receive for loans.
- ix. **Social Responsibility to the Society:** When banks are facing default problem they are kind of “handicapped”, to notice the needs of the society in which they operate in. social responsibilities which bank ought to be responsible for include awarding of scholarship, bursary awards, providing some social amenities etc.
- x. **Product:** When a bank is having lots of default causes, it affects the bank’s working capital, which affects the quality of the bank product thereby making it less effective and less efficient.
- xi. **Extra Cost of realizing the Bad Loans:** When debtors refuse to pay back what they borrowed, it creates an extra cost for the bank to get them to pay back. Such costs like legal fees, consultancy fee, cost of visiting the debtors, and so on.
- xii. **Distress:** As a result of great/high level of default which was not curtailed, the bank or banks after being faced with the above problems and still, the default level is not controlled, this will lead to the bank(s) getting distressed and if a bank is distressed and it is not reversed quickly, the bank will be adjudged bankrupt and will have to be liquidated. This happened in the early 90’s to banks like Alpha Bank and some other banks.

#### **2.4.1 Historical Background of Union Bank of Nigeria Plc**

Union bank of Nigeria Plc was established in 1917 as a Colonial Bank with its first branch in Lagos. In 1925, Barclays Bank acquired the Colonial Bank, which resulted in the change of the Bank's name to Barclays Bank (Dominion Colonial and Overseas). Following the enactment of the companies Act 1968 and the legal requirement for all foreign subsidiaries to be incorporated locally, Barclays Bank (Dominion Colonial and Overseas) in 1969 was incorporated as Barclays Bank of Nigeria Limited. The ownership structure of Barclays Bank remained un-changed until 1971 when 8.33% of the Bank's shares were offered to Nigerians. In the same year, the bank was listed on the Nigeria stock exchange. As a result of the Nigerian enterprises promotion act of 1972, the federal government of Nigeria acquired 51.67% of the bank's shares which left Barclays Bank Plc London with only 40%. By the enactment of the Nigeria international limited disposed its shareholding to Nigerians in 1979. To reflect the new ownership structure and in compliance with the companies and allied matters act of 1990, it assumed the name Union Bank of Nigeria Plc.

In line with the Central Bank of Nigeria's banking sector consolidation policy, Union Bank of Nigeria Plc acquired the former Universal Trust Bank Plc and Broad Bank Ltd and absorbed its erstwhile subsidiary Union merchant bank Ltd.

The bank also increased its shareholders funds through public offer/rights issue in the last quarter of 2006. With these developments Union Bank remains one of the most capitalized banks in Nigeria. It has the largest shareholders' funds of ₦100.500 billion and operates through 379 networks of branches that are well spread across the country, all of which are on-line real time.

## 2.5 Theoretical Review

Over the last few years the literature that examines non-performing loans has expanded in line with the interest afforded to understanding the factors responsible for financial vulnerability. This situation may be attributed to the fact that impaired assets plays a critical role in financial vulnerability as evidenced by the strong association between NPLs and banking/financial crises in Argentina, East Asia and Sub-Saharan African Countries during the 1990s. In this section we review the existing literature so as to formulate a theoretical framework to investigate the determinants of non-performing loans in Guyana.

Keeton, and Morris (1987) present one of the earliest studies to examine the causes of loan losses. In the latter paper the authors examined the losses by 2,470 insured commercial banks in the United States (US) over the 1979-85. Using NPLs and net of charge - olds as the primary measure of loan losses Keeton and Morris (1987) shows that local economic conditions along with the poor performance of certain sectors explain the variation in loan losses recorded by the banks. The study also reports that commercial banks with greater risk appetite tend to record higher losses.

Several studies which followed the publication of Keeton and Morris (1987) have since proposed similar and other explanations for problem loans in the US. Sinkey and Greenwalt (1991), for instance, investigate the loan loss-experience of large commercial banks in the US; they argue that both internal and external factors explain the loan —loss rate (defined as net loan charge oils plus NPLs divided by total loans plus net charge-offs of these banks. 'These authors find a significant positive relationship between the loan-loss rate and internal factors such as high interest rates, excessive lending, and volatile

funds. Similar to the previous study. Sinkey and Ureenwalt (1991) report that depressed regional economic conditions also explain the loss-rate of the commercial banks. The study employs a simple log-linear regression model and data of large commercial banks in the United States from 1984-1987.

Kecton (1999) uses data from 1982 to 1996 and a vector auto regression model to analyses the impact of credit growth and loan delinquencies in the US. It reports evidence of a strong relationship between the credit growth and impaired assets. Specifically, Keeton (1999) shows that rapid credit growth which was associated with lower credit standards, contributed to higher loan, losses in certain states in the US. In this study loan delinquency was defined as loans which are overdue for more than 90 days or does not accrue interest.

Studies that examined other financial systems also provide similar results to those in the US. For instance, Bercoff et al (2002) examine the fragility if the Argentinean Banking System over the 1993-1996 period; they argue that NPLs are affected by both bank specific factors and macroeconomic factors. To separate the impact of bank specific and macroeconomic factors, the authors employ survival analysis.

Using a dynamic model and a panel data set covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks. Salas and Saurina (2002) reveal that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power explain variation in NPLs. Furthermore. Jimenez and Saurina (2005) examine the Spanish banking sector from 1984 to 2003; they provide evidence that NPLs are determined by GDP growth, high real interest rates and lenient credit terms.

This study attributes the latter to disaster myopia, herd behaviour and agency problems that may entice bank managers to lend excessively during boom periods.

Meanwhile, Rajan and Dhal (2003) utilize panel regression analysis to report that favourable macroeconomic conditions (measured by GDP growth) and financial factors such as maturity, cost and terms of credit, banks size, and credit orientation impact significantly on the NPLs of commercial banks in India.

Using a pseudo panel-based model for several Sub-Saharan African countries, Fofack (2005) finds evidence that economic growth, real exchange rate appreciation, the real interest rate, net interest margins, and inter-bank loans are significant determinants of NPLs in these countries. The author attributes the strong association between the macroeconomic factors and non-performing loans to the undiversified nature of some African economies.

More recently, Hu et al (2006) analyses the relationship between NPLs and ownership structure of commercial banks in Taiwan with a panel dataset covering the period 1996-1999. The study shows that banks with higher government ownership recorded lower non-performing loans. Hu et al (2006) also show that bank size is negatively related to NPLs while diversification may not be a determinant.

In the theory of banking, the problem of non-performing loans has been mentioned in several theoretical and empirical studies. Several studies have been carried out on the issues of non-performing loans; including; Ash and Enrica (1998); Ranjanand Dhal (2003)

According to Ash and Enrica (1998), the value of a bank's assets may drop because borrowers become unable to service their debt (credit risk). Credit risk can be reduced in various ways, such as screening loan applications, diversifying the loan portfolio by lending to borrowers who are subject to different risk factors or as King for collateral. They argue that appropriate screening can ensure that projects that are unprofitable ex ante are not financed; but risky projects that are profitable in an ex ante sense may still fail ex post. They also stated that portfolio diversification is unlikely to eliminate default risk completely, especially for banks that operate in small countries or that specialize in lending to a particular sector.

Finally, collateral is costly to establish and monitor, and its value is typically subject to fluctuations. Thus, default risk cannot be entirely eliminated without severely curtailing the role of banks as financial intermediaries.

The preceding point was corroborated by Stiglitz (1972) when he stated that the amount of risk that bank managers choose to take on, however, is likely to exceed a bank's compulsory and voluntary reserves as well as its equity cushion, the bank is insolvent.

Thus, the theory predicts that shocks that adversely affect the economic performance of bank borrowers and whose impact cannot be reduced through risk diversification should be positively correlated with systematic banking crises. That is changes in interest rates some of the items associated with non-performing loans. High real interest rates are likely to hurt bank balance sheets even if they can be passed on to borrowers, as high lending rates results in a large fraction of non-performing loans.

Thus, a large increase in short-term interest rates is likely to be a major cause of systematic banking problems, including non-performing loans. Studies by Reddy (2004), Moham(2003); Bloem and Gorters (2001), Sergio (1996), Christine (1995)and McGoven (1998) all identified banks' lending policy as the major cause of non- performing loans.

Reddy (2004) critically examined various issues pertaining to terms of credit of banks. He observed that a defaulter takes into account probabilistic assessment of various costs and benefits of his decision.

In a study of institutional finance structure and implications for banks growth, Moham (2003) emphasized on key lending terms of credit such as maturity and interest terms of loans to corporate sector. Similarly, other authors have agreed that banks' lending policy is a major driver of non-performing loans in banks.

In similar study on "credit policy, systems, and culture", Reddy (2004) raised various critical issues pertaining to credit delivery mechanism of the Indian banking sector. The study focuses on the terms of credit such as interest rate charged to various productive activities and borrowers, the approach to risk management, and portfolio management in general. There are three pillars on which India's credit system was based in the past; fixing of prices of credit or interest rates as well as quantum of credit linked with propose; insisting on collateral; and prescribing the end-use of credit. Interest rate prescription and fixing quantum has, however, been significantly reduced in the recent period. The study also highlighted the issues in security-based or collateralized lending, which need careful examination in the context of growing services sector. Given the fungibility of resources, multiple sources of flow of resources, as well as application of

funds, the relevance and feasibility of end-use restrictions on credit need a critical review. The link between formal and informal sectors shows that significant divergence in lending terms between the two sectors still persist, despite the fact that the interest rate in informal markets is far higher than that of the formal sectors- the banking sector. The convergence between formal and informal sectors could be achieved by pushing the supply of credit in the formal sector following a supply leading approach to reduce the price or interest rate. Furthermore, in the context of non-performing assets account of priority sector lending, it was pointed out that the statistics may or may not confirm this. There may be only a marginal difference in the non-performing assets of banks' lending to priority sector and the bank's lending to private corporate sector. Against this background, the study suggested that given the deficiencies in these areas, it is imperative that banks need to be guided by fairness based on economic and financial decisions rather than system of conventions, if reform has to serve the meaningful purpose. Experience shows that policies of liberalization, deregulation and enabling environment of comfortable liquidity at a reasonable price do not automatically translate themselves into enhanced credit flow.

Although public sector banks have recorded improvements in profitability efficiency (in terms of intermediation costs) and asset quality in the 1990s, they continue to have higher interest rate spreads but at the same time earn lower rates of return, reflecting higher operating costs (Mohan. 2003). Consequently, asset quality is weaker so that loan loss provisions continue to be higher. This suggests that, whereas, there is greater scope for enhancing the asset quality of banks, in general, public sector banks, in particular, need to reduce the operating costs further. The tenure of funds provided by banks either as loans

or investments depends critically on the overall asset-liability position. An inherent difficulty in this regard is that since deposit liabilities of banks often tend to be of relatively shorter maturity, long-term lending could induce the problem of asset-liability mismatches.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### **3.1 Introduction**

In this chapter the methodology for the study is examined. Such area as population of study, method of sampling, method of data collection, method of data analysis, model specification and methods of hypothesis testing would be examined.

#### **3.2 Population, Sample and sampling Techniques**

The population used in this study is the total number of banks in Nigeria, but the sample size is the total number of branches of Union Bank of Nigeria Plc, using its annual reports and statement of accounts for eight years between 1998-2006.

Union bank of Nigeria Pie is chosen because of its age, size and spread. Besides, the 1998-2006 was selected because it is the most recent period.

#### **3.3 Method of Data Collection**

The data collection for this study was secondary in nature. 'They were collected from some publications of the Nigerian Deposit Insurance Corporation, Central Bank of Nigeria annual reports and statement of accounts and Union Bank of Nigeria Pie annual reports and statement of accounts for the selected years.

The secondary data was chosen because they have been audited before published and they enable the researcher to gather data for long period of time,

#### **3.4 Method of Data Analysis**

In this study, two methods will be used to analyses the data collected for the study.

The coefficient of the regression models would be computed and analysed, in terms of their signs and value. To test whether or not each impart is significant in causing non-performing loans, we use the t-test method. In using this method, the following steps are used.

**Step 1:** Statement of the hypothesis

**Step 2:** Compute the coefficient, standard error and  $t_{\alpha}$  values by using the formula:

$t_0 = \frac{\text{Coefficient}}{\text{Statement error of coefficient}}$

**Step 3:** Determine tabular value of 't' at a chosen level of significance and at (n-k) degree of freedom, by using the formula:

$t_{\alpha}(n-k)$

Where:

$\alpha$  = The significance (or confidence) level which can be 5 percent (95 percent), 10 percent

(or 9 percent) and so on. n sample size (in this case is 8 i.e. 8 years) and

k number of coefficients which in this case is 5

**Step 4:** comparison of results and conclusion. If the computed value (from step 2) is greater than the tabular value (from step 3). We reject the null hypothesis ( $H_0$ ) and conclude in favour of the alternative hypothesis ( $H_1$ ) or otherwise

### 3.5 Model Specification

In order to identify the separate effect of the various impacts of non- performing loans in banks, the mode) below will be used. Thus, the model relating non-performing loans in Union batik of Nigeria Plc to its impact are stated as follow:

Model

$$NF(B,G,R,I) \dots\dots\dots I$$

(a)  $N=a_0+a_1+B + a_2 G + a_3 R +a_4I + U_1 \dots\dots\dots I$

(b)  $\text{Log}N=\text{log}a_0+a_1+\text{log}B+a_2 \text{log}G+a_3\text{log} R+ a_4\text{log} I + U_1 \dots\dots\dots I$

Where:

N=Non-performing loans (measured by the difference between total credits/loans given by the bank and total credit recovered by the bank.

B = Bank total credit/deposit ratio:  $\frac{\text{Banks' total credits}}{\text{Banks' total deposits}}$

U = Real gross domestic product growth rate

R= Bank lending rate

I = Inflation rate

P = Bank performance (measured by profit before or after tax)

$a_0$  —  $b_0$  = Intercept of the regression models

$a_1$  —  $a_4, b_1$ , The coefficients of the parameters; and

$U_1, \dots, U_2$  error terms

### **3.6 Summary**

The methodology used both descriptive and multiple regression techniques to identify the impact and effects of non-performing loans in Nigerian banks. Such areas as population of study, method of data collection, method of data analysis, model specification and methods of hypothesis testing had been adopted.

**CHAPTER FOUR**  
**DATA PRESENTATION AND ANALYSIS**

**4.1 Presentation of Regression Models**

The regression models derived in chapter three are estimated and the results are presented below:

**Model I**

$$N = 4414.547 + 0.448B + 0.022R + 0.245G + 0.1661$$

$$T_c = (0.330)(0.610)(0.065 \times 0.330)(0.260)$$

$$R^2 = 0.675 = 67.5\%, \quad R^2 = 0.242 = 24.2\%$$

$$F = 1.559 \quad DW = 2.677$$

$$T_{0.025, 3} = 3.18$$

**Model II**

$$P = 1929.147 + 0.798N$$

$$T_0 = (-0.599)(3.247)$$

$$R^2 = 0.637 = 63.7\%, \quad R^2 = 0.577 = 57.7\%$$

$$F = 10.543 \quad DW = 2.279$$

## 4.2 Analysis of the Regression Models

In model one, the impact of bank total loans to deposit ratio, bank lending rate, real gross domestic product growth rate and inflation rate on non-performing loans is considered. The coefficient of bank total loans to deposits ratio is positive, indicating positive relationship between non-performing loans and banks total loans to deposits ratio.

The bank total loans to deposit ratio did not pass the significant test since its calculated value (0.610) is less than its tabular value (3.18) at 5 percent level of significance. This implies that banks total loans to deposit ratio is not significant in determining non-performing loans in Nigerian banks.

Similarly, the coefficient of bank lending rate (R) of interest is positive indicating positive correlation between it and bank's non-performing loans. The positive correlation showed that a unit increase in bank lending rate of interest will cause less than proportionate rise in bank's non-performing loans. Furthermore, bank lending rate did not pass the significance test 5 percent level since its calculated value (0.065) is less than its tabular value (3.18) at that level of significance. This means that bank-lending rate of interest is not significant in determining non-performing loans in Nigeria banks.

Again, the coefficient of real gross domestic product is positive, indicating positive relationship between it and non-performing loans in commercial banks in Nigeria during the 1998-2006. The gross domestic product did not pass the significant test at 5 percent level since its calculated value (0.330) is less than its tabular value (3.18) at that level of significance. This means that gross domestic product has no significant effect on non-performing loans in Nigerian banks.

Besides, the coefficient of inflation rate is also positive, indicating a positive relationship between it and non-performing loans of commercial banks in Nigeria during the 1998-2006. Inflation rate did not pass the significance test at 5 percent level since its calculated value (0.260) is less than its tabular value (:3.18) at that level of significance. The import of this is that inflation is not significant in determining non-performing loans in Nigerian banks.

An examination of the model one also showed that the fit of the model in terms of the coefficient of determination is fair. All the variables could account thr about 65.7 percent and 24.2 percent of the total variation in the non-performing loans of commercial banks in Nigerian during the 1998-2006. Furthermore, the low values of  $F=1.559$  and underscore the fair fit of the model. Again the low value of  $DW=2.677$  means that the secondary data used for the study has no autocorrelation (or free of error).

Equation two, the coefficient of non-performing loans is positive indicating positive relationship between it and banks profit before tax. Non-performing loans passed the significance test at 5 percent level since its calculated value (3.247) is greater than its tabular value (3.18) at that level of significance. This implies that non-performing loans is not significant in determining profits of banks in Nigeria.

It is important to state that, the insignificant effect of the determinants may be due to the fact that some independent variables such as inflation and gross domestic product are interdependent on each other causing the problem of multicollinearity. Besides, the insignificant relationship between non-performing loans and its determinants may be also

attributed to interdependence between bank rate of interest and total loans, giving rise to the problem of multicollinearity.

The fit of the model in terms of the coefficient and adjusted coefficient is fair. Non-performing loans could explain about 63.7 percent of the total changes in bank profits before tax. The high value of  $F=10.543$  underscores the fair fit of the model. Also, the small value of Durbin Watson 2.279 indicates that there is little or no error in the data used for the study.

**TABLE 4.1 SOME BANKING AND MACROECONOMIC INDICES IN NIGERIA  
1998-2003 NON-PERFORMING LOANS**

Year	Substandard	% of Total NPL	Doubtful	% of Total NPL	Loss	% of total NPL	Total LNPL	Total NPL as % of total loans	Total Loans	Total Deposits	Bank lending rate	Bank profit before tax	GDP	Inflation
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
							(N)			(S)	(R)	NM (P)	(G)	(I)
1998	1,474	14.12	1,614	15.43	7,350	70.42	10,441	41.63	25,078	77,239	21.8	2,083	3,193.62	10
1999	2,334	15.36	1,572	10.24	11,290	74.30	15,196	54.52	27,374	93,035	33.1	3,660	4,842.19	12.8
2001	2,332	22.74	1,397	13.62	6,525	63.63	10,254	27.77	36,925	170,977	31.2	7,058	5,45.41	18.9
2002	1,115	7.06	1,854	11.73	12,835	81.21	15,804	34.74	45,486	204,347	25.7	7,450	5,726.19	12.9
2003	315	4.46	3,499	19.16	13,946	76.38	18,262	33.47	54,560	224,347	26.6	10,154	6,242.23	23.8
2004	4,127	18.17	1,217	5.35	17,386	76.49	22,730	29.02	78,338	241,585	26.8	10,210	8,144.81	24.6
2005	2,780	14.96	3,257	17.52	12,551	67.52	18,588	23.62	73,634	200,571	26.7	11,953	9,242.13	25.3
2006	2,930	16.65	4,606	19.52	15,061	63.88	23,597	20.33	116,060	275,457	29.8	12,350	10,121.11	24.8

Sources (1) Union Bank of Nigeria Annual Report and Accounts, Various Years

(2) Central Bank of Nigeria Annual Reports and Statements of Accounts, Various Issues

(3) Columns (2), (4), (6), and (8) are computed by the researcher

**Note:** Data for the year 2000 is not available.

### 4.3 Analysis of the Table

The table contains non-performing loans and its components; total loans, total deposit; bank lending rate, and bank profit before tax of Union Bank of Nigeria Plc and real gross deposit product as well as inflation rate in Nigeria for the period 1998-2006.

The table shows that substandard component of the non-performing loans rose from N1.474 million in 1998 to 2334 million in 1999. It plummeted steadily to N8 15 million in 2003. it rose sharply peak at n4. 127 million in 2004. The trend is zigzag.

On the other hand, the doubtful component of non-performing loans declined steadily from N 1,614 million in 1998 to N1,397 million in 2001. It rose to n3,499million in 2003 and declined again to N 1,217 million in 2004. it increased sharply to 3.257 million and N4,606 million in 2005 and 2006 respectively. The trend is upward zigzag.

The loss component of non-performing loans rose from N7353 million in 1998 to NI 1,290 million in 1999. It declined to N6,525 million in 2001. It rose steadily to N17,386 million in 2004, fall to N12,551 million in 2005 and rose to N15,061 million in 2006.

In general, total non-performing loans rose sharply from N10,441 million in 1998 to Ni 5,196 million in 1999. it fall sharply to N 10,254 million in 2001 and rose steadily to N 10,254 million in 2001 and rose steadily to peak at N23,597 million in 2006. The tread is generally upward.

The table also showed that both total loans given by Union bank of Nigeria Plc and total deposits in Union Bank of Nigeria Plc are in upward trend. The total loans rose steadily

from n25,078 million in 1998 to N116,060 million in 2006. Similarly, total deposits of customers rose from N77,239 million in 1998 to N275,457 million in 2006.

Again, the table showed that Union Bank of Nigeria Plc profit before tax rose steadily from N2,083 million in 1998 to N12,350 million in 2006.

An examination of the table further reveals that the loss component of non- performing loans in Union Bank of Nigeria Plc constitutes the greater part. It accounted for more than half of the total non-performing loans in all the years covered (see column 6). This indicated that on the average over 70.0 percent of non-performing loans of Union Bank of Nigeria Plc is loss during the period reviewed.

The table also indicated that the proportion of non-performing loans in total loans though declined steadily from 41.63 percent in 1998 to 20.33 percent in 2006 (column 8) it is substantial. Constituted on the average about 25.0 percent during the period covered.

#### **4.4 Discussion on Finding**

The finding in equation one showed that the coefficient of bank total loans to deposit ratio is positive but not statistically significant at the 5 percent level. The relationship showed that the ratio of bank total loans to deposit increases bank non- performing loans in commercial banks in Nigeria. This implies that increase in bank total loans is likely to increase non-performing loans in commercial banks in Nigeria if other determinants move in unfavourable directions.

Besides there is positive but not significant correlation between bank lending rate and non-performing loans in commercial banks in Nigeria during the period 1998- 2006. This

relationship agrees with a priory expectation and it indicates that increase in bank lending rate will make it increasingly difficult for borrower to pay the interest as well as the principal.

In additional the real gross domestic product growth rate was found to have positive but not significant relationship with bank non-performing loans. This relationship disagrees with a prior expectation, and indicates that there has been uneven distribution of resources among citizens in that the poor people as well as produces may get little or no proportion of the increase in gross domestic product.

Again, inflation was found to have positive but not significant relationship with bank's non-performing loans. This is due to the fact that inflation reduces consumption, production, savings and hence the ability of borrowers to pay back their loans.

In general, it was found that increase in interest rate and inflation has been found to incapacitate the borrowers to pay back the interest and principal of the loans. In model two, it was found that there is positive and significant relationship between non-performing loans and bank profit before tax.

This relationship disagrees with a priori expectation and it is due to the fact that non-performing loans are not significant part of profit of banks. Also nonperforming loans are usually considered a loss and interest on the loans are not included when profits are being declared by banks.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary of Findings

The major findings of the study are summarized below:

- a) It was found that there is positive and weak relationship between non-performing loans and bank total loans to deposit ratio in Nigeria.
- b) It was also found that positive and weak relationship exists between bank lending rate and non-performing loans in commercial banks in Nigeria.
- c) It was found that positive and weak relationships exist between non-performing loans and inflation rate in Nigeria during the period 1998-2006.
- d) It was also found that non-performing loans have positive and strong relationships with profit of banks before tax in Nigerian banks.
- e) In general, it was found that persistent increase in interest and inflation rate are the major determinants of rise in non-performing loans.

#### 5.2 Conclusion

It was expected at the beginning of this study that there would be positive relationship between non-performing loans and bank total loans to deposit ratio and bank interest rate as well as inflation rate.

The end result for 1998-2006 indicated that there is positive relationship between non-performing loans impacts. The analysis for the period reveals that there is positive relationship between non-performing loans and variables like gross domestic product

growth rate, inflation and interest rate, bank and total loans to deposit ratio: thus, it may be concluded that bank total loans to deposit ratio, interest, inflation and gross domestic product growth rate have contributed positively to increase in bank non-performing loans in commercial banks in Nigeria.

On the other hand, the analysis of the model disproves that a prior expectation that there is negative relationship non-performing loans and commercial banks profit before tax.

In general, the performance of Nigeria's banking sector is still far from being adequate. Also, effective policies for efficient resource allocation in order to promote banking services and growth within the on-going process of liberalization and globalization paradigms have not been created.

Besides, the sector is faced with challenges of stiff competitions at both regional and global levels. Therefore, empirically validated policies are dispensable for sustainable reduction in bank non-performing loans in commercial banks.

These are suggested below:-

### **5.3 Recommendations**

In view of the findings and conclusion drawn above, the following recommendations are made:

1. To ensure sustainable reduction in non-performing loans in Nigeria banks, economic policies should focus on macroeconomic stability (relatively low interest and inflation rates). This requires a combination of appropriate monetary, fiscal and other related policies aimed at non-inflationary growth. In this regard, I may suggest that bank loans

should be strictly monitored. Banks must ensure that loans given are channeled to the purpose for which they are taken to avoid diversion of loans to other purpose for which it is not applied for.

2. Banks are advised to be more careful and stricter in giving out loans. Loans must be targeted at productive activities that would repay itself.
3. The resource distribution system should be designed in such a way that would ensure even sharing of national income. To achieve this, more free or subsidized services such as health, education, housing etc, should be introduced. This will reduce poverty and increase borrower's ability to pay their loans.
4. A centralized data system for all banks should be introduced to enable banks that are willing to lend money have access to data on prospective borrowers who may have been borrowing from one bank to another with the aim of determining their capability and integrity of such prospective borrowers.
5. Also, a centralized information system for on the spot passport photograph snapshot, thumb and index printing by all customers should be introduced to enable banks have knowledge of all customers in them.
6. The names of non-performing loans that have fallen into the loss category should be published in both print and electronic media. This will go along way in discouraging loans to fall into the loss category.
7. Decisive and effective loan recovery strategies should be put in place by banks to ensure loans are recovered before they fall into any of the non-performing categories.

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