



ADDIS ABABA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF MANAGEMENT  
EXECUTIVE MBA PROGRAM

**Determinants of Non-Performing Loans:** *The Case of the  
Ethiopian Commercial Banks*

*A Thesis Submitted to the Management Department of the College of Business and  
Economics of Addis Ababa University in Partial Fulfillment of the Requirements for  
the Award of Executive Master of Business Administration (EMBA)*

Gebu Meshesha  
(Student Id No. GSE/1091/05)

Advisor: Dr. Asmare Emerie

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COLLEGE OF BUSINESS & ECONOMICS  
DEPARTMENT OF MANAGEMENT  
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<b>External Examiner</b>	<b>Signature</b>	<b>Date</b>
<u>Dr. Birhanu Denu</u>	_____	<u>July3, 2015</u>
<b>Internal Examiner</b>	<b>Signature</b>	<b>Date</b>
<u>Dr. Degefa Duressa</u>	_____	<u>July3, 2015</u>
<b>Advisor</b>	<b>Signature</b>	<b>Date</b>
<u>Dr. Asmare Emerie</u>	_____	<u>July3, 2015</u>
<b>Chairperson</b>	<b>Signature</b>	<b>Date</b>
<u>Dr. Mohammed Seid</u>	_____	<u>July3, 2015</u>

## CERTIFICATE

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Therefore, I hereby declare that no part of this thesis has been submitted to any other university or institution for the award of any degree or diploma.

**Advisor’s Name**

**Signature**

**Date**

Dr. Asmare Emerie

\_\_\_\_\_

July 3, 2015

## DECLARATION

I hereby declare that this thesis titled “*Determinants of Non-Performing Loans: The Case of Ethiopian Commercial Banks*” has been carried out by me under the guidance and supervision of my Advisor Dr. Asmare Emerie.

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

**Researcher’s Name**

**Signature**

**Date**

Gebru Meshesha

\_\_\_\_\_

July 3, 2015

## ABSTRACT

*Loans and advances form a greater portion of the total assets in banks. These assets generate huge interest income for banks which to a large extent determine the financial performance of banks. However, some of these loans usually fall into non-performing status and adversely affect the performance of banks. In view of the critical role banks play in an economy, it is essential to identify problems that affect the performance of these institutions. Non-performing loans is one of these problems. Therefore, a research on determinants of non-performing loans, the case of Ethiopian Commercial banks was conducted on twelve banks. The research seeks to find out the determinants of non-performing loans in the Ethiopian commercial banks. Structured questionnaire was used to collect data for the study from both private and state-owned banks.*

*The study found that poor credit analysis and unsound lending practices, lack of focused loan monitoring and follow-up, lenient credit terms and conditions, compromised integrity, and fund diversion as the major factors that contribute to loan default. Thus, it is suggested that banks should put in place a vibrant credit process that ensures proper customer selection, robust credit analysis, proactive monitoring, ethical standards, and prudent application of policies that govern bank loans.*

**Key words:** *Non Performing Loans (NPLs); Credit Analysis, Credit Process*

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## Table of Contents

	<b>Page</b>
CERTIFICATE.....	i
DECLARATION.....	ii
ABSTRACT .....	iii
ACKNOWLEDGMENTS.....	iv
LIST OF TABLES .....	v
ACRONYMS/ABBREVIATIONS.....	vi
<b>CHAPTER 1</b>	
INTRODUCTION .....	1
1.1. Background of the Study .....	1
1.2. Statement of the Problem and Research Questions .....	4
1.3. Objectives .....	5
1.4. Significance of the Study .....	6
1.5. Rationale of the Study .....	6
1.6. Scope of the Study .....	6
1.7. Limitations of the Study .....	7
1.8. Organization of the Study.....	7
<b>CHAPTER 2</b>	
THEORETICAL FRAMEWORK & REVIEW OF RELATED LITERATURE .....	8
2.1. Theoretical Framework.....	8
2.2. Literatur review .....	11
2.3. Review of Empirical Evidence .....	16
2.4. General Lending Procedures and Processing Credit Applications.....	19
<b>CHAPTER 3</b>	
RESEARCH DESUGN AND METHODOLOGY .....	23
3.1. Study Area.....	23

3.2. Research Design.....	23
3.3. Study participants/ population parameter/ .....	24
3.4. Types of Data .....	24
3.5. Sample Size .....	24
3.6. Types of Data .....	25
3.7. Method of Data Collection .....	25
3.8. Method of Data Analysis and Interpretation .....	25
CHAPTER 4	
RESULTS AND DISCUSSION.....	26
4.1. General.....	26
4.2. Profile of Respondents .....	28
4.3. Factors that Affect Bank Lending.....	30
4.4 Discussion of Findings.....	38
4.5 Summary of Results .....	43
4.6. Causes and Effects of NPLs.....	44
4.7. Effects of NPLs.....	49
CHAPTER 5	
CONCLUSION AND RECOMMENDATIONS .....	50
5.1. Conclusion: .....	50
5.2. Recommendations.....	52
BIBLIOGRAPHY .....	-1-
Appendix I. Questionnaire .....	II
Appendix II. Banks' Industry Data.....	VII



## List of Tables

		<b>Page</b>
Table 1	Survey response rate	26
Table 2	Respondents' Banks	27
Table 3	Profile of respondents	28
Table 4	Position of respondents in bank	28
Table 5	Respondents' experience in the banking sector	29
Table 6	Bank lending experience of the respondents	29
Table 7	Factors affecting occurrences of NPLs are obvious	30
Table 8	Factors causing the occurrences of non-performing loans in Eth. Banks	31
Table 9	Ranking of factors affecting occurrence of non-performing loans	32
Table 10	Factors indicating relation between credit assessment and loan default	33
Table 11	Factors indicating credit monitoring and loan default	34
Table 12	Relation between collateralizing loans and occurrence on NPLs	35
Table 13	Relation between borrower's orientation and occurrence of NPLs	35
Table 14	Relation between cost of loan and loan default	36
Table 15	Credit Terms and loan performance	36
Table 16	Credit growth relation with NPLs	37
Table 17	Bank size and occurrence of NPLs	37
Table 18	Bank ownership type and NPLs	38

**ABBREVIATIONS**

AB	Abay Bank
AdIB	Addis International Bank
AIB	Awash International Bank
BOA	Bank of Abyssinia
BIB	Berhan International Bank
BuIB	Buna International Bank
CBB	Construction and Business Bank
CBE	Commercial Bank of Ethiopia
CBO	Cooperative Bank of Oromia
DB	Dashen Bank
DBE	Development Bank of Ethiopia
DGB	Dehub Global Bank
LIB	Lion International Bank
NBE	National Bank of Ethiopia
NIB	Nib International Bank
OIB	Oromia International Bank
UB	United Bank
WB	Wegagen Bank
ZB	Zemen Bank
CAR	Capital Adequacy Ratio
FDRE	Federal Democratic Republic of Ethiopia
IMF	International Monetary Fund
KYC	Know Your Customer
NPLs	Non-performing Loans
RQ	Research Questions
SBB	Supervision of Banking Business

## CHAPTER ONE

### 1. INTRODUCTION

#### 1.1. Background of the Study

It is widely accepted that the quantity or percentage of non-performing loans (NPLs) is often associated with bank failures and financial crises in both developing and developed countries. In fact, there is abundant evidence (Fofack , 2005 and Hu, 2006) that the financial/banking crises in East Asia and Sub-Saharan African countries were preceded by high NPLs. The current global financial crisis, which originated in the US, was also attributed to the rapid default of sub-prime loans/mortgages. In view of this reality, it is therefore understandable why much emphasis is placed on NPLs when examining financial vulnerabilities.

The issue of non-performing loans (NPLs) has gained increasing attentions in the last few decades. The immediate consequence of large amount of NPLs in the banking system is bank failure. Many researches on the cause of bank failures (e.g. Demirguc-Kunt 1989, Barr and Siems 1994) found out that asset quality is a statistically significant predictor of insolvency, and that failing banking institutions always have high level of NPLs prior to failure.

According to the International Monetary Fund (IMF, 2009), NPL is any loan in which interest and principal payments are overdue for 90 days or more. On the other hand the Basel Committee<sup>1</sup> (2001) puts NPLs as loans left unpaid for a period of 90 days. Therefore, NPLs refer to those as financial assets from which banks no longer receive interest or installment payments as scheduled.

A financial intermediary is an institution that acts as an intermediary by matching supply and demand of funds (Beck, 2001). Heffernan (1996) defines banks as intermediaries between depositors and borrowers in an economy which are distinguished from other types of financial firms by offering deposit and loan products. Bossone (2001) also argues banks are special intermediaries because of

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<sup>1</sup> *Basel committee is a committee of banking supervisory authorities that provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.*

their unique capacity to finance production by lending their own debt to agents willing to accept it and to use it as money.

Commercial banks are the dominant financial institutions in most economies (Rose, 1997). Greuning and Bratanovic (2003), argue that commercial banks play a critical role to emerging economies where most borrowers have no access to capital markets. Well functioning commercial banks accelerate economic growth, while poorly functioning commercial banks are an impediment to economic progress and aggravate poverty (Barth et.al, 2001; Khan and Senhadji, 2001, as cited in Richard, 2011).

The traditional role of a bank is lending and loans make up the bulk of their assets (Njanike, 2009). According to the research by Havrilesky and Boorman (1994), interest on loans contributes significantly to interest income of commercial banks. Reed and Gill (1989) pointed out that traditionally 85 percent of commercial banks' income is contributed by interest on loans. Loans therefore represent the majority of a bank's assets (Saunders and Cornett, 2005). Lending is not an easy task for banks because it creates a big problem which is called NPLs (Chhimpa J, 2002, as cited in Upal, 2009). Due to the nature of their business, commercial banks expose themselves to the risks of default from borrowers (Waweru and Kalami, 2009).

According to Alton and Hazen (2001) NPLs are those loans which are ninety days or more past due or no longer accruing interest. Hennie (2003) agrees arguing that NPLs are those loans which are not generating income. This is further supported by Caprio and Klingebiel (1996 as cited in Fofack, 2005) who define NPLs as those loans which for a relatively long period of time do not generate income that is, the principal and or interest on these loans have been left unpaid for at least ninety days. The term "bad loans" as described by Basu (1998) in Fofack (2005) is used interchangeably with non- performing and impaired loans. Berger and De Young (1997) also consider these types of loans as "problem loans". In effect, these would be considered bad or toxic assets on the bank's books (Bexley and Nenninger, 2012). According to Berger and De Young (1997), NPLs could be injurious to the financial performance of banking institutions.

According to Kroszner (2002), as cited in Waweru and Kalami (2009), NPLs are closely associated with banking crises. Greenidge and Grosvenor (2010), argue that the magnitude of NPLs is a key

element in the initiation and progression of financial and banking crises. Guy (2011) agrees arguing that NPLs have been widely used as a measure of asset quality among lending institutions and are often associated with failures and financial crises in both the developed and developing world. Reinhart and Rogoff (2010) as cited in Louzis et al (2011) point out that non-performing loans can be used to mark the onset of a banking crisis. Despite ongoing efforts to control bank lending activities, NPLs are still a major concern for both international and local regulators (Boudriga et al, 2009).

They are known as non-performing because the loan ceases to “perform” or generate income for the bank. According to National Bank of Ethiopia’s Directive No SBB/43/2008 ‘Asset Classification and Provisioning’ Directive,

*‘Non-performing’ means loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with contractual repayment terms of the loan or advances is due and uncollected for 90 (ninety) consecutive days or more beyond the scheduled payment date or maturity.*

Commercial banks in Ethiopia provide credit facilities and services to various classes of customers. In the course of their operation, however, they may find themselves with a loan portfolio in which the risk of the loss is greater than they had anticipated when the loan was made. That is a position where the risk is greater than the bank would normally be willing to assume. During this time the loan portfolio will be dominated by NPLs. NPLs or bad loans arise in respect of the loans and advances which are given by banks to the whole range of different projects including but not exclusively retail or wholesale, personal or corporate or short, medium or long term projects. NPLs are, therefore, a very sensitive element of a bank’s operations.

Thus, an efficient and well-functioning financial sector is essential for the development of any economy, and the achievement of high and sustainable growth. One of the indicators of financial sectors health is loan qualities. Most unsound financial sectors show high level of NPLs within a country.

Theoretically there are so many reasons as to why loans fail to perform. The current study focuses on exploring the bank specific determinants of NPLs.

## 1.2. Statement of the Problem and Research Questions

The government owned mass media as well as the private press have repeatedly reported and claimed that the three government owned banks were facing serious problems with loan recovery for a variety of reasons, lack of financial discipline and outright breach-of-contract cases etc;. Addis Tribune, in its Vol. No. 279, February 06, 1998 maintained that the magnitude of the total bad debts of Ethiopia's banking system had reached the staggering sum of 3 billion birr.

An absolute amount of 3.5 billion Birr in loans arrears for an economy such as Ethiopia was frightening enough and when the bad debt figure is seen in relative terms, it may drive the faint hearted to despair if reports of an up to 40 percent bad debts/loans ratio for at least one of the three state-owned banks and up to 14 percent for either of the private banks were true.

The question, however, is if the rate in the domestic banking system had reached such a frightening level, 'how there has been no major financial crisis in Ethiopia yet' is a paradox that triggered the researcher to take in the study at the outset. Anything above a 5 percent bad debts ratio in other countries would stir financial panic. It is also worth mentioning the state owned banks presently claim to maintain their NPLs to a minimum despite the reported frightening figures.

Presently there are sixteen private commercial banks and three state owned banks operating in Ethiopia. Surveyed financial data of the banks as at end of September 2012 indicate that the ratio of NPLs for Zemen Bank (ZB), Development Bank of Ethiopia (DBE), Bank of Abyssinia (BOA), Birhan International Bank (BIB), Wegagen Bank (WB), and Oromia International Bank (OIB) stood at 13.1 percent, 9.4 percent, 6.2 percent, 6.1 percent, 5.7 percent, and 5.3 percent, respectively (Appendix 2.1), which in all cases are higher as compared to the international standard of 5 percent. Moreover, the NPLs positions of ZB, DBE, and BIB as at December 2012, stood at 14 percent, 9.5 percent, and 5.5 percent, showing that the non-performing assets are still high, deserving due attention of the managements and Board of Directors as well as of the regulatory body, National Bank of Ethiopia (Appendix 2.2).

Thus, the magnitude of the then existing total bad debts of state owned banks, the prevalence of NPLs that literally triumph in all banks and deviant observation caught the attention of the researcher for a thorough examination. The researcher, therefore, believes there are perhaps more important causes that need to be addressed as the first order of banking business is to identify the real causes behind the unpaid loans in the banking system. Despite such a prevailing phenomenon of NPLs in Ethiopia, there is little study that investigates the contributing factors.

There are a good number of studies that examine the factors leading to NPL. However, there is little empirical study on Ethiopia that has intensively investigated the relationship between bank-specific factors and NPLs. Thus, the motivation for undertaking this study is to identify the determinants of NPLs in the case of Ethiopia.

The study is designed to seek answers for the following one major research question and five sub-research questions.

1. *What are the bank specific contributing factors of non-performing loans (NPLs)?*
  - 1.1. *Is there a relationship between credit assessment and occurrence of NPLs?*
  - 1.2. *Is there a relationship between credit monitoring and occurrence of NPLs?*
  - 1.3. *Is there a relationship between collateralized lending and bad debts?*
  - 1.4. *What is the influence of borrowers' credit culture on occurrences of bad debts?*
  - 1.5. *Do high lending interest rates entail loans to lead to loan default?*

## **1.3. Objectives of the Study**

### **1.3.1. General Objective**

The overall objective of the study is to find out the determinants of NPLs in the case of the Ethiopian banks.

### 1.3.2. Specific Objectives

With a view to achieve the overall objective stated above, the specific objectives of the study have been to examine relationships between loan default and factors such as; credit assessment, credit monitoring, borrowers' credit culture and collateralized lending, level interest rates.

### 1.4. Significance of the Study

The current study explored the factors contributing to NPLs in the case of Ethiopian Banks. As such, the study yields great contribution to research and practice. The research contribution is attributed to the current contribution to the existing body knowledge and research regarding factors influencing NPLs. Besides providing further evidence to findings of prior studies, the current study has also identified a few additional factors that worth for further research and validation.

The other contribution of the current research is in relation to practice. The findings of the current study would help Ethiopian banks get insight on what it takes to improve their loan qualities and the central bank (NBE) to examine its policy in banking supervision pertaining to the asset quality banks shall maintain.

### 1.5. Rationale of the Study

The health of commercial banks in Ethiopia often is measured by the National Bank of Ethiopia, among other things, by the amount of sick loans they have in their books. The Central Bank forces the banks to put provision against these types of loans in order to protect the public that deposits its savings with them. It is also argued that the NPLs are one of the major causes of the economic stagnation problems and if the NPLs keeps increasing and are continuously rolled over, the resources may be locked up in unprofitable sectors; thus, hindering the economic growth and impairing the economic efficiency.

### 1.6. Scope of the Study

This research paper, which is essentially about identifying causes and effects of NPLs both in private and state-owned banks, has focused on Head Office (particularly Credit Department) of each bank,



located in Addis Ababa. This is premised on the fact that the selected commercial banks have been operating long enough to give the kind of academic insight the study seeks to offer. Besides, these banks extend credit facilities to almost all major sectors of the economy. Again the nationwide credit operation of the banks presents an opportunity for a national outlook of the issues under study.

### **1.7. Limitations of the Study**

The limitation of the study lies in collecting complete data of all banks. The number of private commercial banks has reached sixteen, obtaining complete and reliable data in connection with bad debts is however, a complex exercise owing to confidentiality of banking business. Even though the anticipated data are available in the central bank, the effort exerted to obtain the data was a futile exercise for same ground.

As an alternative, therefore, it was managed to approach majority of the banks through acquaintances in each case, where data for six consecutive years (Appendix II) were obtained to serve the purpose. This had the effect to narrow the analysis to some extent.

### **1.8. Organization of the Study**

The research report is organized into five Chapters. The first Chapter is made up of the background of the study, the statement of the problem and research questions, significance of the study, scope of the study, limitation of the study and organization of the study.

In Chapter two theoretical foundation and empirical review of the study is presented. This chapter covers important issues related to the banking literatures, empirical studies, types and natures of credit, principles of good lending, and general lending procedures.

Chapter three describes the research methodology. It explains the study area, research design, population parameter, sampling methods, sample size and methods of data collection and analysis. Results and discussions are contained in Chapter four together with the survey outcomes. Chapter five provides conclusion and recommendations of the study.

## CHAPTER TWO

### 2. THEORETICAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

#### 2.1. Theoretical Framework

##### 2.1.1. The Nature of Non-performing Loans

The recent global financial crisis highlighted the importance of appreciating financial institutions vulnerabilities in the context of managing credit risk. The key motivation for this paper is to improve understanding of the determinants of NPLs. However a lot of research papers can be found regarding the problem or non-performing loan. Many prudential researchers intend to work on NPLs because it is perceived as the foremost aspect of bank's survival.

The question of loan default is related with none recovery/repayment of loans. When a borrower cannot repay interest and/or installment on a loan after it has become due, then it is qualified as default loan or non-performing loan (Chowdhury & Adhikary, 2002). It is known as non-performing, because the loan ceases to “perform” or generate income for the bank. The default/non-performing loan is not a “uniclass”, rather a “multiclass” concept. It implies that the default/NPLs can be classified into three different categories, usually based on the “length of overdue” of the said loan. These categories are:

- i. Substandard – loans overdue for a period of 91 to 180 days
- ii. Doubtful – loans overdue for a period of 181 to 360 days
- iii. Loss – loans overdue for more than 360 days

The issue of NPLs has gained increasing attentions in the last few decades. The immediate consequence of large amount of NPLs in the banking system is bank failure. Many researchers on the cause of banking failure find that asset quality is a statistically significant predictor of insolvency [e.g Demirguc-kunt 1989, Barr and Siems 1994], and that failing banking institutions always have high level of NPLs prior to failure.

NPLs can lead to efficiency problem for banking sector. It is found by a number of economists that failing banks tend to be located far from the most efficient frontier, because banks don't optimize their portfolio decisions by lending less than demand. What's more, there are evidences that even among banks that do not fail; there is a negative relationship between the non- performing loans and performance efficiency.

The concept of NPLs has been defined in different literatures. According to Patersson and Wasman (2004), NPLs are defined as defaulted loans which banks are unable to profit from. They are loans which cannot be recovered within stipulated time that is governed by the laws of a country. According to the International Monetary Fund (IMF, 2009), a NPL loan is any loan in which interest and principal payments are more than 90 days overdue; or more than 90 days worth of interest has been refinanced.

NPLs 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 have been left unpaid for at least 90 days (Fofack, 2005). NPLs are further defined as loans, whose flows stream is so uncertain that the bank does not recognize income until cash is received, and loans those whose interest rate has been lowered on the maturity increase because of problem with borrower (Machiraju, Undated).

Machiraju (2001) expresses NPLs as a leading indicator of credit quality. NPLs or bad loans arise in respect of the loans and advances which are given by banks to the whole range of different projects including but not exclusively retail or wholesale, personal or corporate or short, medium or long term projects. NPLs are very sensitive elements of a bank's operations.

According to Brown, Mallett and Taylor (1993), the losses from bad loans (NPLs) caused by reducing the capital resource of the bank affects its ability to grow and develop its business and disclosure of the extent of these losses in its financial statements may lead to a loss of confidence in the bank's management and a reduction in its credit ratings. This will in turn increase the bank's cost of borrowing in the wholesale market and make it more expensive or more difficult to raise capital. In extreme cases, it can leads to a loss of deposits, the withdrawal of the bank's authorization and ultimately insolvency (Taylor, 1993). Thus NPL is one of the concrete embodiments of credit risk

which banks take. They have greater implication on the function of the banks as well as the overall financial sector development.

Historically, the occurrence of banking crises has often been associated with a massive accumulation of NPLs which can account for a sizable share of total assets of insolvent banks and financial institutions, especially during episodes of systemic crises. Deterioration in banks' loan quality is one of the major causes of financial fragility. Past experience shows that a rapid build - up of bad loans plays a crucial role in banking crises (Demirguç - Kunt and Detragiache, 1998, and González - Hermosillo, 1999).

It is apparent that insolvency of banks is costly to the macro economy as such, but this cost can be increased or decreased by the regulators and the policies they use in resolving the insolvencies. The faster banks can be resolved before their economic capital turns negative, the smaller are both losses to depositors and costs to the macro economy (G. Kaufman, 2004). This is why most countries provide their own rules regarding NPLs and its classifications.

Under the Ethiopian banking business directive, NPLs are defined as “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 in question (NBE directive, 2008).” It further provides that:

*... Loans or advances with pre-established repayment programs are non-performing when principal and/or interest is due and uncollected for 90 (ninety) or more consecutive days beyond the scheduled payment date or maturity (NBE directive, 2008).*

According to this directive of NBE, in addition to the aforementioned category of non-performing loans that do not have pre-established repayment program (essentially overdraft loans) shall be non-performing when:

- (i) The debt exceeds the borrower's approved limit for 90 (ninety) consecutive days or more;*
- (ii) The account has been inactive for 90 consecutive days or*

- (iii) *Deposits are insufficient to cover the interest capitalized during 90 consecutive days or*
- (iv) *The account fails to show 20 percent of the approved limit or less debit balance at least once over 360 days preceding the date of loan review.*

According to the Basel rules, if a loan is past due for 90 consecutive days, it will be regarded as non-performing. The criteria used in Ethiopian banking business to identify NPLs is a quantitative criteria based on the number of days passed from loan being due.

## 2.2. Literature Review

The theory of asymmetric information tells us that it may be difficult to distinguish good from bad borrowers (Auronen, 2003, as cited in Richard, 2011), which may result into adverse selection and moral hazards problems. The theory explains that in the market, the party that possesses more information on a specific item to be transacted (in this case the borrower) is in a position to negotiate optimal terms for the transaction than the other party (in this case, the lender) (Auronen, 2003, as cited in Richard, 2011). The party that knows less about the same specific item to be transacted is therefore in a position of making either right or wrong decision concerning the transaction. Adverse selection and moral hazards have led to significant accumulation of NPLs in banks (Bester, 1994; Bofondi and Gobbi, 2003).

Studies show that problem loans are often used as an exogenous variable to explain other banking outcomes such as bank performance, failures, and bank crises (Boudriga et al., 2009). However, some studies investigate problem loans as an endogenous variable (Sinkey and Greenwalt, 1991; Kwan and Eisenbeis, 1997; Salas and Saurina, 2002, as cited in Boudriga et al., 2009). GDP growth, inflation and interest rates are common macro-economic factors, while size and lending policy are micro-economic variables (Greenidge and Grosvenor, 2010). These variables are by no means exhaustive, but they provide a useful framework for monitoring the development of non-performing loans (Guy, 2011). More recent researches started studying this problem but with particular reference to both developing countries and emergent economies (Haunerand and Peiris, 2005; Matthewes et al., 2007, as cited in Maggi and Guida, 2009)

Bercoff et al (2002) examine the fragility of 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 dataset 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 non-performing loans.

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 behavior and agency problems that may entice bank managers to lend excessively during boom periods. Meanwhile, Rajiv and Dhal (2003) utilized panel regression analysis to report that favorable macroeconomic conditions 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.

Babihuga (2007), in an IMF working paper, explores the relationship between several macroeconomic variables and financial soundness indicators (capital adequacy, profitability, and asset quality) based on country aggregate data. She explained the cross-country heterogeneity by differences in interest rates, inflation, and other macroeconomic factors. However, the study does not consider the impact of industry specific drivers of problem loans.

Most empirical studies examine the influence of the macroeconomic environment on NPLs (Louzis et al, 2011). Rinaldi and Sanchis-Arellano (2006) analyzed household NPLs for a panel of European countries and provide empirical evidence that disposable income, unemployment and monetary conditions have a strong impact on NPLs. Berge and Boye (2007) find that problem loans are highly sensitive to the real interest rates and unemployment for the Nordic banking system over the period 1993–2005.

Lawrence (1995) examines the theoretical literature of life-cycle consumption model and introduces explicitly the probability of default. This model implies that borrowers with low incomes have higher rates of default due to increased risk of facing unemployment and being unable to settle their obligation. Additionally, in equilibrium, banks charge higher interest rates to riskier clients. Rinaldi and Sanchis-Arellano (2006) extend Lawrence's model by assuming that agents borrow in order to invest in real or financial assets. They argue that the probability of default depends on current

income and the unemployment rate, which is linked to the uncertainty regarding future income and the lending rates.

Breuer (2006), using Bankscope data, analyzed the impact of legal, political, sociological, economic, and banking institutions on problem bank loans. Nevertheless, her study suffers from a representativeness bias due to the fact that Bankscope data on NPLs are only available for a very limited number of countries and for a few numbers of banks. Other studies focusing on the macroeconomic determinants of NPLs include that of Cifter et al. (2009), Nkusu (2011) and Segoviano et al. (2006).

Carey (1998) argues that the state of the economy is the single most important systematic factor influencing diversified debt portfolio loss rates (Carey, 1998, p. 1382). Quagliariello (2007) finds that the business cycle affects NPLs for a large panel of Italian banks over the period 1985–2002. Furthermore, Cifter et al. (2009) provides empirical evidence for a lagged impact of industrial production on the number of NPLs in the Turkish financial system over the period 2001–2007. Salas and Saurina (2002) estimate a significant negative contemporaneous effect of GDP growth on NPLs and infer the quick transmission of macroeconomic developments to the ability of economic agents to service their loans (Bangia et al., 2002; Carey, 1998). Nkusu (2011) investigating the macroeconomic determinants of loan defaults through panel regressions and panel vector autoregressive models. The author suggests that hike in interest rates result in deterioration of borrower's repayment capacity and hence, cause of increase in NPLs.

There is significant empirical evidence to suggest that local economic conditions explain to some extent, the variation in NPLs experienced by banks (Keeton and Morris, 1987; Sinkey and Greenwalt, 1991; Salas and Saurina, 2002; Rajan and Dhal, 2003 as cited in Greenidge and Grosvenor, 2010). Research conducted in the Caribbean includes that of Khemraj and Pasha (2009), who examined the determinants of NPLs in Guyana. The empirical results revealed that with the exception of the inflation rate and bank size, all other factors have a significant relationship with the non performing loan ratio (Greenidge and Grosvenor, 2010).

Causes and treatment of NPLs were studied in detail by Bloem and Gorter (2001). They agreed that “bad loans” may considerably rise due to abrupt changes in interest rates. They discussed various international standards and practices on recognizing, valuing and subsequent treatment of NPLs to

address the issue from view point of controlling, management and reduction measures. A study conducted by Espinoza and Prasad (2010) focused on macroeconomic and bank specific factors influencing NPLs and their effects in the Banking System. After a comprehensive analysis, they found that higher interest rates increase NPLs but the relationship was not statistically significant.

Salas and Saurina (2002) find a negative relation between bank size and NPLs and argue that bigger size allows for more diversification opportunities. Hu et al. (2004) and Rajan and Dhal (2003) report similar empirical evidence. Another strand of literature has focused on the degree of loan concentration in various sectors, and proposes that vulnerabilities within sectors of high loan concentration tend to exacerbate the non performing ratio (Herring and Wachter, 1999 as cited in Guy, 2011). However, Stiroh (2004) does not find evidence of benefits from diversification in the form of reduced risk, for the US banking system, since non-interest income growth was highly correlated with net interest income during the 1990s.

The moral hazard of too-big-to-fail banks represents another channel relating to bank-specific features with NPLs (Louzis et al, 2011). A policy concern is that too-big-to-fail banks may resort to excessive risk taking since market discipline is not imposed by its creditors who expect government protection in case of a bank's failure (Stern and Feldman, 2004). Consequently, large banks may increase their leverage too much and extend loans to lower quality borrowers (Louzis et al, 2011). Boyd and Gertler (1994) argue that in the 1980s the tendency of US large banks towards riskier portfolios was encouraged by the US government's too-big-to-fail policy. On the other hand, Ennis and Malek (2005) examine US banks' performance across size classes over the period 1983–2003 and conclude that the evidence for the too-big-to-fail distortions is in no way definite. Hu et al (2006) also show that bank size is negatively related to NPLs.

Berle and Means (1933) in Louzis et al. (2011) argue that dispersed ownership of corporate equity may lead to a poorer performance of the firm as the incentive of shareholders to monitor the management weakens. An opposing view is that an efficient capital market imposes discipline on firm's management and therefore dispersed ownership should not have an effect on firm's performance (Fama, 1980 as cited in Louzis et al., 2011). A strand in the empirical literature tests these contrasting views using loan quality as an indicator of riskiness but evidence is inconclusive (Louzis et al, 2011). Iannotta et al. (2007) find a link between higher ownership concentrations and



loan quality using a sample of 181 large banks over the period 1999–2004, thus lending support to the Berle and Means view.

On the other hand, Laeven and Levine (2009) employ data on 279 banks and find a positive association between greater cash flow rights of a large owner and risk taking. Furthermore, Shehzad et al. (2010) present empirical evidence, from a data set comprising 500 banks from 2005 to 2007, that ownership proxied by three levels of shareholding (10%, 20% and 50%) has a positive impact on the NPLs ratio when the level of ownership concentration is defined at 10 percent but a negative impact when the level of level of ownership concentration is defined at 50 percent. Therefore they suggest that sharing of control may have adverse effects on the quality of loans extended up to a level, but in cases of a strong controlling owner, bank's management becomes more efficient leading to lower NPLs. Azofra and Santamaria (2011) find that high levels of ownership concentration benefit both the bank's profitability and efficiency for a sample of Spanish commercial banks.

Empirically, Novaes and Werlang (1995) report lower performance for state controlled banks in Brazil and Argentina due to high proportion of problem loans given to government. Micco et al. (2004), analyze 50,000 financial institutions with different ownership types covering 119 countries. They conclude that NPLs tend to be higher for banks with state ownership than for other groups. Hu et al. (2004) use a panel of Taiwanese banks and find a positive correlation between capital share owned by the state and the level of non- performing loans. Garcia-Marco and Robles-Fernandez (2007) investigate the relationship between risk taking and ownership structure.

They document that commercial banks (mainly private owned) are more exposed to risk than deposit banks (mainly state owned). More recently Hu et al (2006) analyzed 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 NPLs. 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 NPLs to the undiversified nature of some African economies.

## 2.3. Review of Empirical Evidence

### 2.3.1. Historical Path of Commercial Banking

History of banking in Ethiopia dates back to the year 1905 when the first bank, namely “The Bank of Abyssinia” which was owned by the then National Bank of Egypt, was established. The bank was closed for observed inefficiency in its operation in 1931 and replaced by an indigenous bank named Bank of Ethiopia. The Bank of Ethiopia had operated until 1936 and stopped operation afterwards because of the Italian invasion (Gidey, 1987).

As Belay Gidey further described after the Italian invasion ended the State Bank of Ethiopia was established and lasted until 1963 serving dual purposes of acting as a central bank and providing commercial banking services to the public. In 1963 the central bank of the country under the name the “National Bank of Ethiopia” was independently established. This period signifies the official separation and segregation of commercial banking activities from duties of central banking and dissolution of State Bank of Ethiopia. Foreign banks like Banco d’ Napoli, Banco d’Roma, Barclays Bank and others were operating side by side with local commercial banks. The competition was intense and the Bank of Ethiopia was the first indigenous bank to branch out to overseas to establish offices in Sudan Khartoum and Djibouti (Gidey, 1987, Pankhurst, 2002, Deguefe’, 2006).

Over sea’s banks that had been operating in Ethiopia

<b><u>Banks</u></b>	<b><u>Period</u></b>
<i>Bank of Abyssinia</i>	<i>1905-31</i>
<i>Societe National d’ Ethiopie</i>	<i>1908-28</i>
<i>Banque del Idoche</i>	<i>1915-28</i>
<i>Camapagnie del’Africa orientale</i>	<i>1915-36</i>
<i>Banca d’ Italia</i>	<i>1936-41</i>
<i>Banco d’ Roma</i>	<i>1936-41</i>
<i>Banco Nazionale de lavoro</i>	<i>1936-41</i>
<i>Barclays Bank</i>	<i>1941-43</i>

Source: Belay Gidey (1987)

Even though these historical events and cyclical developments indicate that banking in Ethiopia has traversed a long historic journey, the sector has yet remained underdeveloped mainly because of economic and political factors. The modern indigenous banking history of Ethiopia has two phases of development. The first phase ranges from 1942-1963 and the second phase starts from 1963-1974. The first phase denotes the earlier times during which the activities of commercial banking and duties of central banking were not separated and the second phase was the time when the fiscal and monetary legislatives were put into effect and they also mark the time when the central bank of the country was established and duties and responsibilities of central banking and commercial banking were separated (Gidey, 1987, Pankhurst, 2002, Deguefe, 2006).

Before 1974 commercial banks were operating competitively under values and principles of free market economy. Domestic and overseas banks had been operating with equal access to markets. However, in 1974, the country changed its economic and political policies and orientations to that of the command economy.

Despite the symbolic presence of a few private banks prior to the advent of the Derg Regime in 1974, the banking industry in Ethiopia was generally a state domain. On its part, the Derg not only made banking a state monopoly but also used its services for the advancement of socialism. A sharp division of labor was created among the three state-owned banks. The Commercial Bank of Ethiopia (CBE), by far the oldest and biggest in Ethiopia, specialized in short-term lending to trade and industry while the Development Bank of Ethiopia (DBE) was made to concentrate on long-term lending for investment in Agriculture, Industry as well as other sectors of the economy. The Housing and Savings Bank (now known as the Construction and Business Bank, CBB), as the name indicates, served the housing sector. Specialization is naturally meant non-existence of competition.

Since the socialist economic policy did not allow private ownership of banks, all commercial banks were merged under one state owned commercial bank, the commercial Bank of Ethiopia. The situation has wiped out competition by creating one single monopolistic commercial bank in the entire nation with the only objective of serving the government. Generally, both profit and competition as business motivators and driving forces were avoided from the political and economic framework of the country (Gidey, 1987, Pankhurst, 2002, Deguefe, 2006).

After nearly two decades of political and economic supremacy of communism, the country has once again experienced another round of change in its politics and economic policy. The country has officially reinstated the free market economy since 1991 G.C where the Transitional government of Ethiopia (TGE) made rehabilitation of the war-ravaged economy and streamlining through comprehensive economic and institutional reform program its top priorities.

As a result, private investment in banking sector is allowed without any capital limit. This has been congratulatory news for the banking sector to sprout within short period of time. As a consequence the first private bank was established in 1996 and a number of others followed suit and entered the market that has long suffered from deficient financial system in order to reap high profit. This has been an opportunity for the society to get access to better banking services that results in improvement of capital accumulation.

The Commercial Bank of Ethiopia, the bank that was enjoying monopolistic status for over a decade has faced new challenges from new comers. Change has become binding to live up to the demand of the competitive environment. Poor banking services are challenged by customers and customer defection to competitors has been daily experience in the banking sector. Striving to improve service delivery and customer handling has become business vogue of the day in order to survive in the business, (Gidey, 1987, Pankhurst, 2002, Deguefe, 2006).

All the banks are now regulated by the central bank which is the National Bank of Ethiopia. A central bank plays the most influential role in a country's economic and financial development. Generally, the primary role of a central bank is the same in all countries. It acts as a banker and financial advisor to the government as the nation's monetary authority, and is responsible to the government for promoting monetary stability in the country.

To improve the stability of the financial system further, a central bank will act as a banker to the banking and other financial institutions in the country. Consequently, a central bank can influence the lending policy of commercial banks and thus their debt recovery. Banking is a highly regulated industry in Ethiopia for a number of reasons. Some of the reasons include protecting depositors' fund, ensuring safety and stability of the banking system, protecting safety of banks (that means to

limit credit to a single borrower), and limiting or encouraging a particular kind of lending because of expected impact on the economy.

## 2.4. General Lending Procedures and Processing Credit Applications

Although there is no hard and fast rule about the techniques of lending, it is necessary that defined procedures have to be followed by the bank to properly address the credit needs of its customers.

### General Lending Procedures:

- i. Getting started:-this is the first stage in which either the customer will come to the bank seeking for a loan or the branch manager initiates the customer to take out a loan for his business because the customer may not always know how to obtain credit from a bank.
- ii. Preliminary discussion with the customer:-after the first encounter the request for a loan can be processed. Then the borrower's credit worthiness is assessed. The request may not be processed if it falls outside the domain of the bank's credit policy. If it is accepted, the customer completes the bank credit application explaining the relevant details to be incorporated therein including the type of collateral he is able to offer.
- iii. Processing the credit application:-if the loan request of a borrower can be processed then the branch manager or other lending officers shall follow a detailed procedure in the appraisal of credit request and execution of the necessary documentation. The following general guideline is to be observed by lending officers of the bank whenever a loan request is presented to them.
- iv. Loan application: the loan application should be in writing stating the following main points: amount of loan requested, the intended purpose for which the loan is to be used, the proposed collateral, mode of repayment and possible sources, duration of the loan, direct and indirect liabilities, the borrower's contribution to the project, a brief history of the firm or the borrower and its future plan, and any other information that may assist the lending in appraising the loan proposal.

- v. Documentation:-along with the written loan application, the following and other documents should be submitted as may be demanded by the bank:-Trade license, registration certificate, investment certificate from the appropriate ministry or bureau, financial statements (preferably audited and reflecting the current years position) including cash flow statement, especially if the borrower runs a sizable business, feasibility study other documents that may justify the need for the loan as may be required by the bank on the merit of each application.
- vi. Bank format:- the bank provides formats on which a customer would complete specific, general and financial information. The bank shall use its own format on which the borrower will have to fill in his assets and liabilities especially if the applicant does not have a ready financial statement or is not able to submit one.
- vii. Interview:- after all the documentations are in order, the customer may be called in for interviews to obtain further information that has not been disclosed in the application or documents or that were not made clear to the lending officer. A general interview on his/her business and future plans can provide useful information. It is usually necessary to have prior preparation on the topics to be discussed and this should be to the point. In the interview important information must be skillfully extracted.
- viii. Site visits:-if the loan interview indicates that the request for credit sound, a sit visit to the business for a more detailed assessment is necessary. Site visits are useful for many reasons mainly to become acquainted with new customers; to review changes that are taking place when customers have been granted a continuity line of credit; to review such changes when a significant new loan is to be considered and to assess the manner in which the business is organized. Important benefits can accrue from regular and informal visits to seize up the customer, which might reveal his managerial ability at close range. Any diversification of funds by customer other than for which it was intended should be immediately corrected upon bank's advice.
- ix. Credit Information:- if the borrower or the applicant is new to the bank, it is particularly necessary to obtain as much information as possible. Such information may usually be

related to his honesty, ability, stability, managerial capacity, operational efficiency, financial history, etc. The information can be gathered from various sources, including banks, trade partners, suppliers and the like. Credit information from bank must be required at the earliest possible time, while other lending formalities continue to overcome unnecessary delays in processing the loan application.

- x. **Credit Investigation:**-when as much relevant and adequate information is obtained, the credit investigation can be conducted to determine the accuracy and the authenticity of the statements made during interview and at the time when financial position was declared. One must also look for information regarding payment habits and the character of the operator of the business. The Investigation process should be comprehensive and detail sufficiently far into the past to establish all pertinent facts regarding the applicant and his business. There is nothing more important than knowing a potential borrower as thoroughly and as fast as possible before making credit decisions.
- xi. **Credit analysis:**-the next step in the sequence of credit appraisal is conducting credit analysis of the applicant's financial condition should be done carefully. Ratios should be calculated to determine the applicant's liquidity position and ability to repay the debt. The decision to external credit to the customer should basically depend on such and many other factors outlined above. The nature of the financial analysis is determined by or depends upon the specific interest of the analyst. For example, the banker will focus on the liquidity of the firm if he is considering a short - term loan.
- xii. **The credit decision:**-the final decision as to whether the loan request should be approved or rejected is reached by comparing the statements made by the applicant with the information derived through the investigation process and by analyzing various credit factors such as capacity, capital, collateral, track record for repayments and others. At this point it is necessary to underline the need for fast processing of credit application so that credit decision is given without undue delay. Undue delay in credit processing leads to losing good borrowers, a situation which must always be avoided. The competitive environment dictates that priority attention must be given to test processing of credit applications.

- xiii. Formalizing or Execution of the loan documents:-once the loan approved, the terms and conditions to which the borrower and lender agree should be incorporated in a written agreement. All documents relative to the transaction should be completed and executed properly. The loan documents include a loan contract, any mortgage or assignments required to secure the indebtedness, evidence of adequate insurance coverage and the like. In particular, the branch manager must ensure that mortgage or the collateral has full legal authority to pledge the collateral offered and the spouse or legal heirs of the borrower, if legally required must sign the mortgage contract. Failure to fulfill this requirement will jeopardize the banks right in the event of default and the branch manager will bear full responsibility of its and other legal requirements if not fulfilled prior to the disbursement of the loan.

In summary, there are several studies exploring the factors contributing to NPLs. However, there is no similar study in the context of Ethiopia. As a result, one can't tell with confidence whether the factors identified by previous research holds true in the Ethiopian context or not. Thus, a research undertaken to explore the factors for NPLs in the case of Ethiopian Banks is something that would help addressing an important research gap.



## CHAPTER THREE

### 3. RESEARCH DESIGN AND METHODOLOGY

The purpose of this study is to identify and examine innate factors that determine the occurrence of NPLs. It is more exploratory type and tries to measure the relationship between occurrence of NPLs and some bank specific factors.

#### 3.1. Study Area

Like other business activities, banks strive to make profit and grow. Presently head quarters of all private commercial banks and state owned banks are located at the capital city, Addis Ababa. The Department that is responsible for provision of loans and advances to individuals and projects is contained at the Head Offices of the banks. Therefore, the study was conducted in consultation with staff involved in credit operations at head offices level using survey design with structured self administered questionnaires.

#### 3.2. Research Design

In order to achieve the objectives of the study, the research undertakes descriptive approach, using both qualitative and quantitative data. In doing so, the study intends to describe, compare, contrast and interpret the existing facts and puts the status of NPL in relation to various variables which will help to understand the issue and lead to causal analysis. Further the research utilizes a survey as a research method.

Secondary data are obtained from publications of private banks and other financial institutions. Besides, relevant information is also grasped from various books, research papers, magazines, newsletters, websites and the like. Primary data are collected through questionnaires distributed to respondents that involve Department Managers and Senior Officers working on loan processing, such group involves Loan Officers, Credit Analysts, Credit follow-up and Monitoring officers, Credit Directors, Relationship Managers and Recovery Officers etc.

### 3.3. Study Participants

To conduct the survey, out of sixteen private commercial banks and three state owned banks, professionals working in ten private commercial banks (62.5 percent) and two state owned banks (66.7 percent) located in Addis Ababa were contacted.

Six of the private commercial banks were in banking operation for more than a decade, while the remaining four were in the market for less than five years. However, the two state-owned banks, commercial Bank of Ethiopia, and Construction and Business Bank were in operation for more than seventy and forty years, respectively (Table 2).

### 3.4. Sampling Method

The study is limited to employees that are directly involved in administration of loans at all head offices level as a sampling frame. Such professionals include, loan officers, credit analysts, credit directors, relationship managers and recovery & monitoring officers etc;

In order to simplify the study, convenience sampling has been employed followed by multistage cluster sampling using preexisting clusters as a sampling frame. Accordingly, the commercial banks were classified into two clusters as private owned and state owned banks. Further all positions and respective tasks were listed involving credit processing, loan provisioning, monitoring and follow-ups. Furthermore, professionals were classified based on positions held in the structure of credit department. In doing so each position was considered strata to carryout proportional sampling to avoid the likelihood of sampling biases.

### 3.5. Sample Size

A total sample of 100 professionals working in commercial banks related to credit and credit related operations were selected as part of the study. On average eight professionals were selected from each private bank, while seventeen and eight were considered from state-owned banks CBE and CBB, respectively.

### **3.6. Types of Data**

Both primary and secondary data are collected and systematically presented and analyzed in this paper. Primary data are collected through questionnaires distributed to respondents and Secondary data are obtained from publications of private banks and other financial institutions.

Out of sixteen private commercial banks and three state owned banks, ten private commercial banks and two state-owned banks were selected for the survey. Therefore, those commercial banks currently operating in Ethiopia are considered as primary sample units to conduct this research.

### **3.7. Method of Data Collection**

Primary data are collected through questionnaires (Appendix I) distributed to respondents that involve Department Managers and Senior Officers working on loan processing. Such group involves Loan Officers, Credit Analysts, Credit follow-up and Monitoring officers, Credit Directors, Relationship Managers and Recovery/Monitoring Officers etc.

Secondary Data are directly gathered from records of each commercial bank under sample study. The data collected include aggregate loans outstanding balances, NPLs as at the annual closing date, June 30 of each year. For the purpose of comparison the surveyed banks' data for the years between 2009 and 2014 have been collected and considered (Appendix II).

### **3.8. Method of Data Analysis and Interpretation**

The data collected from survey questionnaire were thoroughly coded and checked for consistency and entered into SPSS version 20 spreadsheet. Descriptive statistics was employed to analyze the data and the results were tested with non-parametric tests of significance.

## CHAPTER FOUR

### 4. SURVEY RESULTS AND DISCUSSION

In this chapter data analysis results are presented.

#### 4.1. General

A structured questionnaire (Appendix I) was distributed to one hundred employees, loan officers, credit analysts, credit directors, relationship managers, recovery/monitoring officers and vice presidents in ten private commercial banks and two state owned banks selected randomly from all banks that are operational in Ethiopia.

The questionnaire was distributed in person to hundred employees (whose positions are related to bank lending). Out of 100 questionnaires 92 were completed and collected (see Table 1 below). As a result, the analysis is made on the valid number of responses. In some incidents analysis and explanation for amounts in the table are given only for most frequented and extreme figures.

**Table 1. Survey response rate**

<b>Respondents</b>	<b>Size</b>
Sample size	100
Completed and returned questionnaire	92
<b>Response rate</b>	<b>92%</b>

*Source: Survey outcome*

**Table 2. Number of Credit Department employees who actively responded to the structured questionnaire distributed, by banks' profile.**

**End of September 2014**

S/ N	Banks	Date of Establishment	Quantity of Questionnaire Completed	%	No of Branches
	<b>State Owned banks</b>				
1	Development Bank of Ethiopia	1909			32
2	Commercial Bank of Ethiopia	1942	17	17%	875
3	Construction & Business Bank	1975	8	8%	115
	<b>Private Commercial Banks</b>				
4	Awash International Bank	1994			169
5	Dashen Bank S.C	1995	8	8%	142
6	Bank of Abyssinia S.C	1996	5	5%	111
7	Wegagen Bank S.C	1997	8	8%	100
8	United Bank S.C	1998	6	6%	109
9	NIB International Bank S.C	1999	7	7%	93
10	Cooperative Bank of Oromia S.C	2004			105
11	Lion International Bank S.C	2006	8	8%	68
12	Zemen Bank S.C	2008			5
13	Oromia International Bank S.C	2008			109
14	Bunna International Bank S.C	2009			71
15	Berhan International Bank S.C	2009	5	5%	50
16	Abay Bank S.C	2010	7	7%	85
17	Addis International Bank S.C	2011	8	8%	44
18	Dehub Global Bank S.C	2012	5	5%	19
19	Enat Bank S.C	2013	92	92%	3
20	Questionnaire not returned (non-response rate)		8	8%	
	Total		100	100%	2,305

Source: Bankers' Association (2014), Volume 1; Survey outcome and own computation

## 4.2. Profile of Respondents

Profile of the respondents like ownership of the banks they work for, banking experience and specific exposure in bank lending and positions held by respondents are presented and subsequently discussed as follows.

**Table 3. Respondents by Category**

Profile	Frequency	%
Private banks	67	72.8
State owned banks	25	27.2
<b>Total</b>	<b>92</b>	<b>100.0</b>

*Source: Survey outcome and own computation*

In terms respondents profile, 72.8 percent of survey respondents are employed in private banks. The remaining 27.2 percent are employed in two state owned banks. Since the process of administration of loans and advances both in private and state owned banks is under taken in compliance with the National Bank of Ethiopia, Banking Supervision Directorate, directives results are comparable and similar results may not be affected variance in the mix of respondents will not have impact on the findings.

As depicted above, close to three-fourth (about 73 percent) of the respondents belong to the private banks while slightly above one-fourth (27 percent) are employees of the state-owned banks.

**Table 4. Position of respondents in their respective bank.**

Positions	Frequency	%
Credit Relationship Managers	27	29.3
Credit Analysts	21	22.8
Credit Directors	12	13.0
Recovery/Monitoring Officers	10	10.9
Auditors	9	9.8
Loan Officers	6	6.5
Vice President - Operations	1	1.1
Others*	6	6.5
<b>Total</b>	<b>92</b>	<b>100.0</b>

\* Others include: Executive assistant to CEO and Board of Directors,

*Source: Survey outcome and own computation*

As shown in Table 4 above, 27 (29.3 percent) of the respondents were Customer Relationship Managers while 21 (22.8 percent) were Credit Analysts and 12 (13 percent) were Credit Directors. The rest of the respondents belonged to other occupations like; Monitoring Officers, Auditors (who are not directly involved in credit operations) Loan Officers and the like.

**Table 5. Respondents experience in the banking industry.**

<b>Experience in Banking Industry</b>	<b>Frequency</b>	<b>%</b>
Less than one year	-	-
1 – 5 years	14	15.2
6 – 10 years	27	29.3
11 – 15 years	27	29.3
Above 15 years	18	19.6
Note Stated	6	6.5
<b>Total</b>	<b>92</b>	<b>100.0</b>

*Source: Survey outcome and own computation*

In terms of banking experience, the absolute majority (about 78 percent) of the respondents reported to have served the banking industry for more than 5 years, of which close to 50 percent were long-serving employees, having over 10 years of work experience in the industry. On the other hand, about 15 percent of the respondents had as short as one to five years of banking experience.

**Table 6. Bank lending experience of the respondents**

<b>Years of Experience in Loan Processing</b>	<b>Frequency</b>	<b>%</b>
Less than 1 year	8	8.7
1 – 5 years	24	26.1
6 – 10 years	40	43.5
11 – 15 years	10	10.9
Above 15 years	4	4.3
Note Stated	6	6.5
<b>Total</b>	<b>92</b>	<b>100.0</b>

*Source: Survey outcome and own computation*

In terms of bank lending experience majority (59 percent) of the respondents had more than five years of experiences particularly in lending (or credit management) activities, of which 15 percent reported to have acquired more than 10 years of exposure in the area. The fact that such a majority of the respondents had ample experience in credit activities is believed to have impacted the dependability of the data quite positively.

### 4.3. Factors that Affect Bank Lending

Respondents were solicited to express their agreement or disagreement to certain statements dealing with bank-specific factors affecting occurrences of NPLs. As a result, 77.2 percent of the respondents agreed to the statement *Factors affecting occurrences of NPL are obvious* while 12.0 percent were neutral and 4.3 percent disagreed, and 6.5 percent left the question unanswered (Table 7).

**Table 7. Factors affecting occurrences of NPLs are obvious**

<b>Job Occupation</b>	<b>Agree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Not Stated</b>
Credit Relationship Managers	18	1	5	3
Credit Analysts	16	1	2	2
Credit Directors	11		1	-
Monitoring/Recovery Officers	8	1	1	-
Auditors	8	-	1	
Loan Officers	5	-	-	1
Vice President - Operations	1	-	-	
Others	4	1	1	
<b>Total</b>	<b>71</b>	<b>4</b>	<b>11</b>	<b>6</b>
<b>%</b>	<b>77.2%</b>	<b>4.3%</b>	<b>12.0%</b>	<b>6.5%</b>

*Source: Survey outcome and own computation*

In section two of the structured questionnaire, respondents were expected to express specific factors they think causing NPLs pertaining to the Ethiopian banks. Responses are summarized in the following Table.

Responses were reflected in various ways. Respondents from each bank may reflect their own feelings, based on own policy and procedures in administrating credit facilities. The credit operation process may also take different approaches based on credit culture of each bank. However, expected responses were obtained from all the twelve surveyed banks. Most of the factors were shared by



respondents of each bank. Table 8 below reflects common factors that contribute to the occurrence of NPLs. The fact that a particular factor is shared by the respondent bankers reflects how prevalent the cause could be in the banking industry as a whole. However, the response calls for further study to further scrutinize the real causes behind.

**Table 8. Factors considered causing occurrences of NPLs in the Ethiopian banks**

Factors	No of Banks	Responses in Favor of the Factors											
		BOA	UB	WB	DB	NIB	LIB	BIB	Abay	AdIB	DGB	CBB	CBE
Absence of wise & sound lending practice	9	√	√	√	√		√		√	√		√	√
Borrowers' poor business knowledge/managerial skill	7	√	√		√		√	√	√			√	
Character & credit culture of borrowers	9		√	√	√		√	√	√		√	√	√
Unavailability of complete & correct data for analysis	6	√	√	√			√			√			√
Diversion of fund	10	√		√	√	√	√	√	√	√		√	√
Economic conditions & policy	11	√	√	√	√		√	√	√	√	√	√	√
Poor credit risk analysis/appraisal	12	√	√	√	√	√	√	√	√	√	√	√	√
Market factors	7			√			√	√	√	√		√	√
Over/under financing	6			√	√				√	√		√	√
Weak/inadequate follow-up & monitoring of loans	11	√	√	√	√	√	√	√		√	√	√	√

*Source: Survey outcome and own computation*

According to the Table 8 above, *poor credit analysis/appraisal* appeared to be the factor shared by all the surveyed twelve banks,, while factors like *economic conditions*, *inadequate follow-up and monitoring of loans*, and *diversion of fund* were shared by the overwhelming majority of the respondents in both private and state-owned banks to be the major causes for occurrences of NPLs in the Ethiopians banks. Moreover, *unsound lending practices* as well as *undesired character and credit culture of borrowers* were considered to be causes of NPLs by most of the respondents.

Further, respondents were also expected to rank factors causing NPLs in the Ethiopian Banks in order of importance (from 1<sup>st</sup>/highest to 8<sup>th</sup>/lowest), as tabulated under Table 9 below.

**Table 9. Ranking of factors affecting occurrences of NPLs in the Ethiopian banks.**

Factors	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Sub-Total	%	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	Total
Rapid Loan growth of banks	4	4	4	12	13.3	9	23	17	8	21	90
High interest rate	5	1	7	13	14.4	10	13	16	13	25	90
Lenient/Lax credit terms	7	7	14	28	32.2	18	15	11	8	7	87
Credit culture/ Orientation	15	16	21	52	56.5	18	9	5	3	5	92
Size of the Bank	1	1	3	5	5.7	4	10	21	27	21	88
Poor monitoring/follow up	26	31	16	73	79.3	12	4	2	-	1	92
Ownership type of bank	4	6	5	15	17.0	3	8	11	12	39	88
Poor risk assessment	48	19	9	76	83.5	3	3	3	3	3	91

*Source: Survey and own computation*

The survey result indicated that *poor risk assessment* (83.5 percent), *poor monitoring and follow-up* of loans and advances ((79.3 percent), as the top ranking factors causing occurrences of NPLs followed by *credit culture/orientation* of borrowers to credit facilities (56.5 percent). The survey results further reflected that the contribution of such factors as *size of bank*, *rapid loan growth of banks*, *high interest rates* and *ownership type of bank* to occurrences of NPLs is quite minimal, varying from as insignificant as 5 to 13 percent, in the order mentioned .

The following table (Table 10) shows the relationship between *credit assessment* and *occurrences of NPLs*. About 98.8 percent (mean 4.6, standard deviation 0.52) of respondents agree that *poor risk assessment* would lead to *loan default* while, in conformity to this, 96.5 percent (mean 4.6, standard deviation 0.60) of the respondents share the opinion that proper implementation of *know your customer (KYC)* principle leads to *high loan quality*.

On the other hand, 71.6 percent (mean 3.6, standard deviation 0.52) of the sample respondents agree that *good loan processing* ensures *conducive loan performance*, while on the contrary, majority (58.3 percent) of the respondents do not share the opinion that *easily admitted borrowers usually default*. Needless to mention that the purpose of this question was to see if simplicity in customer

admittance could involve rush into credit decision, without adequate appraisal of the business as well as the character of the borrower. However, as majority of the respondents reported otherwise, the possible justification for this is that banks usually recruit high-value potential customers (in most cases from competitor banks) on the basis of the customers' established goodwill and then process/deliver the loans in a very short period of time (without compromising analytical quality) so as to show them their excellence in service delivery time. Thus, this finding doesn't support the assertion of Brown Bridge (1998) who stated that easily admitted customer's loan would be damaged at the early stage.

**Table 10. Factors on relation between credit assessment and occurrences of NPLs.**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Easily admitted borrowers usually default	10.7	30.9	32.1	22.6	3.6	3.2	1.13
Know your customer (KYC) policy of banks leads to high loan quality.	62.8	33.7	2.3	1.2	-	4.6	0.60
Good loan processing ensures conducive loan performance	18.5	53.1	22.2	5.0	1.3	3.6	0.52
Poor risk assessment would lead to loan default	59.3	39.5	1.2	-	-	4.6	0.52

*Source: Survey and own computation*

Based on the results one can easily observe that all responsible officers involved in credit administration have to carry out comprehensive and detailed analysis in order to determine the prospective borrowers' businesses and related merits prior to providing credit facilities. This would assist the officers and managers to establish, essentially, the extent to which the borrower is able to service the debt by the income generated from businesses.

Further, the importance of employment of know-your-customer (KYC) principle cannot be overemphasized. Respondents agree that banks that employ a stout KYC policy would maintain better loan quality. Such information includes the prospective borrower's business and financial management, organizational setup, credit history or overall track record, and complete profile.

Proper review of documents obtained from applicants, including the information inquiry report is quite essential so as to ensure the extent to which the information collected is credible. Obviously, when the loan undertaking is poor, the probability of default is high.

**Table 11. Factors on relation between credit monitoring and occurrences of NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Strict monitoring ensures loan performance.	33.3	60.6	4.8	1.3	0.0	4.2	0.88
Poorly assessed and advanced loans may perform well if properly monitored.	3.6	30.1	20.5	39.8	6.0	2.8	1.15
Loan follow up is directly related to occurrence of NPLs.	13.1	40.4	20.3	21.4	4.8	3.3	1.20
Banks with higher budget for loan monitoring have lower NPLs.	5.9	39.3	33.4	17.8	3.6	3.2	1.06

*Source: Survey and own computation*

From the above table (Table 11) one can conclude that *strict loan monitoring* ensures *commendable loan performance* as asserted by nearly 94 percent (mean 4.2, standard deviation 0.88) of the times. What is more, close to two-third (6.0%+39.8%+20.5%) of the respondents do not agree with the assertion that *loans and advances might perform well if properly monitored* despite inadequate assessment during sanctioning, indicating that loan follow-up can never substitute prudent credit assessment.

Additionally, 52.3 percent (39.5+12.8) of the respondents (with mean 3.3, and standard deviation 1.2) agree that *occurrence of NPLs* is directly related to *loan follow-up*. Should effective follow-up of loans and advances be in place good asset quality is maintained. On the other hand, only 45.2 percent agree that banks with higher budget for loan monitoring have lower NPLs while about one-third of the respondents remain neutral.

Table 12 below shows opinion of respondents regarding the relationship between collateralized loans and occurrences of NPLs.

**Table 12. Factors on relationship between collateralizing loans & occurrences of NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Collateralized loans perform well	4.7	39.5	24.4	30.2	1.2	3.2	0.96
Collateralizing loans helps protect loan default	11.6	55.8	14	18.6	0	3.6	0.92
Most of the time non - collateralized loans default	2.3	23.3	33.9	38.2	2.3	2.8	0.94

Source: Survey outcome and own computation

The survey results indicated that 67.4 percent of the respondents are of the view that *collateralizing loans helps protect loan default*, while only 44.2 percent and 25.6 percent agree with the statement that *collateralized loans perform well*, and that *most of the time non-collateralized loans default*.

On the contrary, 74.4 percent (33.9%+38.2%+2.3%) and 55.8 percent (30.2%+24.4%+1.2%) of the survey respondents *disagree* or were *neutral* to the assertion that *collateralized loans perform well* and *non-collateralized loans usually default*, respectively. So the relation between NPLs and collateral is neutral in view of the respondents.

With regard to relationship between *borrowers' orientation/culture* and *loan performance* (Table 13), about 91 percent of respondents agree with the assertion that *loan performance* is related to *orientation/culture of a society*. This indicates strong relation between culture/orientation and occurrences of NPLs.

**Table 13. Relationship between borrower's orientation and occurrence of NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Borrower's orientation/ culture is related to loan performance	24.1	61.5	12.0	2.4	0.0	3.9	1.00
Default in some areas is ascribed to the culture of the borrowers'.	11.9	67.9	15.5	4.8	0.0	3.8	.89
Society's cultural development leads to good lending performance.	25.6	65.1	7.0	2.3	0.0	4.1	.64

Source: Survey outcome and own computation

Moreover, 85.6 percent of respondents have the opinion that there existed relationship between *borrowers' culture* and *loan default*. It could also be noted that 79.8 percent of respondents believed loan default in some areas is ascribed to the culture of the borrowers.

The following table (Table 14) indicates that only 12.8 percent of the respondents *agree* with while 87.2 percent *disregard* the assertion that *loan with big interest rate tend to turn to NPLs*. In other words, charging big interest rate doesn't necessarily lead to loan default.

**Table 14. Relationship between Cost of Loan and Loan Default**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Loan with big interest rate tend to turn to NPLs.	2.3	10.5	46.5	37.2	3.5	2.8	0.80
Loan price affects loan performance.	2.8	31.2	35.9	30.1	0	3.0	1.00

*Source: Survey outcome and own computation*

However, 34 percent of the respondents agree with the statement that loan price affects loan performance. The average responses to all three factors were close to neutral.

The following table (Table 15) indicates factors related to cost of loan and default.

**Table 15. Credit Terms and Loan Performance**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Borrowers default because they don't understand credit terms well	2.3	25.6	34.3	35.5	2.3	2.9	0.94
Poorly negotiated credit terms lead to non- performance	10.5	76.7	8.1	4.7	0	3.9	0.61

*Source: Survey outcome and own computation*

Slightly above 87 percent of the responses *conform* to the fact that there is a relationship between *loan default* and *sincerity of negotiation in credit terms* set by the banks during loan processing. On

the other hand, about 72 percent of the respondents *do not agree* with the statement that *borrowers default because they don't understand credit terms well*.

Table 16 below tabulates the relationship between credit growth and volume/ratio of NPLs.

**Table 16. Relationship of credit growth and NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Aggressive lending leads to large NPLs volume/ ratio	11.7	60.0	13.0	15.3	0.0	3.6	.96
Bank's increased risk appetite is cause for NPLs	4.8	58.7	18.8	16.5	1.2	3.5	.94
Compromised integrity in lending leads to loan default	17.8	57.2	17.8	7.2	0.0	3.8	.98

*Source: Survey outcome and own computation*

Looking at the responses on the relationship between credit growth and occurrences of NPLs, 75 percent of the respondents *agreed* that *compromised integrity in lending leads to loan default*, while nearly 72 percent were of the opinion that *aggressive lending leads to occurrences of large NPLs volume/rate*. Similarly, about 64 percent of the respondents believed *bank's increased risk appetite* would cause *occurrences of NPLs*. The survey results indicate that when banks follow aggressive lending strategy and experience rapid credit growth they might end up with mountainous of NPLs.

Table 17 below is about relationship between bank size and occurrence of NPLs.

**Table 17. Bank size and occurrence of NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Having large number of borrowers causes loan default	2.3	14.2	30.5	51.8	1.2	2.6	0.87
Loan default rate is directly related to bank size	1.2	14.0	29.0	51.1	4.7	2.6	0.84

*Source: Survey outcome and own computation*

The survey responses on the relationship between having *large number of borrowers* and *bank's size* indicate that *neither* of them is significant factor for the occurrence of *loan default*, as only 16.5 percent and 15.2 percent have agreed to the contrary.

Finally, Table 18 below attempts to see if there is a relationship between type of bank ownership and occurrence of NPLs.

**Table 18. Bank ownership type and occurrence of NPLs**

Factors	Strongly Agree (5) %	Agree (4) %	Neutral (3) %	Disagree (2) %	Strongly Disagree (1) %	Mean	Std Dev.
Loan default is not related to banks ownership type (Private/ State Owned)	20.9	36.0	20.9	20.9	1.3	3.5	1.11

*Source: Survey outcome and own computation*

The survey results indicate that about 57 percent of the respondents *agree* that *loan default is not related to banks ownership type*. However, 20.9 percent of them remained neutral, while 22.2 percent disagree..

#### 4.4. Discussion of Findings

The general objective of Banks is to deliver efficient and customer focused domestic and international banking services with the aim of attaining customer satisfaction and fostering sustainable growth and profitability. All these banks give different kinds of services; among which credit provision is the major one as it is the core function of commercial banks. It is commonly said that the successful banker is the successful lender.

With regards to lending, banks give different kinds of loans. These include term loans (short, medium & long term), over draft facilities, revolving credit, real estate loans, consumer loans, agricultural loan, import and export loans etc. It is noted that when a bank lends to a customer there are principles that should be considered; i.e., safety, liquidity, effective utilization of loan proceeds, profitability and diversification of advances. Even if the procedures of loan processing differ from one bank to another, in general, lending procedures include: primary discussion with the customer, processing the credit application, interview, site visit, credit information, credit investigation, credit



analysis and credit decision making.

The health of commercial banks often is measured by the amount of sick loans they have in their books. The regulatory agency in particular requires the banks to put provision against these types of loans and in order to protect the huge public fund with them. When the amount of provision put aside by banks is declining, this partly indicate an improvement in their loan collection. On the other hand, when the provision put by bank are increasing, it indicates their NPLs are on the rise.

The following points are drawn as conclusion based on the analysis made on primary and secondary data and the findings about problems of NPLs.

As has been stated in chapter one, the study has intended to identify causes behind the unpaid loans that literally exist in all banks and formulated six specific questions (one major question and five sub-questions) to help achieve the broad objective to identify determinants of NPLs, including relationship among credit assessment, credit monitoring, collateralized lending, borrower's orientation, and credit growth vis-à-vis occurrences of NPLs.

In respect of the factors affecting NPLs, the subjective questions in the survey identified factors such as poor credit assessment and monitoring, culture/orientation, banks credit terms, aggressive lending, compromised integrity, and economic condition attribute to the causes of loan default.

Further, the research questions stated under the 'Statement of the Problem and Research Questions' (Chapter 1) were formulated to contribute to meeting the general objective of the research.

Factors are further investigated as follows.

### ***Factors (specific determinants) affecting occurrences of NPLs***

The study analyzed each factor that has impact on occurrences of NPLs. Bercoff et al (2002) indicated that NPLs are affected by both bank specific factors and macroeconomic factors. Focus of this study being banks specific determinants of NPLs, the findings in light of related literature are discussed.

Substantial number of respondents believed that poor credit analysis on the part of lending banks and unsound lending practices are major causes behind unpaid loans (Table 8). Failure to consider credit

worthiness of borrowers, track record, proven integrity, applicants' management profile etc before admitting new customers indulge to recruiting borrowers with poor track record, inadequate business management, excessively risk venture that would eventually lead to poor credit performance.

### ***Credit assessment and occurrence of NPLs***

The survey also indicated that poor risk assessment would lead to loan default. Credit analysis constitutes the critical phase of bank lending process. Credit facility requests are analyzed by assessing the five Cs - Character, Capital, Collateral, Capacity and Condition. Thus failing to carry out proper risk assessment would lead to missing any or all of the mentioned issues, which has the potential for the occurrences of NPLs (Table 10). Ning (2007) indicated the impact of poor risk assessment on loan quality.

Furthermore, the survey results indicate the fact that banks pursue strong KYC principle lead to high loan quality. The fact that banks pursue a loose KYC before admitting a new customer indulge them to recruiting a borrower with poor track record, inadequate business management, excessively risky and/or unviable venture that would eventually led to poor credit performance. The results do not support the statement of Brown Bridge (1998) who stated that easily admitted customer's loan would be damaged at the early stage.

### ***Relation between credit monitoring and NPLs***

The importance of regular monitoring of loan quality, Agresti et al. (2008) stated that it would help insure a sound financial system and there by prevent systemic risk that otherwise would lead to loan default. This survey also confirmed the stated study as 94 percent of the respondents indicated agreement (Table 11) to the assertion that strict monitoring of loans and advances ensures performance and poorly assessed and advanced loans may fail to perform well even if properly monitored. Thus failing to properly monitor loan would lead to loan default.

Since the 'know-Your-Customer' (KYC) principle needs constant updating, proactive management of credit risk before serious problems arise is the hallmark of credit monitoring. Its objective is to verify whether the advanced loan does not deviate from terms and conditions of approval and utilized for the purpose they were granted. All involved in the credit processing ought to be alert to

sick signals, such as, deterioration in the key financial indicators of the borrowers, lack of management on the part of management, sluggish periodic loan repayments, frequently bounding cheques etc.

If loans are not paid as and when due, credit risk is involved on reducing the value of the bank's business. In order to continue lending the banks must be able to collect their outstanding loans on time. Once funds are disbursed the concerned banks cannot afford to rest on their laurels and expect all payments to come in on the due dates without problem. Hence, in order to minimize the occurrence of bad loans every effort of follow-up must be carried to the utmost degree and take timely action when necessary. The survey results also indicated that 52.3 percent of the respondents agree that occurrence of NPLs is directly related to loan follow-up. Effective loan follow-up need to be in place should good asset quality is maintained.

Loan follow-up involves confirmation of repayment of currently maturing debts but also continuity of repayments for loans duration. Under physical follow-up existence and operation of the borrowers' business is ensured. Whether the end use of the borrowed fund is according to the purpose for which the loan was granted should be ascertained by financial follow-up. To protect the interest of lending banks, ensure legal recourse is available at all times legal follow-up should be put into effect. Survey results indicate that banks that incur big cost for loans follow-up would have comparatively lower NPLs.

### ***Relation between collateralized loans and NPLs***

Collateral refers to assets that the Bank holds to mitigate default risk. It is a security that a borrower gives to a Bank to guarantee repayment of a loan. It depends on the Bank's policy that all loans shall be backed by acceptable collateral. It is a second way-out and it should never be a substitute for credit worthiness, which is the existence of adequate cash flow to repay the loan.

Security is taken to mitigate the bank's risk in the event of default and is considered a secondary source of repayment (Koch & MacDonald, 2003). In the banking environment, security is required among others, to ensure the full commitment of the borrower, to provide protection should the borrower default from the planned course of action outlined at the time credit is extended, and to provide insurance should the borrower default.

The survey results indicated that quite majority (67.4 percent) of the respondents are of the view that collateralizing loans helps protect loan default while, on the other hand, a significant majority (74.4 percent) and (55.8 percent) of the survey respondents disagree or were neutral to the assertion that collateralized loans perform well or non-collateralized loans usually default, respectively (Table 12).

### ***Impact of Borrowers' orientation/culture and NPLs***

The fact that the respondents who agree with the assertion that: society's cultural development also leads to loan performance, the borrowers' culture/orientation is related to loans performance, and default in some areas is ascribed to the culture of the borrowers - constitute over 90.7 percent, 85.6 percent, and 79.8 percent, respectively, indicates existence of strong relationship between each of these factor and NPLs (Table 13).

### ***Cost of loan and loan default***

Study by Sinkey and Greenwalt (1991), Rajan and Dhal (2003), Waweru and Kalini (2009), Berger and DeYoung,(1997), Jimenez and Saurina (2006), Quagliariello,(2007) Pain, 2003, Bikker and Hu, (2002) indicated that high interest rate charged by banks is associated with loan defaults. This study fails to support this finding as 87.2 percent of the respondents disagree or remained neutral to the assertion that loans with big interest rate would turn to default. Majority (67 percent) of the respondents also expressed disagreement became indifferent to the statements - charging big interest rate and loan prices affect loan performance (Table 14).

### ***Credit terms and loan performance***

Researches indicate that failure to put appropriate credit terms and conditions would lead to loan default. Rajan and Dhal (2003) who studied the Indian commercial banks found out that terms of credit determines occurrences of NPLs. Jimenez and Saurina (2005) also stated that NPLs are determined by lenient credit terms.

Consistent with this, 87.2 percent of the respondents expressed their agreement to the assertion that poorly negotiated credit terms lead to loan default. However, 72.1 percent of them expressed disagreement or indifference to the statement that borrowers default because they don't understand credit terms well (Table 15)

### ***Relationship between credit growth and NPLs***

Salas and Saurina (2002) who studied Spanish banks found out that credit growth is associated with NPLs. As far as the survey results are concerned, the concentration of respondents who attributed occurrence of NPLs to: compromised integrity, aggressive lending and banks' increased risk appetite constitute - 75 percent, 72 percent and 64 percent of the sample respondents (Table 16).

### ***Bank size & ownership type and NPL***

Studies of Rajan and Dhal (2003), Salas and Saurina (2002), and Berger and De Young (1997) indicated that banks size have significance on occurrence of NPLs. The survey results, however, did not support these studies of other countries. About 85 percent and 84 percent of the respondents express their disagreement to the statements that occurrence of NPLs is attributed to bank size and number of borrowers respectively (Table 17).

On the other hand, type of ownership of a bank is supposed to impact occurrence NPLs as reported by majority (56.9 percent) of the respondents, 21 percent remaining neutral (Table 18).

## **4.5. Summary of Results**

The survey was conducted on 92 employees of 12 banks (private and state-owned). The data were collected using self administered questionnaire. The feedback yielded a response rate of 92 percent. About 73 percent of the respondents were from private commercial banks while the remaining 27 percent belong to the state-owned banks.

In terms of experience, 85 percent and 65.2 percent of the respondents had over five years of lending and banking experience respectively.

In response to specific factors causing occurrences of NPLs, the results indicated that poor credit analysis was shared by all banks, followed by economic condition, and diversion of fund.

Regarding ranking factors affecting occurrences of NPLs in Ethiopian banks, poor risk assessment, poor monitoring and follow-up and credit culture/orientation of borrowers were rated to be the top three critical factors causing loan default.

Nearly all respondents (98.8 percent) agreed that prudent credit assessment leads to high asset quality, followed by strict employment of KYC principle (79.3 percent).

Around 94 percent of the respondents agreed that strict loan monitoring and follow-up ensures conducive loan performance and. On the other hand, quite majority of the respondents were of the opinion that holding collateral backup helps protect loan defaults.

The response on the relation between loan pricing (interest rate) and occurrences of loan default depicted that 87.2 percent disagree that loans with big interest rate tend to turn to NPLs.

With regard to the impact of culture on occurrence of NPLs, 91 percent and 85.6 percent of the respondents agree that loan performance depends on orientation/culture of the society and the borrowers respectively.

Respondents asserted that there is a cause-and-effect relationship between sincerity of negotiation in credit terms and occurrence of NPLs. Respondents also agreed to the assertion that aggressive lending, increased risk appetite and compromised integrity lead to loan default. However, results indicate that factors like size and ownership of a bank has no significant impact on occurrences NPLs.

#### **4.6. Causes and Effects of NPLs**

Similar to any other business enterprises, private banks strive to earn profit. But in the drive for profit banks would face different problems. It is obvious that banks are custodian of others' surplus funds. That is, banks take in money as deposits on which they pay interest and then lend it out to borrowers who use it to finance trade, investment or consumption. Banks make profit mainly from the different between the interest they pay on deposits and the interest they receive on loans & advances.

The problem of NPLs is one of the serious problems of banks. Normally, private banks lend for short-term commercial purposes, so that they can realize the repayment within short period of time. However, for many reasons the loans may turn to non-performing assets.

Causes for NPLs can be classified into three classes, namely, factors specific to the borrower, factors specific to the lender bank and factors specific to the macroeconomic conditions of the country.

#### **4.6.1. Causes Specific to the Borrower**

A borrower may default because of either he/she is unable or unwilling to pay. Inability to pay is related to the financial conditions of the borrower, while unwillingness to pay is mainly related to the enforcement system which could be a legal or social mechanism. In other words, willingness to pay depends on the borrowers' honesty, which is shaped by the available legal enforcement mechanisms and other social features such as spiritual and religious norms of the society.

Inability to repay occurs when the borrower's project to be financed by the loan earns a gross return less than the principal, and the interest due on the loan. Thus, poor quality project is one factor that causes loans default. Even if the project is good, if the owner of the project manages it poorly, the loan received to finance the project may become less productive. This may occur if the owner or the manager of the project is illiterate and unskilled to manage the project and the loans received in this regard.

Absence of financial statements and/or cash flows of the investment project financed by the loan create difficulties on planning how much to be earned and hence to repay periodically. Thus, if the borrower doesn't have proper accounting and auditing mechanism, it will be difficult for him to repay his/her periodic repayment timely and properly. In Ethiopia since small firms are not obliged to prepare their financial statements and audit their performances, this is common factor for defaulting.

Lack of adequate knowledge (being illiterate or unskilled) on how to use loans granted may lead to defaulting. In this connection, loan diversion is a problem for such borrowers, because they may employ the loan for other purposes and the investment project will have low returns that could not cover the repayment resulting in default.

Insufficient or inexact loan provision may make the project less productive and repayment could be difficult. Similarly, short period of loan due date makes the periodic repayment so high that the borrower may face difficulties to repay, thus resulting in default.

High interest rate on the loan makes the total interest repayment to be large compared to the return obtained from the project and hence, periodic repayment will be huge. Loans with due date longer than a year or so have higher interest rates so that they bear high costs to borrowers. On the other hand, loans with shorter due date result in high periodic repayment. Thus, borrowers of both the shorter and longer tenure loans face difficulties, and if unprofitable they are likely to default.

Provision of new loan when the previous loan fails may sometimes help to generate revenue for the borrower. Thus, absence of new loan in such cases may aggravate the problem of the borrower that otherwise could repay the loan.

Some borrowers may default regardless of their financial capabilities. They may default when the cost (consequence) of default is lower than its benefit. Cost of default involves a number of factors such as: loss of collateral offered, loss of future access to credit, loss of reputation, loss of status in community and if the borrower is not of a limited liability (PLC or corporation) then it may also lose other personal wealth, etc. Irrespective of these, however, some borrowers may have poor personal qualities of dishonesty, fraud, etc, and are unwilling to repay their loans, and become defaulters.

In general, the factors mentioned above are the possible reasons for defaulting (i.e., causes of NPLs), which are specific to the borrower.

#### **4.6.2. Factors Specific to the Lender Bank**

Lender banks need to assess the credit worthiness of their borrowers before they grant loan and need to monitor and follow-up the effective utilization and repayment of the loan after disbursement. Thus, credit market is information intensive, and banks need to have much information to effectively extend their loans and minimize the losses associated with NPLs.

Since most firms are small and have no financial statements, banks face scarcity of information. In such cases, finding information to evaluate prospective borrowers and their projects, and encouraging borrowers to willfully repay has significant difficulties. In some cases, it is also difficult to seize collateral, resell it or to use legal action to collect bad debts from defaulters.

Due to fear of default banks charge high lending rates to compensate loan losses, which make cost of borrowing high. When the interest rate is high, the effort on the part of the borrower to make the



project successful decreases resulting in default (NPLs). At higher interest rates low-risk borrowers would find it almost impossible to borrow and rather prefer not to seek loans while high-risk borrowers would take the loan and gamble the proceeds in a risky venture.

Banks make choices among investments to be financed on the basis of expected return and risk. Good information is needed in order to make those choices, to monitor borrowers' behavior after lending and to take appropriate corrective actions if it appears that things are not going as planned. For these matters, banks require reliable data, which in turn depend upon better accounting, auditing and rules on disclosure of financial information. However, the information system in our country is poor that banks often use incomplete information for decision-making, where the probability of default is high.

Scarcity of skilled and experienced manpower in loan processing results in poor loan quality, which will turn out to large NPLs. Lack of adequate trainings and continuous updating of the level of staff competence may create poor credit evaluation, monitoring and recovery.

Excessive dependence on collateral alone would create poor credit allocation. Considering collateral lending as a loan adequately secured where such a loan has no visible cash flow results in difficulties of repayment or default.

Similarly, overestimation of the collateral or the fall in its value upon its sale would result in loss of some income to be covered by the collateral in the event of default. A more serious problem is lack of a well developed second hand markets or saturation of the market for properties pledged as collateral.

Desire of acquiring fast profit by the managers of a bank may also result in lending to poor quality borrower. Competition among the banks to attract borrowers has similar adverse effect of lending to non-promising borrowers.

Concentration of loans of a bank to some specific sectors or industries only are causes of trouble. When a bank lends excessively to some sectors of the economy, the portfolio diversification becomes narrow resulting in high occurrence of risk of defaulting.

Lending to affiliated or related parties of the bank such as shareholders, managers or staffs, may create problems of loan default because proper loan processing procedures may not be strictly applied.

Existence of large volume of deposits compared to the relatively low level of outstanding loans in the banks urge the banks to lend even to the undesired borrowers or borrowers of poor project quality. This may lead to high risk of defaulting.

#### **4.6.3. Factors Specific to Macroeconomic Conditions**

Banks also suffer from unsound macroeconomic conditions. Unstable prices or substantial variations in prices may cause problem of loan losses because firms for whom the change in price is unfavorable will get difficulties to pay their debts. The overall economic performance of the country will affect banks in their loan provision and collection activities. Inadequate legal system where right and responsibilities under financial contracts may not be clearly spelled out and enforced would create large default of loans because foreclosure of pledged collateral may not be affected easily in absence of strong legal system. Indeed foreclosure is not desirable outcome both for the bank and the borrower, however, the threat of foreclosure is believed to keep borrowers from willful default and the same belief would encourage lenders to lend. Lack or weakness of an adequate basis for drafting and enforcing financial contacts due to poor legal system in the country is believed to increase the volume of NPLs.

Unfavorable macroeconomic conditions that lead to large-scale failures of enterprises of a country may create problems to banks. Since most enterprises are interconnected with banks as borrower – lender relationships, failure of these enterprises in large scale would make them unable to repay their loans. Similarly, sudden changes in market conditions, interest rates, exchange rates, etc, would make firms unable to service their loans resulting in large NPLs.

#### **4.7. Effects of NPLs**

When a bank holds large volume of NPLs it will suffer from serious liquidity problem. That is, most of its liquid assets (cash and cash equivalents) tend to be lost. At this time the bank will be unable to extend further loans for new loan requests. In the mean time earnings to be collected from the

outstanding loans would be denied. Consequently, the bank loses the principal and the interest income from NPLs. Recovery of such bad debts requires effective legal system to realize the value of the collateral security pledged against the loan. Even if it is possible to sell, loss of value upon sale of the collateral will erode profit of the bank and obviously its capital base.

The problem reaches highest stage when the bank becomes unable to meet the day-to-day cash and deposit withdrawal needs of its customers. Since immediate liquidation of large volume of collateral assets is very difficult or involve large capital loss, the liquidity problem of the bank may deteriorate into a solvency problem. The bank is said to be insolvent when its assets value is less than the value of its liabilities and hence, the value of its capital (net worth) becomes negative. At such times, the bank cannot expect to pay all of its depositors in full and on time. Losses thus will pass to depositors, creditors and shareholders of the bank. Such an event is called bank failure.

Bank failures are widely perceived to have greater adverse effects on the economy and thus are considered more serious than the failure of other types of business firms. Bank failures are viewed to be more damaging than other failures because of a fear that they may spread throughout the entire banking system. Thus, the failure of an individual bank is believed to introduce the possibility of system wide failure and even beyond the banking system to the financial system as a whole and as such to the domestic macro economy.

Banks are viewed as more vulnerable to failure than other business firms due to many reasons. To mention some: first, banks have low capital to asset ratio. This high leverage situation gives them little possibility to absorb losses, and hence they are susceptible to failure. Second, banks have low cash to asset ratio, which may require the sale of earning assets to meet deposits withdrawal obligations. This situation creates high potential for a run, a situation of hurried sales of assets of non-liquid nature with possibility of large losses to pay off running depositors.

Moreover, banks as operations of the payment mechanisms are highly interrelated and failure of the counterparties to honor their obligations in time can cause the payment mechanism to cease. The chain reaction of such delays or failures of settlement down the line results in contagion. Thus, the failure of one bank is associated in the public's mind with the failure of all the banks and the whole process if not promptly stopped results in a system wide failure in the economy.

To conclude, NPLs can be accumulated due to factors specific to borrowers, lender banks or the macroeconomic conditions of the economy. The effects of large volume of NPLs have far-reaching implications from inability to execute the banking operations within a single bank to failure of the entire banking system and the overall economy as a whole. However, central banks regulate and monitor individual banks and take corrective actions if necessary before such serious problems occur in the system.

## CHAPTER FIVE

### 5. CONCLUSION AND RECOMMENDATIONS

#### 5.1. Conclusion

When a bank disburses a loan, the loan may not be collected because of many factors and those uncollected loans are said to be NPLs or bad loans. All commercial banks render different kinds of services; among which provision of credit is the major one as bank lending is the core function of commercial banks. It is commonly said that the successful banker is the successful lender. It is also noted that when a bank lends to a customer there are principles that should be considered in terms of safety, liquidity, effective utilization of the fund, profitability and diversification of investment and business. Even if the procedures of loan processing differ from one bank to another, in general, the procedures include: prior discussion or interviewing the customer, site visits, processing the credit application, gathering of credit information, detail credit analysis and appraisal, credit decision making, contact signing, registration of collaterals (is applicable), and then disbursement .

NPLs are serious problem that need to be accorded careful attention. A loan is identified and segregated as non-performing depending on the number of days a repayment is delayed or discontinued. According to National Bank of Ethiopia's Directive No SBB/43/2008 Asset Classification and Provisioning Directive, *Non-performing* means loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with contractual repayment terms of the loans or advances is due and uncollected for 90 (ninety) consecutive days or more beyond the scheduled payment date or maturity.

The basic objective of this research has been to identify borrower-, bank- and macroeconomic-specific determinants of NPLs. On the basis of the broad objective one major research questions and five sub research questions were developed and dealt with. For the achievement of the objective the study used survey of employees of banks by employing structured questionnaire.

The study indicated that poor credit analysis on the part of lending banks, unsound lending practices, failure in loan monitoring and follow-up, borrowers' undesired culture, compromised integrity, fund diversion, and the like are the major causes behind NPLs.

## 5.2. Recommendations

The resultant effect of a business organization is measured in its monetary achievement /profitability and efficient management. The greater extent of its success depends on the efficient management of its financial resources. Thus management of finance in credit area is a very sensitive and complex issue in the operation of banks where one should be well aware of minimizing risk in the course of administering loans and advances. As deposits of banks are usually payable on demand or on a short notice, banks should also limit the time for which loans are granted and ensure that they are repaid within that period of time.

Lending banks should be aware of the dangers involved in maintaining bad loans in their books of accounts and make advance preparations as to how disbursed loans should be collected timely. Collection plans are not to be initiated after approval or disbursement. It has frequently been said that a good banker collects a loan at the time of its disbursement; meaning - a loan properly analyzed and scheduled at the outset is virtually self-servicing.

Administration of loans involves the entire process starting from credit application to final resolution. Therefore, lending banks need to develop and put in place prudent credit processing, encompassing appropriate exercise of KYC for proper customer selection and assessment of credit worthiness of borrowers. Robust credit analysis from the point of view of what contribution the loan will yield to the customer's business, to the bank's income/profit as well as to the overall economic development of the country needs to be accorded earnest concern of the pertinent stakeholders.

In order to maintain asset quality banks should:

- Provide training and development to employees involved in credit operations to enhance the aptitudes and abilities of every member,
- Put in place a clear policy framework and working procedures that effectively address the issues of KYC,
- Develop and put in place framework for the entire credit management process and set objectives, standards and parameters to guide credit personnel in the overall credit processing.

- Institute proper loan processing, and essentially prudent analysis and appraisal system,
- Put in place proactive follow-up and monitoring system to monitor loan performance and check continued viability of operations,
- Develop and implement corporate code of conduct, fraud prevention policy, and proper check-and-balance in credit decision making processes, and
- Identify early warning signals, if any, and initiate remedial measures thereby averting loss from possible default,
- Exert effort to develop borrowers' culture towards credit, and to shape employees involved in credit operations towards ensuring integrity, making them free of undesired internal and external pressures.

#### **Recommendations for further studies**

The study topic at hand requires further research on the root-causes of the major determinants; such as lack of financial discipline and out-right-breach of contractual agreements from the side of borrowers; in other words, the business community's increased risk taking attitudes towards credit; and more importantly towards unsound or corrupt practices.

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## Appendix I

### Questionnaire



ADDIS ABABA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF MANAGEMENT  
EXECUTIVE MBA PROGRAM

**Dear respondent,**

Thank you very much for your willingness to take time to respond to this research questionnaire. The study is being conducted by a postgraduate student at Addis Ababa University, College of Business and Economics, Department of Management, Executive MBA Program.

It is all about questions pertaining to **Determinants of Non-performing Loans** and related practices in the Ethiopian banks. To this end, it intends to gather information from pertinent bank employees involved in credit and related activities (i.e.; credit managers, analysts, recovery/monitoring officers, risk management officers, credit committee members .. etc).

The participation is fully on voluntary basis, and your accurate and frank responses are imperative for the successful accomplishment of the study.

Please be assured that your responses will be treated in a strictly confidential manner, and the results will be used only for the purpose of this research, presented only at aggregate level without focusing on individual bank.

Kindly, therefore, return the questionnaire upon completing each item appropriately.

Thank you in advance.

Respectfully;

Gebbru Meshesha

(Please tick appropriate boxes)

**Section One – Background Information**

**1. Your current position in the Banking industry.**

- |                    |                          |                                |                          |
|--------------------|--------------------------|--------------------------------|--------------------------|
| 1. Loan Officer    | <input type="checkbox"/> | 4. Relationship manager        | <input type="checkbox"/> |
| 2. Credit analyst  | <input type="checkbox"/> | 5. Recovery/monitoring officer | <input type="checkbox"/> |
| 3. Credit Director | <input type="checkbox"/> | 6. Vice president              | <input type="checkbox"/> |

Other, Please specify.....

**2. Indicate your experience in the Banking industry.**

- |                     |                          |                   |                          |
|---------------------|--------------------------|-------------------|--------------------------|
| 1. Less than 1 year | <input type="checkbox"/> | 4. 11-15 years    | <input type="checkbox"/> |
| 2. 1-5 years        | <input type="checkbox"/> | 5. Above 15 years | <input type="checkbox"/> |
| 3. 6-10 years       | <input type="checkbox"/> |                   |                          |

**3. Indicate your experience in the Banking credit process.**

- |                     |                          |                   |                          |
|---------------------|--------------------------|-------------------|--------------------------|
| 1. Less than 1 year | <input type="checkbox"/> | 4. 11-15 years    | <input type="checkbox"/> |
| 2. 1-5 years        | <input type="checkbox"/> | 5. Above 15 years | <input type="checkbox"/> |
| 3. 6-10 years       | <input type="checkbox"/> |                   |                          |

**4. Indicate ownership of the Bank you work for.**

- |            |                          |                |                          |
|------------|--------------------------|----------------|--------------------------|
| 1. Private | <input type="checkbox"/> | 2. State owned | <input type="checkbox"/> |
|------------|--------------------------|----------------|--------------------------|

**5. Determinants of nonperforming loans are obvious.**

- |          |                          |            |                          |             |                          |
|----------|--------------------------|------------|--------------------------|-------------|--------------------------|
| 1. Agree | <input type="checkbox"/> | 2. Neutral | <input type="checkbox"/> | 3. Disagree | <input type="checkbox"/> |
|----------|--------------------------|------------|--------------------------|-------------|--------------------------|

**Section Two – Questions on Determinants of Nonperforming loans.**

1. What bank specific factors do you think are causing the occurrences of NPLs in Ethiopian banks?

.....

.....

2. Please rank the factors that cause occurrences of NPLs in the Ethiopian Banks by Ranking the factors in order of their importance in contributing to the occurrence of NPLs from 1 – 8.

Factors	Factor that causes occurrence of NPLs	Rank 1=highest ....8=lowest
2.1	Rapid loan growth by banks	
2.2	High interest rate	
2.3	Lenient credit term	
2.4	Credit culture /Orientation	
2.5	Size of the bank	
2.6	Poor monitoring/follow-up	
2.7	Ownership type of bank	
2.8	Poor risk assessment	
2.9	Other, Please specify..... .....	

3. Please indicate your degree of agreement or disagreement to the statement pertaining to credit assessment and the occurrence of NPLs.

Factors		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3.1	Easily admitted borrowers usually default					
3.2	Know You customer (KYC) Policy of bank s lead to high Loans quality					
3.3	Good loan underwriting ensures loan performance					
3.4	Poor risk assessment would lead to loan default					

**4. Please indicate your degree of agreement or disagreement to the statements pertaining to credit monitoring and the occurrences of NPLs.**

Factors		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
4.1	Strict monitoring ensures loan performance					
4.2	Poorly assessed and advanced loans may perform well if properly monitored					
4.3	Loan follow up is directly related to occurrence of NPLs					
4.4	Bank with higher budget for loan monitoring has lower NPLs					

**5. Please indicate your degree of agreement or disagreement to the statement pertaining to collateral and the occurrence of NPLs.**

Factors		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
5.1	Collateralized loans perform well					
5.2	Collateralizing loans help protect loan default					
5.3	Most of the time non collateralized loans are defaulted					

**6. Please indicate your degree of agreement or disagreement to the statement pertaining to borrower’s orientation and the occurrence of NPLs.**

Factors		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
6.1	Borrower’s orientation/culture is related to loan performance					
6.2	There is a relationship between loan default and borrower’s culture.					
6.3	Default in some area is ascribed to the culture of the borrowers					
6.4	Society’s cultural development leads to good loan performance.					
6.5	Loan with big interest rate tend to turn to NPL					
6.6	Charging big interest rate leads to loan default					
6.7	Loan price affects loan performance					
6.8	Lenient /lax credit term cause loan default					
6.9	Borrowers default because they don’t understand credit terms well					
6.10	Poorly negotiated credit terms lead to loan non performance					

**7. Please indicate your degree of agreement or disagreement to the statement pertaining to credit monitoring and the occurrence of NPLs.**

Factors		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
7.1	Aggressive lending leads to large NPL volume/ratio					
7.2	Banks whose credit growth is rapid experience huge NPL level					
7.3	Bank’s great risk appetite is cause for NPL					
7.4	Compromised integrity in lending leads to loan default					
7.5	Having large no. of borrowers causes loan default					
7.6	Loan default rate is directly related to banks size					
7.7	With growth in banks size comes growth on NPL					
7.8	Loan default is not related banks ownership type(private/state owned)					





## Appendix II

### Appendix 2.1. Surveyed Banks Financial Data from June 30, 2009 to 2014

	Particulars	2009	2010	2011	2012	2013	2014
<b>AIB</b>	Total Asset in '000	7,132,572	9,022,989	11,089,441	13,125,217	17,783,927	22,106,346
	Total Deposit'000	4,962,410	6,105,940	8,044,535	9,564,540	13,104,797	16,117,833
	Total loan in '000	2,722,401	3,182,521	3,986,524	5,511,613	7,737,115	9,176,360
	Total NPL in '000	157,324	148,309	146,232	105,038	204,350	208,757
	<b>NPL Ratio in %</b>	<b>5.8</b>	<b>4.7</b>	<b>3.7</b>	<b>1.9</b>	<b>2.6</b>	<b>2.3</b>
	Profit before tax '000	303,071	350,836	505,069	530,599	583,019	828,807
<b>DB</b>	Total Asset in '000	9,732,583	12,353,386	14,614,795	17,520,042	19,747,175	21,962,202
	Total loan in '000	4,447,020	5,033,070	6,141,670	8,042,000	8,836,630	9,607,825
	Total Deposit'000	7,925,210	10,144,549	11,841,239	14,065,600	15,851,264	17,681,343
	Total NPL in '000	328,470	150,890	204,390	193,380	482,190	167,755
	<b>NPL Ratio in %</b>	<b>7.4</b>	<b>3.0</b>	<b>3.3</b>	<b>2.4</b>	<b>5.5</b>	<b>1.7</b>
	Profit before tax '000	352,488	458,254	629,878	893,263	812,934	957,590
<b>BOA</b>	Total Asset in '000	NA*	6,279,540	7,277,567	8,239,513	10,160,114	11,276,391
	Total Deposit'000	NA*	5,138,848	6,075,259	6,771,246	8,496,148	9,096,477
	Total loan in '000	NA*	3,153,244	3,315,862	3,897,724	4,675,875	5,061,009
	Total NPL in '000	NA*	219,949	131,620	146,377	129,839	92,451
	<b>NPL Ratio in %</b>	<b>NA*</b>	<b>7.0</b>	<b>4.0</b>	<b>3.8</b>	<b>2.8</b>	<b>1.8</b>
	Profit before tax '000	NA*	167,665	258,383	288,579	351,468	351,489
<b>CBO</b>	Total Asset in '000	1,022,882	1,768,615	2,500,359	3,676,170	6,537,470	7,350,372
	Total Deposit'000	788,680	1,371,820	1,980,416	2,797,540	4,465,039	5,450,097
	Total loan in '000	579,460	721,920	799,450	1,383,460	2,116,060	3,712,476
	Total NPL in '000	54,980	14,970	28,530	8,600	36,341	68,360
	<b>NPL Ratio in %</b>	<b>9.5</b>	<b>2.1</b>	<b>3.6</b>	<b>0.6</b>	<b>1.7</b>	<b>1.8</b>
	Profit before tax '000	3,633	36,140	68,252	139,774	266,959	475,852
<b>OIB</b>	Total Asset in '000	326,358	1,118,572	1,961,800	2,787,400	3,911,231	6,151,661
	Total loan in '000	112,132	368,987	661,743	1,019,596	1,621,228	2,551,638
	Total Deposit'000	189,498	820,935	1,526,319	2,117,297	3,050,439	5,003,996
	Total NPL in '000	-	12,293	6,027	14,158	54,495	57,781
	<b>NPL Ratio in %</b>	<b>-</b>	<b>3.3</b>	<b>0.9</b>	<b>1.4</b>	<b>3.4</b>	<b>2.3</b>
	Profit before tax '000	-	21,510	56,689	65,162	102,148	204,892
<b>ZB</b>	<b>Total Asset in '000</b>	NA*	1,055,623	1,613,912	2,394,242	3,248,479	3,924,769
	Total Deposit'000	-	688,025	1,162,559	1,792,883	2,505,527	3,030,871
	Total loan in '000	186,760	377,920	645,227	1,012,691	1,369,655	1,429,960
	Total NPL in '000	1,974	5,996	11,491	18,132	116,729	126,278
	<b>NPL Ratio in %</b>	<b>1.1</b>	<b>1.6</b>	<b>1.8</b>	<b>1.8</b>	<b>8.5</b>	<b>8.8</b>
	Profit before tax '000	NA*	72,145	122,541	123,312	123,810	165,017

Source: Audited Financial Statement of each Banks.

NA\* the data is not available.

**Appendix 2.2. CAR and NPLs Position of all banks, as at December 2012.**

Particulars	CBE	CBB	AIB	DB	BOA	WB	UB	NIB	CBO
<b>As at December 31, 2012</b>									
NPLs %	1.10	3.62	3.45	5.34	6.47	3.45	4.65	3.86	0.80
CAR %	9.49	16.91	18.46	12.78	16.14	26.00	16.18	23.05	17.74
<b>As at December 31, 2012 (Cont'd)</b>									
	LIB	ZB	OIB	BuIB	BIB	AB	AdIB	DGB	DBE
NPLs %	1.48	13.89	3.52	1.53	5.47	4.05	0.00	0.00	9.46
CAR %	24.60	13.81	25.61	29.29	30.66	25.09	38.06	125.31	13.58
<b>As at Sep. 30, 2012</b>									
	CBE	CBB	AIB	DB	BOA	WB	UB	NIB	CBO
NPLs %	1.1	4.1	2.4	5.0	6.2	5.7	4.5	4.1	0.9
CAR %	11.5	18.7	17.6	14.6	15.1	26.1	16.7	24.5	18.2
<b>As at Sep. 30, 2012 (Cont'd)</b>									
	LIB	ZB	OIB	BuIB	BIB	AB	AdIS		DBE
NPLs %	1.7	13.1	5.3	2.6	6.1	3.8	-		9.4
CAR %	26.0	24.1	26.7	31.3	35.3	28.2	47.0		13.2

### Appendix 2.3. Awash International Bank

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	7,132,572	9,022,989	11,089,441	13,125,217	17,783,927	22,106,346
Total Deposit'000	4,962,410	6,105,940	8,044,535	9,564,540	13,104,797	16,117,833
Total loan in '000	2,722,401	3,182,521	3,986,524	5,511,613	7,737,115	9,176,360
Total NPL in '000	157,324	148,309	146,232	105,038	204,350	208,757
NPL Ratio in %	5.8	4.7	3.7	1.9	2.6	2.3
Profit before tax '000	303,071	350,836	505,069	530,599	583,019	828,807

### Appendix 2.4. Dashen Bank (DB)

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	9,732,583	12,353,386	14,614,795	17,520,042	19,747,175	21,962,202
Total loan in '000	4,447,020	5,033,070	6,141,670	8,042,000	8,836,630	9,607,825
Total Deposit'000	7,925,210	10,144,549	11,841,239	14,065,600	15,851,264	17,681,343
Total NPL in '000	328,470	150,890	204,390	193,380	482,190	167,755
NPL Ratio in %	7.4	3.0	3.3	2.4	5.5	1.7
Profit before tax '000	352,488	458,254	629,878	893,263	812,934	957,590
Total Asset in '000	9,732,583	12,353,386	14,614,795	17,520,042	19,747,175	21,962,202

### Appendix 2.5. Bank of Abyssinia (BOA)

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	NA*	6,279,540	7,277,567	8,239,513	10,160,114	11,276,391
Total Deposit'000	NA*	5,138,848	6,075,259	6,771,246	8,496,148	9,096,477
Total loan in '000	NA*	3,153,244	3,315,862	3,897,724	4,675,875	5,061,009
Total NPL in '000	NA*	219,949	131,620	146,377	129,839	92,451
NPL Ratio in %	NA*	7.0	4.0	3.8	2.8	1.8
Profit before tax '000	NA*	167,665	258,383	288,579	351,468	351,489

**Appendix 2.6. Cooperatives Bank of Oromia (CBO)**

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	1,022,882	1,768,615	2,500,359	3,676,170	6,537,470	7,350,372
Total Deposit'000	788,680	1,371,820	1,980,416	2,797,540	4,465,039	5,450,097
Total loan in '000	579,460	721,920	799,450	1,383,460	2,116,060	3,712,476
Total NPL in '000	54,980	14,970	28,530	8,600	36,341	68,360
NPL Ratio in %	9.5	2.1	3.6	0.6	1.7	1.8
Profit before tax '000	3,633	36,140	68,252	139,774	266,959	475,852

**Appendix 2.7. Oromia International Bank (OIB)**

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	326,358	1,118,572	1,961,800	2,787,400	3,911,231	6,151,661
Total loan in '000	112,132	368,987	661,743	1,019,596	1,621,228	2,551,638
Total Deposit'000	189,498	820,935	1,526,319	2,117,297	3,050,439	5,003,996
Total NPL in '000	-	12,293	6,027	14,158	54,495	57,781
NPL Ratio in %	-	3.3	0.9	1.4	3.4	2.3
Profit before tax '000	-	21,510	56,689	65,162	102,148	204,892

**Appendix 2.8. Zemen Bank (ZB)**

Items/particulars	End of June					
	2009	2010	2011	2012	2013	2014
Total Asset in '000	NA*	1,055,623	1,613,912	2,394,242	3,248,479	3,924,769
Total Deposit'000	-	688,025	1,162,559	1,792,883	2,505,527	3,030,871
Total loan in '000	186,760	377,920	645,227	1,012,691	1,369,655	1,429,960
Total NPL in '000	1,974	5,996	11,491	18,132	116,729	126,278
NPL Ratio in %	1.1	1.6	1.8	1.8	8.5	8.8
Profit before tax '000	NA*	72,145	122,541	123,312	123,810	165,017