Impact of reducing loan by Ethiopian banks on their own performance

RESEARCH REPORT

Presented to the

Graduate School of Business Leadership

University of South Africa

In partial fulfillment of the requirements for the

MASTERS DEGREE IN BUSINESS LEADERSHIP

UNIVERSITY OF SOUTH AFRICA

By

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December 15, 2010

APPENDIX 4.4

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CONSENT TO SUBMIT RESEARCH REPORT

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ABSTRACT

This study intends to assess the impact of reducing or restricting loan disbursement on the performance of banks in Ethiopia. It also attempts to examine the possible factors that compel the banks to reduce or restrict lending. Quantitative method particularly survey design approach was adopted for the study. The survey was conducted with individuals working in both private and state owned banks in Ethiopia (assuming different positions) using self administered questionnaire. In addition, the study used structured review of documents and/or records held by banks.

The findings of the study show that deposit and capital have statistically significant relationship with banks' performance measured in terms of return on equity (ROE). New loan and liquidity have relationship with banks' performance measured in terms of both return on asset (ROA) and ROE. However, the relationship is found to be statistically insignificant. Deposit and capital have no statistically significant relationship with banks' performance in terms of ROA.

The study suggests that when banks face lending constraints, they have to use their funds like by purchasing treasury bills and bonds. Moreover, banks must develop non-interest generating services. Excess cash maintained by banks should be used by diversifying credit options and to avoid inefficiencies.

ACKNOWLEDGEMENTS

A research report requires not only substantial commitment and personal sacrifice of the researcher but also it depends on support and encouragement of many others including family, colleagues and associates. I would like to express my appreciation to the following persons for their suggestion, support and contribution.

First, I would like to thank my supervisor Dr. Wollela Abehodie for her assistance, suggestion and guidance.

Then my heartfelt gratitude goes to my wife, Haymanot Tekola for her continuous encouragement and my sons' Dawit and Yonas for creating conducive environment where I can focus on my study.

I also would like to thank to the staff and management of all the eleven banks in Ethiopia for completing the research survey questionnaire and providing financial data.

Last but not least I would like to thank Ms Almaz Asnake for her Secretarial service, Mr. Naoed Mekonnen to his assistance in statistical works, Mr. Fikru Wakjira for her editorial assistance and my company Ethiopia plastic share company for financial sponsorship for MBL program.

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LIST OF ACRONYMS/ABBREVATIONS

NBE	National Bank of Ethiopia
SSA	Sub-Saharan African
RQ	Research Questions
ETB	Ethiopian Birr
L/C	Letter of Credit
ATM	Automatic Tailor Machines
ROA	Return on Asset
ROE	Return on Equity
EVA	Economic Value Added
CDs	Certificate of Deposits
OLS	Ordinary Least Square
K-S	Kashyap and Stein
SME	Small and Medium Enterprise
KSW	Kashayap, Stein and Wilcox
NPL	Non-Performance Loans
ROI	Return on Investment
DEA	Data Envelopment Analysis
CBE	Commercial Bank of Ethiopia
HP	Hypotheses
GDP	Gross Domestic Product
AEBP	Ability and Experience of Bank Personnel
CNAS	Credit Need of Area Served
BOLS	Bank overall Liability structure
NI	Net Income
VAR	Value at risk

CHAPTER ONE

ORIENTATION

Banks play an important function in the economy of any country. They are the main intermediaries between those with excess money (depositors) and those individuals and businesses with viable projects but requiring money for their investment (creditors). Banks have at least the following functions: lending money, depositing others' money, transferring money locally or globally and working as paying agent.

Today's banks seek to earn income by lending money out at a higher interest rate than they pay depositors for use of their money. Banks usually make loans up to the point where they can no longer do so because of the reserve requirement restriction. The banks required amount of reserves is equal to the required reserve ratio times the total deposits in the bank (Case and Fair, 2007). The banking industry considers lending as their most important function for utilization of funds. Since the major portion of gross profit of the industry is earned from loans; the administration of loan portfolios seriously affects the profitability of banks (Wei-shong and Kuo-chung, 2006). Loan is equally important for borrowers (the private sector in particular) as it remains to be the most important external financing source. Hence the availability or constraint as well as restriction on free access to loan affect both banks and borrowers.

Banks, insurance companies and micro-finance institutions are the major financial institutions in Ethiopia. The sector is closed for non-Ethiopian citizens. Proclamation No.592/2008 does not allow foreigners to own and operate banks in Ethiopia. Hence presently there are no foreign banks operating in the country.

There have been conducive environment for the banking industry and other financial institutions in Ethiopia. The number of banks operating in the country in the fiscal year 2007/08 was eleven, of which eight were private and the

remaining three state-owned (National bank of Ethiopia (NBE), 2007/08). During the 2008/09 fiscal year banks operating in the country had a total of 636 branches which was an increase from 562 branches in the preceding fiscal year. One branch of a bank on the average is estimated to serve 126,258 people in Ethiopia. However, the high people to bank branch ratio indicated that Ethiopia still remains as one of the under banked economies even by Sub -Saharan African (SSA) countries standards. Despite Ethiopia is under banked economy banks operating in the country have continued to show significant profits, to widen their capital base, enhance resource mobilization and loan disbursement efforts as well as reduce the level of non-performing loans (NBE- 2008/2009).

Banks restrict or limit their loan rendering because of many reasons. These create problem to investors and business people in accomplishing their business plans. On the other hand, from the banks side, loan is one of the principal sources of income. If banks give limited or reduced loans to their customers, their income will be reduced and the overall performance may be negatively affected. Theoretically, there are many reasons why banks reduce or limit lending. Some of these include liquidity problem, capital position, government fiscal and monetary policies, and bank health (non performing loans).

This study attempts to look into the impact of reducing or limiting lending by banks on their performance. The remaining part of this chapter is organized into six sections. Section 1.1 presents problem statement, while sections 1.2 and 1.3 show the broad objectives of the study, research questions and hypotheses respectively. The scope and limitations of the study are highlighted in sections 1.4 and 1.5 respectively. Importance of the study and definitions are discussed in sections 1.6 and 1.7 respectively. Finally, the outline of the research is presented in section 1.8.

1.1 Problem statement

According to NBE (2007/08) the Ethiopian economy is growing rapidly. During the fiscal year 2007/08 real gross domestic product (GDP) grew by 11.6 percent. This high growth rate was achieved for the fifth time, which places Ethiopia among the top performing economies in the SSA countries. The contribution of the banking industry in this regard is expected to be significant by way of enhancing investment through lending money to investors and the business community.

However since 2007/2008 fiscal year, banks have reduced their loan disbursement for different reasons. As a result of which investors and the business community as a whole could not have adequate access to loan. Owner managers of private business and executives of public enterprises complain about constraint of loan facilities for investment in construction of factory and business buildings, purchasing machineries, meeting working capital requirements and expansion of their businesses. In addition, restrictions on bank lending may have impact on banks performance which in turn would have its own bearing on the growth of banks and their contribution to the poverty reduction efforts of the Ethiopian government.

The restriction had significant impact on the overall performances of the banks. Lending is the most important function of commercial banks. Its contribution to asset and income portfolio is very high in the banking industry. Therefore, any problem in lending like restricting or reducing loan is likely to have great impact on the performance of banks. According to MacDonald and Koch (2006) lending represents the heart of the banking industry. Loans are the dominant asset and represent 50-75 percent of the total amount at most banks assets. Loans also generate the largest share of operating income.

According to NBE, 2008/09 the share of banking sector (financial intermediary) to the economy (GDP) of Ethiopia is about 2.7 percent in the fiscal year 2008/09. The lack of stock market to raise finance makes business community dependent on bank lending. Therefore, bank loan appears to be the most important source

of finance for the business community and major revenue or operating income generating asset of banks. Hence, reduction of loan by banks affects not only their clients' performance but also their own performance. Impacts on their performance, in turn, imply that the problem is restraining their growth and potential for helping the government's efforts in poverty alleviation strategy. These problems call for extensive research that aims at assessing the impacts of restricting lending on banks' performance.

1.2 Objective of the study

Since banks are the most important sources of external financing for private business companies, bank lending has important contribution for the economic growth of the country. Availability of bank lending is likely to create better performance to banks as well as borrowers. On the contrary, restricting bank loans may distress or negatively affect the operating performances of both.

The objective of this research is to identify factors that caused reduction of lending and assess its impact on the performance of the banks.

1.3 Research Questions /Hypotheses/

To achieve the objective stated above, the researcher developed two hypotheses (HP) and five research questions (RQ)

The principal profit making activity of commercial banks is making loans to its customers (Reed and Gill, 1989). There is a relation between bank lending and bank performance. By extending more loan banks can earn better profit or record better performance. On the other hand, limiting lending may have a negative impact on banks and borrowers performance.

Operating performance is positively related to loan quality and the asset size or the banks market share and negatively related to liquidity, the loan ratio and the banks age (Stalkouras, Mamatzakis and Filppaki, 2007).

Considering the above co-relation, the following research hypotheses were developed:

HP1 - There is relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROA).

HP2 - There is relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROE)

In addition, the following research questions were developed:

RQ1 – What type of impact banks face during loan reduction/limitation?

RQ2 – How do the Ethiopian banks prioritize the factors that affect lending?

RQ3 – How is the Ethiopian bank lending performance measured?

RQ4 – How banks relate their lending activity with their performance?

RQ5 – Is there a difference between private and state owned banks in terms of lending and performance?

1.4 Scope of the study

The study covered all banks registered by the NBE and established before the fiscal year 2007/2008. It also included all government and private banks specifically all head offices and some systematically selected bank branches that are located in Addis Ababa. This study focused on all types and amount of lending.

1.5 Limitation of the Study

Due to the confidential policy of banks, access to customer and banks information except officially disclosed financial information, was not possible. The study was limited to bank employees' and officials' personal perception and officially disclosed financial data of banks.

The study focused on the impacts of reducing or limiting bank lending (for various reasons) on banks' performance. Because of resource constraint, the study did not assess the impacts of limiting or restricting bank lending on borrowers and other stakeholders' performance.

1.6 Importance of the study

Banks are one of the contributors of a country's growth through lending money to investors and the business community. Most business people need bank loan for various reasons such as investing on construction of factory and business building, purchase of machineries, working capital and expansion of their business. Limitation of bank lending created problems on business community to accomplish their business plan.

Lending also has important function for commercial banks. Its contribution to asset and income portfolio is very high in banking industry. Therefore, reducing or restricting lending by banks has negative impact on both banks and borrowers in particular and on the growth of the country's economy in general.

Identifying what factors limit lending on banking industry and assessing what are the most likely impacts that would occur when bank limit or restrict lending lead to the finding of solutions for the problem. It is also necessary that bank supervisory agency should always assess its policies and economic conditions that impede the lending process and take corrective measures to stabilize the economy. On the other hand, management of banks also make themselves aware about the factors that affect lending and impacts on their performances when lending reduction occurs for different reasons.

The study also helps for further research in the area that is not covered in this research i.e. factors like economic condition and monetary and fiscal policies. In addition the study has significance to policy makers to take corrective measures to tap the problem.

1.7 Definitions

National Bank of Ethiopia (NBE):- It is the reserve or central bank of Ethiopia. According to proclamation No 591/2008 NBE establishment proclamation article 4 the purpose of the NBE is to maintain stable rate of price and exchange, to foster a healthy financial system and undertake other relative activities that are conducive to rapid economic development of Ethiopia. Its duties and responsibilities include giving license and supervise banks, insurers and other financial institutions.

Loan: - It is a type of debt. Like all debt instruments, a loan entails the redistribution of financial assets over time between lender and the borrower.

Borrower: - is the one who borrows money from the lender (Bank).

Lending:- the provision of resources (granting loan) by one party to another party where the second party doesn't reimburse the first party immediately there by generating a debt, and instead arranges either to repay or return those resources a later date.

External financing: - is the phrase used to describe funds that firms obtain from outside of the firm mainly for investment or working capital purposes.

Reserve requirements: - Regulation that sets the minimum reserves each bank must hold to customer's deposits and notes. The reserve ratio is sometimes used as a tool in the monetary policy.

1.8 Outline of the research report

The outline of the research report included the following chapters. Chapter one discussed orientation of the study which included a brief overview of banking industry in Ethiopia. The chapter also discussed Research questions, objectives, limitation, scope and definition of the study. In chapter two theoretical foundation of the study presented. This chapter included important issues related to the study like banking as a whole, Ethiopian banking system, banking regulation in Ethiopia, types of loan, factors that limit lending, relation between bank lending and performances. Chapter three showed an exhaustive literature review conducted on relevant studies. The review included previous research, surveys and studies. Chapter four included research design, target population and sample, data collection techniques, data analysis methods and measuring instrument used. Chapter five presented research results. The last chapter discussed summary of the research results and based on the results conclusions and recommendations were given.

CHAPTER TWO
THEORETICAL FOUNDATION OF THE STUDY AND BANKING IN ETHIOPIA

Background information in respect of the research problem, broad objectives and scope of the study were discussed in chapter one. This chapter presents the theoretical foundation of the study and banking in Ethiopia. It is organized into three sections. The first section 2.1 deals with the Ethiopian Banking industry. This is followed by a discussion of theoretical review of banking in section 2.2. This section includes subsections on bank lending, types of lending, factors affecting bank lending, and performance measures in banks. Section 2.3 summarized the chapter.

2.1 Ethiopian banking industry

According to NBE (2008) the agreement that was reached in the year 1905 between Emperor Minilik of Ethiopia and Mr. Gillivray, representative of British owned National Bank of Egypt, marked the establishment of The Bank of Abyssinia, the first modern bank in Ethiopia. By the year 1931 the Bank of Abyssina was legally replaced by Bank of Ethiopia shortly after Emperor Haile Sellasie[1] came to power. The new bank, Bank of Ethiopia, was a purely Ethiopian institution and was the first indigenous bank in Africa (NBE, 2008).

After the Italian invasion in 1943 The State Bank of Ethiopia was established and acted as the central bank of Ethiopia. The State Bank of Ethiopia was engaged in both commercial and central banking activities. Then, later the Ethiopian monetary and banking law that came into force in the year 1963 separated the functions of commercial and central banking creating the National Bank of Ethiopia and Commercial Bank of Ethiopia. The first private commercial Bank, Addis Ababa Bank was established by Ethiopians and started its operation in the year 1964 with a capital of Ethiopian Birr (ETB) 2 million in association with

[1] Emperor Haile Sellasie regime was during the period 1931-1974.

National and Grindlay Bank, London which had 40 percent of the total share (NBE, 2008).

Further, as per the NBE (2008), following the declaration of command economy by Dergue regime[2] in 1974 the government extended its control and nationalized all the three[3] previously established private banks and merged into one bank. After nationalization the Dergue regime also re-established Agricultural and Industrial Development Bank. After the demise of the Dergue regime in 1991 that ruled the country for 17 years under the rules of command economy, the new government declared a free market economy. In line with this, monetary and banking proclamation No 83/1994 and the licensing and supervision of banking business No 84/1994 laid down the legal basis for investment in the banking industry in the country (NBE, 2008).

Following the enactment of the banking legislations in the country in the 1990s, a fairly good number of private banks have been established. For example, in the 2009/10 fiscal year the total number of banks already operational in the country reached fourteen. Of these banks, eleven were private and the other three were government owned. There is also a sign of interest in establishing other new banks by different individuals and groups. Accordingly, at present, there are at least four banks under the process of establishment. Currently commercial banks work for profit and the NBE controls and gives license for commercial banks.

Looking at the banking sector in Ethiopia further reveals that in the fiscal year 2007/2008 state owned banks absorbed about 47 percent of the market share and 66.2 percent of the total capital in the industry. And the total number of bank branches and their capital increased. The number of branches increased by 67 or 13.5 percent and total capital of the banking industry increased by ETB 1.1 billion or 12.2 percent (NBE, 2007/2008).

[2] Dergue regime in Ethiopia was during the period 1974 to 1991
[3] The three private banks were Addis Ababa bank, Banco di Roma and Banco di Napoli.

Although the banking industry in Ethiopia has about hundred years of experience, the sector is not yet developed and is still in its infancy or growing stage. Currently, Ethiopian banks offer different types of services that include:

- Credit facility (lending) – some of the credit line offered by banks are term loan (short and medium), letter of credit (L/C) facility, merchandise loan, personal loan and overdraft,
- Deposit Service – Including saving deposit, fixed time deposit, demand deposit and youth saving deposits,
- International banking services- Like opening L/C for importers, handling incoming L/C for exporters, receiving and transferring foreign currency payment by swift and handling incoming and outgoing international letter of guarantee,
- Fund transfer – domestic and international money transfer and
- Other Services – few banks give services like Visa and Master card, and automatic tailor machine (ATM) and safe box.

Banking is a highly regulated industry 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. For these and other reasons, the Ethiopian government issued the following Bank proclamations.

The first Banking proclamation is for the re-establishment of NBE (proclamation No 591/2008). The proclamation sets out the purpose, powers and duties of the national bank. According to Federal Democratic Republic of Ethiopia (FDRE, 2008) proclamation No 591/2008 the functions of NBE include:

- License and regulate banks, insurance companies and other financial institutions in accordance with the relevant laws of Ethiopia,

- Determine on the basis of assessing the received deposit, the amount of assets to be held by banks. (reserve requirement),
- Issue directive governing credit transactions of banks and other financial institutions, and
- Determine the rate of interest.

The Second proclamation is banking business proclamation (FDRE 2008) proclamation No 592/2008.The proclamation sets the following banking business issues:

- Requirement for obtaining license for banking business in Ethiopia,
- Prohibit foreign nationals or organizations fully or partially owned by foreign national may not be allowed to open banks or branch offices, Subsidiaries of foreign bank in Ethiopia or acquire the shares of Ethiopian banks,
- Limitation of the acquisition of shares,
- Appointment of bank directors and officers
- Maintenance of required capital, legal reserve and adequate liquidity and reserve balance,
- Limitations on certain transaction (investment),
- Inspection of banks, and
- Revocation of license.

Since the banking sector is highly regulated business and has great influence on country's economic development, the Ethiopian government issued new bank regulations by considering current local and global business environment. The government of Ethiopia with its financial controlling body (NBE) has changed capital, minimum interest rate and reserve requirements. The purpose was to establish a ground for the rapid economic development of the county, to stabilize the price inflation and create healthy financial system in the country.

According to the new banking regulations, the minimum paid up capital requirement is ETB 75 million while the reserve requirement and the minimum interest rate on saving and time deposits are respectively 15 percent and 4 percent (NBE, 1999; NBE, 2008; NBE, 2007).

2.2 Theoretical review of banking

This section discusses the theory of banking focusing on the lending component. First, it presents bank lending focusing on its definition, source of lending and asset management models. Secondly, types of bank lending along with bank performance are presented.

2.2.1 Bank lending

Lending is the provision of resources (granting loan) by one party to another. The second party doesn't reimburse the first party immediately there by generating a debt, and instead arranges either to repay or return those resources at a later date. Banks function as financial intermediaries, collecting funds from savers in the form of deposit and then supplying to borrowers as loans. Those functions benefit both the banks and the borrowers.

One of the major functions of any commercial bank is providing loan to the business society. Banks collect money from those who have excess money and lend it to others who need money for different purpose. Therefore, banks intermediary function play vital role in the economic activity. Athavale et al. (undated) in their study in the U.S using firm growth model classified different theories related to banks roles. The first theory assigns banks a unique role in the resolution of information asymmetry means banks help financial market to overcome asymmetric information by screening, contracting with and monitoring borrowers. The second theory, monetary theory, assigns banks a unique role in money creation and the transmission of monetary policy. In addition, they

showed banks willingness and ability to lend. According to Athavale et al. (undated) banks willingness depends on the project's payoffs and a moral rectitude of borrowers, while bank ability to lend depends on the adequacy of banks capital and monetary policy.

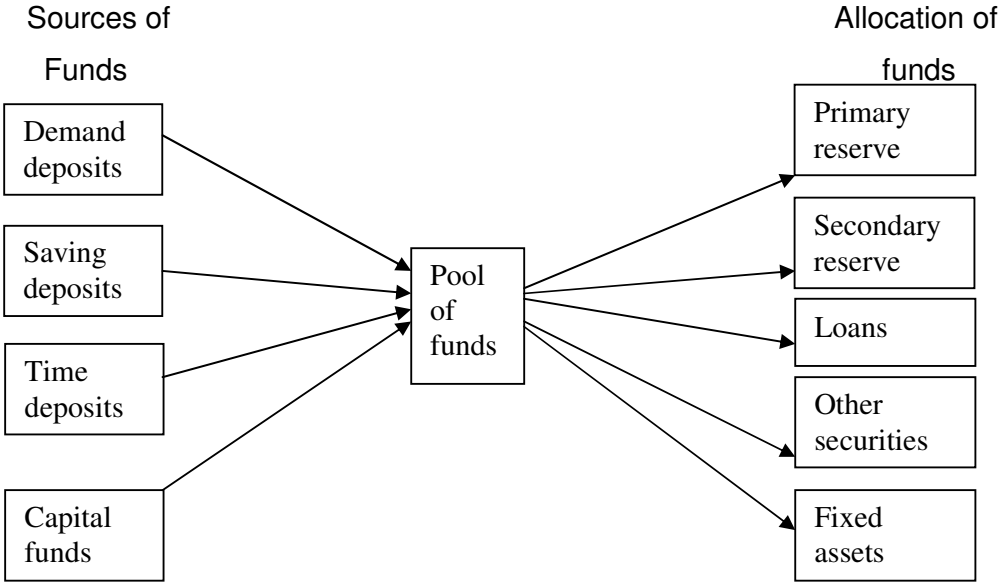
Banks accept customer deposits and use those funds to give loans to other customers or invest in other assets that will yield a return higher than the amount bank pays the depositor (McCarthy et al., 2010). It follows that customers' deposit is the primary source of bank loan and hence, increasing or guaranteeing deposits directly has a positive effect on lending.

The principal profit- making activity of commercial banks is making loans to its customers. In the allocation of funds to earn the loan portfolio, the primary objective of bank management is to earn income while serving the credit needs of its community (Reed and Gill, 1989). Lending represents the heart of the industry. Loans are the dominant asset and represent 50-75 percent to total amount at most banks, generate the largest share of operating income and represent the banks greater risk exposure (Mac Donald and Koch, 2006).

Banks collect funds for lending and other purposes from different sources. These funds need to be allocated to different banks' assets. According to Reed and Gill (1989) there are several approaches to allocate funds to banks assets:-

- **Pool of fund approach**: in this approach all funds pool together and funds then allocated from the pool to whatever asset investment. Figure 2.1 shows pool of funds model for asset management.

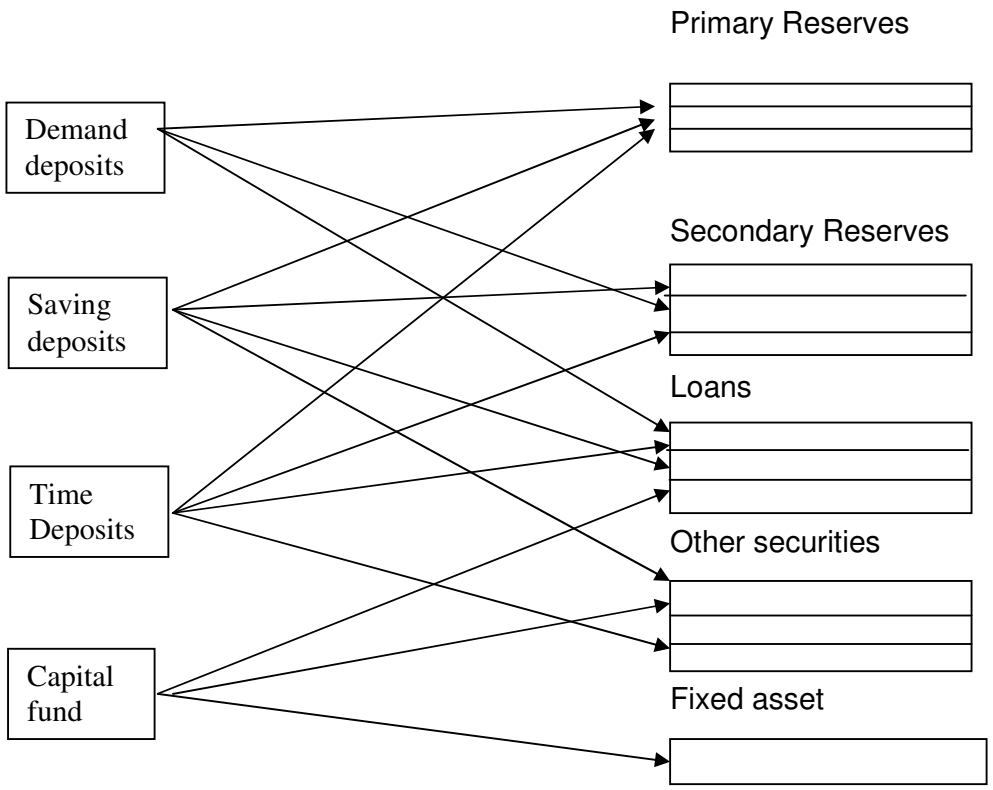
Figure 2.1 The pool of funds model for asset management



. Source – Read and Gill, 1989

- **The asset allocation approach**: this approach recognizes that the amount of liquidity needed by a bank is related to the sources from which its fund is obtained. Figure 2.2 shows the asset allocation model.

Figure 2.2 the asset allocation model for asset management.



Source – Read and Gill, 1989

- **The linear programming model**: it combines the asset management problem with the liability management problem and can incorporate both profitability and liquidity constraints. The linear programming model requires an explicit statement of an objective to be optimized. Optimization, for example, may consist of maximization of profit or minimization of costs.

- **Asset-liability management model**: it is the approach to the overall balance sheet management. The model considered an approach designed to control interest rate risk, but more precisely it is a method of designing the makeup of assets and liabilities to ensure that their composition provides the risk-return tradeoff deemed appropriate by management.

2.2.2 Types of lending

As indicated in figure 2.1, commercial banks collect money from different sources and allocate the money in different ways such as reserve, securities and lending. Borrowers request banks for granting of loan for different purposes. According to Read and Gill (1989) bank loans can be classified in a variety of ways, including:-

- Purpose- use of the borrowing funds such as real estate, agriculture, industry, and individual,

- Type of Security- secured loans involve the pledge of specific collateral such as plant and equipment, real estate and warehouses,

- Maturity- classified according to the maturity of the loan such as short, medium and long periods,

- Method of repayment- loans may be repaid in one go on lump sum basis or on installments, and

- Origin - loan portfolios of commercial banks are derived principally from sources such as directly from borrowers, purchase of notes from dealers of consumer goods, loans originated by other banks and purchasing notes from commercial paper dealers.

Banking industry classifies loans according to purpose or use of proceeds. Some authors who wrote in banking such as Mac Donald and Koch (2006), Campbell et al. (1988) and Black and Daniel (1981) grouped loans into the following categories based on the use of proceeds.

- Real estate loans: are loans secured by the real estate sector and generally consist either of property loans secured by first mortgages or interim construction loans.
- Commercial loans: consist of commercial and industrial loans, loans to financial institutions, and obligations (other than securities) to states and political sub-divisions. Commercial loans appear in many forms but typically finance firms' working capital needs, equipment purchases and plant expansions.
- Individual loans: include those negotiated directly with individuals for household, family and other personal expenditures, and those obtained indirectly through the purchase of retail paper.
- Agricultural loans: appear in many forms but typically finance agricultural production and include other loans to farmers.
- Other loans in domestic offices: include all other loans and all lease – financing receivables in domestic offices.
- International loans: are essentially business loans and lease receivables made to foreign enterprises or loans guaranteed by foreign governments.
- State and political subdivisions: loans given to state and political divisions for budget deficit and projects.
- Foreign banks: include individuals and business firms located abroad and borrowed just like in local borrowers.
- Security loans: many firms hold substantial amount of securities that can be pledged to secure business loans. The amount that bank will loan on securities also depends largely on credit risk and marketability.
- Farmer's loan: Loan for current expenses include loans made by commercial banks for financing recurring seasonal expenses of crop and feeder livestock production, such as seed, fertilizer, labor and fuel.

The purpose of farmer intermediate term loan is to purchase asset that will last several years such as livestock, machinery and property improvement.

2.2.3 Factors affecting bank lending

The sources of fund for lending are reserve, deposits and capital. All these sources may be affected by different factors and would have direct influence on lending. Since lending is the principal function of banking industry, the management of banks should give due attention, analyze and take the necessary measures on time on internal and external factors that affect or limit lending. Without lending banks' incomes especially interest income would highly deteriorate and affect the overall performance of banks.

According to Reed and Gill (1989) there are seven factors that influence banks' loan policies, which in turn may have impact on the profitability of banks.

- Capital position - The capital of banks serves as a custom for protection of depositors' funds. The size of capital in relation to deposits influences the amount of risk that a bank can afford. Relatively large capital structure can make loans of longer maturities and greater credit risk.
- Risk and profitability of varies types of loans – Some banks may emphasize earning more than others. Banks with greater need of earning might adapt more aggressive lending policies. An aggressive policy might call consumer loans, which normally are made at higher rates of interest than short-term loans.
- Stability of deposits- The fluctuation and type of deposit must be considered. After adequate provisions have been made for the primary and secondary reserves, bank can then engage in lending. Even though, these two reserves designed to take care of predictable deposit fluctuations and loan demands, unpredictable demand force banks to give consideration to the stability of deposits in formulating loan policy.

- Economic conditions- Stable economy is more conducive to a liberal loan policy than the one that is subject to seasonal and cyclical movements. Deposit of famine economies fluctuate more violently than deposit in an economy noted for its stability. Consideration must be given to the national economy. Factors adversely affect the nation as a whole may, if they are of serious magnitude, eventually affect local conditions.
- Influence of monetary and fiscal policies - If monetary and fiscal policies are expansive and additional, reserves are made available to the commercial banking system, the lending ability of banks is increased. Under these policies banks can have a more liberal loan policy than opposite situation exists.
- Ability and experience of bank personnel – The expertise of lending personnel is not insignificant in the establishment of bank loan policy. One of the probable reasons that banks were slow in entering the consumer lending field was the lack of skilled personnel.
- Credit needs of the area served- banks specialized experience on different types of loans e.g. Mortgage real-estate. The major reasons banks are chartered is to serve the credit needs of their communities. Banks are morally bound to extend credit to borrowers who present logical and economically sound loan requests.

According to Black and Daniel (1989) there are also other factors that affect bank lending and investing activities. These factors include:

- The interest rate or returns available from the various alternative lending and investing activities. Fundamental problem of bank management is achieving the proper balance between return and risk.
- The risk of loss associated with the various potential lending and investing activities and the willingness of bank management to take risks. Interest rate risk occurs because of the inverse relation between interest rate and the market price of marketable securities.

- The liquidity of fund tied up in varies lending and investing activities. To maintain adequate liquidity, bank must constantly guard against excessive losses from lending and investing activities. If bank made too many bad loans, the value of its asset could fall below the amount of its liabilities. A situation known as insolvency.
- Legal constraints regarding what are acceptable loans and investments. State and federal banking laws also influence bank loan and investment activities. Most of regulations are designated to ensure that banks do not take undue risks in the use of their depositors' funds.
- Characteristics of the banks overall liability structure -in this case, the greater the proportion of a banks' deposits that is made up of demand deposits, the more volatile and uncertain will be the banks' need for cash to meet deposits withdrawals.

Theoretically, factors that limit bank lending can be classified into internal and external factors. Based on the categories identified in Reed and Gill (1989) and Black and Daniel (1989) the internal factors may include ability and experience of bank personnel, liquidity and characteristics of liability structure while the rest may be considered as external factors.

All the above factors that limit or affect bank lending may have their own impact on bank performance. The discussion in the subsequent section focuses on bank performance measurement.

2.2.4 Performance measures in banks

There are different methods used in assessing the performance of commercial banks. Most widely used performance assessment method is financial performance. However, today's business environment needs additional type of performance measurements.

According to Popa et al. (2009) popular measures of bank performances are return on assets (ROA), return on equity (ROE), net banking income and the efficiency ratio. Apart from these popular measures which do not consider the cost of equity capital employed, economic value added (EVA) is a modern financial measurement tool that determines if the business is earning more than its true cost of capital (Popa et al., 2009).

Financial performance measurements alone are insufficient. Financial indicators are indeed important measures of strategic and tactical success. They can help track bank wide and line of business performance. However, non-financial measures can be equally important and are missing from most banks reporting frameworks. Head count, new sales calls, time to market, loan processing time and benchmarking are some examples of non-financial performance measurements. Non-financial performance measures can help to identify causes, rather than simply report effects (Karr, 2005)

According to Mac Donald and Koch (2006) a high performing bank is the one that gives an exceptional return to share holders while maintaining an acceptable level of risk. And aggregate bank profitability is measured and compared in terms of ROE and ROA.

2.3 Summary

This chapter presented the theoretical foundation on bank loan and the banking industry in Ethiopia. The Ethiopian current banking system is dominated by public banks and the private banks are entering to the industry in recent years. Different types of services including lending are given by Ethiopian banks. To regulate the banking industry the government issued two banking proclamations in the year 2008.

The other issues discussed in this chapter include theory of bank lending, sources and allocations of funds in the banking industry. Loans can be categorized based on purpose, type of security, maturity, method of payment and origin. Further, factors that limit lending like capital position, risk and profitability of loans, stability of deposits, economic condition, monetary and fiscal policies were discussed in detail. Banking performance measurements were also discussed.

CHAPTER THREE
LITERATURE REVIEW

The focus of chapter two was to give theoretical and conceptual foundation of the study. This chapter presents the literature review focusing on the empirical evidence on bank lending and performance. Accordingly, the first subsection, 3.1 presents the past and current issues on bank lending. The second subsection 3.2 discusses benefits of loan management. The next subsection 3.3 shows factors that limit lending. Then subsection 3.4 discusses the impacts of reducing or restricting bank lending. Subsection 3.5 presents performance measures in banking industry and subsection 3.6 discusses the relation between lending and bank performance. Finally, subsection 3.7 presents review of previous related studies in Ethiopia.

3.1 Bank Lending

Cicfa and Hincu (2009) after analyzing different performance evaluation methods and risks in Romania presented the usefulness of commercial banks. Bank represents the core of the credit for any national economy. In turn, the credit was found to be the engine that put in motion the financial flows that determine growth and economic development of a nation. As a result, any efficiency in the activities of commercial banks has special implication on the entire economy of any country.

Loan is the most important asset of commercial banks. McCarthy et al. (2010) described that for most of the 10 largest U.S banks in 2007 and 2008, loans were the largest asset followed by investments. Their analysis focused primarily on magnitudes and percentages of investments and loans of 10 largest banks. They also showed that bank bailout and credit crunch could change the results of the year 2009 recession.

Webb (2000) in studying impacts of liquidity constraints on U.S banks indicated that in a financial system where firms are primarily financed by bank debt, banks are primarily financed by demand deposits. There can be a knock-on effect where by depositors' liquidity demand means that a bank faced with a shortage of funds that the bank cannot lend to their corporate borrowers. In this study, Webb (2000) indicated that bank liquidity problem temporarily solved by rationing or insurance guarantee on deposit. However, the study did not consider role of deposit insurance as a solution.

To create sustainability on deposits and alternative sources of loans, banks created different solutions. The first method is using insurance guarantee for deposits and second method is selling securities. Opiela (2008) showed that banks with partial guarantees have a stronger loan response to monetary policy than banks with full guarantees. Furthermore, the weak response of the fully guaranteed banks attributed to their ability to raise low-reserve, uninsured time deposits relative to partially covered banks in Poland. Keeton (1993) indicated that the willingness of banks to fund loans by selling securities or issuing large certificate of deposits (CDs) insulates bank lending from changes in deposits.

According to Van Zyl et al. (2009) in the year 2006 total net interest income made up 56 percent of South African banks income while net non-interest income accounted for 43 percent of their income. This appears to be in line with other countries. For example commercial banks in the U.S shows that 41 percent of banks total earnings come from non-interest sources in the year 2006 (Van Zyl et al., 2009).

Rapid technological change and deregulation have caused banks to refocus their activities dramatically with competition depressing margin in lending. The share of non – interest income of commercial banks has more than tripled from less than 10 percent of the total income in 1980 to over 25 percent in 1994 (Rajan, 1996). The study made in Germany showed that commercial banks understood that traditional credit (lending) business has faced high competitive pressure. As a result, credit profit margin was decreasing and profitability of lending became

problematic. Therefore, banks saw lending as door opener for other transactions or relationship, which banks believed, may be more advantageous (Ewert et al., 2000).

Rajan (1996) and Ewaert et al. (2000) showed that recent trend in lending had been shifted from traditional function of banks (lending) which produced less margin to the new theory of commercial banking i.e. relationships banking. Ahtiala (2005) noted that both banks and customers can utilize scope of economies with relationship involving both liquidity provision and services.

Ownership of banks may have contribution in lending. Spaienza (2004) related the effects of government ownership and bank lending. According to Spaienza (2004), in the U.S.A, state owned banks charged lower interest rates than did privately owned banks to similar or identical firms, even if, firms were able to borrow more from privately owned banks. State owned banks mostly favored large firms and firms located in depressed areas (Spaienza, 2004).

3.2 Benefits of loan management

Loan is a major asset, income source for banks, and risky area of the industry. Moreover, its contribution to the growth of any country is very clear. Therefore, managing loan in a proper way not only has positive effect on the banks performance but also on the borrower firms and a country as a whole.

Any successful business must meet its customer needs and make a profit. Likewise, successful financial institutions must meet the desperate needs of depositors and borrowers. Depositors look for high rates, short terms and no risk, while borrowers seek low rates and long terms. Financial institutions are therefore, in the risk intermediation business. To be successful, financial institutions, banks in particular, must properly underwrite risk, manage and monitor the risk assumed (Barrickman, 1990).

Sector wise lending should be considered by banks on giving priorities from firms who request loan. Tang (2003) investigated the effect of sector-wise commercial bank lending on Malaysian economic development using the Engle-Granger approach to estimate a co-integrating regression by ordinary least square(OLS) method and found that bank financing on general trading, manufacturing and housing significantly promote the economic activity of the country. However financing on agriculture and real- estate yields negative effect. Therefore, Tang (2003) suggested that commercial banks should act as an efficient financial intermediary which allocates the limited resources to the most productive uses in Malaysian development.

The heart of any successful commercial lending function is credit discipline written in loan policy, structured loan approval process and strong loan administration function (Barrickman, 1990). In this regard, Waweru and Kalini (2009) studied commercial banks crises in Kenya using statistical analysis. Waweru and Kalini (2009) found the internal factors affecting non-performing loans, which should be taken into consideration by bank management. These factors include the procedures used in banks for credit risk assessment particularly lack of proper skill amongst loan officials, speedy process of evaluating loans mainly due to external pressure, high interest rate charged, insider lending and owner concentration (Waweru and Kalini, 2009).

3.3 Factors affecting bank lending

As indicated in section 2.2.3, factors affecting bank lending may be classified into internal and external factors. External factors include monetary policy, macro environment and interest rates. Internal factors, on the other hand, include bank size and capital, liquidity, bank healthy and management style of the banks. Both internal and external factors studied by different scholars are reviewed in the following paragraphs.

Monetary contraction and interest rate increase reduce spending directly; both also reduce spending indirectly by shrinking bank loan supply (Bernanke and Blinder, 1988). Kashyap and Stein's (2000) study in U.S.A noted that if contraction monetary policy reduces loan supply, it would reduce more at banks with less liquid balance sheet. The more liquid banks can protect their loan portfolios by drawing down their buffer stock of cash and securities. To illustrate this argument the study made in Turkey by Sengonol and Thorbecke (2005) showed that contraction policy did reduce the supply of bank loan in Turkey. Both Kashyap and Stein (2000) in the U.S.A and Senngnol and Thorbecke (2005) in Turkey used kashyap - Stein (K-S) a two-step approach to test monetary policy effects on loan supply. Keeton (1993) found that monetary policy not only affect bank lending directly, by changing deposits, but also indirectly, by changing the return on securities and the cost of CDs.

Baran and Smiljanic (2008) using survey design studied the effects of monetary tightening and bank financing towards small and medium enterprise (SME) and large companies in Croatia. This study showed that monetary tightening had significantly influenced credit policies of commercial banks toward SME and large companies. As per the study, the influence on SME was more significant than on the large companies. One can understand from the above study that monetary policy which is inclined to contraction policy affects more banks which are less liquid. Reduce loan supply indirectly affect the return on securities and influence both small, medium and with less significance on large companies.

Cadet (2008) also examined the linkage between monetary policy and banking failure in developing countries using banking sector profit maximizing model. Cadet (2008) found that despite treasury bills was one of the alternative source of profit in developing countries, a tight monetary policy aggravated chances of banks failure. Increase interest rate directly increased asymmetric information. Therefore, an efficient bank should decrease its loan portfolio to overcome this information. Based on this, Cadet (2009) recommended to policy makers at the central banks that they should be highly concerned with adverse effects of tightening monitory policy (banks failure). Monetary policy implemented to

stabilize the price level may destabilize the banking sector if the increment of interest rate is not moderate (Cadet, 2009).

When monetary policy becomes restrictive, banks have to reduce or stop new lending because of decreasing reserve and hence deposits. Mostly, the source of loans is depositors' fund. When deposit decreased, it is not fully substitutable by other financing possibilities like issuing bond, equity sales and CDs due to credit market frictions on the depositors' side (Stein, 1998).

There are opposite views that explain contraction of monitory policy does not have impact on reserve and hence loan. The study made in the U.S.A by Oliner and Rudebusch (1996) using Kashyap, Stein and Wilcox (KSW) (1993) style of analysis revealed that monetary contractions did not constrict the supply of bank loan relative to the supply of non-bank credit. Finally, they concluded that direct link between a policy impacted reduction of bank reserves and bank lending had very weak relation over the years 1974-1991.

To over-come liquidity problem, banks use other sources such as securities, equity and CDs. Matz (2010) explained that the holding of highly marketable securities as means of buffer that can be used when liquidity problems occur until other standby sources of liquidity accessed. All the point raised in the above paragraphs is from the lender (banker) point of view. If one sees the issue from the borrowers' side, firms should prepare themselves when restrictive monetary policy implemented in the country. Valverde and Del Peso (2009) analyzed the financing behavior of Spanish firms during 1992-2003 using KSW model. Valverde and Del Peso (2009) found that firms having high liquid asset might have an alternative means and could replace loan financing in case of tight monetary policy conditions. Further, according to the study, higher liquidity allowed firms to make investment in viable business or alternatives during such periods.

The other external factor limiting lending is macroeconomic environment. Quagliariello (2009) used the portfolio model proposed by Baum et al. (2005) and reported that macroeconomic in Italy was important determinant of banks lending decisions and also was the cause of high disturbance in allocation of financial resources. On the contrary to Quagliariello(2009), a study made in Germany using value at risk (VAR) model showed that the response of loans to aggregate supply, demand and monitory policy shock was rather weak and in most cases insignificant (Eickmeier et al., 2009).

Interest rate changes also have impact on lending. If central bank reduces the rate, banks become reluctant to provide loan to firms. McKinnon (2009) noted that by the end of the year 2008 the interest rate in U.S.A derived to zero and interbank market became paralyzed. This led U.S.A banks to create huge excess reserves and did not stimulate new lending to household and non bank firms because of near to zero interest rates.

Despite banks are not profitable to give lending during interest rate declines, firms and households on the other hand increased their demand to get credit. The Economist Intelligence unit (1999) reported that in the U.S.A one of the factors that increased the demand of credit in September to November 1998 was interest rate cut by U.S.A Federal Reserve.

Capital requirement is also one of the external factors that affect lending. According to Furlong (1992) in the 1990s bank regulation in general and capital regulation in particular were widely perceived as having become stiffer. In New England bank loan growth rates were positively related to capital to asset ratios. Therefore, capital regulation had got big effect on bank lending (Furlong, 1992).

Cumming and Nel (2005) using trend analysis studied about lending behavior-preliminary finding on expected impact of Basel II[4] in South Africa. This study showed that the implementation of the 1988 Basel Accord raised the capital adequacy ratio means raising additional capital which address the new accord implementation that would decrease bank lending and bring economic contraction. Kishan and Opilela (2000) tested bank loan supply shifts by segregating bank according to asset size and capital coverage ratio in U.S A using model of banks. Kishan and Opilela (2000) argued that bank asset size and bank capital affect the ability of banks to raise funds and maintain loan growth during contraction policy.

Internal factors that affect lending as stated previously are bank size, healthy (distressed banks) and management style. Studies conducted on this issue are shown in the next part of this sub section.

A study conducted in Austria on the effects of changes in monetary policy on bank lending using modeling showed that smallest average bank size reveals the strongest lending reaction when interest rate changes (Schnatter and Kaufmann, 2006). Another study by Kishan and Opiela (2000) carried out in the U.S.A on bank loan supply shifts revealed that small banks are most sensitive to monetary policy. Large time deposits of small banks are unresponsive to policy. This supported their hypothesis that small banks were not able to raise different options of funds to finance loans during contraction policy (Kishan and Opiela, 2000).

Bank health is measured by capital adequacy and non- performing loans (NPLs). Therefore, banks which have capital adequacy problem and high rate of NPLs

[4] Basel II is the second of the Basel Accords, which are recommendation on banking laws and regulations issued by the Basel committee on banking supervision. The purpose of Basel II is to create international standard that banking regulators can use when creating regulations about how much capital banks need to put aside to guard against the type of financial and operational risks banks face.

decrease lending. Fukuda et al. (2006) investigated what impacts weakened financial condition of banks in Japan and showed that regulatory capital adequacy and ratio of non-performing loan had opposite impact on lending.

Banks credit culture and management also have impacts on lending. Henry (1985) revealed that a bank credit culture binds together all related matter to credit. The main credit cultures are policy, process and audit. Henry (1985) also added other factors such as management tone, attention to fundamentals and loan officer involvement.

To summarize, this section has reviewed the various studies on the factors affecting bank lending i.e. Monetary policy, interest rate, Liquidity, macro economy environment, capital requirement, size of the bank, non-performing loans, credit culture, management and loan officer's involvement.

3.4 Impacts of reducing bank loans

When contraction monetary policy implemented, banks use their excess reserve to overcome or protect loan rendering. Kashyap and Stein (2000) argued that banks utilize their buffer stocks of cash and securities to protect their loan portfolio. Quagliariello (2009) pointed out that at a time banks operating in a risky environment they can invest deposits in loan and bonds i.e. investment on bonds is risk free.

Webb (2001) revealed that when there is liquidity constraint; banks are forced to ration loans to better borrowers. Webb (2001) further noted that banks even may not able to render new loans to borrowers if withdrawals by depositors are too high. From Kashyape and Stean (2000), Quaglliariello (2009) and Webb (2001), it can be noted that reducing loan impacted on banks in the area of utilizing buffer stock of cash, invest limited deposits on bonds rather than on loans and ration loans to better borrowers only.

Cadet's (2009) studied that tightening monetary policy created increase in interest rate in developing countries, this impacted that loan portfolio should be null and created banking crisis. Cadet (2009) added that despite treasury bills was one of the optional source of profit in developing countries, a tightening monetary policy increased the chance of banks failure.

3.5 Performance measures in the banking industry

Shong and Chung (2006) conducted research to solve problem on overdue loans and bad debt as well as establish international performance measure of banks using value added approach. Shong and Chung (2006) showed that traditionally banks used operating efficiency to measure their banks profitability. These profitability measures are return on equity (ROE), return on asset (ROA) and return on investment (ROI). Also banks used operational measurement such as monetary output per staff number and operating expenses per unit of output (Shong and Chung, 2006). Popa et al. (2009) studied introduction and implementation of EVA to Rumanian banks. This study compared with other performance indicators and showed that popular measures of bank performance are ROA, ROE, net banking income and the efficiency ratios.

To show weaknesses of traditional performance measures such as (ROE), Karr (2005) revealed that going beyond ROE provides more insight into performance. Therefore, the complete measurement should show the drivers of ROE and net income after capital cost performance. Grasing (2002) described the efforts of the Nolan Company to develop benchmarks for commercial banks involving many of the top performing banks. The purpose of establishing the benchmarked banks was to establish drivers of high performance. Benchmarked performance measures used by commercial banks are cost per each completed loan, the cost per thousand dollars of loans, the non-interest

revenue from each loan per each thousand dollars, the total number of loans per employee and the dollar amount of loan per employee (Grasing, 2002).

Performance measures such as ROA and ROE are financial performance measures and traditional. Some studies describe the need of non-financial and modern measures. Karr (2005) described that financial measures alone are insufficient; they are indeed important performance measure for strategic and tactical success. They also help to track bank wide and line of business performance. However, non-financial measures can be equally important and are not included in the reports of most banks. Karr (2005) argued that non-financial measures can also help to identify causes rather than simply report effects.

In 1990, banks widely adopted data envelopment analysis (DEA) as the principal way of evaluating banks' efficiency (Shong and Chung, 2006). DEA is a linear-programming method initially developed by Charnes et al. (1978) to measure the comparative performance of homogeneous organizations. Another recently developed financial measurement is EVA which determines if a business is earning more than its true cost of capital. EVA considers the cost of equity capital employed, whereas other traditional measurements do not (Popa et al. 2009).

Stalkoura et al. (2007) examined the operating performance of South Eastern European banking industry using different dependent and explanatory variables. The dependent variable was total operating expense divided by total assets to form a per unit cost measure. The explanatory variables included ratio of loans to total assets, the ratio of loan reserves to gross loans, the ratio of loans to total assets, the ratio of loan loss reserves to gross loans, the ratio of cash due from banks to total assets, the ratio of equity to total assets, the ratio of bank deposits to customer and short-term funding, a variable capturing bank age, and total asset to counts for size effects or alternatively a bank's market share to capture market power. Furthermore, these authors indicated that accounting ratios were highly correlated with efficiency.

As indicated earlier in this section most authors such as Shong and Chung (2006), Grasing (2002), Karr (2005) and Stalkoura et al. (2007) described financial and similar performance measures even though the depth differs. DEA and EVA on the other hand are recently utilized performance measures by banks. Table 3.1 shows performance measures proposed by different scholars. Their performance measures are compared with the characteristics based on final versus internal measures, monetary versus non-monetary measures and the degree of aggregate.

Table 3.1 Comparison of performance measures in banking loan studies

Authors	Performance measures	Characteristic of performance measures		
		Final vs. internal measure	Monetary vs. non-monetary measure	Degree of aggregate
Sherman and Gold (1985) Ferrier and Lovell (1990) Berg et al (1993) Thanassoulis (1999) Zenios et al (1999) Golany and Storbeck (1999)	Efficiency ratios (percent)	Final	Non-monetary	Highest
Kantor and Maital (1999)	Efficiency ratios (percent)	Final	Non-monetary	Highest
Grasing (2002) the Nolan Company	Employees to commercial banking Employees The number of loans per employee The cost per loan in thousands The non-interest revenue per loan in Thousands Loans in millions per employee Total expense to total commercial banking expense	Final	Non-monetary Non-monetary Monetary Monetary Monetary Monetary Monetary	Low
Boucher (1996)	Quarterly loan sales	Final	Monetary	Low
Perro and Ruoff (1997)	Operating fees Interest income Interest expense Operating expense Loss revenue Unexpected losses	Final	Monetary	Low

Source: Shong and Chung, 2006.

3.6 Relation between lending and bank performance

Lending is the major source of income of banks and covers a lion's share of their assets. Its performance would have a direct effect on banks profit and survival in the competition. Staikouras et al. (2007) studied that operating performance is positively related to loan quality and negatively related to liquidity, which is the source of fund for most commercial loans.

Because of external and internal reasons some loans given to customers may not be collected on time and sometimes borrowers default to pay the full amount of the loan. The non-performing loans decrease performance and finally lead to crisis or failure to banks (Waweru and Kalani 2009).

The theories and the previous research describe lending (traditional income source of banks) is the major source of income to the banking industry. However, opposing arguments by Rajan (1996) showed that competition decreases profit margin of lending. This study revealed that non-interest income of commercial banks has increased by more than triple from less than 10 percent of total income in 1980 to over 25 percent in 1994. This idea is supported by Round table (1996) and it is noted that bank managers expected the share of non-interest (non-traditional) business to increase to 50 percent by the turn of the millennium.

3.7 Previous related studies in Ethiopia

Some related studies were conducted by different researchers in Ethiopia. Specifically, Worku (2006) argued that liquidity has an impact on the performance of commercial banks in Ethiopia and there is an inverse relation between deposit/net loan and ROE. And the coefficient of liquid asset to total asset is positive and directly related with ROE.

Worku (2006) also studied capital adequacy and found that the capital adequacy of all banks in Ethiopia were above threshold, means there is sufficient capital that can cover

the risk-weighted assets. Depositors who deposit their money in all banks are safe because all the studied banks fulfilled NBE requirement (Worku, 2006). Worku used different ratios when analyzing liquidity effect on banks performance and these ratios were liquid asset/net profit, liquid asset/total assets, net loans/net deposits, interest income/net deposit and interest income/interest expense (Worku, 2006).

Performance measures used to evaluate the performance of banks in Ethiopia are similar to those studies conducted in other countries. Hazen (2005) studied performance of banks in Ethiopia using ROE, ROA and asset utilization ratios and found that all commercial banks in Ethiopia were making profit. It was encouraging for the banking businesses. Seyoum (2005) revealed that private banks performance in terms of managerial earning and operating efficiency was an average and less than that of the biggest government bank i.e. Commercial Bank of Ethiopia (CBE). Seyoum(2005) also noted that in Ethiopia the banking sector was still dominated by state owned banks especially CBE, no stiff competition and compared performance of banks using managerial earning and operating efficiency. Berhanu (2004) studied financial performance of Ethiopian commercial banks and found the following results. The banking system in general increased their assets position, private banks increased their market share, and liquidity condition of commercial banks was reliable. Finally commercial banks were operating at profit. Berhanu (2004) used profitability ratios and liquidity ratios to evaluate financial performance of commercial banks in Ethiopia.

Ayalew (2005) used ratio analysis with the help of DEA model and the ratios were capital ratio, liquidity ratio and loan loss provision to total assets when studied the financial performance of private banks in Ethiopia. The study revealed that banks were becoming leveraged, the growth of deposits from depositors increased, efficiency was also increased from year to year. Generally, Ayalew (2005) concluded that the growth rate was positively related to efficiency scores.

3.8 Summary

This chapter reviewed literatures relevant to bank lending, benefits of loan management, factors that limit lending, impact of reducing bank loan, performance measures in banking industry and relation between lending, bank performance and previous researches in Ethiopia.

A good number of studies were conducted on factors that limit lending, banks performance and lending, and performance measures of banks. These past studies showed that monetary contraction, interest rate, macro environment, bank size, capital requirement, liquidity, bank health and management have impacts on lending.

Research also showed that banks lending performance was measured in traditional and modern ways. Traditional ways were ROE, ROA, ROI, net banking income, efficiency ratios, benchmarking, cost per each completed loan, cost per thousand dollar of loans, total number of loans per employees. The modern performance measures were DEA and EVA. Impacts of reducing or restricting loans were also studied and these impacts were utilizing buffer stock of cash and securities, rationing loans, reduced loan from asset portfolio and create banking crisis or failure.

Most of the literature reviewed in this study focused on the developed countries' banking sector. Although such types of research were done in developing countries limited literatures were available for this research.

Previous study directly related to this research i.e. impact of loan reduction on banks performance in Ethiopia, to the knowledge of the researcher, is not found. There were researches made in Ethiopia related to bank, however most of the studies were only evaluating performance of commercial banks except Worku (2006) who tried to show liquidity effect on performance of commercial banks in the country.

Researches made in Ethiopia had their own limitation. Most researches focused on evaluation of bank performance, instead of ``emphasizing on cause and effect relationships .i.e. what caused good or bad bank performance. The analyses were also made using comparison of banks' performance one another. Therefore, this researcher tried to fill-in the gap by examining the factors that affect lending in Ethiopia.

The next chapter presents the research methodology used to meet the objective of this research project.

CHAPTER FOUR

RESEARCH DESIGN AND METHODS

The preceding chapter presented the review of the existing evidence on factors affecting the financial performance of banks and identified the knowledge gap. This chapter discusses the research design. The chapter is organized in four sections. The first subsection 4.1 presents the research problem along with the broad research objective and research hypotheses and questions. Subsection 4.2 discusses the research approaches while subsection 4.3 presents the method adopted in the study. Finally, conclusions and the link between research questions and hypotheses, and the different data sources are presented in subsection 4.4.

4.1. Research problem, broad objective, research questions and hypotheses

Banks are one of the contributors of the growth through lending money for business, investors and households. Restricting or limiting bank lending may cause problem or difficulty to those who need loan to accomplish their plans. Therefore, reducing or restricting lending by banks may have negative impact on both banks and borrowers in particular as well as growth of the country in general. As already shown in the first chapter, the broad objective of this research was to identify factors that limit lending and assess the impacts of reducing or limiting loan by banks on their own performance.

The researcher developed the following research hypotheses:

HP1 - There is a relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROA).

HP2 - There Is a relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROE)

In addition, the following research questions were developed:

RQ1 – What type of impacts banks face during loan reduction/limitation?

RQ2 – How do the Ethiopian banks prioritize the factors that affect lending?

RQ3 – How is the Ethiopian bank lending performance measured?

RQ4 – How banks relate their lending activity with their performance?

RQ5 – Is there a difference between private and state owned banks in terms of lending and performance?

4.2 Research approaches

According to Leedy and Ormrod (2005) research methodology is a means to extract the meaning of data. Data and methodology are highly interdependent. Therefore, the methodology to be used for a particular research problem must always take into consideration about the nature of data that will be collected to resolve the research problem.

There are three types of research approaches namely, quantitative, qualitative and mixed methods approach (Leedy and Ormrod, 2005).The following discussions briefly presents the basic features of these research approaches.

4.2.1 Quantitative research approach

This approach is used to answer question about relationships among measured variables with the purpose of explaining, predicting and controlling phenomenon. Quantitative studies represent the mainstream approach to research and structured guidelines exist. Variables, hypotheses and methods of measurement tend to be defined before the study begins and remain the same throughout. In this approach the researcher identifies one or few variables that they intend to study and collect data related to those variables.

Quantitative research approach has two strategies of inquiry. The first is survey design which provides a quantitative or numeric description of trends, attitude or opinion of a population by studying a sample of that population. From the sample the researcher generalizes about the population. The second type of design is experimental design used to test the effect of intervention on an outcome, controlling all other factors which may influence that outcome. In experiment design researcher may also identify a sample and generalize to a population (Cresweell, 2009).The analysis is made based on deductive reasoning, beginning with certain theory or hypotheses and drawing logical conclusions from it. Formal, impersonal and scientific type of reporting is common. The weakness of this approach is, if the study is made in laboratory, the difficulty to generalize in the real world.

4.2.2 Qualitative research approach

According to Leedy Ormrod (2005) this approach is used to answer questions about the complex nature of phenomena and its purpose is describing and understanding the phenomena. The qualitative research process is more holistic with specific focus on; design measuring instruments and interpretation developing possibly change along the

way. The approach operates under assumption that reality is not easily divided into discrete and measurable variables.

Qualitative research approach has five common strategies of inquiry. The strategies include case study, ethnography, phenomenological study, grounded theory and content analysis (Leedy and Ormrod, 2005). The approach makes considerable use of inductive reasoning. Under this approach, many specific observations will be made to draw inferences about larger and general phenomenon while personal and literary style language will be used when reporting the findings. The major weakness of this approach is that findings may be so specific to particular context that they cannot be generalized to other context.

4.2.3 Mixed research approach

The mixed methods research approach is used when the researcher combines elements of both quantitative and qualitative approaches. Quantitative and qualitative research design (Mixed) is appropriate for answering different kinds of questions. When we use mixed approach we learn more about the research problem.

During mixed research approach both quantitative and qualitative data are collected to answer a single research question. Historical research strategy is largely qualitative endeavor although historical researchers often make use of quantitative data as well (Leedy and Ormorod, 2005).

Considering the research problem and objective shown in the first subsection along with the philosophy of the different research approaches, quantitative research approach was found to be appropriate for this study. The following section hence presents the method adopted in the study.

4.3 Methods adopted

The purpose of this study is to identify impact of loan reduction on bank performance and assess why commercial bank reduce lending. As it can be seen from the research problem it is more explanatory type and tries to answer the relationship between loan and performance of banks. Therefore, categorizing this research in quantitative research design is more appropriate. According to Leedy and Ormord (2005) survey research is a common method used in business. Therefore, from quantitative research strategies the researcher used survey research method.

4.3.1 Survey design

" Survey research involves acquiring information about one or more group of people-perhaps about their characteristics, opinions, attitudes, or previous experiences-by asking them questions and tabulating their answers. The ultimate goal is to learn about a large population by surveying a sample of that population." (Leedy and Ormord, 2005 p.183).

The purpose of survey research is to generalize from the sample to the population so that inferences can be made about some characteristic, attitude or behavior of the population (Creswell.2009). The researcher selects survey design because of budget and time constraint i.e. economy of the design. The data collection included self-administered questionnaires and structured record reviews (documentary analysis) to collect financial information

4.3.1.1 Sample design

The target population would be all banks registered by NBE and under operation during 2007/2008 fiscal year.

Sample size is determined by time and budget of the researcher. Because of time and budget constraint, the sample was restricted to head offices, and bank branches residing in Addis Ababa. According to NBE (2008) 38 percent of bank branches and all head offices of banks which operate in Ethiopia found in Addis Ababa**.** The sample size

for self-administered questionnaires was 150 employees of banks and delivered physically to all targeted categories. Financial information of all banks collected from head offices of each bank and the NBE.

Although it is difficult to generalize from project to project because of resource availability in terms of time, money and personnel availability, as the rule of thumb the sample should be large enough so that there are 100 or more units in each category of major breakdown and a minimum of 20-50 in minor breakdown (Diamantopoulost and Schlegelmich, 2000). According to Fowler (1986) the appropriateness of any sample design feature can be evaluated only in the context of the overall survey objectives. The important point for the researcher is to be aware of the potential costs and benefits of the options and weigh them in terms of the main purpose of the study.

The most appropriate type of sampling design for this research would be a non-probability purposive sampling method. Purposive sampling where the researcher selects the sample on his particular purpose for instance the researcher may choose people who represent diverse perspective and knowledge on the issue (Leedy and Ormrod, 2005). According to Diamantopoulost and Schlegelmilch(2000) purposive sampling is used when sample members are chosen with specific purpose or objective in mind. In this study purposive sampling method was adopted because bank lending process practiced by few employees but not all bank employees and officials.

The sample selection based on the following process – first NBE supervision directorate, all banks head office credit departments and bank branches in Addis Ababa were targeted. Bank branches were then proportionally selected according to the number of branches found in Addis Ababa (the bank which had more branches got more chances to be surveyed). Then, three employees from each branch who are involved in lending such as experts, customer relation managers, branch managers, deputy managers and loan officers were selected and covered by the survey.

4.3.1.2 Instrument design and data collection method

Both primary and secondary data used in the study to perform statistical analysis and reach to some conclusions. This researcher collected data using self-administered survey questionnaire method (see appendix 1). The questionnaires (paper- pencil format) distributed physically in person to the survey participants and follow-up calls were made to provide feedback, clarification and remainder.

UNISA –SBL Ethiopia regional office wrote a letter of cooperation to all concerned parties to gain acceptance and positively assist the researcher (appendix-1). Then covering letter which described the purpose of the research, prepared and attached with questionnaire. The self- administered questionnaire was classified into three parts. The first part of the questions 1-5 designed to collect participants' profile.

The second part which included questions 6-20 in the questionnaire was related to factors that limit bank lending. The first question 6 designed to show the most important factor that affect lending compared with other five factors. Questions 7-20 show a rating (a five- point scale) in each factor that affect lending. A rating 1 indicated a highly important, 2 important, 3 Neutral (don't know), 4 slightly important and 5 not important factor.

The third part of questionnaire which includes questions 21-26 was related to the impact of reducing or limiting bank lending. Question 21 designed to show the impacts that have highest influence on bank performance when they reduce or limit bank lending compared with other 4 impacts. The other questions 22-26 designed to show a rating on five point scale on each type of impacts on bank performance. A rating 1 indicated a very high impact, 2 moderate impact, 3 neutral (don't know), 4 low impact and 5 no impact. The last part of the questionnaire 27-31 designed to show bank performance measurement and related questions.

In addition, to make financial performance analysis the researcher needed financial information from each bank. The data collection form was structured review format. Financial information of all banks (secondary data) that help to analyze performance of banks needed. This data was annual financial audit report. The financial data collected/ obtained from each bank and NBE.

4.3.1.3 Data analysis method

There are different types of inferential statistical techniques or procedures used in quantitative research approach and their usage varies based on purpose and appropriateness for each research situation.

This study has variables such as ROA, ROE, liquidity, and capital. These variables are ratio scale and expected to fall in normal distributions. Therefore, parametric statistics is more appropriate. From parametric statistical techniques multiple regressions is again suitable to this research. Because this research problem was to examine how effectively one or more independent variables such as liquidity, capital and deposit allow the researcher to predict the value of another dependent variable such as ROA and ROE (Leedey and ormord,2005).

The regression analysis used the following equation:

$$ROA = \alpha + \beta (LQ) + \beta (CP) + \beta (DP) + \beta (NL)$$

$$ROE = \alpha + \beta (LQ) + \beta (CP) + \beta (DP) + \beta (NL)$$

Where:

ROA – Return on Asset

ROE - Return on Equity

LQ – Liquidity

CP – Capital

DP – Deposit

NL - New Loan

α - Error term

β - Slope of Coefficient

The study used Microsoft Excel for analyzing questionnaire survey results. And statistical package for the social sciences (SPSS) and STATA were used for documentary analysis.

4.3.2 Validity, reliability and ethical issues

Validity and reliability of the research measurement instruments influence, first the extent that you can learn from the phenomena of the study. Second the probability that one will obtain statistical significance in data analysis and third the extent to which one can bring meaningful conclusion from the collected data. Most ethical issues in research fall into one of the four categories: protection from harm, informal consent, right to privacy and honesty with professional colleagues (Leedy and Ormrod, 2005).

4.3.2.1 Validity

Diamantopoulos and Schlegelmilch (2000, p33-35) wrote on different types of validity and what it measure: “Validity indicates the extent to which a particular measures is free from both systematic and random error. From the different types of validity measure face validity which depend on the judgment of the researcher and content validity which relies on the content of the study i.e. how accurate the measuring instrument (questionnaire) bring the data which require to effectively finish the study will be given special consideration’’.

To ensure face validity the researcher performed multi method approach i.e. two or more different characteristics measured using two or more different approaches. To ensure content validity the target groups included in sample represented the one who know better about the issue being investigated.

4.3.2.2 Reliability

According to Leedy and Ormrod (2005) reliability of a measurement instrument is the extent to which it yields consistent results when the characteristic being measured has not been changed. To ensure the reliability of measurement instrument the researcher performed first standardize the instrument from one person or situation to another. Second specific criteria established to reduce subjective judgments**.**

4.3.2.3 Ethical Issues

Due consideration was given to obtain consent from each participant about their participation in the study. It was strictly voluntary. The researcher respected participant right and privacy. The findings of the research were presented without any deviation of the reality. The researcher has given full acknowledgements to all the reference materials used for the study. Covering letter (appendix 1) also prepared and attached with questionnaires. This assured the confidentiality of the responses and the participation of the respondents was voluntary.

4.4 Summary and link between RQs, HPs and data sources

Linkage between research questions, hypotheses and variables on the one hand and different data sources on the other hand presented in table 4.1. Self-administered questionnaires and structured review format were used as a tool for data collection. Financial information collected from each bank was used for testing the hypotheses.

Problem statement and hypotheses were discussed in this chapter. Quantitative approach more specifically survey research design was adopted in this study. The sample size was 150 and the participants were bank employees in Addis Ababa. Quantitative analysis and descriptive and inferential statistics would be used in data interpretation.

Links between research questions/hypotheses and variables on the one hand and different data sources on the other hand are presented in table 4.1 below.

Table 4.1 Link between research questions, hypotheses, variables and the different data sources

Research Questions	Variable Name	Data Sources
What type of impacts bank face during loan reduction/ limitation -RQ1	Impacts on bank performance	Survey questions 21-26
How do the Ethiopian banks prioritize the factors that affect lend -RQ2	Factor that limit lending	Survey questions from 6-20
How is the Ethiopia bank lending performance measured-RQ3	Variables-ROA,ROE	Survey questions from 30-31
How banks relate their lending activity with their performance RQ4	Dependent variable:- ROA&ROE Independent Variable - Liquidity - Capital - Deposit - New loan disbursement	Data from Financial Statements of banks
Is there difference between private and state owned banks in terms of lending and performance-RQ5	Variable - Liquidity - ROA - ROE - New loan disbursement	Data from Financial Statements of banks
There is relationship between liquidity, capital, deposit, new loan and Bank performance (ROA)- HP1	Dependent variable-ROA Independent Variable - Liquidity - Capital - Deposit	Data from Financial Statements of banks

	-New loan disbursement	
There is relationship between liquidity, capital, deposit, new loan and Bank performance (ROE)- HP2	Dependent variable-ROE Independent Variable - Liquidity - Capital - Deposit - New loan disbursement	Data from Financial Statements of banks

CHAPTER FIVE
RESEARCH RESULTS

The previous chapters presented the orientation of the study, theoretical foundations, literature review and the research methods adopted in the study. This chapter presents the results. As discussed in the preceding chapter this study aimed at examining the impacts of reducing or restricting loans by banks on their own performances and also assessing the factors limiting bank lending

This chapter tries to present the results of the survey. The chapter is organized into three sections. The first section 5.1 discusses survey results and the second section 5.2 presents documentary analysis. The last section 5.3 summarizes the results.

5.1 Survey results

The questionnaire was distributed to NBE, banking supervision directorate and nine private and state owned banks headquarters. With respect to branches, 37 bank branches of the eleven banks covered in the study were included.

The questionnaire was physically distributed to 150 employees (whose positions related to bank lending) of all banks in Ethiopia registered before 2007/08. Out of 150 questionnaires 86 were completed and collected. As the result the response rate was 57.3 percent. According to Fowler (1986) researcher or survey organization differ considerably in the extent to which they devote time and money to improve response rate. Thus, there is no agreed-upon standard for a minimum acceptable response rate.

Table 5.1 Survey response rate

Sample size	150
Completed and returned questionnaires	86
Response rate	57.3%

Source: Survey outcome and own computation

5.1.1 Respondents' profile

In respect to employment, 70 percent of survey respondents were employed in private banks. The rest 30 percent were employed in government owned banks

Table 5.2 Employment of respondents.

Employment	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
Private banks	60	70	60	70
State owned banks	26	30	86	100

Source: Survey outcome and own computation

When we see the positions in banking sector the large group or 35 percent of respondents were bank loan officers. The second largest numbers about 20 percent of respondents were analysts. About 2 percent of the respondents were deputy branch managers (Table 5.3).

Table 5.3 Working position of the respondents

Working positions	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
Expert	11	13	11	13
Analyst	17	20	28	33
Customer relation manager	10	12	38	45
Loan officer	30	35	68	80
Branch manager	8	9	76	89
Deputy branch Manager	2	2	78	91
Others	8	9	86	100

Source: Survey outcome and own computation

In respect to experience, 43 percent of survey respondents indicated that they had 6-10 years of banking experience. The second larger number of respondents, 34 percent, had banking experience from 1-5 years. About 9 percent of respondents indicated that they had greater than 15 years of banking experience (Table 5.4).

Table 5.4 Banking experience of the respondents

Banking experience	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
1-5 years	29	34	29	34
6-10 years	37	43	66	77
11-15 years	12	14	78	91
>15 years	8	9	86	100

Source: Survey outcome and own computation

Similarly, in terms of lending experience about 61 percent of respondents had 1-5 years of experience in bank lending while 30 percent had 6-10 years. Only 3 percent of the respondents had greater than 15 years of bank lending experience.

Table 5.5 Bank lending experience of the respondents

Bank lending experience	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
1-5 years	48	61	48	61
6-10 years	24	30	72	91
11-15 years	5	6	77	97
>15 years	2	3	79	100

Source: Survey outcome and own computation

5.1.2 Factors that affect bank lending

Table 5.6 shows descriptive statistics in respect to the factors that affect bank lending. The mean, that measure the central tendency of data, showed that 10 out of 13 factors were from 1.66 - 2.52. This shows the respondents perception that, more or less the listed factors were the most likely factors that affect bank lending in Ethiopia. The factor that recorded the highest mean was interest rate while the lowest was liquidity.

The variability of factors measured in terms of standard deviation also showed that 9 out of 13 factors standard deviations fallen between 0.68-0.99 which showed similar variability between the factors that affect bank lending. The most variable factor was interest rate and the least variable factor was economic condition.

Table 5.6 also shows Kurtosis which explains about the flatness or peakness of distribution of factors. The result showed that leptokurtic (more peaked) distribution of factors. Skewness which reflects the symmetry in distribution showed that the distributions of factors that affect bank lending were positively skewed.

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Table 5.6 Descriptive statistics – factors that affect bank lending

Factors	Mean	Medium	Standard deviation	Kurtosis	Skewness	Minimum	Maximum	Count
Capital position	1.85	2	0.87	1.40	1.27	1	4	86
Economic condition	1.43	1	0.57	-0.18	0.90	1	3	84
Monetary & fiscal polices	1.44	1	0.78	6.21	2.28	1	5	86
Liquidity	1.38	1	0.69	9.75	2.64	1	5	86
Management	2.40	2	1.07	-0.58	0.56	1	5	85
Risk & profitably	1.68	2	0.71	5.25	1.58	1	5	84
Stability of deposit	1.66	2	0.68	0.45	0.78	1	4	85
AEBP*	2.33	2	1.10	-0.59	0.62	1	5	86
CNAS**	1.87	2	0.82	1.12	1.06	1	4	83
BOCS***	1.99	2	0.89	1.68	1.26	1	5	85
Interest rate	2.52	2	1.26	-0.69	0.73	1	5	85
Bank healthy	1.75	2	0.89	1.07	1.25	1	4	85
Capital requirement	2.08	2	0.99	0.77	0.99	1	5	78

Source: Survey outcome and own computation

*AEBP – Ability and Experience of Bank Personnel
**CNAS – Credit Need of Area Served
*** BOCS – Bank over all credit structure

The following discussions reveal the results in respect to factors affecting bank lending. The descriptive statistics on the various factors and the perception of respondents on the importance of each factor are summarized and presented in tables 5.6 and 5.7.

- **Capital position-** This factor's average (mean) rating of 1.85 is moderate compared to that of other factors. The standard deviation 0.87 and range 3 showed that there was moderate variability of rating scores. The highest rating on the factor indicated by the respondents' was important.

- **Economic condition-** This factor average rating was 1.43 it is the second lowest of all average rating of factors that affect lending. The standard deviation 0.57 and range of 2 showed low variability in rating scores. The highest rating on the factor indicated by the respondents' was very important.

- **Monetary and fiscal policies**- This factor mean was 1.44 and ranked the third lowest average score. The standard deviation 0.78 showed low variability of scores. The highest rating on the factor by the respondents' was very important.

- **Liquidity of banks**- The factor mean was 1.38 and ranked the lowest average score. The standard deviation 0.69 indicated low variability in scores. The highest rating on the factor by the respondents' was very important.

- **Management**- This factor mean was 2.40 and ranked the second highest score that affect bank lending. The standard deviation 1.07 indicated very high variability in scores. The highest rating on the factor by the respondents' was important.

- **Risk and profitability of loans-** This factor mean was 1.68 and it was moderate. The standard deviation of 0.71 indicated low variability on scores. The highest rating on the factor by respondents' was important.

- **Stability of deposits-** This factor mean was1.66 and it was moderate. The standard deviation 0.68 and range of 3 showed low variability in rating scores. The highest rating on the factor indicated by the respondents' was important.

- **Ability and experience of bank personnel**- This factor mean was 2.33 and ranked the third highest score that affect bank lending. The standard deviation 1.10 and range 4 indicated very high variability in scores. The highest rating on the factor by the respondents' was important.

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- **Credit need of the area served**- This factor mean was 1.87 and it was moderate. The standard deviation 0.82 and range of 3 showed moderate variability in rating scores. The highest rating on the factor indicated by the respondents' was important.

- **Bank overall liability structure**- This factor mean was 1.99 and it was moderate. The standard deviation 0.89 showed moderate variability in rating scores. The highest rating on the factor indicated by the respondents' was important.

- **Interest rate**- This factor mean was 2.52 and ranked the first highest score that affect bank lending. The standard deviation 1.26 and range 4 indicated very high variability in scores. The highest rating on the factor by the respondents' was important.

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- **Bank healthy**- This factor mean was 1.75 and it was moderate. The standard deviation 0.89 and range 3 showed moderate variability in rating scores. The highest rating on the factor indicated by the respondents' was very important.

- **Capital requirement**- This factor mean was 2.08 and ranked the fourth highest score that affect bank lending. The standard deviation 0.99 indicated moderate variability in scores. The highest rating on the factor by the respondents' was important.

Table 5.7 shows respondents perception on each factor that affects bank lending. Each factor rated on five-point scale. The result showed that all the thirteen factors were considered by the respondents' very important and important for bank lending.

Table 5.7- Respondents perception of factors that affect lending

Factors that affect lending	Very important %	Important %	Neutral (don't) know %	Slightly important %	Not important %	Average perception	Ranking (1-13)
Capital position	36	53	0	11	0	Important	7
Economic Condition	61	36	3	0	0	Very Important	3
Monetary and fiscal policies	67	26	4	2	1	Very Important	2
Liquidity of banks	69	28	1	1	1	Very Important	1
Management	19	46	14	19	2	Important	12
Risk and profitability of loans	42	52	4	1	1	Important	6
Stability of deposits	45	46	8	1	0	Important	5
Ability and experience of bank personnel	23	44	12	19	2	Important	11
Credit need of the area served	34	53	6	7	0	Important	8
Bank over all liability structure	27	59	4	9	1	Important	10
Interest rates	19	47	8	15	11	Important	12
Bank healthy	46	41	5	8	0	Very Important	4
Capital requirement	29	46	14	8	3	Important	9

Source: Survey outcome and own computation

From the results above, all the factors that affect lending have relevance in Ethiopian banks. On average, none of the factor had been considered not important, slightly important or neutral. Four of thirteen factors received an average perception by respondents as very important while the remaining nine factors received an average perception of respondents as being important.

Therefore, as per the perception of the respondents factors that affect bank lending in the Ethiopian banking sector considered as very important were the following:

- Liquidity of banks
- Monetary and fiscal policies
- Economic conditions and
- Bank healthy (Non-performing loans)

5.1.3 Most important factors that affect bank lending

About 39 percent of respondents in the survey gave priority for monetary and fiscal policies as the most important factor that affect bank lending. The second most important factor, about 30 percent, was liquidity of banks. The least most important about 1 percent, was management. Table 5.8 depicted the distribution of respondents in terms of the most important factor that affect bank lending.

Table 5.8 Most important factor that affect bank lending

Factors	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
Capital position	9	11	9	11
Economic condition	16	19	25	30
Liquidity of banks	25	30	50	60
Monetary and fiscal policies	33	39	83	99
Management	1	1	84	100

Source: Survey outcomes and own computation

5.1.4 Impacts of reducing or limiting loans on banks' performance

About 35 percent of survey respondents gave priority for decrease profit or increase losses as the most likely impact on bank performance when banks reduce or limit lending. The second, about 33 percent, most likely impact on bank performance was increase a chance of bank failure. Table 5.9 summarizes the respondents' views about the most likely impact that had highest influence on bank performance.

Table 5.9 Impacts that have the highest influence on bank performance

Impacts	Frequency	Relative frequency (%)	Cumulative frequency	Cumulative frequency (%)
Bank uses their excess reserve, stock and securities to protect their loan portfolio	8	10	8	10
Ration loan to better borrowers Increase a chance of bank failure	26	33	34	43
Invest deposits on treasury bills, bonds or securities rather than loan.	8	10	42	53
Decrease profit or increase losses	27	35	69	88
Increase a chance of bank failure	9	12	78	100

Source: Survey outcomes and own computation

Table 5.10 shows descriptive statistics for impacts on bank performance when they reduce or limit lending. The mean of all impacts was from 1.78-2.53. Respondents reflected that all impacts were either very highly or moderately affected bank performance. This was supported by mode results i.e. all the five impacts were very high and moderate.

The variability of all impacts falling between 0.95-1.26 that implies there was similar variability between the impacts that affect bank performances. The most important impacts considered by the respondents were banks use their excess reserve, stock and securities to protect their loan portfolio and increase a chance of bank failure. And the least impact was investing deposits on treasury bills, bonds or securities rather than loan. Table 5.10 also showed that the distribution of impacts was platykurtic (less peaked) and negatively skewed.

Table 5.10 Descriptive statistics - Impacts on banks performance when they reduce or limit lending

Impacts	Mean	Mode	Median	Standard deviation	Kurtosis	Skewness	Range	Minimum	Maximum	Count
Bank uses their excess reserve, stock and securities to protect their loan portfolio	2.53	2	2	1.26	-0.93	0.49	4	1	5	81
Ration loan to better borrower	1.83	1	1.5	1.09	1.43	1.45	4	1	5	80
Invest deposits on treasury bills, bonds or securities rather than loan	2.31	2	2	0.95	-0.74	0.33	3	1	4	80
Decrease profit or increase losses	1.78	1	2	0.98	1.97	1.46	4	1	5	80
Increase a chance of bank failure	2.53	2	2	1.26	0.92	0.44	4	1	5	79

Source: Survey outcome and own computation

The following brief discussion presents the results in relation to impact of reducing lending on bank performance.The statstical results and the perception of respondents with regard to the level (very high to no impact) of the impacts are summerized and presented in tables 5.10 and 5.11 respectively.

- **Banks uses their excess reserve, stock of cash and securities to protect their loan portfolio**- This impact average (mean) rating was 2.53 and the first highest mean compared with other factors. The standard deviation of 1.26 and range of 4 showed that there was very high variability of rating scores. The highest rating on the impact indicated by the respondents was moderate.

- **Ration loan to better borrowers**- This impact mean was 1.83 and ranked the second lowest score. The standard deviation 1.09 indicated high variability in scores. The highest rating on the impact by the respondents was very high.

- **Invest deposits on treasury bills, bonds or securities rather that loan**. The average rating 2.31 is second highest of all average rating of impact on bank performance. The standard deviation of 0.95 indicated very low variability in scores. The highest rating on the impact by the respondents was very high.

- **Decrease profit or increase losses**- This impact mean was 1.78 and ranked the lowest average score. The standard deviation 0.98 indicated low variability in scores. The highest rating on the impact by the respondents was very high.

- **Increase a chance of bank failure**- This impact mean was 2.53 and another first highest mean compared with other factors. The standard deviation 1.26 and range 4 showed that there was very high variability of rating scores. The highest rating on the impact indicated by the respondents was moderate.

Table 5.11 showed respondents perception on each impact that affects bank performance when banks reduce or limit lending. Rating was on five point scale in each impact. All the five impacts considered by the respondents moderate and highly affected (impacted) bank performance.

Table 5.11 Respondents perception of impacts on bank performance

Impacts	Very high impact %	Moderate impact %	Neutral %	Low impact %	No impact %	Average perception	Ranking (1-5)
Banks uses their excess reserves, stock of cash and securities to protect their loan portfolio	22	38	11	21	8	Moderate impact	4
Ration loan to better borrowers	50	33	6	7	4	Very high impact	1
Invest deposits on treasury bills, bonds or securities rather than loan	20	42	24	14	0	Moderate impact	5
Decrease profit or increase losses	49	35	9	5	2	Very high impact	2
Increase a chance of bank failure	24	33	16	19	8	Moderate impact	3

Source: Survey outcome and own computation

From the results in table 5.11, all impacts on bank performance when they reduce or limit lending have relevance in Ethiopian banking industry. On average none of the impacts have been seen as Neutral, low impact or no impact. Of the five impacts ration loan to better borrowers and decrease profit or increase losses were considered as very high impacts by average respondents. The remaining three impacts received an average perception by respondents (moderate impacts).

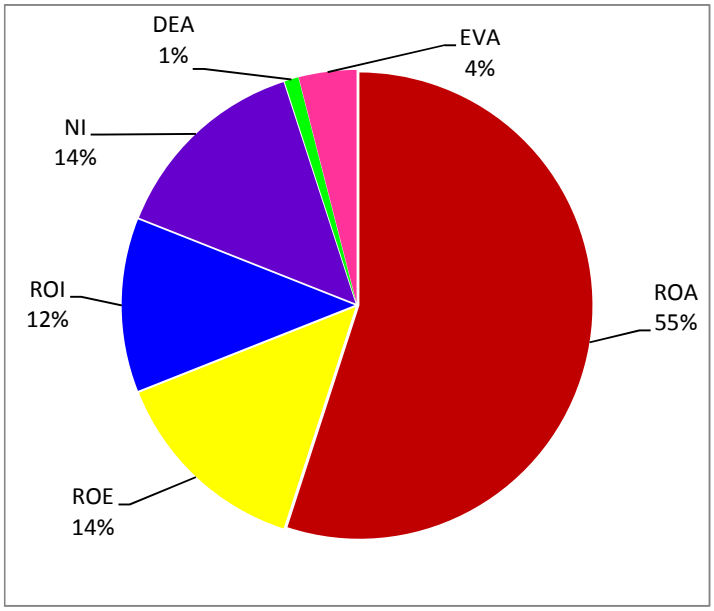
Therefore, as per the perception of respondents, impact of reducing or limiting lending on banks' performance that were considered as very high include:

- Ration loan to better borrowers, and
- Decrease profit or increase losses.

5.1.5 Performance measurement in banking industry.

In respect to performance measurement in the banking industry, about 55 percent of respondents indicated that return on asset (ROA) was the most applicable performance measurement in the Ethiopian banking industry. Return on equity (ROE) and net income (NI) which scored 14 percent each equally perceived as the second performance measurement. Data envelopment analysis (DEA) was the least performance measurement in the banking sector. See figure 5.1 below about distribution of bank performance measurements.

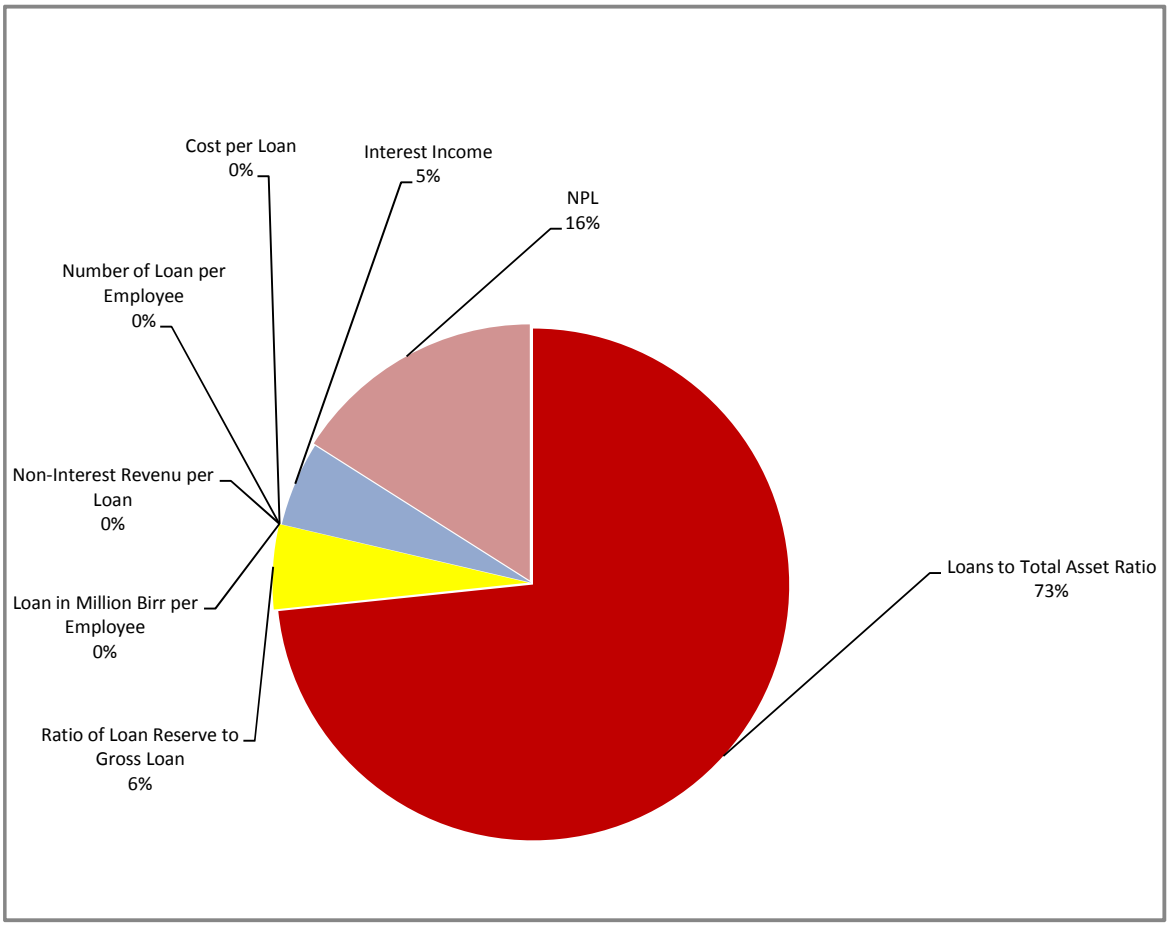
Figure 5.1 Frequency distribution: Bank performance measurement



Source: survey outcome and own computation

Survey results revealed that loans to total assets ratio which scored 73 percent was the most applicable measurement of bank lending in Ethiopia. The ratio of loan reserve to gross loans (6 percent) and interest income (5 percent) were respectively the third and fourth applicable lending measurements. None of the respondents selected the cost per loan, the non interest revenue per loan, loans in million ETB per employee and the number of loan per employee as applicable lending measurements. On the other hand, 16 percent of respondents noted that non-performing loans (NPL) was the second performance measurement of bank lending in the Ethiopian banking sector. See figure 5.2 below about distribution of bank lending performance measurements.

Figure 5.2 Frequency distribution: lending performance measurement



Source: Survey outcome and own computation

5.2 Documentary analysis

As mentioned in chapter four financial data of all the eleven banks which were established before 2007/08 fiscal year tried to be collected. Two years data that belong to development bank of Ethiopia couldn't be available because the financial statements of 2007/08 and 2008/09 did not close and audited. The other bank, lion international bank two years data didn't exist for the reason that the bank was not established in fiscal years 2004/05 and 2005/06. The remaining nine banks financial data collected and used for statistical analysis (see appendix 2).

In this study net deposit, paid up capital, new loan disbursement and liquidity were considered as independent variables. Return on Asset (ROA) and Return on Equity (ROE) categorized as dependent variables. All the variables are continuous and their level of measurement is ratio scale. Table 5.12 shows descriptive statistics of Ethiopian banks financial data.

Table 5.12 Descriptive statistics on banks financial data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Net deposit	51	15.00	43489.00	5250.9608	9769.98599
Paid up capital	51	79.00	4000.00	563.2451	953.24805
New loan disbursement	50	56.40	14418.20	1743.4300	2548.08234
Liqudity	51	.00	5.00	1.5133	.88313
Return on asset	51	-.02	.13	.0337	.02522
Return on equity	50	-.03	.53	.2042	.12434
Valid N (listwise)	49				

Source: Survey outcome and own computation

Table 5.12 shows the central tendency of the financial data of Ethiopian banks. The Range and Standard deviation, which show the central tendency of data, revealed there were high variations in all six variables between banks which were under operation in Ethiopia during the fiscal years 2005-2009.

Liquidity is one of the internal components that determine the amount of lending. Data collected from Ethiopian banks showed that there was unutilized[5] money in most banks covered in the study. Liquidity position of banks is shown in table 5.13.

Table 5.13 Liquidity position of banks

Banks	2005	2006	2007	2008	2009
Commercial Bank of Ethiopia	3.37	3.70	3.93	2.31	2.15
Construction & Business Bank	1.41	0.93	1.99	1.24	1.32
Awash International Bank	1.60	1.44	1.30	1.48	1.94
Dashen Bank	1.31	1.20	1.25	1.44	1.82
Abyssinia Bank	1.39	1.14	1.24	1.35	1.84
Wegagen Bank	1.35	1.17	1.32	1.34	1.88
United Bank	1.52	1.25	1.13	1.35	1.73
Nib International Bank	1.13	1.02	1.07	1.21	1.56
Cooperative Bank of Oromiya	5	0.78	1.17	1.54	1.34
Lion International Bank			1.65	2.08	1.51
Development bank of Ethiopia	0.20	0.20	0.10		

Source: Survey outcome and own computation

5.2.1 Impacts on bank performance

Liquidity, new loan disbursement, paid up capital and net deposits as independent variables were regressed against profitability measuring tools dependent variables such as ROA and ROE. Regression analysis showed the impact of each independent variable against bank performances as measured by ROA and ROE.

Nine banks which had five years observation or data were used for the analysis. As noted earlier STATA was used for analysis of data. These nine banks liquidity, new loan disbursement, paid up capital and net deposit which had 44[6] observations were

[5] Maintain the ratio of net deposit to loan more than one times considered underutilized.
[6] Cooperative bank of Ethiopia 2005 fiscal year new loan disbursement was unavailable and makes 44 observations instead of 45.

regressed against ROE and ROA and the results are shown in tables 5.14 and 5.15 respectively.

Table 5.14 Regression of deposit, capital, new loan and liquidity against ROA.

ROA	Coefficient	Std. deviation	t-stat	P-value	95% conf. interval	
Deposit	-1.50	1.29	-1.16	0.251	-4.10	1.10
Capital	4.35	8.95	0.00	0.996	-.00	.000
New loan	5.15	3.63	0.42	0.164	-2.19	.000
Liquidity	0.004	0.01	0.36	0.718	-.16	.024
Constant	0.33	0.14	2.38	0.022	.005	.061

Source: Survey outcome and own computation

The results in table 5.14 shows the coefficient of deposit against ROA was negative. This denotes that there was an inverse relationship between net deposit and ROA. The higher the net deposit, the lower ROA. In this case, if the other three variables i.e. new loan, capital and liquidity held constant, a one unit increase in deposit would result on average, 1.5 unit drop in ROA. For each additional deposit, with other factor constant, there was a decrease in ROA.

Table 5.14 shows that the coefficient of capital, new loan and liquidity against ROA were positive. This revealed that there was direct relationship between the above three independent variables and ROA. In this case ,if the other three variables held constant, a one unit increase in capital, new loan and liquidity would result, on average, an increase in 4.35, 5.15 and 0.004 respectively units in ROA. For each additional capital, new loan and liquidity with other variables held constant, there was an increase in ROA.

Table 5.15 Regression of deposit capital, new loan and liquidity against ROE

ROE	Coefficient	Std. deviation	t-stat	P-value	95% conf. interval	
Deposit	0.00002	4.58	3.54	0.001	6.95	.00
Capital	-0.00011	0.00	-3.57	0.001	-.00	-.00
New loan	-1.00	0.00	-0.08	0.939	-.00	.00
Liquidity	-0.04	0.04	-1.00	0.322	-.10	.04
Constant	0.24	0.05	4.90	0.000	.14	.34

Source: Survey outcome and own computation

The coefficient of deposit against ROE was positive. This revealed that there was direct relationship between net deposit and ROE. However, the influence of net deposit on ROE was very low i.e. 0.00002.

On the contrary, the coefficient of capital against ROE was negative. This denotes that there was an inverse relationship between capital and ROE. However, the influence or impact of capital against ROE was very low i.e. -0.00011.

The coefficient of new loan and liquidity against ROE was negative. This denotes that there were an inverse relationship between new loan liquidity and ROE. Therefore, if the other three variables held constant, a one unit increase in new loan or liquidity would result, on average, one or 0.04 units drop respectively in ROE. This means for each additional new loan or liquidity, with other factors held constant, there were a decrease in ROE.

5.2.2 comparison of state and private owned banks

The two- sample t-Test was used to compare the state and private owned banks with respect to variables measured in ratio level measurement. The selected variables for comparison are liquidity, new loan disbursement, ROA and ROE. Relationship between these variables and ownership groups (private and state owned) are presented in this section. The results of the two sample t-Test are shown in tables 5.16 and 5.17 below.

Table 5.16 shows the mean of the two groups and used to indicate if there is difference within each group. Table 5.17 also shows T-value and P-value which are used for significance test with regard to the difference between the private and state owned banks.

Table 5.16. Comparison of mean between private and state owned banks

T-Test

Group Statistics

	Ownership	N	Mean	Std. Deviation	Std. Error Mean
Liqudity	private	38	1.4561	.68927	.11181
	stateowned	13	1.6808	1.32063	.36628
New loan disbursement	private	37	1157.9703	739.52690	121.57747
	stateowned	13	3409.7385	4561.40722	1265.107
Return on asset	private	38	.0353	.02778	.00451
	stateowned	13	.0292	.01553	.00431
Return on equity	private	37	.1884	.10668	.01754
	stateowned	13	.2492	.16132	.04474

Source: Survey outcome and own computation

Table 5.17 Significance test on ownership of banks

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Liqudity	Equal variances assumed	13.800	.001	-.789	49	.434	-.2247	.28484	-.79712	.34768
	Equal variances not assumed			-.587	14.301	.566	-.2247	.38296	-1.04447	.59504
New loan disbursement	Equal variances assumed	36.010	.000	-2.948	48	.005	-2251.7682	763.77060	-3787.43	-716.104
	Equal variances not assumed			-1.772	12.222	.101	-2251.7682	1270.9351	-5015.32	511.78537
Return on asset	Equal variances assumed	.759	.388	.741	49	.462	.0060	.00814	-.01032	.02239
	Equal variances not assumed			.968	37.924	.339	.0060	.00623	-.00659	.01865
Return on equity	Equal variances assumed	4.049	.050	-1.539	48	.130	-.0609	.03954	-.14036	.01865
	Equal variances not assumed			-1.266	15.846	.224	-.0609	.04806	-.16281	.04110

Source: Survey outcome and own computation

5.3 Summary of results

The study conducted survey of banks' employees (using self administered questionnaires) and structured survey of documents. Seventy percent of these study respondents were private banks' employees and the remaining were state owned banks' employees. Thirty five percent of respondents were loan officers and twenty percent were analysts. Most respondents had below ten years of experience in banking and lending.

All factors that affect lending have relevance in the Ethiopian banking industry. Factors that affect lending perceived by respondents very important were liquidity, monetary and fiscal policies, economic condition and bank healthy. The highest impacts on bank performance when they reduce lending according to the respondents perception were ration loan to better borrowers and decrease profit or increase losses.

In respect of performance measures of banking industry fifty five percent of respondents indicated that ROA was the most applicable measurement of bank performance. Modern performance measures such as DEA and EVA scored one and four percent respectively. Performance measures in relation to bank lending was loan to total asset ratio scored seventy three percent and selected by respondents of the study as most applicable measurement of bank lending.

From financial data of banks, relationship of independent variable such as liquidity, capital, deposit and new loan disbursement and dependent variable like ROA and ROE tested. The result showed that at 0.05 level of significant, there were no statistically significant relationship between all independent variables and ROA. On the other hand at the same level of significant there were statistically significant relationship between deposit, capital and ROE. The remaining independent variables new loan and liquidity concerned, there were no significant relationship between them and ROE.

Regression analysis results summary are shown in table 5.18 below:

Table 5.18 summary of regression analysis

Independent variable	Dependent variable	Relationship	Estimated impact (1 unit increase in independent Variable)	Significance test
Net deposit	ROA	Negative	1.5 unit decrease ROA	Not statistically significant
Capital	ROA	Positive	4.35 unit increase ROA	Not statistically significant
New loan	ROA	Positive	5.15 unit increase ROA	Not statistically significant
Liquidity	ROA	Positive	0.004 unit increase ROA	Not statistically significant
Net deposit	ROE	Positive	Insignificant Number -0.00002	Statistically significant
Capital	ROE	Negative	Insignificant number -0.001	Statistically significant
New loan	ROE	Negative	1.00 unit decrease ROE	Not statistically significant
Liquidity	ROE	Negative	0.04 unit decrease ROE	Not statistically significant

Source: Survey outcome and own computation

The study also tried to see if there were differences between private and state owned banks. The result showed that in terms of liquidity, new loan disbursement, ROA and ROE, there was no statistically significant difference between private and state owned banks. Therefore, ownership of banks would not be the differentiating factor in terms of liquidity, new loan, ROA and ROE.

CHAPTER SIX
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The previous chapter presented the results while this chapter attempts to show the discussions, conclusions and recommendations. Accordingly, section 6.1 shows the discussion in the context of literature while sections 6.2 and 6.3 try to present conclusions and recommendations respectively.

6.1 Discussion of the research findings

As stated in chapter one the broad objective of this study was to identify the factors that limit bank lending and then assess the impacts of reducing or restricting loans by banks on their own performances.

Further, as noted previously, in order to achieve this broad objective the study developed the following hypotheses and research questions.

HP1 - There is relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROA).

HP2 - There is relationship between liquidity, capital position (size), deposit, new bank lending and bank performance (ROE).

Research questions (RQs) are:

RQ1 – What type of impact banks face during loan reduction/limitation?

RQ2 – How do the Ethiopian banks prioritize the factors that affect lending?

RQ3 – How is the Ethiopian bank lending performance measured?

RQ4 – How banks relate their lending activity with their performance?

RQ5 – Is there a difference between private and state owned banks in terms lending and performance?

The study analyzed each factor that has impact on bank lending. Reed and Gill (1989) and Black and Daniel (1989) listed factors that affect bank lending. These factors are capital position, economic condition, monetary and fiscal policies, liquidity, management, risk and profitability of loans deposits, bank personnel, credit need of area served, liability structure, interest rates, bank healthy and capital requirement

Survey results in table 5.7 showed that all the factors listed above have relevance in the Ethiopian banks. Average perception by respondents showed that, all factors have got either very important or important impact on bank lending. However, factors that affect lending in Ethiopia banking sector considered as very important were liquidity, monetary and fiscal policies, economic condition and banks healthy (NPL).

In respect of impacts on bank performance, the results from the survey showed that, decrease profit or increase losses and loan rationing to better borrowers have been the most likely impact when Ethiopian banks reduced lending compared with other impacts. Webb (2001) in studying liquidity constraint also arrived at similar results.

This study further assessed each likely occurring impact when banks reduce lending. In this regard, the survey results in table 5.11 showed that loan rationing to better borrower and decrease profit or increase loss were considered the most likely impacts in Ethiopia banking industry. Literature revealed that impacts on bank lending were banks use their excess reserve (buffer stock of cash and security) to overcome and protect loan rendering, rationing loan to better borrowers and creation of bank crisis and failure Quagliariello (2009), Webb,(2001) and cadet (2009).

The results of the survey as shown in figure 5.11, all impact on bank performance when bank reduce or limit lending have relevance in Ethiopia banking industry. Average respondents perception indicated that, all factors have gotten either a very high or moderate impact.

With respect to performance measurement of banks the result of the survey, as shown in figure 5.1, revealed that traditional bank performance measurements such as ROA and ROE predominantly used by Ethiopian banks. This result supported by previous research discussed in literature review (Shong and Chung, 2006 and Hazen, 2005). This study also showed modern performance measurement received lower scores in Ethiopian context.

In addition, this study tried to reveal performance measurement in lending activities. The result from the survey (figure 5.2) showed that loans to total asset ratio was the most i.e. 73 percent applicable performance measurement in bank lending activity in the Ethiopia banking industry. Cost per loan, non-interest revenue per loan, loans in million ETB per employee and the number of loan per employee were not applicable lending performance measurement. Rather non-performing loan (NPL) was considered the second best i.e. 16 percent lending performance measurement by respondents. Further, the study indicated that modern performance measurement such as DEA and EVA and different lending performance measures were utilized in Ethiopia at very small rate. The reason for this may be under development of the banking industry in the country.

To address the hypotheses that assert there is relationship between factors that affect lending such as deposit, capital, new loan and liquidity against performance measures like ROA and ROE, the researcher used regression analysis.

As per the regression analysis capital, liquidity and new loan disbursement had positive relationship with ROA. This means increase in these variables would result in an increase in ROA. This finding was consistent with the theoretically expected relationship between ROA the factors stated above (see for example Reed and Gill (1989) and Black and Daniel, (1989) for the theory. In addition, these results were in line with what previous studies including Furlong, 1992 and Valverde and Del peso

2009) revealed. On the other hand, the result shows that deposit had inverse relationship with ROA. This means increase in deposit would result decrease in ROA. The reason for this may be Ethiopian banks as can be seen from bank financial data table 5.13 had high liquidity. They had not lending according to their customers' increase or decrease of deposits.

In respect to hypothesis testing, at 0.05 significant levels, there were no statistically significant relationship between deposit, new loan, capital, liquidity and ROA. Therefore, the hypothesis that states, there is relationship between deposit, new loan, capital, liquidity and ROA may be rejected or data did not support the hypothesis.

When we see the regression analysis of the three independent variables i.e. capital, new loan and liquidity against ROE, the results were not as expected. The results showed negative relationship between capital, new loan and liquidity and ROE. This result failed to support theories and existing literatures. The reasons for this may be there was inefficiency in Ethiopia banking industry. In this case the dependent variable ROE didn't explain the independent variables.

In respect to hypotheses testing, at 0.05 level of significant there were statistically significance relationship between deposit, capital and ROE. Thus the hypothesis that states there is relationship between deposit, capital and ROE supported or data supported the hypothesis.

On the other hand, in respect to hypothesis testing, at 0.05 level of significant there were no statistically significant relationship between new loan, liquidity and ROE. Thus the hypothesis that states there is relationship between new loan, liquidity and ROE may be rejected or data did not support the hypothesis.

The mean of the two groups (private and state owned banks) in terms of liquidity, new loan, ROA and ROE showed variance. This is an indication that there were differences between mean of the two groups in all four variables. Table 5.16 showed that state owned banks were more variable group than private banks in terms of liquidity, new loan disbursement and ROE. On the other hand, private banks were more variable group in respect to ROA than state owned banks.

As shown in table 5.17, at 0.05 level of significant, the two groups were found to have no statistically significant difference in respect of the variables considered. Therefore, the research question that says is there a difference between private and state owned banks in terms of lending (measured by new loan and liquidity) and performance (measured by ROA and ROE) could have an answer no i.e. there was no difference between the two groups. Ownership of banks would not be the differentiating factor in terms of liquidity, new loan disbursement, ROA and ROE in the Ethiopian banking industry.

Most Ethiopian banks except Construction and Business Bank (CBB) for the year 2006 and Development Bank of Ethiopia (DBE) maintain more than one times of net deposit to loan ratio (table 5.13). This shows they had excess liquid asset. However they had not used this excess liquid asset for loan purpose. CBE especially held more than two times deposit to loan ratio, this shows it had huge amount or excess cash that was idle and had no return. All banks can maximize a better return by granting loan to governments and private employees', those entrepreneurs who have viable projects but needs money and associate themselves with micro finance institutions to utilize their excess money.

There were no differences between banks that had long years experience and strong assets or capital such as CBE and newly established and not financially strong banks in terms of ROA and ROE. All banks were in similar positions (appendix-2). This may show that, there is inefficiency in the oldest and biggest bank. The theory Reed and Gill (1989) and literature review Kishan and Opiela (2000) showed that strong capital, better experience of bank personnel and good infrastructure (facility) give advantages to be better off compared to other banks.

6.2 Conclusions

The broad objective of this research was to identify factors that limit lending and assess the impacts of reducing or limiting loan by banks on their own performance. Based on this broad objective a number of specific research questions and hypotheses were developed.

To achieve this broad objective, the study used quantitative research approach. More specifically, the study used survey of employees of banks and structured survey of documents held by banks. The results showed that, based on the respondents' perception it is evident that most likely factors that affect bank lending in Ethiopia are liquidity of banks, monetary and fiscal policies, and economic conditions and bank healthy (NPL).

Also as per the respondents' perception, for some reasons if banks reduce or limit lending, loan rationing to better borrowers and decrease profit or increases losses were major impacts in Ethiopia banking industry. Bank management should address the problem and look up other uses of fund like purchasing securities or treasury bills.

With regard to bank performance measurement, it is evident that bank measured their performance in a traditional way. DEA and EVA hold additional dimensions. Also utilization of lending activities measurement is limited with loans to total asset ratio and NPL.

Capital, liquidity and new loan disbursement had positive relationship with ROA. These results support the theories and existing literature in the area. Deposit on the other hand had negative or inverse relationship. Regression results show ROE did not explain the independent variables.

There were no differences observed between private and state owned banks in this study with regard to ROA, ROE, liquidity and new loan disbursement. These revealed that ownership of banks would not be the differentiating factor in Ethiopia banking industry.

In the Ethiopian banking industry, there was excess liquidity. Most banks had more than one times deposit to loan ratio. This shows they underutilized their resource or there was idle money. This was exaggerated in government owned big bank, CBE. There is not much difference between big and long years of service and newly established banks in terms of lending and performance. This show there might be inefficiencies in big and long established banks.

6.3 Recommendations

The following recommendations were made:

- When banks face constraint to make loan for different factors listed in this research paper, they have to use their funds to purchase bond, securities and treasury bills. In addition, banks should develop non-interest generating services to compensate lending return.

- Most likely factors that affect bank lending in Ethiopia are liquidity of banks, monetary and fiscal policies, and economic conditions and bank healthy (NPL). Therefore bank management and supervising authorities such as NBE should give due attention on these factors.

- Management and supervising agency should implement modern and widely used performance measurement to evaluate both bank over all and lending performance. Benefits of applying modern performance measurement are establish drivers of high performance, track bank wide and line of business performance and identify causes rather than effects of performance up and downs. Therefore, the supervising agencies and management of banks should utilize modern performance measurement tools such as DEA and EVA- which holds additional dimensions. Also utilization of lending activities measurement was limited with loans to total asset ratio and NPL. Management should pay attention to use other type of loan activities performance measurements.

- Further study in the future needs on the factors such as monitory and fiscal policy and Economic conditions that affect on bank performance.

- Bigger capital, long years experience and well established banks such as Commercial Bank of Ethiopia is not different from those which established in the last ten years in terms of ROA and ROE. The reason for this might be inefficiency or other; therefore, the owner (Ethiopian government) should evaluate its performance against modern banking requirements.

- Within the limit of lending set by NBE, all banks should revise their credit policy to extend more credit and maximize their profit.

- Excess cash (liquidity) maintained by most banks should be used for lending to entrepreneurs who have viable project and need money, issuing long period credit to both private and public employees' and extend credit to micro finance institutions with mass base. If banks apply the recommendations made above, positive impacts would be visible in poverty alleviation programs of the country.

REFERENCES

Ahtiala, P. 2005, ' The new theory of commercial banking and bank lending behavior'. *Scottish Journal of political economy*, 52 (5). November, 769 - 792.

Athavale, M, Bland, E and Trimm, R. undated, ' Are firms Constrained by their bank? a pilot study, *The Journal of applied business Research*', 18(2): No page

Ayalew, T. 2005. ' A study on financial performance of private sector banks in Ethiopia'. MBA project paper, Addis Ababa University.

Baran, D. and Smiljanic, R. 2008, 'Monetary tightening and bank financing of SME and Large Companies in Croatia,' *The business Review*, 10 (2), summer 2008: 275 - 289.

Barrickman, J.R. 1990, ' Successful Commercial lending from the ground up'. *Bottom line*, 7(2): 12-14.

Baum,C, Caglayan,M and Ozkan,N (2005)'The second moments matter: the response of bank lending behavior to macro environment uncertainty', Boston college, Working paper,No521.

Berhanu, H. 2004. Financial performance of Ethiopia Commercial banks. MBA project paper, Addis Ababa University.

Bernanke, B. and Blinder, A. 1988, 'Credit, money' and aggregate demand, .*American Economic review*. 78: 435-439.

Black, T. and Daniel, D. 1081, *Money and Banking,* first edition , U.S.A: Business publication Inc.

Cadet, R.L. 2009, ' A theory of linkage between monetary policy and banking failure in developing countries'. *Journal of financial Economic policy* 1 (2), 2009: 143-154.

Campbell, C.D, Campbell, R.G and Dolan, E.G 1988, *Money, Banking and monetary policy,* first edition, New York: The Dryden press.

Case, K.E' and Fair, R.G. 2007, *principles of economics,* eight editions, New Jersey: Pearson - Prentice Hall.

Charnes, A., Cooper, W.W. and Rhodes, E. 1978, 'Measuring the efficiency of decision making units', European Journal of operational research, 2 (6): 429-444.

Cicfa, C and Hincu, D. 2009, 'performance evaluation methods in commercial banks and associated risks for managing assets and liabilities', *communication of the IBIMA Journal,* 7(2009) 97-101

Creswell, J.W. 2009, Research design: Qualitative, Quantitative and Mixed Method approach, third edition, U.S: SAGE publication, inc.

Cumming, S. and Nel, H. 2005, 'Capital controls and the lending behavior of South Africans banks! Preliminary findings on the expected impact of Basel II. *South African Journal of Economics*, 73(4): 641 - 656.

Dimantopoulos,A and Schlegelmilch, B.B,2000,*Taking the fear out of data analysis*, first edition, London, Southwestern, Cengaga learning, EMEA.

Eickmeier, S., Hofmann, B.., and Worms, a. 2009. 'Macroeconomic fluctuations and bank lending: evidence for Germany and the Euro Area', *German Economic review*, 10 (2): 193 - 223.

Ewert, R., Schenk, G. and Szczesny, A. 2000, 'Determinants of bank lending performance in Germany'. *Schmalenbach business Review*, 52(4) October: 344-362.

Federal Democratic Republic of Ethiopia(FDRE), The house of people representative, Proclamation No 591/2008, 2008 'The National bank of Ethiopia Establishment', Addis Ababa.'

Federal Democratic Republic of Ethiopia (FDRE), The house of people representative Proclamation No 592/2008, 2008 'Banking business in Ethiopia' Addis Ababa.

Fowler, F.J, 1986, Survey research methods, third edition, U.S.A, SAGE publication Inc.

Fukuda, S., Kasuya, M. and Nakajima, J. 2006, 'Deteriorating bank health and lending in Japan: Evidence from unlisted companies under financial distress. Journal of the Asia Pacific Economy, 11 (4): 482 - 501.

Furlong, F.T. 1992. 'Capital regulation and bank lending'. *Economic review-Federal Reserve bank of San Francisco*, 1992 (3): 23-33.

Grasing, R.2002, 'Measuring operational efficiency: a guide for commercial bankers'. *Commercial lending review*, 17 (1): 45-52.

Hazen, M. 2005, ' The financial performance of Ethiopia commercial banks: A comparative analysis. M.Sc project paper, Addis Ababa University.

Henry, M.P. 1985, ' Factors Influencing contemporary bank lending''. *The Journal of commercial bank lending,* 68(3): 2,6.

Karr, J .2005, 'Performance Measurement in banking: Beyond ROE', *Journal of performance managemen*t (No volume. and number) - Accessed by

Kashyap, A: and Stein, J. 2000, 'what do a million observations on banks say about the transmission of monetary policy? '. *American Economic review*, 90:407-428.

Kashyan, A.K, Stiein J.C. and Wilcox, D.W.1993' Monetary policy and credit conditions: Evidence from the composition of external finance.' American economic review,83 (1) 78-98.

Keeton, W.R. 1993, 'The impact of monetary policy on bank lending: the role of securities and large CDs'. *Economic Review*, 78 (2): 35-47.

Kishan, R.P. and Oprela, T.P. 2000, 'Bank Size, bank capital, and the bank lending channal'. Journal of Money, credit and banking, 32 (1): 121-141.

Leedy, P.D. and Ormrod, J.E. *practical research: planning and Design*. Eight editions. New Jersey: Pearson Education, inc.

Mac Donald, S.S. and Koch, T.W. 2006, *Management of Banking*, Six Edition, U.S.A: Thomson - South Western.

Matz, L. 2010, 'Liquidity Risk Management: Connecting the prices'. *Bank, accounting and finance Journal February* - March 2010:39 - 52.

Mc Kinnon, R. 2009, 'Why banks aren't Lending'. *International Economy*, the magazine of international economic policy, fall 2009: 20-23

McCarthy M.G; Schneider, D.K. and Tibb, S.L. 2010, 'In, vestments and loans reported by the 10 largest U.S banks,' *Journal of Bank accounting and Finance* Dec 2009- Jan 2010: P19-24.

NBE, 2007/08, *Annual report* 2007/2008, Addis Ababa, Ethiopia

NBE, 2008/09, *Annual report* 2008/2009, Addis Ababa, Ethiopia

NBE, 1999, '*Minimum paid up capital to be maintained by banks'* Directive No SBB/24/99, Addis Ababa, Ethiopia.

NBE, 2008, Reserve requirements, Directive No SBB/45/2008, 2OO8, Addis Ababa, Ethiopia.

NBE, Minimum interest rate on saving and time deposits Directive No NBE/INT/10/2007, 2007, Addis Ababa, Ethiopia.

NBE, History of banking, Available at< http://www. nbe. gov.et [Accessed 28/04/2010].

Oliner, S. D. and Rude busch, G. D. 1996, "Monetary policy and credit conditions: evidence from the composition of external finance: comment'. *The American Economic review*, 86(1): 300-309.

Opiela, T.P. 2008, 'Differential deposits guarantees and the effect of monetary policy on bank lending', *Economic Inquiry* 46(4) October 610 - 620,

Popa, G, Mihallescu, Land Caragea, C 2009, 'EVA - Advanced method for performance evaluation in banks', *Economia Seria management Journal,* 12(1): 268-173.

Quagliariello, M. 2009,. 'Macroeconomic uncertainty and banks' lending decisions: the case of Italy'. *Applied Economics*, 2009, 41:323-336.

Rajan. R.G 1996, 'Why banks have a future: toward a new theory of commercial banking'. *Journal of applied corporate finance*: 9 (2) summer, 114 – 128.

Read, E.W. and Gill, E.K. 1989, *Commercial banking*, Forth edition, New Jersey: Engle wood cliffs.

Round table, 1996, 'Current issues in commercial banking; Strategic planning, performance measurement and incentive compensation. Round table discussion, *Journal of applied corporate finance*, 9(2) Summers: 24-51.

Saplenza, P. 2004, 'The effect of government ownership on bank lending. Journal of financial Economics, 72(2); 357 or (Abstract).

Schnatter, S. and Kaufmann, S. 2006. 'How do changes in monetary policy affect bank lending? An analysis of Austrian bank data'. *Journal of applied Econometrics*, 21 (2006): 275 - 305.

Sengonul, A. and Thorbecke, W. 2005, 'The effect of monetary policy on bank lending in Turkey'. *Applied financial Economics*, 15: 931-934.

Seyoum, B. 2006, 'A Comparative Study on the performance of private banks in Ethiopia - problems, challenges and prospects". MBA project paper, Addis Ababa University.

Shong, L.P. and Chung, M.A 2006, ' The internal performance measures of bank lending: a value added approach'. *Bench marking: an International journa*l, 17(3): 272 – 289

Staikouras, C, Mamatzakis, E. and Filippaki, A.K.., 2007, 'Operating performance of the banking industry: An empirical investigation of the South eastern European Region'. *South - Eastern Europe Journal of Economics,* 2 (2007): 245-266.

Stein, J.C. 1998, 'An adverse - selection model of bank asset and liability management with implications for the transmission of monetary policy'. *RAND Journal of Economics* 29: 466-486.

Tang, T.C. 2003, 'Directions of banks lending and Malaysian Economic Development: An empirical study'. *International Journal of management*, 20(3): 342-345.

The Economist Intelligent unit, 1999 'Increased bank lending to business'. EIV country Report, 1st quarter 1999:26.

Valverde, S.C. and del paso, R.L. 2009, 'Bank lending channel and non-financial firms: evidence for spain'. *Span Econ Rev* (2009), 11:125-140.

Van Zyl, C, Skerritt, P, Botha, Z and Goodspeed, I 2009, *understanding South African financial markets*, third edition, Pretoria; Van Schaik publishers.

Waweru, N.M. and Kalani, V. M. 2009, 'Commercial banking crises in Kenya: causes and remedies', *African Journal of Accounting*, Economic Economics, Finance and banking research, 4(4): 12-32

Webb, D.C- 2000, 'The impact of liquidity constraints on bank lending policy'. *The economic Journal:* 110 (January): 69-91

Worku, G.2006, 'liquidity and its impact on performance of commercial banks in Ethiopia'. M.Sc project paper, Addis Ababa university.

APPENDIX -1

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GRADUATE SCHOOL OF BUSINESS LEADERSHIP
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June 8, 2010

UNISA-ET/KA/ST/29-08-06-2010

All Private and Public Banks

Addis Ababa

Subject: **Research Cooperation**

Dear Sirs,

This is to kindly request your good office to assist our student, Ato Zewdu Seyoum, who is currently doing his theses for the partial fulfilment of his Master of Business Leadership (MBL) degree at UNISA Graduate School of Business Leadership. His research tile is on the Impacts of Loan Reduction by the Ethiopian Banks on their own and Borrowers performances. Your cooperation in providing the necessary data and information is quite essential for his successful completion of his theses.

We very much appreciate for the support and assistance that you will be extending to our student.

With kind regards,

Yifru Tafesse

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QUESTIONNAIRE

Questionnaire

My name is Zewdu Seyoum and I am currently working with the research component of the Master's Degree in Business Leadership (MBL) at the University of South Africa's School of Business Leadership (SBL).

The purpose of my study is to identify the impacts of reducing or restricting loans by banks on their own performances. The study also tries to assess the reasons why commercial banks reduce or restricts lending money and assess what factors limit banks lending. To this end, the study intends to gather information from selected managers, analysts, loan officers, experts etc. through a self administered questionnaire. The participation is fully voluntary and responses will be confidential. The results will be also reported without showing the identity of respondents.

The questionnaire takes about 15-20 minutes to complete. I would appreciate your positive consideration in completing the enclosed questionnaire and assisting me in my research efforts. If you have any questions please call 0911659485 or email zwdseyoum@yahoo.com.

Thank you in advance

Zewdu Seyoum

QUESTIONNAIRE

(Please tick appropriate boxes)

SECTION ONE – BACKGROUND INFORMATION

1. In what position you are working in the banking industry?

Expert ☐ Analyst ☐ customer relation Manager ☐

Loan Officer ☐ Branch Manager ☐ Deputy Branch manager ☐

Other please specify _____

2. Indicate owner ship of the bank you are working

Private ☐ State owned ☐

3. Indicate the number of years working experience in the banking sector

1 – 5 years ☐ 6-10 years ☐ 11-15 years ☐ >15 years ☐

4. Indicate number of years experience in the bank lending

1 – 5 years ☐ 6-10 years ☐ 11-15 years ☐ >15 years ☐

5. Impact of reducing lending is easily understandable

Agree ☐ Neutral ☐ Disagree ☐

SECTION TWO – FACTOR THAT LIMIT (REDUCE) LENDING

6. **Ranking the factors that limit (restrict) lending**

N.B. Rank the factors from 1 – 6 according to the importance or effect on reducing

Lending.

E.g. The factor that has high importance compared to other factors will be ranked 1 (first) and least important will be ranked 6.

Factors	Ranks
Capital Position (size of capital)	☐
Economic condition	☐
Liquidity of the bank	☐
Monetary and fiscal policies	☐
Management	☐
Other please specify _____ _____	☐

Please rate the factors listed in the following table (7-20) in terms of your perception on how each item is important in limiting or restricting bank lending.

Please tick the appropriate box next to each item

	Factors that limit bank lending	very important	ımportant	Neutral (don't know)	Slightly important	Not important
		1	**2**	**3**	**4**	**5**
7	Capital position (size of capital)					
8	Economic Condition					
9	Monetary and fiscal policies					
10	Liquidity of banks					
11	Management					
12	Risk and profitability of loans					
13	Stability of deposits					
14	Ability and experience of bank personnel					
15	Credit need of the area served					
16	Bank overall liability structure					
17	Interest rates					
18	Bank healthy (capital adequacy and Non – performing loans / NPL /)					
19	Capital requirement					
20	Other please specify _____ _____ _____ _____					

SECTION THREE – IMPACT OF REDUCING OR LIMITING BANK LENDING.

21. Ranking the impacts of reducing or limiting bank lending

N.B. Rank the impacts from 1 – 5 according to the importance or influence on bank performance.

E.g. The factor that has high importance or influence compared to other factors will be ranked 1 (first) and least important will be ranked 6.

Impacts	Ranks
Banks uses their excess reserve , stock of cash and securities to protect their loan portfolio	
Ration loan to better borrowers	
Invest deposits on treasury bills, bonds or securities rather than loan	
Decrease profit or increase losses	
Increase a chance of banks failure	

Please rate the following impacts, listed in the following table (22-26), on bank performance when reducing or limiting bank loans in terms of your perception

Please tick the appropriate box next to each item

	Impacts of limit bank lending	Very high impact	Moderate Impact	Neutral (don't know)	low Impact	No impact
		1	**2**	**3**	**4**	**5**
22	Banks uses their excess reserve, stock of cash and securities to protect their loan portfolio					
23	Ration loan to better borrowers					
24	Invest deposits on treasury bills, bonds or securities rather than loan					
25	Decrease profit or increase losses					
26	Increase a chance of bank failure					

Please tick the appropriate box next to each item

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
		1	**2**	**3**	**4**	**5**
27	Lending activities in banking industry is transparent and clear to both borrowers and bank employees					
28	There is a relation between lending and bank performance					
29	Reducing loan has negative impact on bank performance					

30. In your banking practice which performance measurement are suitable to measure bank performance

Return on Asset (ROA)	☐	Return on Equity (ROE)	☐
Return on Investment (ROI)	☐	Net banking Income (NI)	☐
Data Envelopment Analyses (DEA)	☐	Economic value Added (EVA)	☐

Other please specify _____

31. In your banking experience which performance measurement are used to measure lending performance of banks. Please note that it is possible to have multiple answers

Loans to total asset ratio	☐
The ratio of loan reserve to gross loans	☐
The cost per loan	☐
The non – interest revenue per loan	☐
Loans in million birr per employee	☐
The number of loan per employee	☐
Interest income	☐
Other please specify _____	☐

Thank you for your cooperation!

APPENDIX-2

Financial data of Commercial Banks

Bank -COMMERCIAL BANK OF ETHIOPIA .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	25367	28286	32873	37633	43489
Net loan	7533	7653	8370	16275	20257
Paid up capital	620	620	4000	4000	4000
Equity	1429	1506	4220	4560	5041
Total Asset	33169	35849	43456	50416	59411
Net income before tax	789	1120	1170	1868	2716
Net income after tax	572	802	864	1361	1921
New loan disbursement	3972.2	4115.9	5755.2	14418.2	11098.9
Liquidity(deposit/loan)	3.37	3.70	3.93	2.31	2.15
ROA	0.02	0.03	0.03	0.04	0.05
ROE	0.40	0.53	0.20	0.30	0.38

Bank - CONSTRUCTION AND BUSINESS BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	1056	973	1136	1489	1834
Net loan	747	1046	1142	1205	1391
Paid up capital	79	79	79	79	79
Equity	106	157	212	259	269
Total Asset	1832	1797	1889	2392	2592
Net income before tax	26	79	81	115	106
Net income after tax	17	56	56	84	74
New loan disbursement	583	430.5	288.5	795.5	1297.8
Liquidity (deposit/loan)	1.41	0.93	0.99	1.24	1.32
ROA	0.01	0.04	0.04	0.05	0.04
ROE	0.16	0.36	0.26	0.32	0.28

Bank - DASHEN BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	2833	3692	4861	6152	7925
Net loan	2160	3080	3889	4280	4349
Paid up capital	100	156	282	454	529
Equity	243	386	545	731	909
Total Asset	3420	4546	6041	7829	9733
Net income before tax	97	185	258	333	352
Net income after tax	71	133	187	239	250
New loan disbursement	1181.2	1676.4	1284.6	2145.7	2293.6
Liquidity(deposit/loan)	1.31	1.20	1.25	1.44	1.82
ROA	0.03	0.04	0.04	0.04	0.04
ROE	0.29	0.34	0.34	0.33	0.28

Bank - AWASH INTERNATIONAL BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	1940	2567	3112	3870	4962
Net loan	1210	1780	2403	2611	2564
Paid up capital	155	188	252.5	368	445
Equity	228	304	434	597	750
Total Asset	2226	2954	3830	4820	6423
Net income before tax	55	111	204	204	202
Net income after tax	38	78	143	143	143
New loan disbursement	1050.4	1409.5	1191.5	1547	2845.6
Liquidity(deposit/loan)	1.60	1.44	1.30	1.48	1.94
ROA	0.02	0.04	0.05	0.04	0.03
ROE	0.17	0.26	0.33	0.24	0.19

Bank -BANK OF ABYSSINIA .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	1627	2177	2721	3478	4494
Net loan	1173	1902	2197	2567	2443
Paid up capital	166	265	265	315	318
Equity	254	402	403	420	519
Total Asset	2057	2834	3396	4270	5477
Net income before tax	82	122	95	22	145
Net income after tax	61	85	67	15	100
New loan disbursement	424.2	885.9	794.9	1934.3	1367.2
Liquidity(deposit/loan)	1.39	1.14	1.24	1.35	1.84
ROA	0.04	0.04	0.03	0.01	0.03
ROE	0.24	0.21	0.17	0.04	0.19

Bank - WEGAGEN BANK .

(in millions ETB

Particular	2005	2006	2007	2008	2009
Net deposit	1288	1778	2724	2966	3728
Net loan	951	1516	2060	2208	1984
Paid up capital	113	151	338	381	532
Equity	180	255	403	605	836
Total Asset	1616	2259	3480	4125	5118
Net income before tax	63	94	153	190	256
Net income after tax	48	71	112	139	181
New loan disbursement	1284.6	1997.3	2019.1	2754.1	2153.2
Liquidity(deposit/loan)	1.35	1.17	1.32	1.34	1.88
ROA	0.07	0.06	0.07	0.09	0.13
ROE	0.27	0.28	0.28	0.23	0.22

Bank - UNITED BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	865	1220	1541	2443	3616
Net loan	570	975	1368	1810	2086
Paid up capital	88	132	268	335	362
Equity	125	191	360	468	520
Total Asset	1073	1599	2183	3250	4652
Net income before tax	43	60	87	126	134
Net income after tax	31	44	64	91	94
New loan disbursement	342.5	629.7	359.9	746.8	1452.9
Liquidity(deposit/loan)	1.52	1.25	1.13	1.35	1.73
ROA	0.04	0.04	0.04	0.04	0.03
ROE	0.25	0.23	0.18	0.19	0.18

Bank - COPERATIVE BANK OF OROMIA .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	15	98	277	490	789
Net loan	3	126	236	318	588
Paid up capital	113	121	127	133	146
Equity	112	122	130	148	156
Total Asset	129	224	424	678	1023
Net income before tax	-1.1	-4.19	2.4	15	3.6
Net income after tax	-1.1	-4.19	2.4	12	2.4
New loan disbursement		214.9	470.4	1337.6	581.5
Liquidity(deposit/loan)	5	0.78	1.17	1.54	1.34
ROA	-0.01	-0.02	0.01	0.02	0.00
ROE	-0.01	-0.03	0.02	0.08	0.02

Bank - NIB INTERNATIONAL BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	1223	1452	1879	2470	3296
Net loan	1086	1418	1755	2034	2118
Paid up capital	160	200	307	426	488
Equity	224	285	425	598	729
Total Asset	1732	2027	2607	3650	4807
Net income before tax	66	81	106	159	219

Net income after tax	46	58	76	113	154
New loan disbursement	375	469.7	540	1144.1	1234.3
Liquidity(deposit/loan)	1.13	1.02	1.07	1.21	1.56
ROA	0.04	0.04	0.04	0.04	0.05
ROE	0.21	0.20	0.18	0.19	0.21

Bank - LION INTERNATIONAL BANK .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit			122	375	704
Net loan			74	180	465
Paid up capital			140	177	194
Equity			135	171	192
Total Asset			266	574	952
Net income before tax			-5	-1	4
Net income after tax			-5	-1	3
New loan disbursement			56.4	197.3	452.2
Liquidity(deposit/loan)			1.65	2.08	1.51
ROA			-0.02	0.00	0.00
ROE			-0.04	-0.01	0.02

Bank -DEVELOPMENT BANK OF ETHIOPIA .

(in millions ETB)

Particular	2005	2006	2007	2008	2009
Net deposit	682	636	575		
Net loan	3410	3562	3867		
Paid up capital	1800	1800	1800		
Equity	1850	1875	1870		
Total Asset	4546	4958	5559		
Net income before tax	56	34	44		
Net income after tax	46	25	32		
New loan disbursement	219.9	572.0	779.0		
Liquidity(deposit/loan)	0.20	0.20	0.10		
ROA	0.01	0.01	0.01		
ROE	0.02	0.01	0.02		