Addis Ababa University
School of Graduate Program

School of Business and public Administration

Department of Accounting and Finance

Possibility of Syndicate Lending in Ethiopia Banking Industry. (Case of selected eight banks).

BY

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Declaration

Here with I, declare that, this thesis is prepared for the partial fulfillment of the requirements for MSC. Degree in Accounting and Finance entitled "**Possibility of Syndicate lending in Ethiopia banking industry (Case of Selected Eight Banks in Ethiopia)"** is prepared with my own effort. I have made it independently with the close advice and guidance of my advisor.

Tekalign Mekonnon

Signature ———————————

Date ———————————

Certification

Here with I state that Ato Tekalign Mekonnon has carried out this research work on the topic entitled "**Possibility of Syndicate lending in Ethiopia banking industry (Case of Selected Eight Banks in Ethiopia)"** under my supervision. This work is original in nature and has not presented for a degree in any university and it is sufficient for submission for the partial fulfillment for the award of MSc degree in Accounting and Finance.

Venkati Ponnala (PhD)

Signature ———————————

Date ———————————

Abstract

There is a considerable expansion of the volume of syndicated loans in emerging markets in the recent years. While until recently large majority of loan transactions in Ethiopia historically have been bilateral transactions that are provided by single banks.

This thesis empirically investigates factors that influence the possibility of syndicate lending in Ethiopia banking industry using the financial information of 8 banks for the period of 2005-2010.

The study investigate significant role of loan characteristics and of lending limit, liquidity, capital adequacy and concentration on the possibility of syndicate lending on Ethiopia banking industry.

The result of the study indicates that lending limit and liquidity positively influences the possibility of syndicate lending in Ethiopia banking industry while capital adequacy and concentration negatively influences. This shows Banks does not join loan syndications when their capital levels are sufficient enough to support the extra risk taken.

The results of the study also support the efforts of authorities to increase banking competition and efficiency, and to implement binding banking regulation on capital requirement to promote the possibility of syndicated loan.

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LIST OF ACRONYMS

SPV- Special Purpose Vehicle

PB- Participating bank

RCB -Reference credit bureau

CB -Catalyst banks

IFC- International Finance Cooperation

GDP- Gross domestic Product

NPL-Non Performing loan

ANOVA – Analysis of Variance

Table of Content

List of figures, Charts and Table **Page**

Chapter One:

1. Introduction

1.1. Background of the study

Loan syndications have become an increasingly important part of the financial landscape. One of the major advantages of syndicated lending over bonds or series of bilateral loans is the speed with which the required funding can be obtained. Therefore, the duration of loan syndication process (i.e. the time between starting the syndication process and its completion, when the deal becomes active) is considered as the critical stage for the creation of a syndicated loan because both the borrower and the arrangers are at risk (Rhodes, 2004), and thus is an important criteria when borrowers are choosing to apply for a syndicated loan.

A bank syndicate is a group of banks making a loan jointly to a single borrower. Although the contract is the same for all banks in the lending syndicate, they do not necessarily receive the same return on their loans. Besides periodical interest payments, banks also receive *up-front fees* at the time the contract is signed. These upfront fees can differ across banks. The loan syndication process starts with negotiations between the borrower and a bank (the "arranger" or the "leader") on the terms and provisions of the debt contract. The arranger then collects confidential bids from other banks (the "members") regarding their contributions to the loan. Finally, they precede to

the allocation of the loan parcels. In addition to initiating and setting up the syndicate, the arranger has to issue the legal documents, administer the loan, and hold the collateral, if any. In practice however, the arranger often delegates these administrative tasks to other banks, acting as co-agents.

For instance, the "documentation agent" drafts the loan documents, the "administrative agent" calculates the interest payments and collects loan repayments, and the "collateral agent" is in charge of the pledged collateral.

Loan syndication is the most common form used for funding project finance deals, especially when it involves large sums. This is especially true for energy and infrastructure projects. Banks can also have several motivations to syndicate loans. First, syndication allows the diversification of loan portfolios. Second, it avoids excessive single-name exposure which can be prohibited by banking regulation, preserving the commercial relationship with the borrower.

Limitations on interstate banking closely link the fortunes of small and mid-sized banks to those of their local and regional economies. Participating in syndicated loans can give these banks a chance to lend to borrowers in regions and industries to which they might otherwise have no convenient access.

Additionally, syndicated loans allow circumvention of bank's lending limits. Moreover, syndicated loans reduce the cost of borrowed funds; as a result it will contribute to favor the financing companies. While considerations of capital and diversification encourage the development of syndications, they may pose an increased risk for the banking system. Lead banks in syndications are responsible for providing credit information and loan documentation to

participating banks to the extent that lead banks may behave opportunistically and withhold unfavorable information from participating banks, the latter may be misled into making loans that are riskier than they had thought and at the same time, this paper will try to provide empirical tests to support the importance of bank regulation, in the form of capital requirements and lending limits, to the existence of the loan syndication market**.** Capital constraints also promote loan syndications. Banks that find themselves with capital-asset ratios below or close to regulatory minimums may not want to increase assets by adding large loans to their balance sheets and may choose, instead, to share them with other banks by syndicating them. Furthermore, banks are limited in the size of the loan they can make to any one borrower. Typically, a bank may not lend to any one borrower an amount in excess of 25 percent of its capital. Participating in a syndicated loan thus allows a small bank to make a loan to a large borrower it could not otherwise make.

On the other hand, the expansion of syndicated loans increases the diversification possibilities for banks in terms of risk and income, which decreases the likelihood of bank failures. As a consequence, the expansion of syndicated loans contributes to financial stability, which is a fundamental issue for underdeveloped economies.

Consequently, the expansion of syndicated loans contributes to the economic development of emerging countries, by encouraging financial development, which has been shown to favor growth (e.g. Levine, 2005 for a survey) and by reducing financial instability.

Furthermore, some potential benefits also exist for the borrowers. Indeed, according to Allen (1990) and Atlunbas and Gadanecz (2004), syndicate loan are less costly than issued bonds in terms of origination fees, then a series of bilateral loan agreements in terms of spread and in comparison to bonds, syndicated loans can be arranged more quickly and more discreetly than bonds.

Therefore, the main aim of this quantitative research approach is to provide empirical tests to determine the relative importance of the various factors that play a role in banks loan syndications. At the same time, it will investigate the role lending limit, in the form of capital requirements and capital adequacy and liquidity to the existence of the loan syndication market in the financial market of Ethiopia banking industry and to favor financial market development and stability.

1.2. Statement of the Problem

A bank can have several motivations to syndicate loan. First, syndication allows the diversification of loan portfolios. Second, it avoids excessive single-name exposure which can be prohibited by banking regulation, and this preserves the commercial relationship with the borrower. Third, it generates fee income for the lead bank, which can then diversify its income sources. Fourth, it allows banks suffering from a lack of origination capabilities in certain type of transaction to fund loans.

These motivations should however be put into perspective with the potential agency problems generated by syndicated loans. Indeed there exists an adverse selection problem as the lead bank, owning information unavailable to the participants, may syndicate loans with the less favorable information. Furthermore a moral hazard problem arises from the fact that all participating banks have fewer incentives for monitoring than one bank granting the full loan (Pennacchi, 1988).

Some potential benefits also exist for the borrowers. Indeed, according to Allen (1990) and Altunbas and Gadanecz (2004), syndicated loan are less costly than issued bonds in terms of origination fees, then a series of bilateral loan agreements in terms of spread. Furthermore, in comparison to bond, syndicate loans can be arranged more quickly and more discreetly than bonds.

The benefits of syndicated loans for banks and borrowers show that their expansion is important for economic development of financial markets. On the one hand, this expansion contributes to enhance the sources of external finance and consequently favors investment in under developed countries. Because of the low development of financial markets in these countries, bonds are a limited alternative to bank loans for firm requesting large loans. Additionally, syndicated loan allow circumvention of bank's lending limits. Moreover, if syndicated loans reduce the cost of borrowed funds, they also contribute to favor the financing of companies. On the other hand, the expansion of syndicated loans increases the diversification possibilities for banks in terms of risk and income, which decreases the likelihood of banks failure. As a consequence, the expansion of syndicated loans contributes to financial stability, which is a fundamental issue for emerging economies.

Consequently, the expansion of syndicated loans contributes to the economic development of under developed and emerging countries, by encouraging financial development, which has shown to favor growth (e.g. Levine, 2005 for a survey) and by reducing financial instability.

It is therefore of utmost interest to identify factors that hinder the possibility of syndicating a loan in Ethiopian Banking industry. Therefore, the factors that influence the possibility syndicate decision are expected to be those which banks believes will modify the benefits and costs of syndicated loans. These factors are loan characteristics but they can also be others variables taking the

institutional framework into account. Mainly to investigate financial concentration, banking regulation, loan size, maturity date of the loan and loan diversification are factor that highly influences the possibility of loan syndication.

Indeed, these factors provide policy oriented advice for the authorities in favor of the expansion of syndicated loans, and therefore in favor of financial development and stability.

These determinants also help explain factors that highly affect the possibility of syndicate loan in Ethiopia banking industry. Former empirical literature on syndicated loans is relatively scarce. Most studies however focus on another issue: identifying the size and composition determinant of loan syndicates, all on developed economies. They support the positive role of several factors in this decision, with notably those related to the transparency of the borrower and the maturity of the loan. This study will identify the factors that highly affect bank's decision to syndicate a loan in Ethiopia banking industry**.** Basically, this paper will investigate the role of country-level variables for legal environment, financial market development, institutional problem and banking regulation on syndicated loan. Indeed, there is substantial evidence that institution framework plays a role in bank behavior (e.g. Qian and Strahan, 2007), which suggest the potential role of these country-level variable. In addition to country-level variable such as lending limit, capital adequacy and liquidity, these study will also examines different determinant that influence possibility of syndicate lending such as loan size, maturity of the loan,

loan/asset diversification, publicly available information about the borrower and concentration that affect banks decision to syndicated loans. So that, the researcher is aspired to fill the gap between the previous studies in this aspect and to show factors highly affects possibility of syndicated loan in Ethiopian banking industry.

1.3 Objective of the study

1.1.3 General objective of the study

The general objective of this study is to empirically investigate the relationship between a numbers of potential factors that influences syndicate lending possibility in Ethiopia banking industry. Mainly to examine lending limit, concentration, liquidity, capital adequacy, loan size, maturity date of the loan and loan diversification that highly influences the possibility of loan syndication.

1.4 Hypotheses of the study

In order to achieve the objective of the study, the following hypotheses is formulated and tested regarding the factors that influence possibility of syndicated loan in Ethiopia banking industry.

These hypotheses can be formulated as follows:

Hypotheses for Loan characteristics

H1. Increased loan size is expected to positively influence the possibility of syndicate a loan.

H2. Maturity of the loan is also considered, to have a negative impact on possibility of syndicate loan. A greater maturity is associated with greater monitoring costs as long-term loans incur control of collateral and covenant costs.

H3 Publicly available information about the borrower positively influences the possibility of syndicate lending.

H4. Concentration, defined as the assets of the three largest banks as a share of all bank assets, proxies market structure of the banking industry. Several arguments imply a negative influence that this variable will have on the possibility of syndicate a loan.

H5. Asset diversification should positively affect the syndication process since they foster motivation for the diversification of loan portfolios.

Hypotheses for country level variables in the study

H1. The first category of country-level variables examines the role of lending limit. Lending limit is measured by loan-to-capital ratio and it is expected to have positive influences.

H2. Capital adequacy is measured by the ratio of equity to total assets. The amount of a bank's capital puts a limit on the losses it can bear; hence, the loan supply function of banks is directly related to their capital adequacy. We expect a positive relationship between availability

of capital to support the extra risk and the decision to join in loan syndications.

H3. Liquidity is proxies by the ratio of liquid assets to deposits, which signals the availability of funds to meet loan demand quickly. Banks are expected to participate in syndications if they have sufficient available liquid funds; therefore a positive sign is expected for this coefficient

1.5 Research Methodology

To achieve the objectives stated in the above section, the study was mainly used the empirical investigation on the factors influencing possibility of syndicate lending in Ethiopia banking industry for six consecutive years cross-sectional-time series data have been used in this study. The data for the empirical analysis was gathered from both primary and the intensive secondary data review of banks of under this study were used.

1.5.1 Data source

Various sources were used for data collection. The book value based yearly financial data was collected from the audited financial statements of sample banks; loan reports and financial publications data was gathered from National Bank of Ethiopia. Besides, related books, journals articles and various manuals have been also used as sources of data.

1.5.2 Sample frame and sample size

The sample size was determined by the availability of information on the variables under the study. Currently, twelve private banks are working in

Ethiopia and eight private banks were selected as a sample for the study over the period of five years from 2005 to 2010. Selected 8 bank's financial information for six years (2005-2010) was treated in this study.

1.5.3 Method of Data collection

Appropriate method of data collection tools helped researchers to achieve its objective and to overcome some inconvinces of any source of data in order to reduce problem of drawing wrong conclusion. The characteristic of good research indicates that research conducted by using appropriate data collection method promote the acceptability and value of the research.

Therefore, questionnaires, interview, and document/financial statement review were used for this research to collect information, which are relevant to address problem under the study, from manuals and audited financial statements of each banks included in the sample frame.

1.5.4. Econometric approach

The general model and variables

For analyses purpose, the possibility of syndicated loan treated as the dependant variable, and lending limit, capital adequacy, liquidity Concentration, publicly available information about the borrower, Asset diversification, loan size and maturity of the loan as independent variable. The table below summarizes the list of explanatory variables to be examined in this study, the measures to be used to represent them, and their expected effect on the dependant variable.

Model Specification:

The specification taken is as follows:

Possibility of syndicated loan = β0 + β1 (Lending limit) + β2 (Capital adequacy) + β3 (Liquidity) + β4 (Maturity date) + β5 (Loan size) + β6 (Asset diversification) +β7(Concentration) +β8(Publicly available information about the borrower) + ἐ .....equ 1.

a. Lending limit= Measured loan-to-capital ratio
b. Capital adequacy= Equity –to- total asset ratio
c. Liquidity= Liquid asset-to-deposit ratio
d. Concentration = the asset of the three largest banks as a share of assets, proxies' market structure of the banking industry.
e. Asset diversification = A dummy variable is used.
f. Loan size = A dummy variable is used.
g. Maturity of the loan = A dummy variable is used.
h. Publicly available information about the borrower= A dummy variable is used.

Table 1.1 Potential factors that influence syndicated loan, corresponding measures and hypothetic effects on possibility of syndicated loan.

Factors	Measures(proxies)	Expected impact on possibility of syndicated loan
Lending Limit	Measured loan-to-capital ratio	(+)
Capital adequacy	Equity –to- total asset ratio	(+)
Liquidity	Liquid asset-to-deposit ratio	(+)
Concentration	The asset of the three largest banks as a share of assets, proxies' market structure of the banking industry.	(-)
Asset diversification,	A dummy variable.	(+)
Loan size	A dummy variable used.	(+)
Maturity of the loan	A dummy variable used.	(+)
Publicly available information about the borrower	A dummy variable used.	(+)

1.5.5 Methods Data analysis

In order to achieve the objective of the study and to test the proposed hypotheses, the statistical analyses techniques have been adopted for analysis

of data especially using the following method: First, the mean standard deviation and the different percentiles of the dependant variable (possibility of syndicate lending) are calculated for all of the banks over the sample period. Second, s correlation test is run separately for each significant explanatory variable influencing the possibility of syndicate lending for sampled Ethiopia banks from the list of hypothesized independent variables. Then, in order to test the causal relation between the possibility of syndicate lending and its potential determinants, ordinary least squares regression is conducted using the statistical package .Finally, several ANOVA tests is carried out to determine the most significant and influential explanatory variables affecting the possibility of syndicate lending in Ethiopia Banking industry and to test fitness of the model the study.

1.6 Significance of the study

To this end, the study may serve as stepping-stone for other studies, which may focus on similar topics and issues, related to syndicate loan in general and factors that influence the possibility of syndicated loan in Ethiopia baking industry in particular. It will also important for policy maker for preparing to syndicated loan and related regulation. Furthermore, the study will also enables the lender and borrower how to overcome potential factors that highly affect the possibility of syndicated loan in Ethiopia banking industry.

1.7 Scope and limitation of the study

There are various types of financial institutions operating under various sector of economy but, this study concentrates on the private commercial banks of Ethiopia excluding public banks and microfinance. Furthermore this study limits its coverage on the possibility of syndicated loan and factor that influence the possibility of syndicated loan in Ethiopia banking industry for the past six years, that is, from 2005 to 2010. The research data is based on intensive secondary data review and primary data was also used in the form of questionnaires.

Lack of previously conducted studies on similar topic and accessibility of sufficient current literature on the subject of syndicated loan in the Ethiopian banking industry context makes this study very difficult.

1.8 Organization of the paper

The paper has contained four chapters. The first chapter presented background of the study, statement of the problem, objectives, hypotheses, significance, and scope and limitations of the study. Discussion in chapter two focuses on literature review of important concepts that are relevant to the study. The third chapter deals with the methodologies, which include data source, sampling frame and sampling size, data collection instrument, data analysis method and variable in the study. Finally, the fourth chapters will present about result and discussion, and conclusion and recommendation respectively.

Chapter Two

2. Literature Review

The previous section discuss introduction of the study, statement of the problem and objective of the study mainly. And this section presents theoretical frame works relating to the study under investigation, Empirical evidences and knowledge gap discussed in details in this section.

2.1 Theoretical frame work

Over the past two decades, the syndicated loan market has become the most important source of global corporate financing. International syndicated lending amounted to $1.8 trillion in 2009, surpassing the $1.5 trillion of corporate borrowing in international bond markets (Chui et al., 2010). Unlike a traditional bank loan, which typically involves a single creditor, a syndicated loan unites a group of lenders in which a lead arranger originates the loan and performs due diligence and monitoring, and the participant banks fund parts of the loan (Esty, 2001).

A syndicated loan is a single facility financed by a group of lenders under the same contractual conditions. Although the contract is the same for all banks in the lending syndicate, they do not necessarily receive the same return on their loans. A syndicated loan is a loan for which at least two banks jointly grant funds to a borrower. In a nutshell, a lead bank establishes a relationship with

the borrower and negotiates the term of the loan agreement. This bank then finds participant banks which grant a share of the loan, receiving fees for this activity.

One of the major advantages of syndicated lending over bonds or series of bilateral loans is the speed with which the required funding can be obtained. Therefore, the duration of loan syndication process (i.e. the time between starting the syndication process and its completion, when the deal becomes active) is considered as the critical stage for the creation of a syndicated loan because both the borrower and the arrangers are at risk (Rhodes, 2004), and thus is an important criteria when borrowers are choosing to apply for a syndicated loan.

For borrowers, this duration is of particular interest since it influences the speed at which funds can be obtained. Indeed, one of the main reasons for choosing a specific bank to arrange syndication is the speed with which that bank can act. The arranger is the key figure in syndication because it is the privileged agent in the relationship between the borrower and the syndicate.

Borrowing by way of a loan facility can provide a borrower with a flexible and efficient source of funding. If a borrower requires a large or sophisticated facility or multiple types of facility this is commonly provided by a group of lenders known as a syndicate under a syndicated loan agreement. A syndicated loan agreement simplifies the borrowing process as the borrower uses one agreement covering the whole group of banks and different types of facility

rather than entering into a series of separate bilateral loans, each with different terms and conditions.

2.2 Types of facility commonly syndicated

Two types of loan facility are commonly syndicated: term loan facilities and revolving loan facilities.

Term Loan Facility:

Under a term loan facility the lenders provide a specified capital sum over a set period of time, known as the "term". Typically, the borrower is allowed a short period after executing the loan (the "availability" or "commitment" period), during which time it can draw loans up to a specified maximum facility limit.

Repayment may be in installments (in which case the facility is commonly described as "amortizing") or there may be one payment at the end of the facility (in which case the facility is commonly described as having "bullet" repayment terms). Once a term loan has been repaid by the borrower, it cannot be re-drawn.

Revolving Loan Facility:

A revolving loan facility provides a borrower with a maximum aggregate amount of capital, available over a specified period of time.

However, unlike a term loan, the revolving loan facility allows the borrower to drawdown, repay and re-draw loans advanced to it of the available capital during the term of the facility. Each loan is borrowed for a set period of time, usually one, three or six months, after which time it is technically repayable. Repayment of a revolving loan is achieved either by scheduled reductions in the

total amount of the facility over time, or by all outstanding loans being repaid on the date of termination. A revolving loan made to refinance another revolving loan which matures on the same date as the drawing of the second revolving loan is known as a "rollover loan", if made in the same currency and drawn by the same borrower as the first revolving loan. The conditions to be satisfied for drawing a rollover loan are typically less onerous than for other loans.

A revolving loan facility is a particularly flexible financing tool as it may be drawn by a borrower by way of straightforward loans, but it is also possible to incorporate different types of financial accommodation within it - for example, it is possible to incorporate a letter of credit facility, swing line facility or overdraft facility within the terms of a revolving credit facility. This is often achieved by creating a sublimit within the overall revolving facility, allowing a certain amount of the lenders' commitment to be drawn in the form of these different facilities.

General Facility:

Syndicated loan agreements may contain only a term or revolving facility or they can contain a combination of both or several of each type (for example, multiple term loans in different currencies and with different maturity profiles are not uncommon). There can be one borrower or a group of borrowers with provision allowing for the accession of new borrowers under certain circumstances from time to time. The facility may include a guarantor or

guarantors and again provisions may be incorporated allowing for additional guarantors to accede to the agreement.

2.3 Parties to a syndicated loan

The syndication process is initiated by the borrower, who appoints a lender through the grant of a mandate to act as the Arranger (also often called a Mandated Lead Arranger) on the deal. There is often more than one Arranger on any transaction but for the purposes of this note we will refer to this role in the singular.

The Arranger is responsible for advising the borrower as to the type of facilities it requires and then negotiating the broad terms of those facilities. By the very nature of this appointment, it is likely that the Arranger will be a lender with which the borrower already has an established relationship, although it does not have to be. At the same time the Arranger is negotiating the terms of the proposed facility, one of the Arrangers appointed by the Borrower to act as *Book runner* also starts to put together a syndicate of banks to provide that facility.

Syndication is often done in stages, with an initial group of lenders agreeing to provide a share of the facility. This group of lenders is often referred to as *Co-Arranger,* although other titles may be used - however, we shall continue to refer to this group of lenders as Co-Arrangers for the purposes of this note. The

Co-Arrangers then find more lenders to participate in the facility, who agree to take a share of the Co- Arrangers' commitment.

To facilitate the process of administering the loan on a daily basis, one bank from the syndicate is appointed as Agent. The Agent who is appointed acts as the agent of the lenders not of the borrower and has a number of important functions:

- Point of Contact: (maintaining contact with the borrower and representing the views of the syndicate)
- Monitor: (monitoring the compliance of the borrower with certain terms of the facility)
- Postman and Record-keeper: (it is the agent to whom the borrower is usually required to give notices)
- Paying Agent: (the borrower makes all payments of interest and repayments of principal and any other payments required under the Loan Agreement to the Agent.

The Agent passes these monies back to the banks to which they are due.

Similarly the banks advance funds to the borrower through the Agent).

The terms of a syndicated loan agreement empower the Agent to undertake the roles described above in return for a fee. Any decisions of a material nature (for example, the granting of a waiver) must usually be taken by a majority, if not by the whole syndicate. Whilst the Agent carries the standard duties and responsibilities of any agent under English Law, the facility agreement will

contain a number of exculpatory provisions to limit the scope of the Agent's relationship with the syndicate lenders and with the borrower.

If the syndicated loan is to be secured, a lender from the syndicate is usually appointed to act as Security Trustee to hold the security on trust for the benefit of all the lenders.

The duties imposed upon the Security Trustee are typically more extensive than those of an agent.

In large syndicates, it is sometimes decided that some decision making power should be delegated to the majority from time to time (often referred to as the 'majority lenders' or 'instructing group'). This group usually consists of members of the syndicate at the relevant time that holds a specified percentage of the total commitments under the facility. By delegating some of the decision-making, the mechanics of the loan are able to work more effectively than if each and every member of the syndicate had to be consulted and subsequently reach unanimous agreement on every request from the borrower.

2.4 The process of loan syndication

Bank loan syndication can be considered as a sequential process, which in turn can be separated into three phases.

The Pre- Mandate Phase

The loan syndication is designed to incorporate the concerns of all the counterparties to the loan. It starts with a formal request by the prospective borrower (SPV) to the bank to advise and manage the process. The SPV mandates the bank to be a lead manager. Alternatively the SPV can invite for

competitive bidding where a number of banks with favorable terms of the loan are chosen to lead the syndicate and undertakes to underwrite the loan. In this case, the banks appoint the lead manager. This result in the award of the mandate to the lead bank, which identifies the interests of the SPV, designs an appropriate loan structure, develops a convincing credit proposal and obtains internal approval for marketing of the loan to prospective banks.

Marketing of the Loan

To address the concerns of the prospective participating banks, the lead bank, prepares an information memorandum, term sheet, legal documentation and approaches selected banks to invite for participation. The information memorandum includes an overview of the project, its general background, the Project Company, its ownership, organization and management, financial and other information on sponsors and other major parties, experience in handling similar projects and their support for the current project. In addition, to ensure market risk is mitigated the commercial basis for the project (market situation) covering supply and demand particularly the off-taker of the output of the proposed project.

A full analysis of the project risks – completion risk, market, political, technology, and force majeure risks is done at this stage to ascertain whether the project is bankable. All contracts pertaining to the sharing and allocation of the risk to parties competent to handle them are cross checked by prospective banks' advisors to ensure the project meets financing criteria.

At the request of the parties, project costs and financial plan, cash flow and the sensitivity analysis, technical description of the construction and operation of the project are also availed. In case there are issues for clarification, the borrower is called on to participate in negotiations. When agreement is reached, each participating bank (PB) agrees to contribute a proportion of the loan and signs the syndication agreement. This confirms that funds would be available to the project based on the agreed financial plan.

Administration of the loan

After signing the syndicate agreement, banks select the agent to administer the loan, ensure coordinated monitoring of the project performance. The agent acts as a conduit between the SPV and all the participating banks (Yescombe, 2002). All issues that are related to project implementation, administration, loan drawdown and repayments are communicated through the agent to all counterparties. The agent receives drawdown from according to their quota for onward transmission to the borrower. After the construction phase, the agent receives loan repayments from the SPV and remits them to the respective banks.

Generally, during the pre- mandate phase, the borrower solicits competitive offers from banks to arrange and manage the syndication. It then chooses a lead bank, which is mandated to form a syndicate, and negotiates a primary loan agreement. The lead bank is responsible for the negotiation of key loan terms with the borrower. It acts as the syndicate's agent, which involves such task as funds administration, interest calculation, and covenant enforcement.

During the post- mandate phase, the lead bank begins the syndication process by drafting a preliminary loan contract, preparing a documentation package for the potential syndicate members, and also inviting them to participate. The borrower and the lead bank jointly produce an information memorandum for the potential participants, i.e. the banks which might join the syndicate by funding a share of the loan. The memorandum usually contains information about borrower creditworthiness and the loan terms. A road show is then organized to present and discuss the content of the memorandum during which the participants can influence the loan characteristics.

After the road show, the lead bank makes formal invitations to potential participants. The lead bank, trying to avoid over-subscription and under-subscription, tend to target participants with the "largest appetite" for the loan, making invitation to bank willing to supply the most funds, given the structure of the loan. Then the lead bank determines loan allocation for each participant bank. In the case of over-subscription, the borrower may choose a larger loan or the lead bank can scale back allocations. If the syndication is under-subscribed, the lead bank must either make up the difference or change loan terms or re-market the deal.

The third and last phase takes place after completion. The loan becomes operational, binding the borrower and the syndicate members by the debt contract.

Lender compensation comes in several forms. When the loan agreement is signed, lenders receive closing fees to compensate them for the credit approval.

While the lead bank earns an arrangement fee, participant banks may expect to receive a participation fee for joining the syndicate, the actual size of which may vary in accordance with the size of the commitment. Once credit is established and as long as it is not drawn, the syndicate members often receive a facility fee proportional to their commitment. As soon as the facility is drawn, the borrower may have to pay a per annum fee, usually to cover the costs of administering the loan.

2.5 The obligations of parties to the syndicate.

Obligations of Lenders

The provisions of the credit agreement detail and cover the obligations of both the SPV and the syndicate banks. This is obligatory if the deal is to be syndicated. Lenders agree to make financial resources available up to a preset maximum amount and on request by the SPV. The commitment of participating banks to a quota of the total amount of the loan precludes responsibility for the obligation to make payments for any other bank (Graham, 1998).

Failure of one bank to fulfill its obligations to make advances to the SPV, the other banks are not held to make-up for the shortfall. Only the underwriting bank, takes this risk to find funds to compensate for the shortfall.

It is the responsibility of the individual bank to ensure that their respective portion of the loan is paid according to the financial plan. Banks have rights to get their portion of loan repayment in accordance with the provisions of the

agreement. In fact all the monies obtained from the borrower (SPV), is shared equitably based on the proportions of their loan contributions. They are also obligated to decide whether to continue lending during the subsistence in the event of a default. However, this should not amount to stifling the smooth implementation of the project, when it complies with its obligations.

Obligations of the Borrower (SPV)

The SPV is responsible for all project activities starting from construction phase in liaison with the contractor and ensuring that the project is going on as planned. It receives draw downs from the agent as provided for in the credit agreement. It is the responsibility of the SPV to ensure that the project passes the completion test and performs as per the agreed performance levels. In the operation phase, the SPV makes payments to the agent as provided for under the repayment schedule. The SPV must ensure adherence to the cover ratios, covenants, undertakings, representations and warranties. Failure to adhere would constitute an event of default which leads to termination of the loan, acceleration or reducing the tenure of the loan.

The SPV does not take any direct risk as to whether the syndication is successful or not. By the time a syndicate loan agreement is signed, the loan agreement should have been signed and thus underwritten by the lead managers. The onus is on the SPV to resist any delaying tactics by the lead managers to avoid signing the loan agreement till the loan is syndicated to eliminate their underwriting risk (Yescombe, 2002).

Obligations of the Agent

The loan is exclusively granted for a specific purpose specified in the credit agreement. It cannot therefore be used for any other purpose without the approval of the syndicate banks. It is the responsibility of the agent to enforce this. In case the agent detects that the loan has been diverted, this amounts to a default. Therefore banks can terminate the loan or may force the SPV to make early repayments16 if there is evidence to the effect that the borrower will not be able to repay the loan. It is the duty of the agent to monitor and inform the participating banks the status of the performance of the loan. The agent however, has limited discretion to take minor decisions as spelt out in the credit agreement. Major decisions are taken with the approval of the syndicate. The agent is expected to act in the best interest of the syndicate and performs his duties with skill, care and due diligence.

2.6 Role of loan syndication.

Risk Diversification

According to Hurn, 1990 and Simons 1993, the standard theory of why banks join a syndicate is risk diversification. Project finance deals are non-recourse and therefore depend on the isolated and assigned cash flow from the project. With no recourse to project sponsors, in case of default, the bank that spread the risk by joining many syndicates faces a lower risk than one that finances projects individually. Winston, 1997 and Ongena, 2000 argue that diversification is important to enhance shareholder value by reducing monitoring cost and transactions costs. Bolton and Scharfstein 1996 raised the

issue of how many banks should be included in a syndicate. They developed a model of the optimal lenders and concluded that the borrower's incentive to default is limited under multiple lending due to the uncoordinated monitoring by participating banks. Their argument is based on the assumptions that all the banks cannot renegotiate and internalize the agreement, and do effective monitoring henceforth limits their ability to default for strategic reasons.

Mobilization of Funds

Since mid 1980s, loan syndication has been at the centre stage of financing large projects. In most cases, these projects require high credit facility18 that may not be mobilized by one bank

(Peter and Frank, 2000) Financing of energy, infrastructural project – bridges, roads, tunnels, railways and public services like hospitals, prisons, and universities require several billions of dollars which may not be available in one bank. In addition, banks have lending exposure limits to specific sectors. When the exposure limits are high, the solution is to join effort with other banks and contribute a portion of the loan as per the bank regulations.

This implies that in order to project finance deals with huge amounts, banks have to either adjust their exposure limits or join a syndicate (Christophe, 2008). As long as the project is bankable, banks with surplus funds are always happy to join the syndicate and enjoy its benefits. To participate in debt financing, banks employ advisors to ensure that all risks are allocated and the SPV has experience to implement the project in accordance with the provisions of the credit agreement. The main aspect of project finance is that lenders do

not have recourse to the sponsor for loan repayment, but to the SPV's assets and cash flow, therefore have to ensure that the project will generate revenue to repay the loan.

Risk Exposure

Risk sharing and exposure. Although the risks19 in project finance structure are transferred to parties competent to bear them, there is uncertainty that the project may not perform according to the financing plans and the credit agreement (Hurn 1990 and Simons 1993). The residual risk is also borne by all the participating banks. With many banks involved in the syndicate, the risks are shared according the proportions of their contributions to the loan. In case of default, each bank bears a proportion of the risk, which is offset by returns from successful projects. Banks are therefore cautious about the future performance of the loan portfolios.

Information Sharing

Information sharing between many participating banks reduces risk exposure. Banks are exposed to diverse information on borrowers, different sectors and different countries. They are best suited to handle risks related to those particular sectors and countries. A syndicate therefore acts as a reference credit bureau (RCB) on the borrowers and other sectors. This further reduces their risk exposure and enhances investment in projects with the highest returns on their equity (Peter and Frank, 2000). Information exchange is paramount for the success of a loan syndicate. However, information gaps between the members of the syndicate, can lead to agency problems

(Christophe, 2008). To the SPV, a harmonized channel of communication reduces costs and time that would otherwise been spent communicating to individual participating banks.

Competitive Pricing

Competitive pricing and more flexible funding structure benefits borrowers and the final consumers of the output or service produced by the project. In cases where the process of loan syndication is through competitive bidding, banks that offer the best terms of the loan are awarded the tender (Christophe, 2008). This eases the repayment schedule of the borrower in terms of reduction of interest rates, reduces cover ratios, and lessens loan tenure.

As a consequence, it increases the returns to equity and subordinated loans and leads to smooth implementation of the project. Although Stefano (2008) argues that competition in the sector has been stiff and differences in prices are minimal, it is important to note that stiffer competition results in normal prices and maximizes consumer welfare. In case of power projects where the tariff is a function of debt service among others, any reduction in interest rate benefits the power consumer.

Reduction in Marketing Costs

To the participating banks, syndication provides them with lending opportunities that have low marketing costs and chances to participate in future group financing. In developing countries, commercial banks may not be exposed and experienced to loan syndication, they are normally assisted by

catalyst banks (CB) or multilateral agencies21 to access the syndicated loan market (Sein, 1996). Many energy and infrastructure projects which require high capital have been supported through the assistance of International Finance Cooperation22 (IFC) as a lead arranger. This provides comfort and additional security to commercial banks to participate in debt financing.

Despite its roles, the transactions cost involved make loan syndication costly. Its success depends on a well designed credit agreement that provides for diverging interests of parties to the syndicate.

2.7 Measures to ensure successful loan syndication.

Default and Remedy Clause

The credit agreement clearly specifies the remedies in case of default. Default arises from non-payment of the loan, downslide in financial ratios, bankruptcy or Insolvency, noncompliance with covenants, warranties and non-payment by the sponsor of any other loan when due. However, all events of default must pass the materiality test in order to be considered as EoD. The remedies include loan cancellation, right to accelerate the loan, limitation of distributions to sponsors and step-in-rights (Stefano, 2008). All participating banks have the same rights to enforce these provisions, however some credit agreements provide right of enforcement to some banks.

The Sharing Clause

A sharing clause is intended to balance the interests of participating banks. It is designed to any proceeds from the SPV as a repayment of the loan or any other payment that results from default and all costs related to the syndicate in

accordance with their proportional loan contributions. The clause is aimed at protecting the minority banks from the majority participating ones. This ensures fair distribution of benefits to all participating banks and leads to successful syndication.

Loan Syndication Democracy

The credit agreement contains provisions for decision making by the participating banks. In this regard, the voting clauses are included to ensure that the syndicate obtains majority consensus before making a decision. Voting is according to bank participation and a majority vote would usually be obtained through a 50% simple majority or a 66% absolute majority rule, and whichever the case, this must be expressly provided in the syndication agreement.

This power to exercise the syndicate voting rights must be exercised in the interest of the syndicate, but not to the detriment of the voter. If adequately addressed in the credit agreement, the syndicate democracy clause should be very instrumental in balancing the decision making interests of the parties to the credit agreement. In case of major decisions like calling up a loan, step-in-right enforcement; syndicate democracy prevails if the events of default pass the materiality test.

Negotiation

This should normally be at the centre stage if loan syndication is to succeed in performing its role. All provisions of the credit agreement and other financing documents are subject to a comprehensive negotiation. In this regard, participating banks appoint advisors from different disciplines to negotiate and ensure that the terms of the agreements are favorable. If the bank feels that the terms are not in its favour, it has the liberty to leave the syndicate.

Appending the signature on the loan syndication agreement implies that all participating banks agree to the terms of the agreement and will comply accordingly.

2.8 Loan Syndication in emerging market

This section explains how the loan syndication process, is implemented, and highlights features to syndicated loans in emerging markets in the second subsection

Syndicated loan has an impressive increase of the volume of syndicated loans from 1992 to 2004, even considering the reduction after 2000. Surprisingly, after 1996, the number of issues has been halved and since, remained stable. These both trends suggest that the mean amount of the syndicated loan should have considerably increased since 1996.

2.9 Factors affecting the decision to syndicate a loan.

As mentioned before, syndicated loans present certain benefits and costs, which influence their use. Namely, banks may expect benefits from syndicated loans through the diversification of loan portfolios by reducing its implication

in large loans and sources of income with fee income obtained, the enforcement of the lending limits, the possibility for some banks suffering from a lack of origination capacities in certain type of transactions to participate to certain types of loans.

Like all bank loans, syndicated loans involve potential agency problems between the borrower and the lenders. However they also allow for specific agency problems between the member banks of the syndicate resulting from the loan syndicate structure.

The importance of these latter agency problems exerts consequently an impact on the decision to syndicate a loan. Syndicated loans generate two specific agency problems. First, the lead banks possesses more information about the borrower either because of the private information collected through a previous lending relationship, involving screening and monitoring efforts or through due diligence. This private information creates an adverse selection problem, as the lead bank may be inclined to syndicate loans from bad borrowers. However, such opportunistic behavior generates reputation risk for the lead bank and affects negatively the success of future syndications (Pichler and Wilhem, 2001).

Second, the participant banks delegate some monitoring task to the lead bank in charge of the loan documentation and notably of the enforcement of covenant and collateral. Nonetheless, the lead bank has less incentive to monitor the borrower than if it were lend the full amount of the loan (Pennacchi, 1988). As the efforts of the lead bank are unobservable for

participant banks, this results in a moral hazard problem, which is exacerbated with the opacity of the borrower.

Therefore, the factors that influence the syndicate decision are expected to be those which banks believes will modify the benefits and costs of syndicated loans. These factors are loan characteristics but they can also be country-level variables taking the institutional framework into account.

2.10 Loan Characteristics

First the role of several loan characteristics which might impact the possibility to syndicate a loan is presented. Increased loan size is expected to positively influence the decision to syndicate a loan. Indeed, the motives to diversify loan portfolios and to be in accordance with regulation are more likely to play a role for larger loans.

Maturity of the loan is also considered, although whether it plays a positive or negative role is ambiguous. On one hand, greater maturity is associated with greater monitoring costs as long-term loans incur control of collateral and covenant costs. As a consequence, the moral hazard problem involved in syndicated loans is enhanced and therefore reduces the attractiveness of the deal for participant banks, resulting in an overall negative impact on the decision to syndicate a loan. On the other hand, greater maturity is generally associated with a greater risk of loan default**,** which incites the lead bank to syndicate the loan for the diversification motive. Several loan characteristics is tested which provide lending banks with better protection in case of loan default and thus reduces loan loss. Such characteristics are expected to exert a

role on the syndication decision mainly through their impact on potential agency problem.

The first idea was to consider the presences of collateral in the loan agreement through a dummy variable equal to one if the loan is secured. However, since information on the presence of collateral is not available for one third of our observations, its inclusion in the estimations would have considerably reduced our sample. Instead two variables, which describes the increased protection of the lending banks in case of loan default.

The presence of guarantor in the loan agreement also taken into account and guarantor gives additional protection for the lenders, as the guarantor will honor a part of or the totality of the claim in the case of loan default. Therefore the presence of a guarantor mitigates agency problems resulting from adverse selection, in line with the better information owned by the lead bank on borrower. However empirical literature on the role of collateral in loan contracts provides evidence in favor of the "observed-risk hypothesis" according to which banks would be able to sort borrowers from information they have on their quality (Berger and Udell, 1990; Jimenez and Saurina, 2004). As a consequence, banks would ask more protection schemes from riskier borrowers. Accordingly, the presences of the guarantor may signal a riskier loan and, consequently, a loan plagued by greater agency problem. Such loans might be more difficult to syndicate owing to the potential difficulty faced by the lead bank when finding participating banks. We therefore expect a negative coefficient for this variable.

We also take debt seniority into account through a dummy variable equal to one if the debt is senior. Although debt seniority constitutes an additional protection for the banks in the case of loan default, its impact is ambiguous. If it works as an effective protection for the lenders, it should enhance the potential of syndication. But if the seniority does not apply equally to all syndicate members, its influence can be negative. Similarly, the "observed-risk hypothesis" also suggests a negative impact on this variable, as the request for seniority may result from the perception of a higher risk of the borrower.

The presences of covenants, which aim at restricting the discretionary power of the borrower, is taken into account with a dummy variable (Covenants) equal to one if the loan agreement includes covenants. Therefore, the presence of covenants in a loan agreement is expected to reduces the risk of loan default (Rajan and Winton, 1995), and enhance the ability to monitor the borrower, thereby reducing the monitoring costs. It appears that covenants should favor the decision to syndicate the loan since they mitigate agency problems from moral hazard behavior of banks during the monitoring process. However, empirical evidences tend to show the opposite: a positive link between the presence of covenants and the probability of default of the borrower (e.g. Foster et al., 1998). This is in accordance with the "observed-risk hypothesis", where riskier borrowers are offered more binding loan agreements. Therefore, arguments exist for both a positive and negative relationship.

2.11 Variables in the study

The next is variables which may be influential in the decision to syndicate a loan. Indeed, Esty and Megginson (2003) and Nini (2004) have pointed out that institutional factors might influence the syndication process in emerging markets. Therefore, the roles of the following variable are considered: the role of the legal environment, financial development, and banking regulation.

The first category of variables examines the role of financial development. Overhands, the ratio of banking overhand costs to total banking assets, measures cost inefficiency of a banking industry. Since syndicated loans imply the sharing of administration and origination costs, cost inefficiency is expected to encourage loan syndication; consequently, we expect a positive coefficient for this variable.

Concentration, defined as the assets of the three largest banks as a share of all bank assets, proxies market structure of the banking industry. Several arguments imply a negative influence that this variable will have on the decision to syndicate a loan. First, a greater concentration means a lower number of potential participants to join and form a syndicate.

Second, banks with greater market shares in a banking industry already benefit from diverse loan profitability, generally thanks to stronger market power.

Other two variables which take into account the development of financial markets, Stock Markets, defined as the value of listed shares to GDP, measures the development of stock markets. The expected sing of this variable is ambiguous. Allen and Gottesman (2006) have shown that stock markets and syndicated loan markets are highly integrated enabling information flow among markets. The development of stock markets contributes to information disclosure, which mitigates the adverse selection problem resulting form the private information owned by the lead bank on the borrower. Different literature shows a positive coefficient for this variable.

However one may also consider that stock markets are an alternative source of financing for large loans requested by companies. Therefore, one might consider that more developed stock markets reduce the potential for syndicated loans in a country, and consequently increase the share of bank loans which are not syndicated. Such influence should be even more prominent for the development of bond markets, measured with the ratio of domestic debt securities to GDP (Bank Markets), as bonds directly complete syndicated loans for large financing needs of bond companies. But this negative influence may also be offset by the positive impact of the existence of bond markets, which contribute to increase selection problem in syndicated loans. Consequently, the expected sign of the development of financial markets is ambiguous.

The second category of variables is banking regulation. In particular, this variable investigates the effect of the lending limit as measured by the loan-to-

capital ratio and the effect of capital requirements as measured by the capital-to-asset ratio.

Two independent variables measure the bank's capital constraints. The first is the capital-to – asset ratio. Regulators expect banks to maintain minimum capital-to-asset ratios, and most banks operate with capital ratios above the minimums. A bank that finds itself constrained in its capital-to-asset ratio, either because of regulatory requirements or because of its own internal standards, will be reluctant to lower the ratio by putting a large loan on its balance sheet or may choose instead to syndicate a portion of the loan. Therefore, the capital-to-asset ratio can be expected to be positively related to the lead bank's exposure to the syndicated loan.

The second measure of capital constraint is the size of loans extended to a borrower as a percentage of the bank's capital. In fact, the lending limit mandated by federal law prohibits national banks from lending to any one borrower an amount exceeding 25 percent of the bank's capita .While lending limits that apply to state-chartered banks can vary widely from state to state, some, mainly in New York State where many syndicating banks are chartered, follow federal law on lending limits.

Lending limits are sometimes cited as one of the reasons for the emergence of loan syndications and sales, since banks obviously have limited discretion over how much of a large loan they can retain. To test the importance of the lending limit for the sample of loans, this study calculated the ratio of syndicated loans to each borrower originated by each agent bank to that bank's capital. (Multiple

loans to the same borrower were aggregated since the lending limit applies to borrowers, not individual loans.) Somewhat surprisingly, the loan-to-capital ratio exceeded 15 percent for only 20 percent of syndicated loans in the data set. This result understates the importance of lending limits to the extent that agent banks also hold non-syndicated loans to the same borrowers these loans also count for the lending limit. And even if the externally imposed lending limit does not present a binding constraint for many syndications, banks themselves often have a self-imposed limit on their exposure to individual borrowers that may be up to 50 percent below the legislated limit. Consequently, the size of the loan relative to the agent-bank's capital can influence the decision to syndicate the loan, even if it does not exceed the lending limit.

The third and last category of variables takes legal environment into account. Following a large body of research on law and finance pioneered by La Porta et al. (1997), legal institutions may exert a role on the decision to syndicate a loan. The most obvious channel of this impact should be through the agency problems that syndicated loans induce.

Two indicators for legal institutions are included in estimations; protection of creditor rights is measured with the index provided by La Porta et.al. (1998) (Creditor Righter). This index is scored on a scale from zero to four with a higher score indicating better protection.

Law enforcement is measured with the "Rule of Law" index also provided by La Porta et.al. (1998) (Rule of Law). This indicator ranges from zero to ten with a higher score indicating a better enforcement of the law.

The expected sing of the coefficient for these both variables is ambiguous. On one hand, it is expected to have a positive coefficient, as a better legal protection of banks mitigates the moral hazard problem induced by syndicated loans. Indeed, a better protection of creditors decreases the need to monitor the borrower, which reduces agency problems resulting from the monitoring efforts of banks involved in the syndicate. On the other hand, on a more global basis, the agency problems resulting from all lending decisions should also be mitigated which may favor the choice of a standard loan rather than a syndicated loan for the lead bank. Indeed, the motivate of the risk-sharing should play a lesser role in well-protected legal environments

2.12 Empirical Evidences of possibility of syndicated loan.

Loan syndications have become an increasingly important part of the financial landscape. A syndicate is a group of banks making a loan jointly to a single borrower. Several factors are responsible for the desire to share a large loan among several lenders, chief among them the banks' need to achieve diversification in their loan portfolios.

Limitations on interstate banking closely link the fortunes of small and mid-sized banks to those of their local and regional economies. Participating in syndicated loans can give these banks a chance to lend to borrowers in regions and industries to which they might otherwise have no convenient access.

A number of papers provide empirical support for the theory on factors influencing the bank's decision to syndicated loan. To cite a few, Christophe J. Godlewski/ Laurent Weill (2007) founds that Loan Size has positive and significant impact in loan syndication in accordance with the motivates of the diversification of loan portfolios and of the regulatory- driven issue. The coefficient of Maturity is significantly negative influence in banks decision to syndicate loan. The finding can be explained by the fact that greater maturity strengthens the moral hazard problem through higher monitoring costs of the loan. The presence of covenants in the loan agreement matters and they found a positive and significant sign for Covenants in all estimations to banks decision to syndicated loan / to the possibility of syndicated loan This supports the view that Covenants contribute to mitigate the agency problems associated with syndicated loans.

According to Christophe J. Godlewski/ Laurent Weill (2007) oppositely**,** debt seniority plays a negative role in the decision to syndicate a loan/ in the possibility of syndicated loan. This finding may result from the fact that the rank of seniority does not apply homogenously for all member banks of the syndicate and might concern only the lead bank. This would result in making syndication less attractive for participant banks and thus limit the possibility to syndicate a loan. And only the presence of covenants exerts a positive influence on the decision to syndicate the loan.

In addition they found, the fact that publicly available information positively favors banks decision to syndicate a loan/the possibility of syndicated loan. Such information mitigates the adverse selection problem results from the better information possessed by the lead bank on the borrower.

Christophe J. Godlewski/ Laurent Weill, (2007), they also found that financial market development clearly matters for the decision to syndicate a loan, as all tested variables are significant at the 1% level. The cost level of the banking industry exerts a negative impact on the syndicate decision, as the coefficient of Overheads is significantly negative. This finding was not expected since greater costs were supposed to increase a bank's motivation to syndicate a loan. An interpretation of this finding may come from the fact that as cost inefficient banks have on average weaker managerial skills, their managers may be more reluctant to benefit from the opportunities allowed by syndicated loans. Concentration of the banking industry hampers as expected the probability for a loan to be syndicated. A concentrated industry means fewer potential participants at the local level to join a syndicate and also fewer incentives for banks to diversify their loan portfolios, since their larger market shares contribute to diversification.

Furthermore, the development of stock and bond markets reduces the probability of syndicating a loan, as Stock Markets and Bond Markets have both a significantly negative coefficient to banks decision to syndicated loan. We explain this sign through the competing role of financial markets on

syndicate loans. Indeed the potential market for syndicated loans is comprised of large syndicate a loan, financing needs which can generally be financed also by financial markets. Therefore, a greater degree of development of financial markets reduces the volume of loans which can potentially be syndicated by banks. As a consequence, it hampers the decision to syndicate a loan, as among the financial needs which are not financed by financial markets, there are fewer loans which could potentially be syndicated by banks.

Other findings those researchers were for banking regulation variables, all have a significant influence on the decision to syndicate a loan. The three variables in connection with the lending limits have all the expected influence on this decision. Namely, the positive and significant in accordance with the positive influence of a capital requirement on the impact of this respect the lending limits, as a stronger requirement increase the impact of this motivation to syndicate loans. Similarly, following the positive and significant sign of Solvency and NPL Definition, the presence of a regulation establishing predetermined levels of solvency deterioration or a formal definition of non-performing loans favors the decision to syndicate a loan.

Although both variables were expected to exert an impact through the diversification motive, their influence is inconsistent with our predictions. Indeed we observe that the presence of diversification guidelines which were supposed to foster the motive of diversification for banks has a negative influence on the decision to syndicate a loan. Finally, the existence of

regulations reducing the diversification opportunities for domestic banks does not exert a significant impact on the decision to syndicate a loan, in accordance with the lack of significance of Abroad Loans Prohibited.

From these results on the five variables for banking regulation emerge interesting conclusions for syndicated loans in emerging markets. Indeed, the lending limits motive seems to matter more than the diversification motive.

Lastly, the results with the legal environment variables are presented greater creditor protection weakens the diversification argument for use of a syndicated-rather than normal-loan and therefore provides a negative influence. This is the obvious motivation behind risk-sharing. This enhanced protection allows banks to increase risk exposure while protecting against excessive loan loss.

The main findings of Christophe J. Godlewski/ Laurent Weill (2007) can be summarized as follows. First they have provided evidence to explain the role of several loan characteristics in the decision to syndicate a loan/possibility of syndicated loan, helping illuminate the decision to syndicate a loan at the bank level.

Second, we have shown that institutions influence the decision to syndicate a loan. Indeed they, undoubtedly found that financial development, banking regulation, and legal environment exert an impact on the decision of syndicated loan. Therefore, the cross-country differences in the expansion of syndicated

loans may be explained by cross- country differences in institutional framework.

Third, the observed impact of tested variables suggests the prominence of certain motives for the use of syndicated loans. Namely, all variables associated with the motive of respecting lending limits have expected signs in accordance with this motive. The motive of diversification appears to play a smaller role for the syndicate decision, as the impact of variables with connections to this motive is not consistent in the sign. The agency problems implied by syndicated loans seem to matter in the decision to syndicate a loan, but not as much as expected. This remark is based on the fact that only one among the three tested variables contributing to increase lender protection in case of loan default exerts a positive influence on the loan syndication. A more thorough analysis would be needed to conclude the hierarchy of the motives of the syndicated loans.

Fourth, our findings on the role of the institutional factors provide useful insights for authorities wishing to favor syndicated loans, owing to the associated benefits in terms of diversification of loan portfolios of banks and reduction of the cost of borrowed funds. Authorities should implement more binding banking regulation on capital requirements, solvency levels and non-performing loans, and favor banking competition and cost efficiency. However, efforts to enhance the development of financial markets and the improvement of the legal institutions should not favor the expansion of syndicated loans.

They do not mean that such effects are useless for economic development, but we argue that they do not enhance financial development through a larger volume of syndicated loans.

Dennis and Mullineaux, (2000), study the determinant of the decision to syndicate a loan with a sample of US loans. They support the positive role of several factors in this decision, with notably those related to the transparency of the borrower and the maturity of the loan.

Katerina Simons, (1993), on his study, found that Capital constraints also promote loan syndications. Banks that find themselves with capital-asset ratios below or close to regulatory minimums may not want to increase assets by adding large loans to their balance sheets and may choose, instead, to share them with other banks by syndicating them both in the form of its capital-to-asset ratio and its loan-to-capital ratio. On his study he found that both capital constraints' of lead bank and lending limit of banks positively influence the possibility of loan syndication.

Table 2.1: summery of empirical literature

Title and Authors	Methodology	Results
Christophe J. Godlewski & Laurent Weill (2007) Syndicated Loan in Emerging Market	Logistic Regression	First they have provided evidence to explain the role of several loan characteristics in the decision to syndicate a loan/possibility of syndicated loan. ➢ Loan Size is positive and significant impact to

		syndicated loan in accordance with the motivation of the diversification of loan portfolios and of the regulatory- driven issue. ➢ Maturity is significantly negative in all estimations towards the possibility of syndicated loan. ➢ The presence of covenants in the loan agreement matters as we observe a positive and significant sign for Covenants in all estimations. ➢ Debt seniority plays a negative role in the decision to syndicate a loan. ➢ Presence of covenants exerts a positive influence on the decision to syndicate the loan. ➢ publicly available information positively favours' the decision to syndicate a loan The second Major finding these study is providing the significance evidences on basic variables on the study. ✓ For financial development variables - Financial development clearly

		matters for the decision to syndicate a loan, as all tested variables are significant at the 1% level. The cost level of the banking industry exerts a negative impact on the syndicate decision, as the coefficient of Overheads is significantly negative. ✓ Concentration of the banking industry hampers as expected the probability for a loan to be syndicated. A concentrated industry means fewer potential participants at the local level to join a syndicate and also fewer incentives for banks to diversify their loan portfolios, since their larger market shares contribute to diversification. ✓ The development of stock and bond markets reduces the probability of syndicating a loan, as Stock Markets and Bond

		Markets have both a significantly negative coefficient. ✓ Banking regulation and Lending Limit variables positively influences the possibility of syndicated loan. ✓ A legal environment variable has significantly negative impact on the possibility of syndicated loan.
Dennis and Mullineaux, (2000), Determinant of the decision to syndicate a loan.	(Logistic Regression)	Study the determinant of the decision to syndicate a loan with a sample of US loans they founds:- ❖ Transparency of the borrower and ❖ The maturity of the loan. Both factors positively support the possibility of syndicated loan.

Katerina Simons, (1993), Why do Banks syndicate Loans?	Econometrics Model (Logistic Regression)	On his study he found that both capital constraints' of lead bank and lending limit of banks positively influence the possibility of loan syndication.

2.13 Knowledge Gap

The aforementioned points are better idea to reflect the possibility of syndicated loans in one's financial markets. Syndicated loan regarded as a major source of finance for big project/ investment. Countries like Ethiopia which engaged in different infrastructure construction currently, syndicated loan plays a major role though it is not known like any other source of finance in the country so that, the study examine what are the likely/ or possible factors that influence loan syndication possibility. So far banks in Ethiopia do not use syndicated loan like any other traditional type of loan, so that this study looks over factors influencing the possibility of syndicated loan in case of selected banks in Ethiopia

Apart from the above discussed points in the empirical evidences section, the study is designed to include Originations problem, and Empirical literature on syndicated loans is relatively scarce in Ethiopian context. Therefore, this study is will try to narrow the aforementioned gap in the area of syndicated loan in Ethiopia. In order to achieve this objective, the researcher looks the role several factors along the line of Christophe J. and Laurent Weill (2007).

Chapter three

3. Data presentation and Results

3.1 Introduction

In this section, data collected is to be analyzed so as to present findings and draw conclusions. The study explains the factors that influence the possibility of syndicated loan. The researcher used descriptive statistic analysis and regression to data analysis with varying combinations of tested factors that influence the possibility of syndicate a loan. This section presents the result in two parts: the first part includes all loan characteristics using descriptive statistics analysis and, the second the significance of variable under the study on the possibility of syndicate lending is tested. The first major finding is checking the significance of each loan characteristics on the possibility of syndicate lending using questionnaire that filled by head office loan officer of selected banks under the study and regressed to the know the impact of each variable on possibility of syndicate lending. With these objectives the effect of loan size, maturity date and publicly available information about the borrower on the possibility of syndicate lending are investigated. Among private banks currently operating in Ethiopia, eight of them are sampled.

The second major finding is to test the significance all country level variable such as lending limit, capital adequacy, liquidity and concentration on the possibility of syndicate lending using estimated regression model. With these

objectives the effects of lending limit, capital adequacy, liquidity and concentration on the possibility of syndicate lending.

3.2 Descriptive Statistic for loan characteristics

Table 3.1 Summary of descriptive Statistics for Loan Characteristics.

	N	Minimum	Maximum	Mean	Std. Deviation
Possibility of Syndicate lending	8	-.1223	1.0178	.5000	.53452
Maturity of loan	8	-.1223	3.9973	3.8750	1.35620
loan Size	8	-.62192	.54869	4.1250	1.24642
loan/asset diversification	8	-1.787	1.487	4.5000	.75593
Information available about the borrower.	8	-1.004	.886	2.3750	.74402

The above Table 3.1 shows the maximum, minimum, mean and standard deviation of both the dependent and the independent variables from 8 private banks the observation time (2005-2010). The mean of the possibility of syndicate lending of the sample is 0.50. The Minimum and the maximum values are -0.1223 and 1.487 respectively.

Regarding the maturity of the loan, loan size and information available about the borrower of banks Table 4.1 shows the maximum and the minimum of values the banks. The means and standard deviations are also presented alongside loan size and maturity of loan. Asset diversification and information available about the borrower are also shown in Table 4.1 with their maximum, minimum, mean and standard deviation values. Among the variables the minimums of maturity of loan and loan size have negative values.

3.3 Regression model Evaluation

Regression model evaluation involves testing for significance to establish between the dependent and the explanatory variables are linear or not.

For each test, adjusted R^2 and significance value are obtained from various regressions using 8 banks in a 6 year observation.

Table 3.2: Model Summary for loan characteristics

R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.525	.443	.61935	1.84 9

Table 3.3: Model Summary for country level variable

R-Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
0.93	0.824	.21658	2.028

How much the model is good?

Does the model fits

ANOVA the test used to see whether the model is fitted or not.

Ho= the model does not fit

H1= the model fit is good

ANOVA Test

ANOVA, table 4.3 and 4.4 summarizes the output of the analysis of variance.

In regression row, the output for regression display information about the variation accounted for by the existing model. Residual displays information about the variation that is not accounted for by the model. And the total in the table shows the sum of regression and residual. Mean square is the sum of squares divided by the degrees of freedom. And F-statistic is the regression mean square divided by the residual mean square. If the significance value of the F- statistics is small then the independent variable does a good job in explaining the variation in the dependent variable.

ANOVA test is used to check whether the model fits good or not. The test for significance establishes if each individual explanatory variable has some correlation with the dependent variable by examining the R-squared and significance values obtained from regression between possibilities of syndicate lending with the explanatory variables as defined in Equation 1.

Table 3.4: ANOVA test for loan characteristics

Model		Sum of Squares	Mean Square	Sig.
	Regression	1.151	.384	.0.028
	Residual	0.849	.212	
	Total	2.000		

Table 3.4: ANOVA test for loan characteristics

Model		Sum of Squares	Mean Square	Sig.
	Regression	1.151	.384	.0.028
	Residual	0.849	.212	
	Total	2.000		

a. Predictors: (Constant),

b. Information available about the borrower.

c. Loan/asset diversification.

d. Loan size

e. Maturity loan

f. Dependent Variable: Possibility of Syndicate lending

Table 3.5: ANOVA test for country level variable

	Sum of Squares	Mean Square	Sig.
Regression	1.240	.413	.044
Residual	.094	.047	
Total	1.333		

a. Predictors: (Constant), Capital adequacy, Lending limit, Liquidity

b. Dependent Variable: Possibility of Syndicate loan

As shown in the above table 4.3 and 4.4 the estimated model is statistically significant even at 5% level of significance.

This indicates that the null hypothesis can be reject and the alternative hypothesis that there is a linear relationship between possibility of syndicate lending and the explanatory variables can be accepted.

3.4 Diagnostic test

3.4.1 Multicollinearity test

Collinearity (or multicollinearity) is the undesirable situation where the correlations among the independent variables are strong. Tolerance is a statistics used to determine how much the independent variable are linearly related to one another. Tolerance is the proportion of variables variance not accounted for by other independent variables in the model. A variance with a very; low tolerance contributes little information in to a model, and can cause computational problems.

VIF or the variance inflation factor is the reciprocal of the tolerance. As the variance inflation factor increases, so does the variance of the regression coefficient, making it an unstable estimate. Large VIF values are an indicator of multicollinearity.

When there is a perfect linear relationship among the predictors, the estimates for a regression model cannot be uniquely computed. The term collinearity implies that two variables are near perfect linear combinations of one another. When more than two variables are involved it is often called multicollinearity, even though the two terms are often used interchangeably.

The primary concern is that as the degree of multicollinearity, the regression model estimates of the coefficient become unstable and the standard error for the coefficients can get wildly inflated.

This study used variance inflation factor and tolerance diagnostic tests to discover the presence of multicollinearity. An inspection of the coefficients' table collinearity statistics was done. Through this process, large values of standard errors among the coefficients were detected. Large standard errors reduce the precision with which the regression coefficient associated with a particular variable can be estimated, a term otherwise referred to as the variance inflation factor (VIF). Tolerance values or the reciprocal of VIF are also used to guard against very serious multicollinearity (Glantz and Slinker, 2001). These values range between 0 and 1 and multicollinearity is indicated if the tolerance value is 0.01 or less.

Therefore, as you observed from Table 4.5 below, the values of both VIF and tolerance tell us, the values of all the independent variables were in excess of 0.01 in tolerance or less than 10 for VIF indicating that the absences of multicollinearity among independent variables.

Table.3.6: Collinearity statistics table for loan characteristics

Correlations			Collinearity Statistics	
Zero-order	Partial	Part	Tolerance	VIF
.493	.410	.341	.551	1.815
-.322	-.187	-.145	.829	1.206
.000	.293	.233	.738	1.355
-.539	-.271	-.213	.610	1.640

Table 3.7: Collinearity Diagnostics for loan characteristics

			Variance Proportions				
Dimension	Eigenvalues	Condition Index	(Constant)	Maturity loan	loan size	loan/asset diversification	Information available about the borrower.
1	4.763	1.000	.00	.00	.00	.00	.00
2	.145	5.732	.00	.24	.02	.00	.09
3	.050	9.780	.01	.02	.75	.11	.01
4	.037	11.360	.00	.12	.22	.13	.65
5	.005	31.272	.99	.62	.00	.76	.25

Table 3.6 is a table which display statistics that help for determine whether there are any problems with collinearity or not. Collinearity (multicollinearity) is the undesirable situation where the correlations among the independent variables are string.

eigenvalues proved an indication of how many districts dimensions are there among the independent variables. When several eigenvalues are close to zero, the variables are highly inter correlated and small changes in the data values may lead to large changes in the estimates of the coefficients.

Condition index are the square roots of the ratios of the largest eigenvalues to each successive eigenvalues. A condition index greater than 15 indicates a possible problem and an index greater than 30 suggests a serious problem with collinearity.

Even if eigenvalues are used for checking the existence of collinearity, the best way is conditional index. So in this research case, since conditional index value scored around 1, 3 and 7, from this ground the researcher can say that there is no multicollinearity among independent variables.

Table 3.8 Residuals Statistics for loan characteristics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.1223	1.0178	.5000	.34831	8
Residual	-.62192	.54869	.00000	.40546	8
Std. Predicted Value	-1.787	1.487	.000	1.000	8
Std. Residual	-1.004	.886	.000	.655	8

a. Dependent Variable: possibility of Syndicate lending

Source: SPSS regression

Table 3.8, tells about the residual and predicted value. For each case, the predicted value is the value predicated by the regression model and for each case; the residual is the differences between the observed value of the dependent variable and the value predicted by the model. Residual are estimate of the true error in the model, if the model is appropriate for the data, the residuals should follow a normal distribution. Standardized predicted values are predicted values standardize to have mean of zero (0) and standard deviation of one (1). Similarly, standardize residual are ordinary residuals divided by the sample standard deviation of the residual and have mean of zero (0) and standard deviation of one (1).

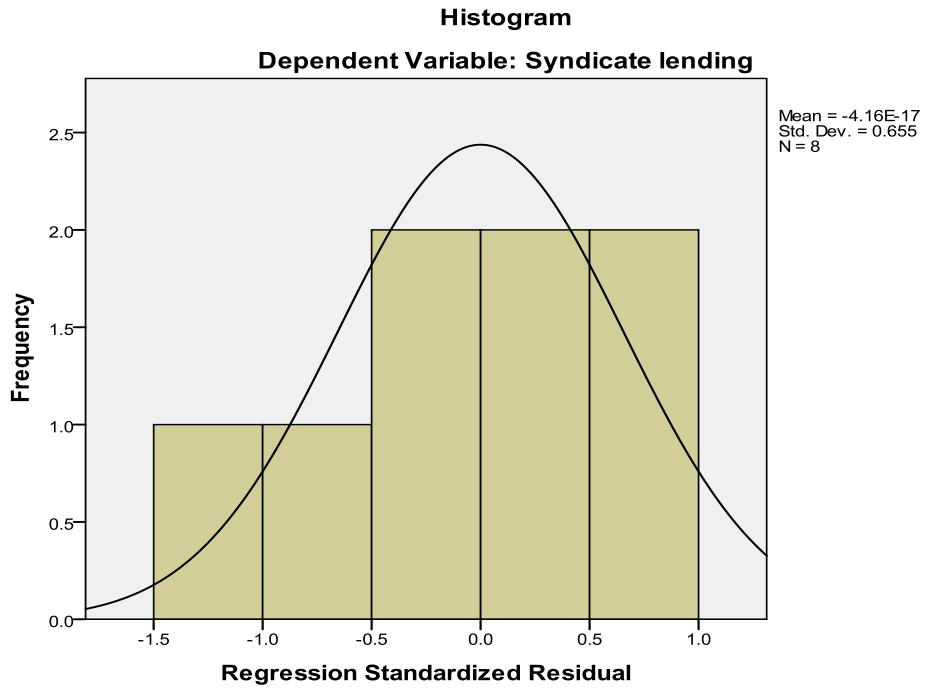
3.4.2 Normality test

One of the assumptions of linear regression analysis is that the residual are normally distributed, at the mean of zero and standard deviation of one .All of the results from the examiner command suggest that the residual or the error term are normally distributed .The skewness and kurtosis are near to 0. As one can observe from the histogram and p-p plot it looks normal. Based on these results, the residuals from this regression appear to conform to the assumption of being normally distributed.

In order to solve assumption violations caused by the existence of outliers, this study used residual scatter plots. Glantz and Slinker (2001) argue that very large outliers with values of standard deviations of greater than 3 should be identified and eliminated. In this study normality of the regression models' residuals is tested with the Jarque- Bera measure. If the Jarque-Bera value is

smaller than 0.05, the hypothesis of the normality must be rejected (Brooks, 2005). However, if the sample is big enough, the non-normality of residuals do not cause trouble. The histograms of model residuals values are presented in the following table where the Jarque Bera value is greater than 0.05 (0.586881).Therefore, as it is stated by Brooks (2005) the distribution is normal and there is no evidence for outliers.

Figure 1



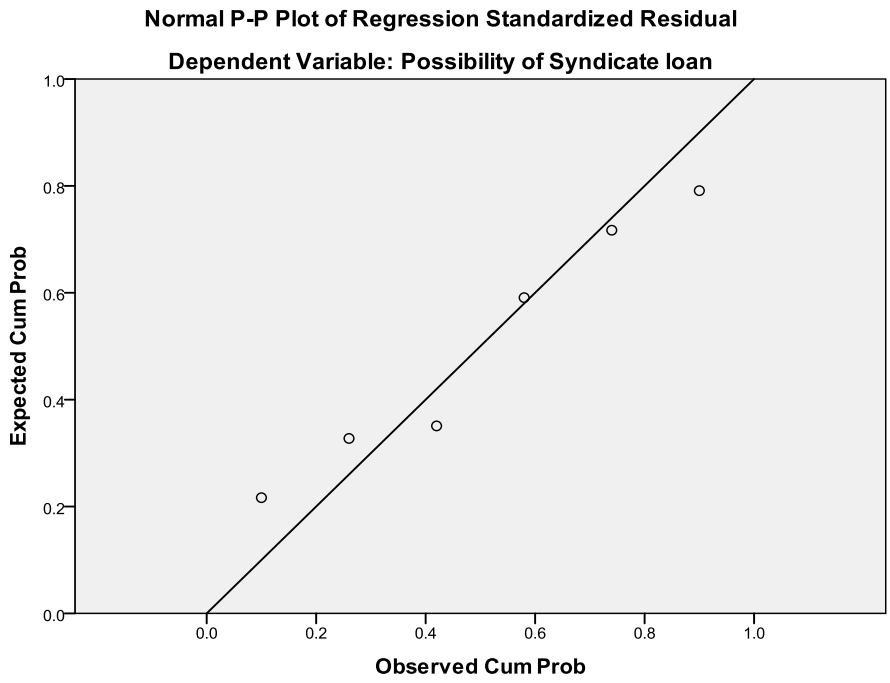


Figure 2

Source: SPSS regression out put

Figure 1 show, whether the data are normally distributed or not. The error term should be normally distributed at the mean of 0 and standard devotion 1, here in this model the mean is approximately 0 and the standard devotion is 0.985 approximately 1, so the model is normally distributed. The researcher watched from the histogram and from the p- p plot too.

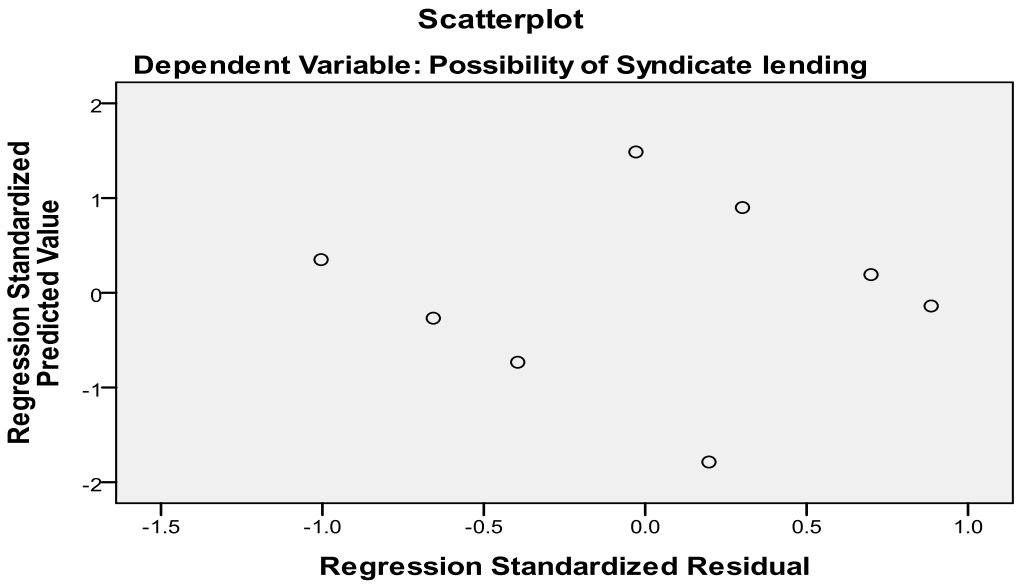
3.4.3 Test of heteroscedasticity

Another assumption of ordinary least square regression is that the variance of the residuals is homogeneous across levels of the predicted values, also kown as homoscedasticity . if the model is well – fitted , there should be no pattern to

the residuals plotted against the fitted values . if the variance of the residuals is non – constant then the residual variance is said to be heteroscedastic.

Bellow we see the / scater plot sub command to plot stndard residuals by the redicted values. One can see that the patern of the data points is getting together towards the write , this is an indication of the there is no significant heteroscedasticity problem among explanatory variables.

Figure 3



3.5 Descriptive statistics for country level variable

Table 3.9: Summary of descriptive statistics for country level variable

	N	Minimum	Maximum	Mean	Std. Deviation
Possibility of Syndicate loan	8	-.0778	1.0948	.3333	.51640
Lending limit	8	-.15392	.15959	2.2465	.44631
Liquidity	8	-.816	1.512	50.0833	12.25339
Capital	8	-.855	.886	.2427	.01234

The above Table 3.9 shows the maximum, minimum, mean and standard deviation of both the dependent and country level independent variables from 8 private banks under the study observation time (2005-2010). The mean of the possibility of syndicate lending of the sample is 0.333. The Minimum and the maximum values are -.0778 and 1.512 respectively.

About the lending limit, liquidity and capital adequacy of the banks table 3.9 shows, the maximum and the minimum of values the banks. The means and standard deviations are also presented for lending limit, liquidity and capital adequacy. As the table 3.9, shows minimum value for all country level variables are negative value.

3.6 Data Analysis and Presentation

Table 3.10: Coefficients for loan characteristics

Variable	Coefficient	Std. Error	t-Statistic	signf
C	-.316	2.660	-.119	.913
Loan size	.181	.233	.778	.049**
Maturity of the loan	-.068	.206	-.330	.o76*
Asset diversification	.191	.360	.531	.063*
Information about the borrower	-.196	.403	-.273	.060*
R-squared	0.525		Durbin-Watson stat	1.849
Adjusted R^2	0.443			

*10% significance level.

**5% significance level.

***1% significance level

Source :SPSS out from financial statement of sample banks 2005-2010

1. Loan Size

Increased loan size is expected to positively influence the possibility of syndicate a loan (H1). The sign of the coefficient is not as expected Table 3.10 reports that the coefficient of loan size is negative and statistically significant at the 5% significance level, suggesting that larger loan size does not drive banks to syndicate lending. These results indicate that loan size would have a negative influence on the possibility of syndicate lending in Ethiopia banking

industry. This result is contrary/opposite to (Christophe J. Godlewski & Laurent Weill (2007). These studies report that loan size is positive and has significant influence to the possibility of syndicate loan suggesting as expected that larger loans are more likely to be syndicated in accordance with the motives of the diversification of loan portfolios and of regulatory-driven issues. The major reason for these differences in the studies may be explained by all banks under the study may not receive a project that require a large loan that drives Ethiopian banks to syndicate loan.

2. Maturity of the Loan

Maturity of the loan is also considered, to have a positive impact on possibility of syndicate loan (H2). Another variable found to be statistically significant determination of possibility of syndicate lending in Ethiopia banking industry is Maturity of the loan. Maturity of the loan is found statistically significant which is consistent with the expected result. Table 3.10 reports that the coefficient of maturity of the loan is positive and statistically significant at the 5% significance level. This result implies the fact that greater maturity does not strengthens the moral hazard problem through higher monitoring costs of the loan and this would result in positive influence towards the possibility of syndicated loan or syndicate decision in Ethiopia banking industry and ((Christophe J. Godlewski & Laurent Weill (2007)) reports the opposite results in US case.

3. Asset diversification.

Asset diversification should positively affect the syndication process since they foster motivation for the diversification of loan portfolios (H3). Asset diversification is found to be statistically significant at 10% and similarly the sign is as expected. Table 3.10 shows that the coefficient of asset diversification was positive. These result indicate that, Risk diversification is found to be significant and positively related to the likelihood of extending syndicated loans. Banks that appear to hedge against their currency, market and interest rate risk positions seem to participate more in the syndicated loan market. This provides evidence that banks that are aiming to manage their risks consider syndicated lending as a tool to achieve diversification. The result validates Dennis and Mullineaux's (2000) argument that loan syndication is a cost effective way for banks to diversify their loan portfolios.

4. Publicly available information about the borrower.

Publicly available information about the borrower positively influences the possibility of syndicate lending (H4). As shown in table 3.10 other loan characteristic that determine the possibility of syndicate lending is information about the borrowers. This variable is found to be statistically significant at 10% and similarly the sign is as expected. Like Lee and Mullineaux (2004), these studies find that the coefficients of the information are positively signed and significant in specifications in table 3.10. These results are consistent with the

information problem hypothesis which states that more lenders are likely to participate in a syndicate when borrower information is transparent.

2. Country level variable

Table 3.11: Coefficients for country level variable

Variable	Coefficient	Std. Error	t-Statistic	signf
C	5.118	2.379	2.152	0.164
Lending limit	.701	.254	2.761	0.101*
Liquidity	.009	.010	.933	.049**
Capital adequacy	-28.082	9.363	-.671	0.095*
R-squared	0 .93	Durbin-Watson stat	2.028	
Adjusted R^2	0.824			

*10% significance level.

**5% significance level.

***1% significance level

Source: SPSS out from financial statement of sample companies 2005-2010

1. Liquidity

Liquidity is proxies by the ratio of liquid assets to deposits, which signals the availability of funds to meet loan demand quickly. Banks are expected to participate in syndications if they have sufficient available liquid funds, therefore a positive sign is expected for this coefficient (H1). Liquidity is the first country level variable found to be a statistically significant variable as a determinant of the possibility of syndicate lending. As table 3.11 above shows liquidity is statistically significant at 5% significance level and the coefficient sign is as expected it is positive. These results indicate that, Liquidity is sometimes cited as one of the reasons for the emergency of syndicate lending. As different literatures tell banks with high liquidity is found to have a positive association with the likelihood of joining loan syndications and similarly these would positively influences the possibility of syndicate lending. As the table 3.11 above depicted all banks are operating above minimum requirement of liquidity ratio and these can be mentioned as a reason that positively drives Ethiopian banks to syndicate lending as per literatures. Simons' (1993) on his study reports that Banks tend to participate more in loan syndications when their liquidity positions are relatively high. Though these study report positive association between high level liquidity ratio and possibility of syndicate lending these study found the reverse that is all banks have high liquidity ratio but no banks go for loan syndication. However, liquidity ratio has a positive association with possibility of syndicate loan in Ethiopian banking industry

and this result is consistent with Simons' (1993) finding. These differences in findings may be explained by the differences between the countries studied.

2. Capital adequacy

Capital adequacy is measured by the ratio of equity to total assets. The amount of a bank's capital puts a limit on the losses it can bear; hence, the loan supply function of banks is directly related to their capital adequacy. We expect a positive relationship between availability of capital to support the extra risk and the decision to join in loan syndications (H2). As shown in table 3.11 Capital adequacy is found statistically insignificant and the result is inconsistent with the expectation. The result of capital adequacy is negative and significant at 10% level of significance these would result negative influences on possibility of syndicate lending in Ethiopian banking industry. According to Simons' (1993), Capital constraints also promote the possibility of loan syndications. The first is the capital-to-asset ratio. Regulators expect banks to maintain minimum capital-to-asset ratios, and most banks operate with capital ratio above the minimums. A bank that finds itself constrained in its capital-to-asset ratio, either because of regulatory requirements or because of its own internal standards, will be reluctant to lower the ratio by putting a large loan on its balance sheet or may choose instead to syndicate a portion of the loan. Therefore, the capital-to-asset ratio can be expected to be positively related to the lead bank's exposure to the syndicated loan. However, as the table below explains, most banks in Ethiopia are operating capital adequacy ratio above regulatory minimum ratio this would bring negative influences

towards the possibility of syndicate loan and this result is inconsistent with simons' (1993) and Altunbaş, Yener and Kara, Alper (2011) this studies report the reverse that means, capital adequacy has positive influence to the possibility of syndicate lending.

3. Lending limit

Another country-level variable examined is the role of lending limit. Lending limit is measured by loan-to-capital ratio and expected to have positive impact on the possibility of syndicate lending (H3). Lending limits are sometimes cited as one of the reasons for the emergence of loan syndications, since banks obviously have limited discretion over how much of a large loan they can retain. To test the importance of the lending limit for the sample of loans, this study calculated the ratio of syndicated loans to each borrower originated by each agent bank to that bank's capital (Multiple loans to the same borrower were aggregated since the lending limit applies to borrowers, not individual loans.) According to Simons' (1993) somewhat surprisingly, the loan-to-capital ratio exceeded 15 percent does not go for loan syndication. And even if the externally imposed lending limit does not present a binding constraint for many syndications, banks themselves often have a self-imposed limit on their exposure to individual borrowers that may be up to 50 percent below the legislated limit. Consequently, the size of the loan relative to the bank's capital can influence the decision to syndicate the loan, even if it does not exceed the lending limit. Therefore, as above table 3.11 shows, coefficient of this variable in this study is statistically significant at 10% of significance level and positive

as expected. The result indicate that, the presences of lending limits pushes banks to syndicate lending and this would result positive influences on the possibility of syndicate lending in Ethiopia banking industry and this result is consistent with Simons 1993 finding, this study also reports positive association between lending limit and possibility of syndicate lending.

The second measure of lending limit is the size of loans extended to a borrower as a percentage of the bank's capital. In fact, the lending limit mandated by federal law prohibits all private banks from lending 25 percent of the bank's capital to any one borrower all private banks in Ethiopia.

4. Concentration

Concentration, defined as the assets of the three largest banks as a share of all bank assets, proxies market structure of the banking industry. Several arguments imply a negative influence that this variable will have on the possibility of syndicate a loan (H4).

First, a greater concentration means a lower number of potential participants to join and form a syndicate. Second, bank with greater market shares in banking industry already benefit from diverse loan portfolios, and have little incentive to diversify further. As the table below shows, state owned banks/ commercial bank of Ethiopia constitute around 60% of the total assets of the banking industry. Among private banks that are currently operating in the country Dashen bank is the predominant bank both in terms of banking asset and bank capital representing 15 % and 11 % respectively.

Market shares: Market shares in different sectors show the dominance of some of the oldest and largest private banks. Indeed, reflecting its large size, Dashen Bank has the largest market share in five sectors, providing 35 percent of all manufacturing lending by private banks, 28 percent of total transport lending, 26 percent of construction lending, 25 percent of domestic trade and services lending, and 19 percent of total personal lending. In only a few sectors is the market leadership position held by others: by Awash in the case of total export loans (25 percent), by NIB in agriculture loans (29 percent), and by United in Import related loans (21 percent). This result implies that among private banks, Dashen bank captures the largest market share of the banking industry in all sectors. The following table and graphs shows the dominance of this bank both in terms of asset and capital for the year 2010/11(Access capital banking review 2010/2011).

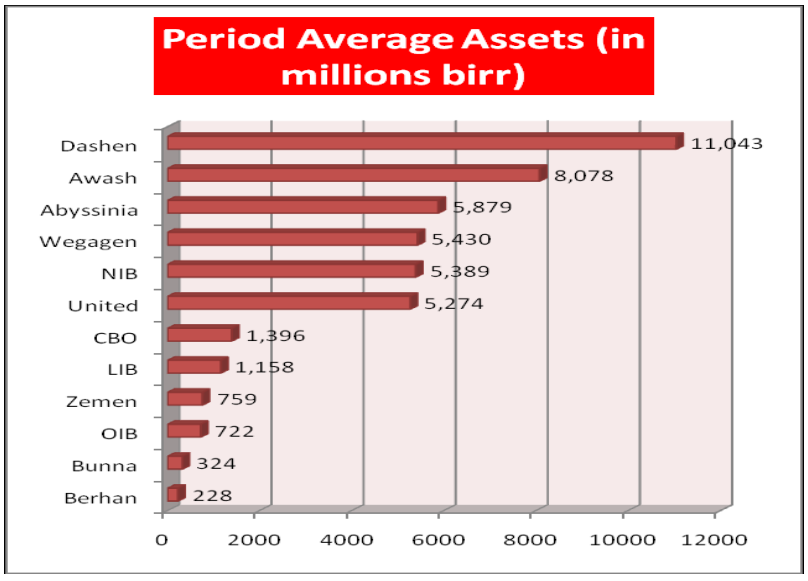
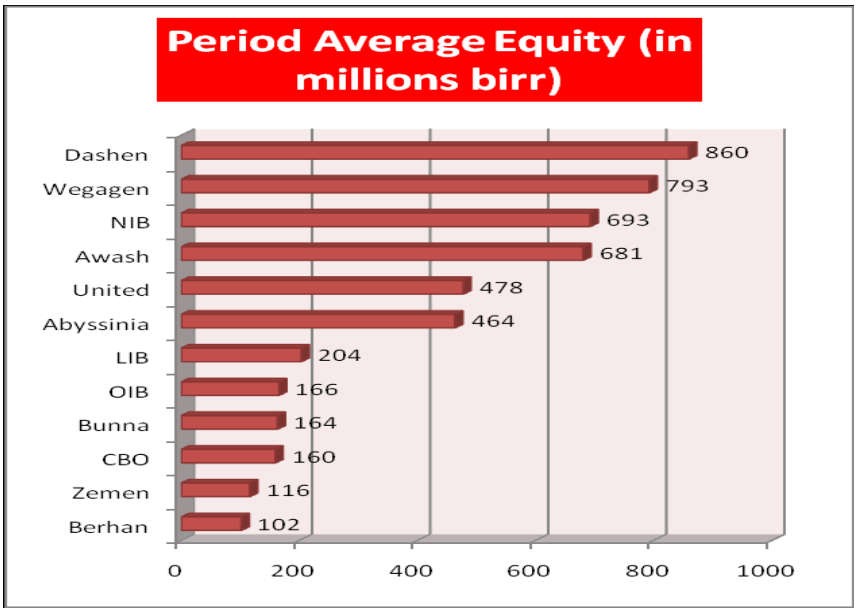


Figure4: Private Asset Concentrations

Figure 5: Private Capital Concentration



In 2004, there were three state owned banks and six private banks. The assets share of the CBE was 66.3%, the share of all three state owned banks was nearly 80%. These results clearly indicate the dominant state control of the Ethiopian banking industry (Kozo Kiyota Barbara peitsch Robert M. Stern 2007). In addition, in 2009/10 the assets share of commercial bank was 59,411 million constitute around 60% of the total share of all commercial banks. The following below table shows the asset and capital dominance trend of the state owned commercial banks.

Concentration of banking industry impede as expected the possibility of syndicate lending. Therefore, concentrated industry means fewer potential participants at local level to join a syndicate and also less motivation for banks to diversify their loan portfolios, since their larger market share contribute to

diversification. This result implies that concentration is the major factor that negatively influences the possibility of syndicate lending in Ethiopian banking industry.

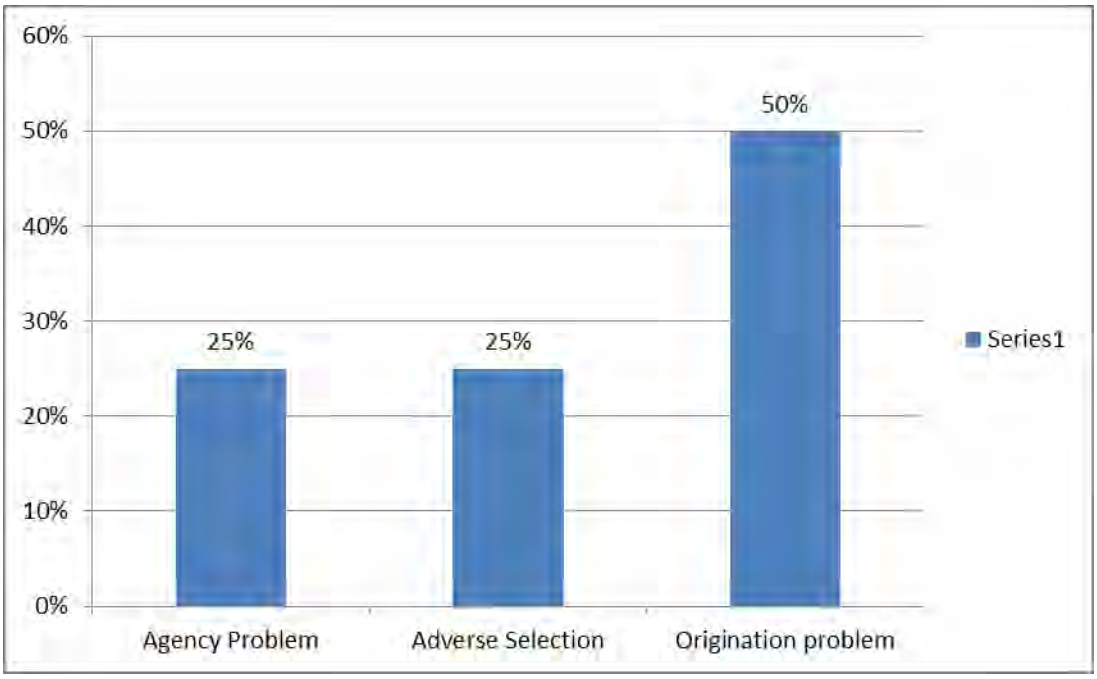
5. Problem of syndicate lending

Like all bank loans, syndicated loan involves potential problems between the borrower and lenders. As table 3.12 below depicted, the 50% of the respondent said that origination is the major problem relating to syndicated loan. This result shows no bank take an initiative to originate syndicated loan in Ethiopia banking industry although origination is source of income for the bank who take an initiatives; this shows lack of awareness. However as per the remaining result of 50%, syndicated loan also possess both agency problems and adverse selection between the member banks of the syndicate resulting from the loan syndicate structure. These three syndicated loan relating problems exert consequently negative impacts on the possibility of syndicate lending in Ethiopian banking industry.

Table 3.12: Major problem of syndicate lending

	Frequency	Percent	Cumulative
Agency problem	2	25.0	25.0
Adverse Selection	2	25.0	50.0
Origination Problem	4	50.0	100.0
Total	8	100.0	

Figure 6: Major problem of syndicate lending



Chapter Four

4. Conclusion and Recommendations

4.1 Conclusion

Based on the analysis made in previous chapter on factors that influences the possibility of syndicate lending in Ethiopian banking industry following conclusion is drawn.

Syndicated loans have undergone a major expansion in developing markets in the last decade, representing now an important source of finance. Since syndicated loans offers several benefits in comparison to other types of loans, which make them of utmost importance for the economic development of one country. Syndicated loan allows the diversification of bank's loan portfolios and help reduce the cost of borrowed funds, thereby improving financial stability and investment.

Until recently, a large majority of loan transactions in Ethiopian have remained bilateral transactions that are provided by single banks.

To have better understanding about syndicate loan, and specifically, to provide policy-oriented advice for the authorities to the importance of syndicated loans, it is utmost interest to factors hat positively and negatively influences the possibility of syndicate lending.

The result shows that several loan characteristics are influential in the possibility syndicate a loan.

- Among loan characteristics loan size and loan /asset diversification significantly and positively influences the possibility of syndicate lending. While publicly available information about the borrower and Maturity of the loan significantly and negatively influences the possibility of syndicate lending in Ethiopian banking industry. Suggesting the fact that a large loan size drive banks to syndicate a loan and on contrary maturity of the loan negatively influences the possibility of syndicate lending in Ethiopian banking industry. This result shows a long-term loan do not saves monitoring cost and this would results moral hazard problem for banks.
- Concentration of banking industry impede as expected the possibility of syndicate lending. Therefore, concentrated industry means fewer potential participants at local level to join a syndicate and also less motivation for banks to diversify their loan portfolios, since their larger market share contribute to diversification. This result implies that concentration is the major factor that negatively influences the possibility of syndicate lending in Ethiopian banking industry.
- Capital adequacy level of the banks is another country level variable that negatively influences the possibility of syndicate lending in Ethiopia banking industry. Capital adequacy is a significant factor that has a negative impact on the possibility of syndicate lending in Ethiopian banking industry.

- Lending limit is also country level that positively drives banks to syndicate lending. Lending limit is a statistically positively significantly influences the possibility of syndicate lending in Ethiopia banking industry.
- Liquidity also another country level variable that positively drive banks to syndicate loan. This factor is significantly and positively influences the possibility of syndicate lending in Ethiopia banking industry.
- Like other banks loan syndicate lending also poses a number of problem among those origination, adverse selection and agency problem are the major problem relating to syndicate lending in Ethiopian banking industry. These major problems discourages banks towards syndicated a loan this would results negative influences to the possibility of syndicate lending.

4.2 Recommendations

The main interest of this study is to identify underlying factors that negatively and positively influences the possibility of syndicate lending in case of selected eight private banks in Ethiopia. Although the study intended to identify factors that influences the possibility of syndicate lending in Ethiopian banking industry, standing from the benefit and advantage that syndicate lending providing point of view, the existences of this loan plays a vital role in big project financing. This is especially true for labor intensive industry, Processing agricultural product, mining of mineral and other projects that require large sums of funds are easily financed through syndication mechanism, otherwise it would be difficult for a single bank to mobilize the funds in our context. Importantly, risk sharing reduces risk exposure to individual lenders and this reduces the cost of debt.

However for loan syndication to succeed, the credit agreement should be designed to clearly deal with the respective needs of the counterparties to the syndicate. And this can be achieved when banks favor positive factors that influence the possibility of syndicate lending.

Finally, development of financial market or stock market, lending limit and other factors relating to syndicate loan requires or needs further research or investigations.

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National Bank of Ethiopia Banking Directives.

Appendixes

Appendix 1

ADDIS ABABA UNIVERSITY

School of Business and Public Administration

School of Graduates

Department of Accounting and Finance

Questionnaire for research on "Possibility of syndicate lending in Ethiopia banking industry"

The case of eight selected banks

Name of the bank: _____ Date: _____

Dear Respondent,

The purpose of this questionnaire is to gather information to conduct a research paper on "Possibility of syndicate lending". I believe that the result of this thesis would have practical application and be of value to you, to me and to the business community as the whole. And all data you give will be kept confidential and used for academic purpose only.

Therefore, you are kindly requested to give accurate information as much as possible.

Thank you for the anticipated cooperation

Tekalign Mekonnen

Email: tekalign.m@gmail.com

In your view factors are responsible for the possibility syndicate lending in Ethiopian banking industry.

No	**Questionnaires**	SA	A	NU	DA	SDA	I don't know
1	Maturity dates of the loan push your bank to syndicate a loan.						
	Loan size drive banks to syndicate a loan.						
3	Bank look for syndicate lending to diversify their loan or asset.						
4	Publicly available information about the borrower drives banks to syndicate lending.						
5	Concentrations of public banks negatively influence the possibility of syndicate lending in Ethiopian banking industry.						
6	Agency problem is the major problem relating to syndicate lending.						
7	Adverse selection is the major problem regarding syndicate lending.						
8	Origination is the major problem of syndicate lending in Ethiopian banking industry.						

Appendix 2

Liquidity Ratio

Table 9

	2005			2006			2007			2008			2009			2010		
Banks	Level %	Rating	Rank	Level%	Rating	Rank	Level%	Rating	Rank	Level %	Rating	Rank	Level %	Rating	Rank	Level %	Rating	Rank
Dashen Bank	36.0	Strong	7	31.12	Strong	6	34.38	Strong	8	47.39	Strong	7	59.34	Strong	7	51.8	Strong	6
Awash Bank	44.6	Strong	5	36.2	Strong	4	36.2	Strong	7	47.7	Strong	6	64.2	Strong	4	66.2	Strong	4
Abyssinia Bank	46.7	Strong	4	35.9	Strong	5	37.6	Strong	5	41.5	Strong	8	60	Strong	6	57.6	Strong	5
United Bank	56	Strong	2	48.6	Strong	2	49.2	Strong	3	56.7	Strong	4	68.7	Strong	3	69.3	Strong	3
Nib Bank	37.9	Strong	6	30	Strong	7	37	Strong	6	54	Strong	5	70.8	Strong	2	74.3	Strong	2
Wegagen Bank	48.1	Strong	3	37.2	Strong	3	48.5	Strong	4	60.8	Strong	3	78.2	Strong	1	77.4	Strong	1
Cooperative Bank of Oromia	806.7	Strong	1	90.8	Strong	1	63.2	Strong	2	67.1	Strong	2	45.9	Strong	8	*		
Lions Bank	*			*			137.7	Strong	1	97.2	Strong	1	62.97	Strong	5	*		
Statutory requirement																		**15%**
Parameters Used																		
Strong																		**> 20%**
Satisfactory																		**16 - 20%**
Fair																		**15%**
Marginal																		**9 - 14%**
Unsatisfactory																		**< 9%**

Liquidity is measured by liquid asset to deposit

Source: National Bank of Ethiopia.

* Audited Data are not available till this data is collected.

Appendix 3

Capital Adequacy Ratio **Table 7**

	2005			2006			2007			2008			2009			2010		
Banks	Level %	Rating	Rank	Level%	Rating	Rank	Level%	Rating	Rank	Level%	Rating	Rank	Level %	Rating	Rank	Level %	Rating	Rank
Dashen Bank	14	Satisfactory	7	17	Strong	7	18	Strong	8	19	Strong	8	19	Strong	8	18	Strong	6
Awash Bank	20	Strong	5	21	Strong	6	23	Strong	7	25	Strong	6	24	Strong	5	24	Strong	3
Abyssinia Bank	25	Strong	2	28	Strong	2	24	Strong	5	20	Strong	7	19	Strong	7	19	Strong	5
United Bank	23	Strong	3	24	Strong	4	33	Strong	3	29	Strong	5	22	Strong	6	22	Strong	4
Nib Bank	26	Strong	1	28	Strong	3	33	Strong	4	33	Strong	3	30	Strong	4	31	Strong	2
Wegagen Bank	22	Strong	4	23	Strong	5	23	Strong	6	29	Strong	4	33	Strong	2	37	Strong	1
Cooperative Bank of Oromia	19	Strong	6	109	Strong	1	61	Strong	2	44	Strong	2	30	Strong	3	*		
Lions Bank	*			*			102	Strong	1	60	Strong	1	40	Strong	1	*		
Statutory requirement																		**8%**
Parameters Used																		
Strong																		**>15%**
Satisfactory																		**8.1 - 14.9%**
Fair																		**7.1 - 8%**
Marginal																		**5 - 6.9%**
Unsatisfactory																		**< 5%**

Capital adequacy is measured by equity to total assets ratio.

Source: National Bank of Ethiopia.

* Audited Data are not available till this data is collected.

Appendix 4

Lending limit

	2005	2006	2007	2008	2009	2010
Banks						
Dashen Bank	4.44	3.99	3.57	2.92	2.39	2.19
Awash Bank	2.65	2.92	2.77	2.18	1.69	1.57
Abyssinia Bank	2.30	2.36	2.72	3.05	2.35	2.49
United Bank	2.28	2.55	1.9	1.93	2.00	1.97
Nib Bank	2.42	2.48	2.06	1.70	1.45	1.33
Wegagen Bank	2.64	2.97	2.55	1.82	1.18	1.12
Cooperative Bank of Oromia	*	0.51	0.90	1.07	1.88	1.78
Lions Bank	*	*	0.27	0.52	1.21	*

Lending limit is measured by loan-to-capital ratio.

Source: National Bank of Ethiopia.

*Audited Data are not available till this data are collected