

Determinants of Capital Structure Decision: An Empirical Study on (Ethiopian Insurance Private Companies)

*A Thesis Submitted to the School of Graduate Studies of Jimma University in
Partial Fulfillment of the Requirements for the Degree of Master of Science in
Banking and Finance.*

By:

Alemu Ademe



**JIMMA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF BANKING AND FINANCE**

July, 2020

Jimma, Ethiopia

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DECLARATION

I hereby declare that this thesis entitled “determinants of capital structure decision in case of private insurance companies of Ethiopia”, has been carried out by me under the guidance and supervision of Tadele Mengesha (Asso professor) and Semere Getahun (MBA)

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

Researcher’s Name

Date

Signature

Alemu Ademe_____

CERTIFICATE

This is to certify that the thesis entitles “Determinants of Capital Structure Decision In Case Of Private Insurance Companies of Ethiopia”, Submitted to Jimma University for the award of the Degree of Master of Science in Banking and Finance and is a record of bonfire research work carried out by Mr. Alemu Ademe G/Selassie, under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any MSc degree or BA degree

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Abstract

The purpose of this study was to empirically investigate the determinants of capital structure decision in Ethiopian insurance private companies. In order to achieve the intended purpose employed the explanatory research design and quantitative approach. The study used descriptive and inferential statistics. The dependent variable as measured by total debt ratio. Researcher used fixed effects model with the help of EViews 9 software. The study used eight private insurance companies selected by judgmental sampling technique. Researcher used secondary data. Audited financial statement obtain from NBE and macroeconomic factors obtain from MoFED, covering the period of 15 years; 2004-2018. Fitness was tested using Normality, Multicollinearity, Heteroskedasticity, Autocorrelation .Diagnostics fixed effects tests on the data used for the model. The findings of the study shows that liquidity, asset tangibility and profitability were significant negative effect on leverage, whereas size of companies was significant positive effects on leverage and external factor GDP was significant negative effects on leverage. The fixed effect results confirm pecking order theory. Therefore, managers of these sectors should consider the impacts of these significant variables, and follow pecking order pattern, to achieve optimal capital structure

Key word, capital structure, private insurance companies, leverage, pecking order theory

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List of Acronyms

AIC	African Insurance Company
AWIC	Awash Insurance Company
BJ	Bera Jarque
CLRM	Classical Linear Regression Model
DW	Durbin Watson
ETB	Ethiopian Birr
FEM	Fixed Effect Model
GDP	Gross Domestic Product
GIC	Global Insurance Company
GP	Growth in Premium
INF	Inflation
INT	Interest Rate
LM	Lagrange multiplier
LQ	Liquidity
LEV	leverage
MM	Modigliani and Miller
MOFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
NLIC	Nile Insurance Company
NIC	Nib Insurance Company
NISCO	Nyala Insurance Share Of Companies
NICE	National Insurance Company of Ethiopia
OLS	Ordinary List Square
PR	Profitability
REM	Random Effect Model
ROA	Return on asset
SZ	Size of the Company
TANG	Tangibility of Asset
US	United States
UNIC	United Insurance Company

CHAPTER ONE

1. INTRODUCTION

This paper was intended to examine determinants of capital structure decision in case of private insurance companies of Ethiopia. Accordingly, this chapter was aimed to present the introduction part through devising in to various parts. In the first part of this chapter, background of the study was arranged whereas overview of the Ethiopian insurance industry and statement of the problem were followed. Objective, hypothesis, significance, scope & limitation and organization of the study were presented in this part of the chapter.

1.1 Background of the Study

A companies' capital structure encompass of debt and equity capital. The debt security could be short term or long term, while equity security encompass of owners' equity Saddam (2014). Funds for companies' operation can either be generated internally or externally, with internally generated funds either taking the form of rights issue or retained earnings when funds are raised externally in form of debt, while companies may choose between debt and equity capital (Rajan & Zingales, 1995).

Capital Structure Decision is a business invests in new plant and equipment to generate additional revenues and income which is the basis for its growth Tesfa (2016.).An optimal capital structure is a mixture of equity and debt sources of finances given the value of a firm maximum and keeping its weighted average cost of capital at minimum.Saddam (2014).Capital Structure is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. (Simerly and Li, 2002).

The rote of the modern capital structure theory can be assumed to be grown up on the paper of Modigliani and Miller (1958), dating back to 1958 as one of the most influential papers in the economics literature. It states that based on the assumption of no brokerage, tax and bankruptcy costs, investors can borrow at the same rate as corporations and they would tend to have the same information as management about the companies' future investment opportunities.

The MM theory proves that under some restrictions a companies' value would be unaffected by its capital structure and thus assumes that earnings before income tax (EBIT) would not have been related to the use of debt, that leads to the implication that capital structure may be considered irrelevant. Despite the fact that some of the major assumptions of the theory can be

assumed unrealistic in the eyes of investors and other economic agents, the MM irrelevance theory was generally accepted and subsequent research focused on relaxing some of its assumptions to develop a more realistic approach. In this sense, MM published another paper considering some of the criticisms or deficiencies of their theory and relaxed the assumption that there were no corporate taxes (Modigliani & Miller 1963). Static trade off theory stated that there is an optimal capital structure by using debt sources of finance until the benefit from present value of tax shields on debt equals expected financial distress costs associated with leverage (Myers 1984).

On the other side, pecking order theory of capital structure holds that there is clear no cut point for optimal capital structure or debt usage level; however it suggests that companies should follow hierarchy or pecking order of choice to finance their operation with a preference for internal sources of finance to external sources and debt over equity. This theory reasoned the pecking order of financing is due to asymmetric information and signaling problems associated with external sources of finance (Myers and Majluf, 1984).

Agency cost theory emphasizes financing choice is based on agency costs associated with principal agent problem. It investigates a relationship between manager of the companies and outside debt holders as well as equity holders. According to agency cost theory, one companies can achieve an optimal capital structure thereby maximizing its value by balancing the marginal costs of debt due to agency problem with the marginal benefits (Jensen, 1986). After wards Modigliani and Miller (1958),

In terms of financial theory, insurers are no different from other sector in the economy with respect to the general factors that determine the capital structure and the market value of the companies except that insurer's debt as more closely corresponding to policy claims than to conventional debt, then insurer debt is contingent and indeterminate, (Dionne, 2013).

In recent era any business organization without Insurance companies is unsustainable because risky businesses have not a capacity to caring all types of risks that they are challenged during the operations. Daniel (2015). An insurance business play vital role by diversifying risk from business entity. It does this by accepting premium from insured and paying claims. Although premium collected is less than the total amount paid for claims. If this is the case, the insurer is expected to pay for the claims from the capital of the insurance company.

It is for this reason that the insurance manager has a prime worry in the capital that the insurer has maintained. Tesfa (2016).The manager burden is to keep the safety and soundness of insurance companies so that they can fulfill their obligations to the policyholders whereas, the owners (or investors) of the insurance company are concerned with the return and the safety of their investment. Bayeh (2011).The nature of insurance business is to provide protection to policyholders in times of accident through the minimization of loss Tornyeva, (2013). As a result of this function, insurance companies have always been concerned with both solvency and liquidity. Kingsley and Tornyeva (2013)

Determinants of capital structure have been explored for many years, but different scholars have found different results with different contexts. Consequently, there is no accurate result, which can be generalizes on the extent of the relationship between capital structure and firm performance, Mohammed (2016)

Numerous empirical studies on determinants of capital structure have been conducted in financial and non-financial businesses environment. Most capital structure studies explored from economically developed countries which almost on non-financial business to mention certain, research made on companies in the United States which was carried out by Titman and Wessel's (1988) and others made later by Rajan and Zingales (1995) on Group 7 countries, which based empirical analysis to determine the capital Structure of companies, were focused on non-financial companies. But issues of capital structure are commonly, not given attention in developing countries, such as Ethiopia. Mohammed (2016)

Nevertheless, understanding of the determinants of capital structure is as essential for insurance sector as well as for non-financial businesses. Laeven and Perotti (2010) found that an insurance capital structure affects its stability as well as ability to effectively provide expected payouts to policyholders in the event of large losses. According to tesfa (2016) well-functioning and well-developing insurance plays a vigorous role in supporting growth of an economy, it is imperative to understand the factors which drive the capital structure decision of insurance. According to Abramoff and Sager (2003) evidencing insurance from developed country United State to study capital structure determinants of insurers Their results provided strong support for the relevance of standard determinants of capital structure on insurer's capital by testing the significance of size, profitability, and premium, growth and asset tangibility.

In the developing country context most of such studies focused on internal (companies specific) factors that can affect financing decision of a companies. According to many researchers, factors such as companies size, liquidity, profitability, growth opportunity, age, non-debt tax shields, tangibility, dividend policy, and risk are the main internal(companies specific) determinants of capital structure decision. For example Naveed et al. (2010) stated that companies' size, profitability, risk, liquidity, and age are important determinants of capital structure for life insurance sector in Pakistan. Najjar and Petrov (2011) stated tangibility of assets, companies' size, and liquidity as major factors that influence financial structure decision in context of Bahraini insurance sector. Muhammad et al. (2013) listed out company's size, risk, liquidity, and profitability as main determinant influence capital structure of insurance companies on their evidence for Pakistan.

More recently, Mohamed and Mahmoud (2013) on their evidence from Egyptian insurance sector; conclude that companies size, tangibility of assets, profitability, growth, liquidity, non-debt tax shield, and companies age are major determining factors for companies' choice of finance. Bayeh (2011) on his evidence from Ethiopia insurance sector; conclude of profitability, liquidity, growth, age, risk, tangibility, and size as independent variables and regressed them against dependent variable as represented by three models namely; total debt ratio, long term debt ratio, and debt to equity ratio Woldemikael (2012) in case Ethiopian banking sector examined the impact of companies specific factors of profitability, liquidity, growth, tangibility, risk, and size on leverage as measured by total debt ratio Usman (2013), for his study in case of large tax payer share companies in Ethiopia for the study used explanatory variables of profitability, size, age, tangibility, liquidity, non-debt tax shield, growth, dividend payout ratio, and earnings volatility then regressed them against the dependent variable of leverage as represented by long term debt ratio

As per the researcher's access and knowledge, the researchers conducted on determinants of capital structure so far in the Ethiopian insurance companies only few studies were made related to determinants of capital structure in insurance compared to other countries especially in developed nation.

Nevertheless, their contributions are important and worth mentioning, although their study result opposed each other and their finding and recommendation are ambiguous and unreliable to insurance managers and policy maker to make optimum capital structure decision.

Also most of these studies focused on a limited data set that covered less than fifteen years qualified to limited companies specific factors which means there were not considered macroeconomic factors because the nature of panel data is long effects, the short term time spans major problem is reduced level of significance power of the test and degree of freedom .The power depends on the (time) span of the data more than companies size of the sample for a given sample size, the power is greater when the span is large.(Gujarati 2004)

Moreover, among those, most of them were used only internal companies specific factors for their analysis, there were ignores the impact of macroeconomic variable such as GDP growth rate interest rate and the inflation rate were not considered especially GDP, interest rate and inflation are conclusive for any financial institution especially in Ethiopia, but macroeconomic, variable has been seen by Tesfa (2016),Saddam,(2014),Guruswamy and Adugnaw (2015) although their finding was imprecise therefore, the aim of this study was found out the influence of companies specific and macroeconomic factors in the capital structure decision made by private Ethiopian insurance companies.

1.1.1 Background of organization

The Ethiopian insurance industry does not have a long history, despite the country's long history of civilization. Ethiopia is one of the few countries with long history, namely China, Persia, Greece, and Egypt and Roman Empire. Despite this, its level of development has been one of the lowest in the world, deprived of modernity, technology, innovation, and modern way of preserving from potential risks. The history of insurance service is as far back as modern form of banking service in Ethiopia which was introduced in 1905. At the time, an agreement was reached between Emperor Menelik II and a representative of the British owned National Bank of Egypt to open a new bank in Ethiopia. Similarly, modern insurance service, which were introduced in Ethiopia by foreigners, mark out their origin as far back as 1905 when the bank of Abyssinia began to transact fire and marine insurance as an agent of a foreign insurance company. According to a survey made in 1954, there were nine insurance companies that were providing insurance service in the country With the exception of Imperial Insurance Company that was established in 1951, all the remaining of the insurance companies were either branches

or agents of foreign companies. In 1960, the number of insurance companies increased considerably and reached 33. At that time insurance business like any business undertaking was classified as trade and was administered by the provision of the commercial code

According to HailuZelege (2007), the first significant event that the Ethiopian insurance market observation was the issuance of proclamation No. 281/1970 and this proclamation was issued to provide for the control & regulation of insurance business in Ethiopia. Consequently, it created an insurance council and an insurance controller's office, its strange impact in the sector. The controller of insurance licensed 15 domestic insurance companies, 36 agents, 7 brokers, 3 actuaries & 11 assessors in accordance with the provisions of the proclamation immediately in the year after the issuance of the law. Accordingly, as stated by the office mentioned above, the law required an insurer to be a domestic company whose share capital (fully subscribed) not to be less than Ethiopian Birr 400,000 for a general insurance business, Birr 600,000 in the case of long-term insurance business and Birr 1,000,000 to do both long-term & general insurance business. The proclamation defined 'domestic company' as a share company having its head office in Ethiopia and in the case of a company transacting a general insurance business at least 51% and in the case of a company transacting life insurance business, at least 30% of the paid-up capital must be held by Ethiopian nationals or national companies. After four years that is after the enactment of the proclamation, the military government that came to power in 1974 put an end to all private enterprises. Then all insurance companies operating were nationalized and from January 1, 1975 onwards the government took over the ownership and control of these companies & merged them into a single unit called Ethiopian Insurance Corporation. In the years following nationalization, Ethiopian Insurance Corporation became the sole operator. After the change in the political environment in 1991, the proclamation for the licensing and supervision of insurance business heralded the beginning of a new era. Immediately after the enactment of the proclamation in the 1994, private insurance companies began to increase. Following the regime change in 1991, there was a shift to a market economy and a new insurance proclamation "Licensing and supervision of insurance business"; number 86/1994 was issued in 1994. The law allowed private sector participation in the insurance business. In August 2012 another proclamation number 746/2012 was enacted. The new proclamation provides minimum capital requirement setting Birr 60,000,000.00 for general insurance business and Birr 15,000,000.00 for long term insurance and birr 75,000,000.00 to undertake both general and long

term business. Domestic Ethiopian insurance companies are required to provide the minimum subscribed capital of 2,000,000,000 ETB of which 50% has to be paid up capital. By 2016, in Ethiopia there were 17 Ethiopian insurance companies, 1 is government owned, 9 of which are composite insurance companies, meaning those that transact both general and long term insurance in Ethiopia, and 8 deal with general insurance only. The total assets of Ethiopian insurance companies reached 11.3 billion ETB, while total capital reached 2.97 billion ETB and gross premium raking in 6.99 billion ETB. The number of insurance branch offices all over Ethiopia has reached 424 showing a 13% growth over the same period last year. Furthermore, registered in Ethiopia were over 1,950 insurance sales agents, 53 insurance brokers, 97 loss assessors, 2 surveyors and 2 reinsurance companies namely, Africa-Re and Ethio-Re. Micro finance banks and insurance companies are also allowed to provide micro insurance services for low income citizens. All in all, the penetration level of insurance in Ethiopia, Sudan, and Eritrea is 0.5%, which is lower than the region's average of 1.08%.(Nyala insurance sc. annual report,2018,p,8)., The market expansion is also focused in major urban areas than expanding to new markets. According to the record more than 55% of the branches are located in Addis Ababa and the remaining almost all are found in major regional cities namely Adama, Hawassa, Dire-Dawa, Mekele, Bahir-Dar, Gondar, and Dessie & Jimma.

The Ethiopian insurance industry is continued to be challenged by low level of insurance awareness & shortage of skilled insurance professionals, absence of attractive bundle of insurance products, low level of integration among insurers to challenge common issues and unhealthy competition. The alarming rate of road accidents and increasing cost of claims are also great challenges. Specifically in motor class the premium rate driven by intense competition and price undercutting is too low to commensurate the risk accepted (Nyala insurance sc. annual report, 2016, p, 9).

The major achievement of the Ethiopian insurance industry during the year 2016 is the establishment of a local Reinsurance company (Ethio-Re). The establishment of Ethio-Re is believed to reduce cost of re- insurance transactions, enhance underwriting capacity and simplifies treaty negotiations and claim settlement cost in the years to come. In general, the Ethiopian insurance industry is among the lowest in the world and African countries in terms of three measures; namely: insurance premium market share, market penetration rate and insurance density. The measure of insurance penetration and density reflects the level of development of

the sector. While insurance penetration is measured as the percentage of insurance premium (in \$) to GDP (in \$), insurance density is calculated as the ratio of premium (in \$) to total population

1.2. Statements of the Problem

An insurance business play dynamic role through diversifying risk from business entity by accepting premium from insured and paying claims. It can happen that the premium collected is less than the total amount of paid for claims, when the insurers are expected to pay for the claims at the time of loss or damage from their capital's, so insurance companies needs capital structure patterns, Tesfa (2016).

Capital Structure is a combination of a company's long-term debt, specific short-term debt, common equity and preferred equity Daniel (2015). The capital structure shows how a company's finances its overall operations and growth by using different sources of funds. Debt rises in the form of bond issues or long-term notes payable, while equity raise as common stock, preferred stock or retained earnings, (Rajan & Zingales, 1995).

Capital structure decision is a business invests in new plant and equipment to generate further revenues and income which is the basis for its growth whereas optimal capital structure is a mixture of equity and debt sources of finances given the value of a firm maximum and keeping its weighted average cost of capital at minimum.Saddam (2014).

While the choice of capital structure is essential for strategic financial decisions of companies, it has been the subject of wide dispute and investigation. Since the publication of the Modigliani and Miller s (1958) worthlessness theory of capital structure, the theory of corporate capital structure has been a study of interest to finance economists.

The determinants of capital structure have been ambiguous for many years and still represent one of the most controversial issues in corporate finance and the issue of capital structure is ignored in developing countries, especially in Ethiopia. The crucial reason is that companies in those countries face major financing limitations, such as undeveloped stock markets and ineffective bank lending, as well as capital market (bond market). Daniel (2015) & Mohammed (2016)

A few of the developed theories have been tested by empirical studies and the theories themselves lead to different, not mutually exclusive and occasionally opposed result and conclusion. This makes the capital structure arguments so exciting. Nasser Najjar et al (2011) clarified several theoretical studies and much empirical researches have addressed those issues, but there is not yet a fully supported and commonly accepted theory; and the dispute on the

significance of determinant factors is still unfolded. For instance, trade-off theory, recognize; companies should increase their leverage (debt finance) to take advantage from tax benefits. Daniel (2015) & Mohammed (2016)

On the other hand, pecking order theory, suggest companies better to finance with internal funds rather than debt if internal equity is sufficient due to the asymmetric information which means information asymmetry indicates that managers know about their firm's prospects, values and risks better than do outsiders and investors Saddam (2014). Another theory of capital structure is agency cost theory, which is developed by Jensen and Meckling (1976). This theory emphasize on the cost associated with conflicting interests between managers, debt holders and equity holders. According to agency theory, with the issuance of debt in exchange for stock, managers can bond their promise to pay out future cash flows in a manner that is impossible to achieve by slight dividend increases. Thus, agency cost theory suggest that one firm can achieve an optimal capital structure thereby maximizing its value by balancing the marginal costs of debt with the marginal benefits (Jensen, 1986). Thus, the lack of an agreement about what would qualify as optimal capital structure has necessitated the need for this research.

On the other side, certain empirical study attempt to assess capital structure including Muhammad (2009) and Muthama (2013) revealed the impact of macroeconomic or external factors on the capital structure decision made by companies commonly in developed countries. According to Muhammad (2009), GNP, prime lending rate and financial liberalization are the main macroeconomic factors that affect financing decision of companies in context of Japan and Malaysia. His study also revealed that among the regressed variables, financial liberalization is the only significant factor that can affect capital structure decision of companies in Pakistan. Muhammad et al. (2013) emphasized macroeconomic factors of GDP growth rate, inflation rate, and interest rate as major determining factors for financing choice in their study on listed companies in Kenya. On the other hand, regression results of a study conducted by Mehdi et al. (2012) stated that macroeconomic variables of GDP, interest rate, inflation, and the exchange rate have no any significant impact on the corporate capital structure decision.

As per the researcher's knowledge as compared to company's specific determinants, there were only few studies that have been conducted regarding macroeconomic or external determinants of capital structure. Muhammad et al. (2009) found per capita GNP, economic growth, prime Lending rate and financial liberalization as significant external factors that influences the choice

of funding. More recent work in developing country context by Muthama et al. (2013) implied that GDP growth rate, interest rate, and inflation are major macroeconomic or external factors that can influence decision of capital structure for listed companies in Kenya.

In the Ethiopian context, as per the researcher's knowledge limit, there were few studies that have been conducted in relation with capital structure determinants as compared to other developed as well as developing nation

In Ethiopian context, Amanuel (2011) evidence from manufacturing share companies in Addis Ababa city, Bayeh (2011), Regassa(2014), Abate,(2012), kinde,(2011), Getahun,(2014) and Solomon (2012) separately in case of insurance companies of Ethiopia, Woldemikael, (2012) evidence from Ethiopian banking sector and Usman (2013) in case of large tax payer companies in Ethiopia.

In the Ethiopian context in case of insurance sector, as per the researcher's best knowledge limit, there were too few studies that have been conducted in relation with capital structure determinants as compared to other developed countries. Among those studies Tesfa (2016) Bayeh, (2011), .Solomon (2012), Saddam, (2014), Daniel (2015), Guruswamy and Adugnaw (2015) among most of them examine only, firm specific factors. although their result was also debating each other. as well as limited data set that covered less than fifteen years

Therefore, the determinants which affect the capital structure of insurance companies have not been effectively investigated; in these reason particularly private Ethiopian insurance companies don't know obviously the specific and external determinants that affect their capital structure, leading them to make optimum decisions regarding their financial combination that are disposed to error. Based on the above facts the researcher is highly motivated to see the determinants of capital structure of private Ethiopian insurance industry.

So, this study attempts to clarify some of the key companies specific and macroeconomic factors that managers need to consider when setting their "optimal" capital structure. Thus, goal of this study is to understand and isolate the effects of companies specific and macroeconomic factors on the capital structure of selected private insurance companies in Ethiopia .This study used panel data of selected private Ethiopian insurance companies from 2004 to 2018 of 15 years, besides, fifteen years is assumed to be relevant to power of test and degree of freedom. For a given sample size, the power is greater when the span is large. (Gujarati 2004)

Thus, this paper extended previous research and contributes to the literature on the determinants of capital structure in a number of ways. First, a comprehensive research on leverage determinants using adequate economic data has not been conducted in private Ethiopian insurance companies. Hence, this study can be used to fill the gap in the insurance literature. Second, using the panel data to analyze the effect of the companies specific and macroeconomic determinant variables on capital structure for private Ethiopian insurers to give more information to dwell up on when they make their business strategies decision. Thirdly, using empirical econometric methodology to provide corporate managers as well as policy maker with awareness on major determinant influencing capital structure and provide them with reference information that they can make decision

Therefore, this study seeks to fill the above clarified gap by providing information about the essential internal and external determinant that affects capital structure by examining, liquidity, profitability, growth opportunity, size of companies and asset tangibility as well as external factor GDP growth, interstate and inflation in the selected eight private insurance sector in Ethiopian that have been operating in the country for 15 consecutive years currently by utilizing the most recent dataset, covering the period 2004-2018,

1.3 Objectives of the study

1.3.1 General Objective of the study

The main objective of this study was empirically examine the potential determinants of the capital structure decision in selected eight private insurance companies in Ethiopia

1.3.2 Specific Objectives of the study

Based on the above main objective of this study and the problem statement, the study has the following specific objectives

1. To identify firm specific factors that can affect capital structure of private insurance companies in Ethiopia.
2. To identify external factors that can affect capital structure of private insurance companies in Ethiopia.
3. To recognize pecking order theory which predicts that firms first use internal financing and then move to debt and finally they issue new equity

1.4 Hypothesis

In line with the objective described above, the following hypotheses were formulated based on the review of theories and previous related empirical findings summarized in the literature review chapter.

- **Hypothesis 1:** There is a significant negative relationship between liquidity and leverage of private insurance companies in Ethiopia.
- **Hypothesis 2:** There is a significant negative relationship between profitability and private insurance companies leverage in Ethiopia.
- **Hypothesis 3:** There is a significant positive relationship between private insurance company's size and their leverage in Ethiopia.
- **Hypothesis 4 :** There is a significant positive relationship between growth opportunity and leverage of Ethiopian insurance companies
- **Hypothesis 5:** There exists a significant positive relationship between asset tangibility and leverage of private insurance companies of Ethiopia
- **Hypothesis 6:** There is a significant positive relationship between GDP growth rate of Ethiopian economy and leverage of private insurance companies in Ethiopia
- **Hypothesis 7:** There is a significant positive relationship between interest rate and insurance companies leverage in Ethiopia.
- **Hypothesis 8:** There exists a significant positive relationship between inflation rate and insurance companies leverage in Ethiopia.

1.5. Scope of the study and limitation

This study is limited to analyze the determinants of capital structure decision of 8 selected Ethiopian private Insurance Companies from the years 2004 to 2018 there by identifying the most dominant theory for the sector. The scope of study is to focus on eight private Insurance companies and their financial data of 15 operating years and remain of companies did not fall in the study is less than fifteen years of age in the market. The study based key company's specific factors (liquidity, profitability, company's size, asset tangibility, and premium growth) and macroeconomic variables (GDP growth, inflation rate and interest rate) this study was based on secondary data collected from National Bank of Ethiopia and ministry of finance and economic development (MoFED). Therefore, the quality of the study depends purely upon the accuracy, reliability and quality of this secondary data source.

1.6 Significant of the Study

In the current competition of Insurance industry, the beneficiaries of this study will be private Insurance companies in Ethiopia. These companies are interested in determining the capital structure patterns; because they require funds to settle the claims or pay damages at the time of loss. Making capital structure decision at the optimal level is important for these companies as it greatly help in dealing with operating in a competitive environment. Also, Investors (shareholders) and policy makers will also benefit from this study. The study has also provided recommendations to the regulator of insurance companies in Ethiopia; the National Bank of Ethiopia, what level of equity capital is needed to maintain the soundness and healthy operation of Insurance Companies and other interested parties are also be expected to benefit from this study like other potential researchers may get encouraged to conduct related research in the insurance sector

1.7. Organization of the research paper

This study focuses on examining the effects of companies specific and macro-economic factors on the capital structure decisions of companies in private Ethiopian insurance sector. This research paper is organized into five chapters. The first chapter deals with introduction of the study. It also discusses about the overview of Ethiopian insurance sector in general. The second chapter presents the review of related literature on the theoretical framework of capital structure and prior empirical findings on the determinants of capital structure decisions. Then, the third chapter explains about methodology and methods of the study. Empirical findings and analysis are presented in the fourth chapter. The last chapter presents the summary, conclusion recommendations of the study which is drawn from the findings of the study. And give direction for further research area

CHAPTER TWO:

2. REVIEW OF LITERATURE

2.1 Concepts and Definitions

The capital structure is how a company's finances its overall operations and growth by using different sources of funds it refers to a financial mix of debt and equity that one companies relied on; in order to finance its operations or, it is a composition of various sources of finance including internally generated retained cash flows and externally issued debts as well as equity shares that make up assets of a particular entity. Capital Structure Decision is a business invests in new plant and equipment to generate additional revenues and income which is the basis for its growth. An optimal capital structure is a mixture of equity and debt sources of finances given the value of a firm maximum and keeping its weighted average cost of capital at minimum

2.2. Theoretical Framework of Capital Structure

According to the publication of the Modigliani and Miller's (1958) worthlessness theory of capital structure, the theory of corporate capital structure has been a study of interest to many researchers and scholars. Over the years, major theories of capital structure emerged which diverge from the assumption of perfect capital markets under which the "irrelevance model" is working.

The first is the trade-off theory which assumes that companies trade off the benefits and costs of debt and equity financing and find an optimal capital structure after accounting for market inadequacies such as taxes, bankruptcy costs and agency costs. The second is the pecking order theory (Myers, 1984) that contends that companies follow a financing order to minimize the problem of information asymmetry between the companies' managers-insiders and the outsiders shareholders.

2.2.1 Modigliani and Miller theory

Capital structure, in finance, according to the Modigliani-Miller theorem refers to the technique a corporation finances its assets through some combination of equity, debt, or hybrid securities. Companies' capital structure is then the arrangement or structure of its debt and equity.

The Modigliani and Miller hypothesis, proposed by Franco Modigliani and Merton Miller (1958) forms the source for modern viewpoint on capital structure; even if it is generally viewed as an

exclusively theoretical result since it assumes away many important factors in the capital structure decision. The theorem expresses that, in a perfect market, how a company's capital structure is irrelevant to its performance. This result supplies the basis with which to review accurate world descriptions why capital structure is relevant, that is, a company's value is affected by the capital structure it employs. Some other reasons include bankruptcy costs, agency costs, taxes, and information asymmetry.

Capital structure is defined as the specific mix of debt and equity a company's uses to finance its operations. Myers and Majluf (1984) and Myers (1984) made an important loud up in capital structure literature by making available pecking order and static trade-off theory respectively. The critical status of the theory is to explain the fact that corporations frequently are financed to a certain extent with debt and the remaining with equity. The theory usually explains that there is a benefit to financing with debt, the benefit obtained from tax deductions of debt but it has its own cost using debt as source of financing; the costs of financial distress comprising bankruptcy costs of using debt and non-bankruptcy costs. The marginal relevance of additional increases in debt declines as debt increases; however, the marginal cost increases, so that companies that are optimizing its overall value will focus on the trade-off when choosing how much debt and equity to use for financing. However, Myers (2001) states that there is no universal theory for the choice of capital structure and no reason to expect one.

A general theory of the optimal capital structure is not possible because of the crowd and complication of factors that explain how the companies are financed. According to Baker and Wurgler (2002) there is also another theory, the market timing hypothesis, which focuses on how companies and businesses in the various economic sector. According to Baker and Wurgler (2002) there is also another theory, the market timing hypothesis, which focuses on how companies corporations in the various economic sectors come to a decision whether to finance their investment with internal sources or with external sources. It is one among the many theories of finance used in the capital structure, but its idea has some contradiction with other capital structure theories like the pecking order theory and the trade-off theory, for example. This theory hypothesis represents that the first order factor in the companies specific characteristics of a corporation's capital structure, that is, the fractions of debt and equity in their liabilities, is the relative incongruity in the pricing of instruments when the companies is going to finance its investment.

To be accurate, companies do not generally be concerned whether they finance with debt or equity; they just choose the form of financing which, at that moment, gives the impression to be more treasured by financial markets. This theory can be classified as part of the behavioral finance literature, because it does not explain why there would be any asset mispricing, or why companies would be better able to tell when there was mispricing than financial markets. Rather it just assumes these mispricing exists, and describes the behavior of companies under the even stronger assumption that companies can detect this mispricing better than markets can. The empirical confirmation for this hypothesis is miscellaneous. On the one hand, Baker and Wurgler (2002) themselves proves that an index of financing that reveals how much of the financing was done during hot equity periods and how much during hot debt periods is a good indicator of companies leverage

2.2.2 Pecking Order Theory

The pecking order theory encouraged by Myers and Majluf (1984), assumes that cost of funding increases along with asymmetric information. Asymmetric information shows that managers know about their company's visions, values and risks better than do outsiders and investors. According to this theory, there is no clear cut point for optimal capital structure to exist. However, Pecking order model explains that companies should follow a hierarchy to finance their operation. Because, there are two equity types namely; internal and external, one at the top of the pecking orders hierarchy and the other at the bottom. In another word, this theory suggest that companies should list sources of finance by first selecting internal equity or booked cash flow, then debt and thereafter external equity of share issuance as a last alternative. Myers and Majluf (1984) argue that the higher the profitable a companies is the lesser a likelihood of using more debt due to the availability of internal retained earnings to finance its operations. In contrary manner with tradeoff and agency cost theories, this theory predicts that less profitable companies will use more debt finance because they do not have internal funds sufficient for their investment programs and due to that debt financing is first on the pecking order of external financing before equity.

According to pecking-order model, the attraction of interest tax shields is assumed as a second-order effect. Leverage ratios change when there is an imbalance of internal cash flow, net of dividends, and real investment opportunities. Highly profitable companies with limited investment opportunities work down to low debt ratios. Companies whose investment

opportunities exceed internally generated funds are forced to borrow more (Brealey and Myers, 2003). This indicates that unlike trade off and agency cost theories of capital structure, pecking order model predicts the existence of negative relationship between companies' profitability and its leverage implying that more profitable companies will become less levered over time due to utilization of their internally generated cash flows to finance operations. The negative prediction of pecking order theory for the relation of profitability and leverage seems reliable and supported by sufficiently of empirical studies. It also predicts negative relation of companies' leverage with size factor indicating that large companies have been around and are better known thereby they face lower adverse selection and can more easily issue equity as compared to small companies with severe adverse selection problems. Besides, it predicts that tangibility of assets appears to have negative impact on leverage (Frank and Goyal, 2005). On the other hand, pecking order theory predicts a positive impact of growth opportunities and dividend payout factors on leverage. According to this theory, the positive association of companies' growth and its leverage implies that companies with more growing assets should accumulate more debt through time. Pecking order model's prediction of positive relation between dividends and leverage of a company's suggests that paying out dividend in form of cash increases financing deficit which in turn forced a companies to increase the amount of debt issuance in order to fill such deficit (Frank and Goyal, 2005).

Pecking order theory is considered important to this study because it explains why the most profitable companies generally borrow less- not because they have low target debt ratios but because they do not need outside money. Less profitable companies issue debt because they do not have sufficient internal funds for their capital investment and because debt financing is preferred to equity financing under the pecking order theory. More importantly, this theory demonstrates the inverse relationship between profitability and financial leverage within the industry. Suppose companies generally invest to keep up with the growth of their industries. Then rates of investment will be similar within an industry. Given sticky dividend policy, the least profitable companies will have less internal funds and will end up with borrowing more. Profitability is one of the independent variables of this study

2.2.3 Agency cost theory

Agency theory believe that firms with high leverage be inclined to invest sub-optimally and under-invest which might imply the transferring of wealth from debt holders to shareholders. As

a result, lenders must require collateral. For firms that could not provide enough collateral, lenders might ask for higher lending costs. There are various conceptions for the effect of tangibility on leverage decisions. If debt can be protected against assets, the borrower is limited to using debt funds for specific projects. Creditors have an improved guarantee of repayment, but without collateralized assets, such a guarantee does not exist. Myers and Majluf (1984)

This agency model predicts a negative relationship between tangibility of assets and leverage which means debt are lower for firms with more tangible assets (Myers 2003). The tangibility is estimated as the ratio of fixed assets to total assets in the empirical model for this study. According to agency theory, with the issuance of debt in exchange for stock, managers can bond their promise to pay out future cash flows in a manner that is impossible to achieve by slight dividend increases. By doing so, they can give debt holders the right to put a companies into bankruptcy court if they default with their promise to make the interest plus principal payments. As a result, debt lowers the agency costs associated with free cash flows by decreasing the cash flow available for spending based on the managers' judgment. These effects of debt considered as a potential determining factor of a companies' financial mix (Jensen, 1986). This theory emphasized that companies with more debt as compared to their equity will benefit from the tax

Advantages in those interest payments are tax deductible. On the other hand, this theory also suggests that increasing leverage will have costs as well. Similarly speaking, as a company's becomes more leveraged, the ordinary agency costs associated with debt finance (including bankruptcy costs) tend to increase. Thus, according to agency cost theory one company can achieve an optimal capital structure thereby maximizing its value by balancing the marginal costs of debt with the marginal benefits (Jensen, 1986).

Agency theory of Jensen and Meckling (1976) also suggest that to control the agency costs caused by free cash flow, companies with more profitable assets will tend use a larger portion of their earnings for debt payments. This will give such companies a debt capacity thereby they can leverage themselves by using such debt capacity due to their good credit ratings. Similarly speaking, according to agency theory companies with higher profits as compared to their investments also benefit from debt, which in turn reduces the problem, associated with free cash flow (Jensen, 1986). Thus, agency theory predicts a positive relation between companies' profitability and its leverage. Besides, as per this theory, agency costs associated with debt are

lower for companies with more tangible assets implying a positive relationship between tangibility of assets and leverage. Conversely, agency theory predicts an inverse relation of companies' growth opportunity and its debt level emphasizing that the underinvestment problem is more serious for growing companies that leads them to be less leveraged (Frank and Goyal, 2005).

2.2.4. Tradeoff Theory

According to Myers (1984), propose companies will have an optimal capital structure by using debt finance until the present value of benefits from debt equals the present value of costs associated with debt financing. Similarly speaking, this theory stated that an optimal capital structure can be achieved by equating the present value of tax shields on debt with the present value of financial distress (bankruptcy) costs associated with leverage. Moreover, it assumes that investors are risk-neutral and face a progressive tax rate on end-of-period wealth from bonds. Dividend yields and capital gain yields are taxed at a single constant rate. So, such risk neutrality forces the investor to invest into whichever security offers the better expected after-tax benefit. Tradeoff theory also assumes that until the companies faces a constant marginal tax rate on end-of-period wealth by which it can deduct both interest and principal payments, but the investor must pay taxes as far as these payments are received. According to this theory, non-debt tax shields do exist but it is impossible to arbitrage them across companies or over time. If the companies make a default in its debt payment, then it will incur high amount of financial distress costs thereby "the optimal capital structure pie shrinks."

In addition, Tradeoff Model of Myers (1984) explains that an increase in non- debt tax shields and marginal tax rate on bonds will lead to the reduction of optimal debt level; whereas an increase in personal tax rate on debt increases optimal level of leverage. Based on the above stated grounds; Trade Off Theory predicts a positive relationship between profitability and leverage, implying that expected bankruptcy costs are lower and interest tax shields are more valuable for highly profitable companies than less profitable companies. Similarly, this theory predicts that company's size, tangibility of assets, GDP growth rate, interest rate, and expected inflation to have positive impact on companies' leverage. Generally, the tradeoff's prediction of positive relation between size and leverage is interpreted as large companies will have more debt since larger companies are more diversified as well as more matured and will have lower default risk (Frank and Goyal, 2005).

Tradeoff's theoretical prediction of positive relation between GDP growth rate and leverage implies that companies will have more debt in the period of high economic growth than did in lower economic growth. On the other hand, predicted positive relation between interest rate and debt level can be interpreted as companies will prefer more debt than equity in the times of higher interest rates. Because, as interest rate increases; equity has become somewhat more expensive than debt, that leads companies to issue more debt. According to trade off theory positive relationship between inflation and leverage reflects that companies more likely to raise substantial amount of debt in times of inflationary economy than they do in less inflationary state of an economy. This is due to that the real value of tax deductions on debt will be higher when inflation is expected to be high (Frank and Goyal, 2005). Besides, this theory also predicts that companies' growth opportunity and business risk factors to have negative relationship with leverage. The negative relationship among growth opportunity and leverage expressed that growing companies will lose more of their value when they go into distress due to their debt usage (Frank and Goyal, 2004). Finally, as per trade off theory the negative relation of business risk and debt level is an indication of that companies with more volatile cash flows are those more likely to face higher expected costs of bankruptcy. Thus, those companies with volatile cash flows or earnings will likely to use less debt than companies with less volatile cash flows through period (Frank and Goyal, 2004)

2.2.5. Financial Theories from insurance perspective

For insurance companies, the trade-off and pecking order theory can be applied in case of financing decisions of insurance operations. As has been already discussed earlier, premiums received for services of insurance covers are the main source of finance for insurance companies, with the unpaid claims and unearned premiums as the corresponding liabilities. In lines with capital structure, insurance policies take some characteristics with debt instruments such as bonds. The customer of insurance company pays a certain amount to the insurer, either at once or periodically, in exchange for the promise that a sum of money will be paid out as compensation in accordance with the terms of the policy agreement. This denotes that, as if the insurer borrows money from the policyholders risking. Babble, (1995). That means the insured like lenders, the insurer like borrowing entity, the premiums paid constitute the amount lend by the policyholders and the claim payments are equivalent to the refund of the principal. It should be stressed that we refer to the policyholders as a whole, not individual policyholders Therefore, we will treat an

increase in policies, which should eventually translate into larger technical provisions, as an increase in leverage. Insurance policies still differ significantly from debt instruments. Most conspicuously, while for debt securities the principal is a fixed amount to be paid at a predetermined date, for an insurance policy it is highly uncertain whether the contractual conditions for a pay-out will be met. Moreover, in the latter case the size and the timing of the potential payment are uncertain. Another crucial difference is that insurance policies are not only a source of financing. Underwriting insurance contracts is the focus of the sector and can generate earnings for the companies. Debt financing, in contrast, is in itself not profitable. I will now interpret the three major capital structure theories, i.e. trade off theory, pecking order theory and agency cost theory allowing for the fact that the main source of leverage is now the issuance of insurance policies rather than debt.

2.2.5.1 Pecking Order Theory from insurer perspective

The pecking order theory emphasizes on the analysis of information asymmetry. Thus, in order to properly apply this theory to insurers; it is clear to take this aspect into account. Both premiums from policyholders and funds gained through other liabilities obviously forms of external financing. In this wisdom, the pecking order theory shows us that external premium financing are more expensive than internal funds because outsiders do not have sufficient awareness about the insurer's situation. In particular, potential policyholders are uncertain about the future ability of the insurer to cover their claims. As outsiders, it is generally very difficult for them to judge the adequacy of the technical provisions and the capital buffer. Insurers do not disclose detailed information about the risks they are covering and policyholders usually lack the technical knowledge of calculated risks of the company, Cheng and Weiss (2012). Insurance liabilities have legal priority over debt. In case of insolvency the latter will only be paid after all insurance liabilities have been settled. As a result, investors holding debt should be more interested in the fundamental value of the insurer than policyholders.

The pecking order theory would thus state that debt instruments are more expensive sources of funds than insurance policies, because of their greater sensitivity to inside information. For stock insurers another possibility to gain financing is issuing new shares. However, according to the pecking order theory, insurers would prefer the previous two possibilities, as the residual nature of equity holders' claims results in the largest information sensitivity, Miller (1989)

In summary, the pecking order theory proposes that insurers will build up financial loose whenever they can. When, on the contrary, they face a financing deficit, they will first use the internal funds available to them. Then, they would turn to external financing. First, by underwriting insurance policies, next, by issuing (subordinated) debt and, finally by issuing new shares

2.2.5.2. Trade-off Theory from insurer perspective

From the viewpoint of general version of the tradeoff theory, the focus is on costs and benefits of leverage and considers them against each other. The fact that insurance policies can lead to an endorsing profit is clearly an important benefit in contrast with equity capital. In addition to this, the tax shelter provided by increased leverage applies to insurance liabilities as well. Paying out claims or reserving funds for future claim payments reduces the taxable profit. Moreover, an additional benefit of the increased use of policies as a source of funding is that this way the insurer can feat the law of large numbers to a greater extent and that it can further diversify its risks. The law of large numbers is stating that when an experiment is repeated a larger number of times, the average of the results will approach the expected value more and more. Subsequently, when an insurer issues more policies, it will be able to predict the total future claim payments more precisely. As a result, the level of premiums needed can be determined more precisely This allows the insurer to estimate the required premium level more accurately and decrease the overall risk level of the insurer's portfolio, resulting in more profitable operations in the long run, (Nissim, 2010)

Also, when the surplus of an insurer relative to its total assets is reduced below a certain level, regulatory action will be triggered. In that case, some constraints will usually be imposed on the companies which might reduce the value of the company by limiting its pleasure. The threat of bankruptcy could also impose some emergency measures such as selling off investments before maturity at a value below par or raising capital at a low issue price. Considering the agency conflict considerations, the conflict of interest between the manager of the company and the shareholders can be recognized in the same way as in the general trade off case. Given the time lag between collection of premiums and payment of claims, we know that insurance managers always have significant amounts of cash they have to invest. Therefore, we could expect that they are, compared to their peers in other industries, better able to maximize their personal utility through the choice of investments. However, matching assets to liabilities plays an important

role for insurers. The degree to which managers have the ability to choose assets according to their personal preference is thus not necessarily greater than in other industries. Of course, many other possibilities exist for management to optimize their own situation while not necessarily acting in the best interest of shareholders, (Garven, 1987) Identical to what was written above, shareholders can expect to incur some agency costs resulting from the conflict. Whereas an increase in debt clearly reduces these costs, the effect of

More insurance liabilities are ambiguous. More policies will lead to greater claim expenses in the future, which one could interpret as reducing the cash available for discretionary spending by managers. Nevertheless, if an insurer is able to gain an underwriting profit on the additional policies, i.e. the premium revenue exceeds the claim expenses, and then its profit would increase. Consequently, managers could actually have more funds available to spend. Mayer's and Smith (1994) argue that the manager-shareholder conflict is more severe for companies active in lines of insurance that require significant managerial discretion. This is typically the case when policies are non-standardized and premium rates are of haphazardly set. It can also be expected that, the policyholders, will find it more difficult to mitigate this agency conflict because they usually have less control over their risk managers' behavior, Mayer's & Smith, (1994). Insurers' use of pure debt is minimal. Accordingly, although still valid, the agency conflict between shareholders and bondholders is of little importance. Yet, a very similar, but much more important, kind of agency conflict exists between shareholders and policyholders. Shareholders have a residual claim on the companies, i.e. they have a claim on the value of the companies that remains after policyholders (and debt holders) have been paid.

Under certain circumstances it will be optimal for the shareholders to increase the risk of the companies' activities or investments after insurance policies have been issued. Stepping up the level of risk can, for instance, be achieved by engaging in more risky lines of insurance, investing the premiums in speculative assets or using less reinsurance. Potential policyholders will take this possibility into account when they choose an insurance provider because it would increase the risk of their claims not being paid. This will translate into lower prices for those insurers which are expected to change their risk level, such that the owners of the companies bear the costs of this agency conflict by holding more capital the insurer can reduce its incentives to shift risks, thereby reducing the agency costs Cummins & Nini, (2002);

2.3. Empirical review on Capital structure

2.3.1 Empirical review in developed countries

After introduction by MM on their paper on capital structure, there are pretty a number of researches directed towards finding the determinants of capital structure choice. Research on the determinants of capital structure primarily was directed mainly on companies in the USA. One of the oldest researches was approved by Titman and Wessel (1988) where they studied the theoretical determinants of capital structure by investigative them empirically. The theoretical aspects namely; asset structure, non-debt tax shields, growth, uniqueness, industry classification, companies size, earnings volatility and profitability were tested to see how they affect the companies' debt-equity choice.

As the previous, there were several papers written by research scholars on capital structure choices that are frequently based on empirical data of the companies in the United States only. To broader the understanding of capital structure models, Rajan and Zingales (1995) have tried to find out whether the capital structure choices in other countries is based on the similar factors of those influencing capital structure of U.S companies. For this purpose, the accounting data and monthly stock prices for five years, from 1987 till 1991 were collected from the international financial database called Global Vantage of all the group 7 countries; namely the united states, Japan, Germany, France, the united kingdom, Italy and Canada. Five different leverage ratios were calculated from the data collected that includes non-equity liabilities to total assets, debt to total assets, debt to net assets, debt to capital and interest coverage ratios. It appeared that the corporate leverage was fairly similar across the group-7 countries with the exception of the United Kingdom and Germany, where companies were substantially less levered. Rajan and Zingales noted that across the countries, the asset tangibility was positively correlated with leverage for all the countries as theory supported the notion that companies having more fixed assets in their assets mix will use that as collateral to get more loans or debt. The market to book ratio seemed to be negatively correlated with leverage except for Italy. Having high market value of the stocks would enable companies to issue more stocks and not seeking debt. Size of companies was positively correlated while profitability was negatively correlated with leverage in all countries except Germany. In another study, Chen and Jiang (2001) used the structural equation modeling technique to examine the determinants of capital structure choice for Dutch companies. In their study, Chen and Jiang used seven independent variables and tested them to see the effect on leverage which includes provision ratio, tangibility, company's size, growth

opportunity, profitability, earnings volatility and flexibility. The financial data from 1992 through 1997 were extracted from Dutch companies. The results indicated that provision, tangibility, company's size and financial flexibility appeared very significant while growth, profitability, volatility and industry dummy appeared to be least significant factors in the Dutch capital structure. According to Hussain and Nivorozhkin (1997) conducted capital structure choice of listed companies in Poland using the company's level panel data. The result of the study shows that the companies in Poland generally had very low leverage levels due to reluctance of banks to grant loan to old and risky companies and the growing of equity market there. Therefore, Hussain and Nivorozhkin tried to find out what companies characteristics that a company has in order to get more leverage or higher leverage. To answer their question, eight companies specific factors were examined, namely ownership structure, dividend policy, asset characteristics, companies size, profitability, age, taxes and cash positions. The results indicated that large, new, foreign owned companies and companies with strong cash positions have higher levels of leverage. The age factor indicated that old companies enjoy smaller leverage and this could be due to older companies having better reputation and can rely on stock market for financing. Except for age, other factors examined appeared as expected.

One of the recent studies on the determinants of capital structure choice of a developed nation was carried out by Miguel and Pindado (2001) gathered some new evidence on the corporate capital structure from Spanish panel data. Company's specific factors and institutional characteristics were examined to see the effect on leverage. Among the factors considered in this research include tax aspects, agency cost problems, financial distress and interdependent between investment and debt. The financial data of companies were gathered from the Security Exchange Commission while the market value of equity was extracted from the Stock Exchange Official Daily List. Altogether 133 companies from 10 industries between 1990 and 1997 were analyzed. The results indicated that the non-debt tax shields and financial distress costs were negatively related to leverage. A negative relationship was also noted between cash flow and leverage in the presence of asymmetric information. As a whole, these results were in line with the pecking order theory.

Another study accompanied by Najjar and Petrov (2011) examined the impact of five explanatory variables of profitability, growth opportunity, companies size, liquidity, and assets' tangibility on leverage as represented by total debt ratio, in case of Bahraini insurance companies

for the period from 2005-2009. According to their regression results companies size, liquidity, and asset's tangibility are major factors that affect capital structure decision. They also emphasized company's size and asset tangibility to have a positive relationship with companies leverage while liquidity has a negative impact on debt level of insurance companies in Bahrain. Lim (2012) in his study on financial services listed companies of china assessed the relationship between independent variables of profitability, non-debt tax shields, earnings volatility, tangibility, size, growth, and non-circulating shares with the dependent variable of leverage ratio over the period of five years from 2005-2009. He found that profitability, company's size, non-debt tax shields, earnings volatility, and non-circulating shares are major factors that affect leverage of financial service listed companies in China. Lim (2012) also revealed that among the regressed factors only size is positively related with leverage while the others appeared a negative relationship with the dependent variable.

In case of non-financial sector environment as well, numerous empirical studies in relation with company's specific or internal determinants of capital structure have been conducted. For instance, Song (2005) regressed tangibility, non-debt tax shield, profitability, size, expected growth, uniqueness, business risk, and time dummies against the dependent variable of leverage as represented by three measures namely; short term, long term and total debt ratios. Then he found that among the regressed variables only expected growth and uniqueness were insignificant for affecting financing decision of Swedish companies, while the others found to be significant determinants of capital structure. In more specific manner, Song (2005) revealed a negative impact of profitability on all the three measures of leverage, while size is positively related to both total debt and short-term debt ratios; it is negatively correlated with long-term debt ratio. He also found that tangibility has a positive relationship with total debt ratio and long-term debt ratio whereas it appears negative correlation with the short-term debt ratio. According to his study findings another significant variable of non-debt tax shield has a positive effect on short-term debt ratio, while it is negatively correlated with long-term debt ratio. Song (2005) also revealed the significant positive impact of business risk on total and short term debt ratios and significant negative impact on long term debt ratio.

Another study by Chen and Strange (2005) found that profitability, size, risk, age, and ownership structure factors to have significant power in determining the financing decision of Chinese listed companies. Their study results also suggest that profitability is negatively related to capital

structure at a highly significant level. They also found that size and risk of the companies are positively related to leverage ratio in terms of market value measures of capital structure; whereas age factor is positively related to leverage, indicating access of the companies to debt finance is more easily judged by book value. According to their study findings, another significant variable of ownership structure found to have a negative effect on the capital structure decision of Chinese listed companies. Beyond the above findings, tax factor is found not to have any influence on financing decision of companies investigated.

2.3.2. In Developing Countries.

There were several empirical studies undertaken by researchers on capital structure choices in the developed nations. Relatively little research work on companies' financing decision has been done in developing countries as compared to developed countries that saw the applicability of the theories of capital structure generated from them, Shah & Khan (2007). The main difference between developing and developed country is that in developed country companies finance their leverage with long term debt and short term debt is mainly contributing in leverage of companies in developing country (Booth et al 2001). Mayer (1990), Singh (1995), Cherian (1996), Cobham and Subramanian (1998) were among the scholars who have studied the capital structure issue in the developing country.

According to Naveed et al. (2010) on their study for life insurance sector of Pakistan regressed company's specific factors of profitability, size, asset tangibility, age, growth opportunity, liquidity, and risk against the dependent variable of leverage as measured by total debt ratio over the period of seven years from 2001 to 2007 Their regression result showed that size, profitability, liquidity, risk, and companies' age are the major factors that influence capital structure decision of life insurance companies in Pakistan. Moreover, they explained that company's size and risk are positively related with leverage while profitability, liquidity, and age are negatively related with the dependent variable of total debt ratio. On the other hand also found that the remaining two variables of growth opportunity and asset tangibility as insignificant to influence debt level of Pakistani life insurance companies. Muhammad et al. (2013) on their study in case of insurance companies in Pakistan over the period of ten years from 2001-2010, regressed six explanatory variables of profitability, size, risk, tangibility, liquidity, and companies growth against the dependent variable of leverage represented by total debt ratio. Their study result revealed that size and risk having positive relationship with

leverage; whereas profitability and liquidity have a negative relationship with the dependent variable. Beyond this they also implied that asset tangibility and growth have no any significant impact on companies' financing choice in Pakistani insurance sector. Sidra et al. (2013), on their evidence from Pakistani banking sector by using a panel data set for the period of 2007 - 2011 found size, tangibility, profitability, growth opportunities, and liquidity as significant determinants of capital structure. More specifically, according to their study results; size and liquidity of the banks in the sample have positive impact on leverage, whereas; tangibility, profitability, and growth opportunities appear a negative relationship with leverage concompanying trade-off, agency cost, and pecking order theories for banking sector of Pakistan. Attaullah and Safiullah (2007), in case of Pakistan listed non-financial service company's regressed six independent variables to measure their effect on leverage. From their study they found three variables of tangibility, growth opportunities, and profitability as significant determinants of capital structure decision made by listed non-financial companies of Pakistan whereas size, earnings volatility, and non-debt tax shields found insignificant in affecting the dependent variable. Moreover, they found that profitability and companies growth variables to affect leverage negatively; whereas tangibility factor affecting leverage of Pakistani listed non-financial service companies positively. Hisham and Basil (2007) from their study in case of Jordanian industrial sector for the period of five years from 1996-2000 found profitability, tax, companies size, sales growth rate, market-to-book ratio, assets structure, liquidity, and dividends as influential factors affecting capital structure decision of Jordanian industrial companies. More specifically, they found a positive impact of size, market-book ratio, and sales growth rate factors on leverage while factors including profitability, tax, liquidity, and dividends appear a negative association with leverage of Jordanian industrial companies

In African case, only as compared to macroeconomic or external determinants; there were several studies that have been conducted in the past concerning internal determinants of capital structure in general and with respect to the financial sector environment in particular. For example, Amide (2007) in case of banking sector of Ghana; working companies specific variables of profitability, growth opportunity, size, tangibility, business risk, and corporate tax then he regressed them against companies leverage represented by three models namely; short term debt, long term debt, and total debt ratios. After the completion of his study, Amide (2007), found profitability, corporate tax, growth opportunity, asset tangibility, and size factors to

influence banks' financing decision in Ghana. In more specific manner, he emphasized that size and corporate tax factors to have significant and positive influence on total debt as well as short term debt ratios; whereas profitability and tangibility appeared a significant negative relationship with short term as well as total leverage of Ghanaian banks. Amidu (2007) also found that corporate tax, company's growth, and size variables to affect long term leverage negatively and significantly; whereas profitability and tangibility established a positive link with long term debt level of banks in Ghana. Likewise, he exposed company's growth factor to have a significant and positive link with short term debt; whereas risk variable appeared as insignificant to influence capital structure of Ghanaian banks in any of the three models. A study conducted by Mohamed and Mahmoud (2013) in case of Egyptian insurance companies took profitability, growth, non-debt tax shields, liquidity, tangibility, size, and companies age as independent variables and regressed them against the dependent variable of leverage ratio as measured by total debt ratio over the period of six years

From 2006-2011. From their study; they revealed that among the regressed variables; company's size, tangibility of assets, profitability, and age factors were positively related with total leverage. On the other hand; growth, liquidity and non-debt tax shield appeared to have a significant negative influence on total leverage of Egyptian insurance entities. Another study made by Ayanda et al. (2013) in case of Nigerian banking sector examined the relationship between total leverage ratio with independent variables of Size, Dividend Payout, Profitability, Tangibility, Liquidity, Growth, and Tax charge over the period of five years from 2006-2010. Their regression result implied that companies size, dividend payout, profitability, tangibility of assets, growth opportunity, risk, and tax charge were significant factors that influence financing decision of companies in Nigerian banking sector during the study period. More specifically, they found out that tangibility, tax charge, growth opportunity, profitability, and risk to have a negative impact on leverage while company's size and dividend payout factors appeared direct relationship with total leverage. A study by Tornyeva (2013) on Ghanaian insurance sector from 2002-2007 examined the impact of profitability, size, growth, tangibility, tax charge, and risk factors on leverage as measured by debt ratio. After the completion of such study it was found that Companies size, profitability, and growth to have a statistically significant impact on capital structure. More specifically, Tornyeva (2013) revealed that companies' size and growth opportunity to have a significant positive relationship with its leverage while profitability

appears a significant negative relationship with the dependent variable. On the other hand, he explained that other factors of tax charge, tangibility, and risk had no any significant explanatory power on debt level of insurance companies in Ghana. For non-financial sector environment of Africa a study made by Tesfaye and Minga (2012) in context of nine African countries including Botswana, Egypt, Ghana, Kenya, Mauritius, Morocco, Nigeria, South Africa, and Tunisia found size, tangibility, profitability, dividend payout, and non-debt tax shields as major companies specific factors affecting financing choice of companies in these nine countries. They also found profitability to have a negative association with leverage; whereas size appears a positive impact on leverage of companies operating in the countries Examined. Moreover, their paper clarified that both non-debt-related tax-shield and asset tangibility were directly related to long-term debt while they were negatively related with short-term debt. Tesfaye and Minga (2012) also emphasized that dividend payout factor negatively influences leverage in terms of long-term debt.

In Ethiopian case, as per the researcher's empirical review; there were several studies regarding internal or companies specific determinants of capital structure in general and for financial industries context in particular. Bayeh (2011) on his study for insurance sector of Ethiopia from the period 2004-2010, took seven factors of profitability, liquidity, growth, age, risk, tangibility, and size as independent variables and regressed them against dependent variable as represented by three models namely; total debt ratio, long term debt ratio, and debt to equity ratio. The results of his study showed that companies' growth opportunity, profitability, age, liquidity, and risk found to have a significant impact on capital structure of Ethiopian insurance companies measured by long term debt and total debt ratios. More specifically, his study results suggested that liquidity to have a significant positive impact on long term debt and debt to equity ratios while business risk appeared a significant positive impact on debt to equity and debt ratio. On the hand, he revealed That growth to have a significant negative impact on long term debt and total debt ratios while Profitability appear a significant negative impact on long term debt ratio and significant direct impact on total debt ratio. Furthermore, he emphasized a positive and significant impact of company's age variable on all the three dependent variable proxies of long term debt, total debt, and debt to equity ratios. However, among the regressed factors he found that asset tangibility and companies size to have insignificant influence on financial structure of insurance companies in Ethiopia recommending static trade off theory as a dominant theory for

the sector. Daniel (2011) on his study for insurance sector of Ethiopia from the period 2005-2014, Profitability, asset tangibility, growth and liquidity were found to be significant in relation to leverage. The negative relationship between profitability and leverage and his recommended that profitable insurance companies prefer internal sources of finance to external sources, hence less debt in their capital structure. The negative relationship between asset tangibility and leverage is an indication that companies with smaller share of tangible assets tend to be more subject to information asymmetries. Mohammed(2014) on his study for insurance companies of Ethiopia from the period 2004-2013 relationship was established between companies specific factors and performance, measures return on asset (ROA) of the companies over a period of ten years. The results show that companies leverage, Size, tangibility and business risk were significant impact on performance of Ethiopian insurance companies. While companies growth and liquidity were not clear and statistical proved relationship are obtained from the regression analysis. The results provide strong evidence in support of the pecking order theory of capital structure which asserts that leverage was a significant determinant of companies' performance. A significant negative relationship is established between leverage and performance. From the findings the researcher recommended that the sample of Ethiopian insurance industry use more equity than debt in financing their business activities, this because if the value of business can be enhanced with debt capital, it is dangerous for the companies. Each Ethiopian insurance industry establishes with the aid of professional financial managers, that particular debt-equity mix that maximizes its value and minimizes its weighted average cost of capital. Saddam (2014) in cause of Ethiopian insurance companies examine both companies specific factors and macroeconomic factors that business risk, companies size, age, and inflation rate variables were significant factors affecting leverage of insurance companies in Ethiopia positively; concompaniesing tradeoff and pecking order theories as prominent theories for the sector. On the other hand, profitability, liquidity, growth opportunity, GDP growth rate, and interest rate variables found as insignificant to affect the dependent variable. Thus, Ethiopian insurance companies and their managers are advised to have closer attention on business risk, size, age, and inflation rate factors in order to make optimal decision pertaining to capital structure. Besides, they also advised to give attention first for tradeoff then for pecking order theories of capital structure respectively as per their weight of importance. Tesfa (2016) in cause of Ethiopian insurance companies examined companies specific and macroeconomic factors that the study employed fixed effect panel regression model in examining the capital structure of insurance companies in

Ethiopia with financial statements of 9 insurance companies covering the period of eleven years, 2005-2015. Asset tangibility, growth, liquidity and size of the companies were found to be significant in relation to leverage. Though insignificant, the negative relationship between profitability and leverage is an indication that profitable insurance companies prefer internal sources of finance to external sources, hence less debt in their capital structure. Macroeconomic factors used in this study, GDP and inflation were positively related with leverage at significant level of 1%. The study indicated that the independent company's specific variables of size, asset tangibility, growth and liquidity and macroeconomic variable of GDP and inflation were significantly related to leverage.

Another study by Woldemikael (2012) in case Ethiopian banking sector examined the impact of company's specific factors of profitability, liquidity growth, tangibility, risk, and size on leverage as measured by total debt ratio by using 12 years data from 2000-2011. His findings showed that profitability, company's size, asset tangibility, and liquidity were important determinants of capital structure for Ethiopian banks suggesting pecking order theory as a pertinent theory for the sector. However, growth opportunity and business risk variables were found to have no influence on capital structure of banks in Ethiopia. Specifically, Woldemikael (2012) also revealed that profitability, liquidity, and tangibility appeared a significant negative relationship with leverage while only companies size positively and significantly related with the dependent variable. Solomon (2012) on his study in case of Ethiopian insurance sector, took companies specific factors of profitability, size, liquidity, growth, non-debt tax shield, dividend payout, age, size, and tangibility as independent variables and regressed them against the dependent variable of leverage as measured by total debt ratio over the period of eight years from 2003-2010. The results of his study implied size, growth, business risk, and non-debt tax shield to have a significant direct impact on leverage of insurance companies in Ethiopia.

On the other hand, his study revealed that factors of profitability, liquidity, tangibility, companies age, and dividend payout had no any significant relationship with capital structure of companies in Ethiopian insurance sector. Kindie (2011) has attempted to examine the role of companies specific factors in determining a companies' capital structure. He made an empirical assessment on nine Insurance Companies operating in Ethiopia that covers the period from 2004 to 2010. The intention of the study was to search the specific factors that determine capital structure in the case of insurance industry in Ethiopia. Panel data model with OLS regression

analysis technique were used. The study has shown that growth, profitability, business risk and age of the companies are significant variables in explaining the capital structure pattern of those insurance companies

According to Guruswamy and Adugnaw (2015) in case of Ethiopian insurance sectors the researchers' were used the balanced panel of nine insurance companies in Ethiopia operating ten years from (2005-2014) took nine factors such as growth opportunities, business risk, size of the companies, tangibility of assets, liquidity, age, management efficiency, inflation and GDP as independent variables and regressed them against dependent variable leverage measured by total debt ratio over the period of ten years. From the regression results; age, business risk, companies growth, management efficiency, economic growth rate, and inflation are identified as the most important determinant factors of capital structure. Age, business risk, management efficiency, economic growth rate and inflation were positively related to capital structure; but, company's growth has the negative relation with capital structure. However, liquidity, size and tangibility of assets had an insignificant impact on capital structure of Ethiopian insurance company's according to Naser Najjar and Krassimir Petrov (2011) attempt to highlight the critical company's characteristics that managers should consider when setting their "optimal" capital structure their study was based on a multiple linear regression analysis using SPSS. Each independent variable along with the dependent variable is measured separately for a sample of insurance companies in Bahrain for the period of 2005-2009. Their research identifies a strong relationship between company's characteristics, such as tangibility of assets, profitability, company's size, revenue growth, and liquidity, and observed capital structure, as represented by the debt ratio, although profitability and revenue growth are not statistically significant and require further research.

Out of the financial sector, Amanuel (2011) in case of manufacturing share companies of Addis Ababa city; regressed companies' profitability, earnings volatility, size, age, tangibility, non-debt tax shields, and growth against leverage as measured by total debt, long term debt and short term debt ratios over the period of seven years from 2004-2010. From his regression results; he concludes that tangibility, non-debt tax shields, earnings volatility, profitability, and size of the companies were the significant determinants of capital structure for Addis Ababa manufacturing share companies whereas; companies' growth and age had no statistically significant impact on leverage in any of the three capital structure models, specifically, he found that tangibility,

profitability, on-debt tax shields, and earnings volatility to have a significant positive relationship with leverage; whereas size appears a significant and positive relationship with total debt ratio. Usman (2013), for his study in case of large tax payer share companies in Ethiopia for the study period of 2006-2011 used explanatory variables of profitability, size, age, tangibility, liquidity, non-debt tax shield, growth, dividend payout ratio, and earnings volatility then regressed them against the dependent variable of leverage as represented by long term debt ratio. Usman (2013) found that size, age, tangibility, liquidity, and non-debt tax shield of companies were positively associated with leverage whereas; profitability, earnings volatility, and dividend payout ratio established an inverse relation with leverage. Moreover, he revealed that among the regressed variables, only growth opportunity variable was statistically insignificant in affecting capital structure of large taxpayer share companies in Ethiopia, suggesting that, Agency cost theory as more relevant theory for the sector.

Bokpin (2009) evidence from 34 emerging market economies; found bank credit, GDP per capita, inflation, and interest rate as significant factors that determine capital structure. More specifically, the findings of similar study revealed that bank credit had a positive and statistically significant impact on financial leverage and the choice of short-term debt over equity. He also indicated a significant negative relationship between GDP per capita and capital structure choices; whereas inflation on the other hand found to have positive influence on the choice of short-term debt over equity. Furthermore, Bokpin (2009) also found that stock market development was insignificant in predicting capital structure decision of companies; while increasing interest rate positively influences companies to substitute long-term debt for short-term debt over equity in the countries investigated. Another study by Mehdi et al. (2012), in case of Iranian publicly listed companies assessed the impact of GDP growth rate, inflation rate, interest rate, and exchange rate on total leverage by using both questionnaires of qualitative inquiry and regression analysis. The result of their regression analysis shows that there was no significant relationship between the perceived macroeconomic variables and the way Iranian companies adjust their capital structure. However, majority of questionnaires filled by financial managers listed out the significant effect of exchange rate, inflation rate, and interest rate on capital structure of companies in their order of importance. Furthermore, Mehdi et al. (2012) revealed that GDP growth rate had no any significant impact on corporate capital structure according to the results of both questionnaires and regression analysis Given particular attention

for Africa, as per the author's knowledge, there were few studies conducted in relation with external determinants of capital structure including Muthama et al. (2013) evidence from Kenya and Tesfaye and Minga (2012) evidence from nine African countries. Muthama et al. (2013) in case of publicly listed companies in Kenya; investigated the impact of GDP growth rate, inflation rate, and interest rate on the dependent variable proxies of total debt, long term debt, and short term debt ratios over the decade from 1999-2008. Based on their findings all the three independent variables of GDP growth rate, inflation rate, and interest rate appeared as significant factors that influence capital structure decision of publicly listed companies in Kenya. Specifically, they emphasized that GDP growth rate found to have a positive impact on long term debt and a negative impact on total debt as well as short term debt ratios. Inflation on the other hand established a negative influence on short term debts. Muthama et al. (2013) also found interest rates to have a positive influence on long term debt as well as total debt ratios; whereas it appeared a negative influence on short term debt ratio. Tesfaye and Minga (2012) on their evidence from nine African countries of Botswana, Egypt, Ghana, Kenya, Mauritius, Morocco, Nigeria, South Africa, and Tunisia; found overall size of companies, GDP growth rate, inflation rate, investors rights protection, stock market development, rule of law, and size of banking sector as significant factors for determining financial structure of companies. Specifically, their study result uncovered that size of banking sector, and real GDP per capita factors to have a negative impact on leverage; whereas inflation and investor rights protection positively affect capital structure of companies in countries studied. Similar study also found that overall size of an economy was positively related with long-term debt-ratio; while it was negatively correlated with short-term and total debt-ratios. Tesfaye and Minga (2012) also observed that stock market development influence long-term debt-ratio positively; whereas its relationship with short-term debt and total debt ratios was negative and statistically insignificant

2.4. Empirical Review in internal (companies specific) and external (macroeconomic) determinant of capital structure

2.4.1 Companies Specific Determinants of Capital Structure

Majority of empirical studies in relation with capital structure determinants in general and concerning financial sector in particular fall under this category. Researchers of such empirical study focused on companies specific factors those are internal for the companies' business environment such as size, profitability, liquidity, tangibility of assets, age, business risk, growth

opportunity, and non-debt tax shields to have significant influence on companies' financing choice.

2.4.1.1 Liquidity

Liquidity is divided to as the ratio of current assets over current liabilities. In the recent studies, liquidity is also considered significantly affecting the capital structure choice of companies. Tradeoff and Pecking order theory have two opposing views about the relationship between liquidity and debt the more liquid companies would use external financing due to their ability of paying back liabilities and to get benefit of tax-shields, resulting in positive relationship between liquidity and leverage. Pecking Order theory, on the other hand, assumes that the more liquid companies would use first its internal funds and would decrease level of external financing, resulting in negative relation between liquidity and leverage Empirical evidence confirms both negative and positive relationship between liquidity and leverage; for example, Ahmed (2011), Daniel (2015), Tesfa (2016) found negative relationship between leverage and liquidity. On the reverse, Kinde (2011), Bayeh, (2011), found significant positive relationship between liquidity and leverage in Ethiopian Insurance companies 'capital structure. Most of the previous studies, confirms the negative relation: Ahmed et al. (2011), Harris and Raviv (1991), Najjar and Petrov (2011) and Sharif et al. (2012) founds companies with high liquidity ratios or more liquid assets prefers to use these assets to finance their investments and discourage to raise external funds (either equity or debt). But Bayeh (2011) found insignificant effect of liquidity on leverage usage of Insurance companies. Researcher expects that Insurance companies with high liquid assets prefer to utilize internal financial sources. Therefore, companies with more liquid assets inclined to use their assets instead of external source of finance

2.4.1.2. Profitability

Chittenden (1996) states that empirical evidence from previous studies examining on capital structure is consistent with pecking order theory with leverage being found to be negatively related to profitability The pecking order theory (Myers, 1984) argues profitable companies with access to retained profits can rely on them as opposed to depending on outside sources (debt). Myers and Majluf (1984) suggest that companies have a pecking-order in the choice of financing their activities. That is, companies prefer internal funds rather than external funds. If external finance is required, the first choice is to issue debt, then possibly with hybrid securities such as convertible bonds, then eventually equity as a last resort (Brealey and Myers, 1991). This

behavior may be due to the costs of issuing new equity, as a result of asymmetric information or transaction costs. On the other hand, Static trade-off theory (Myers and Majluf, 1984, and Myers, 1984) provides contradictory view and argues, profitable companies have greater needs to shield income from corporate tax to increase profit and should borrow more than less profitable companies. Nonetheless, empirical evidences from financial and non-financial companies (Ahmed et al., 2010, Gill et al., 2009, Najjar and Petrov, 2011, Oliyinka, 2011, Rajan and Zingales, 1995, Sharif et al., 2012, and Teker et al., 2009) found profitable companies use less debt financing in line with the pecking order theory. However, other studies Hassen (2011), Kumar et al. (2012) and Saied (2011) found profitable companies use more debt finance. The researcher expects a negative relationship between profitability and leverage. That is, as supported by pecking order theory, in this study, the researcher is claiming that profitable Insurance companies use less debt financing. As a proxy for the measure of profitability (Return on Asset), Booth et al. (2001), Cassar and Holmes (2003), Mohammed Amidu (2007), Adesola (2009),

2.4.1.3. Companies size

Company size play vigorous role in determining the key relationship a company will enjoy internally and externally in its operating environment. As the attractiveness of business environment, more attentions are being pushed to its real effects on the internal structure of corporations and the specific impact on the relationship between the companies and its key stakeholders (Abor, 2005). Emerging issue in the whole argument suggest that the impact of size on financial leverage may actually depend on the level of financial markets developed in a particular country Corporate size seems to be one of the most theorized determinants of financial leverage. In effect, the relationship between size and financial leverage has been explained in capital structure theories. Pecking-order hypothesis upholds the negative linearity between size and leverage, Trade of theory predicts a positive relationship and empirically Usman (2013), Amanuel (2011), Shibru (2012) find positive relationship between leverage

2.4.1.4. Asset tangibility

Evidenced from literature the importance of assets owned by a companies as it affects the companies' capital structure choice If a company has more tangible assets in their composition of total assets, it has higher capacity to raise debt on the collateral agreement. Most of the empirical

studies showed from developing country a positive influence of asset tangibility on leverage Mohamed and Mahmoud (2013), ummar (2013) Attaullah and Safiullah (2007).

The majority of empirical studies in developed countries also found a positive relationship between tangibility and leverages (Rajan&Zingals 1995). However, empirical studies for developing countries found mixed relationship between these variables. On the other hand, some studies reported a negative relation between tangibility of assets and debt level; for example, sidra (2013). Other studies also specifically suggested a positive relationship. Static trade-off and pecking order theories maintain that there is a positive correlation between leverage and tangibility of asset.

2.4.1.5. Growth Opportunity

According to Pecking order theory, Myers (1984), companies finance their projects from the internally built reserve funds. However, the growing firms may not have sufficient fund to finance all its growth by the internally generated funds. As a result, firms with relatively high growth will tend to issue securities less subject to information asymmetries, i.e. short-term debt. This should lead to firms with relatively higher growth having more leverage. According to pecking order theory growing firm requires high capital and internal funds are insufficient to meet requirements, and so firms use external borrowing. This results increase in level of leverage. In line with the tradeoff theory, Jensen and Mackling (1976), show that firms with high growth opportunities were more likely to have higher agency costs due to higher debt prices. When managers plan to invest in more risky projects, creditors will take chance to increase the amount of interest and these will lead to shift of corporate control to creditors. Consequently, most of the cash flow generated can't be utilized for good investments as cash flow gets committed to the interest payment. As a result, the firms with good growth opportunities would maintain a lower leverage in order to minimize the constraints imposed by the creditors and maximize the potential gains. Hence, a negative relationship was seen between growth opportunities and leverage. On the other hand, the empirical findings on the relationship between growth opportunity and leverage of the firm found positive. For example Tesfa (2016), in Ethiopia Kinde (2011) and Amanuel (2011) empirically found significant positive relationship between the growth opportunity and the level of leverage

2.4.2 External Determinants of Capital Structure

As per researcher knowledge there were relatively few studies that have been conducted in relation with macroeconomic or external determinants of capital structure as compared to company's specific determinants. Similarly speaking, majority of empirical studies in the past focused only on assessing companies specific determinants of capital structure. But, some researchers assessed the relationship between macroeconomic or external variables and companies' leverage and they found their significance in determining a capital structure. For instance, Muhammad et al. (2009) on their study from three Asian countries of Japan, Malaysia, and Pakistan; examined the impact of per capita GNP, prime lending rate, financial liberalization, efficiency of financial markets, implementation, and creditor's rights on leverage as measured by total debt, long term debt, and short term debt.

2.4.2.1. Real GDP Growth

Gross Domestic Product (GDP) was one of the macroeconomic variables tested by very few studies (Booth et al., 2001 and Muhammad, 1999). As noted in Frank and Goyal (2011), trade of theory predicts positive impact of GDP growth rate of a country on leverage of companies operate with in that country. This positive prediction indicated that companies will have more debt level in the period of higher economic growth than they have in lower economic growth. Results of empirical studies of Saddam (2014), Tesfa (2016), Balla and Mateus (2004) confirmed positive relationship between GDP growth rate and leverage.

2.4.2.2. Inflation rate

Gulati (1997) developed a general case model to identify the effect of inflation on capital structure. In his study, the inflation was denoted by the percentage increase in product prices and production costs and was "adjusted" accordingly to get the effect of inflation. The result indicated that inflation is significantly affecting leverage in another study, Frank and Goyal (2007), confirm such a positive relation of inflation rate and debt level. Empirical studies made in Ethiopia by Tesfa (2016), Saddam (2014), Tesfaye and Minga (2012) also found a positive relation of inflation rate and leverage

2.4.2.3 Interest rate

Most usually interest rate factor is measured with lending rate of commercial banks within a country. Interchangeably, lending rate represents a cost that companies incur in order to raise debt. Under pecking order theory, there is no effect, or else an increase in the interest rate will

tend to reduce debt level (Frank and Goyal, 2004). On the other hand, trade off theory predicts a positive relationship between interest rate and leverage of companies, in that companies will prefer more debt because an increase in interest rate would highly increase the cost of equity (Frank and Goyal, 2004). Researchers including Bas et al. (2009) and Cekrezi (2013) confirm such a positive prediction of trade off theory for the relationship between interest rate and leverage.

2.5 Conclusion and Knowledge gap

As discussed above in the literature review there were several theories express about determines of capital structure and the issue of optimal capital structure differently. Also numerous empirical works has been done regarding determinants of capital structure in different country especially in developed nation and different financial and non-financial institution but not given attention in developing countries, such as Ethiopia. The primary reason is that firms in those countries face major financing limitations, such as absence secondary markets and ineffective bank lending. It is important for developing countries to better understanding their financial institutions. Thus, presence of little empirical analysis in Ethiopian context makes this study vital to show the determinants of capital structure and to help design informed and prudent recommendation in the endeavor to promote insurance sector.

But almost all they were debating each other, most of those studies were also limited to assessing companies specific determinants of capital structure, and ignoring the inclusion of macroeconomic or external determinants of capital structure assessment as well as limited data set which less than fifteen years

An insurance company play vital role through transferring risk from risky business. It does this by accepting premium from policyholders and paying claims. It can happen that the premium collected is less than the total amount paid for claims Tesfa (2016). Commonly in this era existing business world without Insurance companies is unsustainable because risky businesses have not a capacity to retain all types of risks that they are faced during the operations. If Insurance companies discontinue to providing Insurance in the economy then it might happen that firms or businesses stop their operations or might face insolvency due to high risk Daniel (2015). On the other hand, the researcher believes that the capital structure of Ethiopian Insurance Industry is still a relatively under-explored area. That is why due attention has been

given to insurance different factors are expected to affect the capital structure of private insurance companies in Ethiopia

Thus a potential gap for further study such knowledge gap is broad in Ethiopian context as well as different financial and non-financial sector compared to developed countries. In more specific manner, besides lack of assessment in relation with external factors influence on capital structure decision, as compared to other countries there was also insufficiency of empirical studies regarding companies specific (internal) factors influence on capital structure of financial and non-financial sector in developing country like Ethiopia as well as more specifically, as per the researcher's knowledge there was no a single study that investigated side by side both companies specific and macroeconomic determinants of capital structure financing decision of private Ethiopian insurance companies. Therefore, this study will be a good revelation for further studies in this area of Ethiopian context by filled the above knowledge gap through the examination of both companies' specific and macroeconomic determinants of capital structure on financing decision of private Ethiopian insurance companies

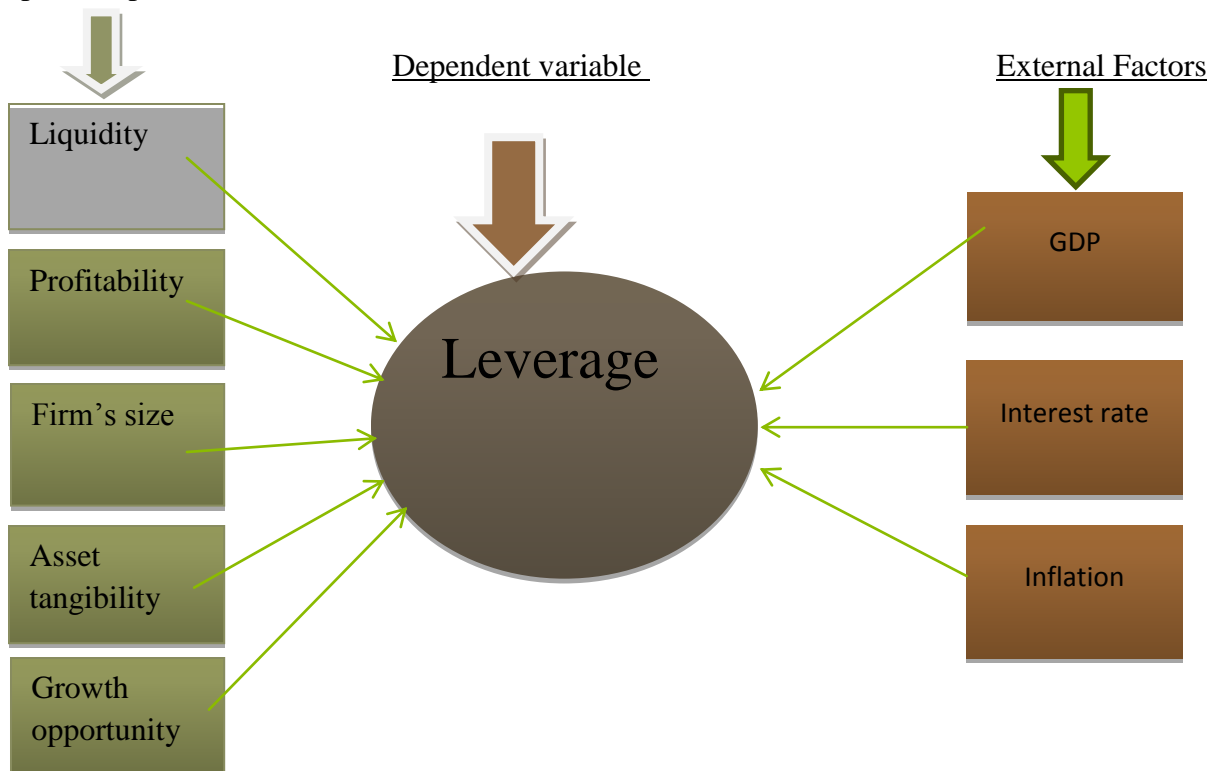
2.6. Conceptual frame work of the study

Different empirical evidences suggested that capital structure of financial institutions highly affected by internal factors. This study used both internal and external determinants of insurance companies, capital structure includes. Liquidity, Profitability, Companies' size, Asset tangibility, Growth opportunity and external factors Real GDP growth Interest rate and Inflation .The study identifies how these variables influence the capital structure of private insurance company in Ethiopia

Figure 2.1 Conceptual frameworks:

Relation between insurance companies leverage and its determinants

Companies Specific Factors



Source: Researcher's own construction based on his literature review

CHAPTER THREE

3. RESEARCH METHODOLOGY

The purpose of this chapter is to present the research methodology, which was adopted in the study.

The chapter arranged as follows. Section 3.1 presents research design. 3.2. Research approach Section 3.3 presents source of data and data collection techniques, section 3.4 target population sections 3.5 sample size and sampling technique section 3.6 data analysis technique section and finally section 3.7 model specifications

3.1 Research Design

Research design is the program that guides the researchers in the process of collecting, analyzing and interpreting the data. Therefore, the nature of problem and hypothesis of any study usually determine the type of research design adopted by researcher. A choice of research design reflects the priority of a researcher about the dimensions of the research process and methods. Mohammed et al (2014). The objective of this research was to investigate the determinants of capital structure decision of selected Ethiopian insurance private companies. To examine in this study, the researcher adopted explanatory type of research method. The reason for selecting this method first, research problem was not well examined, second, in order to identify the cause and effect relationship between dependent and independent variables. Also help of numerous literature on relevant study investigate their research problem and hypothesis (Alllen& Emilia, 2002) (Lucy 2014) & (Kbede, 2012)

3.2 Research Approach

When conducting a research, there were different ways of approaching the problem. According to Creswell (2009), there were three approaches of research; quantitative, qualitative and mixed. The following discussions briefly presents the basic features of these research approaches. Quantitative research is an essential for testing hypotheses theories, by examining the relationship among variables (Creswell, 2009).

On the other hand, qualitative research approach is an important for exploring and understanding the meaning individuals or groups assign to a social or human problem with intent of developing a theory or pattern inductively (Creswell, 2009).

Finally, mixed methods approach is an important in which the researchers emphasize the research problem and use all approaches available to understand the problem (Creswell, 2003).

Based on the above discussions of the three research approaches, researcher used quantitative research approach by considering the research problem and to comply with the objective of this study, because to measure variables characteristics

Which constructed an econometric model to identify and measure the determinants of capital structure of Ethiopian insurance private companies, quantitative research approach has been employed and panel data has been used to analyze the resulting estimates so that stated objectives and hypothesis are addressed accordingly.

According to Tesfa (2016),and (Gujarat 2004) a quantitative panel data give more informative data, more variability, less linearity among variables, more degrees of freedom and more efficiency. Moreover repeated cross section of observations over a range of years are better suitable to study the dynamics of change, can better distinguish and measure effects that simply cannot be observed in pure cross section or pure time series data. All this indeed minimizes the bias that might result if I aggregate insurance in to broad aggregates. The procedure used for drawing the sample from the available lists is the insurance service year profile, for the reason that the study plan to use documented sources. Therefore, sample size is decided based on the availability of operating data in the insurance companies operating in Ethiopia.

3.3. Source of Data and data collection techniques

To achieve with the research objectives, this study is entirely based on secondary data, secondary data on insurance companies was collected from the respective sample insurance companies audited financial statements and their annual reports filed with NBE. In addition, for macro-economic factors ministry of finance and economic development (MoFED), while information related to Ethiopian insurance company. According to Koul (2006) using appropriate data gathering instruments help researchers to combine the strengths and adjust some of the inadequacies of any source of data to minimize risk of irrelevant conclusion. In addition it is because the advantage of using secondary data includes the higher quality data compared with primary data collected by researchers themselves; the feasibility to conduct panel evidence, which is the case in this study; and the permanence of data, which means secondary data

generally provide a source of data that is both permanent and available in a form that maybe checked relatively easily by others.

3.4. Target Population

Population refers to the entire group of people or things of interest that the study wishes to investigate, Bryman& Bell (2003), defines a population as the universe of units from which the sample is to be selected. The total population covered all the 17 registered insurance companies in Ethiopia. The target population for this study covered all the registered insurance companies currently operating in Ethiopia, which are operational from 2004 to 2018 and had filled their audited financial statements with the insurance regulatory authority for the same period.

3.1: List and Profile of insurance Table companies in Ethiopia

No	Name of insurance company	year of establishment
1	Africa Insurance Company S.C	1994
2	Awash Insurance Company S.C	1994
3	Global Insurance Company S.C.	1997
4	Lion Insurance Company S.C	2007
5	NIB Insurance Company	2002
6	Nile Insurance Company S.C	1995
7	Nyala Insurance Company S.C	1995
8	United insurance company	1997
9	Ethiopian Insurance Corporation	1975
10	Abay Insurance Company	2010
11	Berhan Insurance S.C.	2011
12	National Insurance Company of Ethiopia S.C.	1994
13	Oromia Insurance Company S.C.	2009
14	Ethio-Life and General Insurance S.C.	2008
15	Tsehay Insurance S.C.	2012
16	Lucy insurance S.C	2012
17	Bunna Insurance S.C.	2013

Source NBE (2018)

3.5. Sample Size and Sampling Technique

A sample is a part of the population that is subject to research and used to represent the entire population as a whole. Thus, researcher used judgmental sampling technique to exclude lack of 15-year data because newly established insurance, it is impossible to find out its financial statements. Out of the total 17 general Ethiopia insurance companies, the researcher select only eight general private insurance companies by judgmental sampling technique and have 15 year audited financial statements from period 2004 to 2018; of each insurance companies include in the sample frame is consider (120 yearly observations).

The main reason behind to follow such judgmental sampling was that the lack of accessing large enough panel data by selecting insurance companies those had audited financial statements of at least for fifteen years period. According to this judgmental sampling, the oldest eight Ethiopian insurance private companies selected. This composition accounts for 47 % of the total oldest Insurance companies operating in Ethiopian insurance sector. By using such sample the researcher believed to make good generalization about the population of Ethiopian insurance companies.

Table 3.2: List sample size insurance companies in Ethiopia

No	Name of insurance	Years of establishments
1	Africa Insurance Company S.C	1994
2	Awash Insurance Company S.C	1994
3	Global Insurance Company S.C.	1997
4	NIB Insurance Company	2002
5	Nile Insurance Company S.C	1995
6	Nyala Insurance Company S.C	1995
7	United insurance company S.C	1997
8	National Insurance Company of Ethiopia S.C.	1994

Source own 2018

3.6 Data Analysis Techniques

The panel data that collected for the purpose of this study analyzed using descriptive statistics, correlations, and multiple regression analysis through statistical software package of EVIEWS 9 as recommended by Brooks (2008), due to its ability to help researchers to analyze research easily and efficiently

First, based on the collected and processed company's specific as well as macroeconomic data, several descriptive measures were analyzed. These descriptive measures include mean, minimum, standard deviation and maximum values of each explanatory variables as well as the dependent variable of total leverage. Following the descriptive analysis, correlations between all variables including the dependent variable was calculated and analyzed. By using such correlation statistics, the degree of association between explanatory variables themselves as well as with the dependent variable was analyzed. Thirdly, before running a multiple regression analysis, one model specification test namely Breusch-Pagan test was carried out to choose an appropriate estimation technique among fixed or random effects models. Fourth, based on the regression result, diagnostic tests were made by the researcher in order to assure CLRM assumptions were not violated. Normality, Heteroskedasticity, Autocorrelation and Multicollinearity tests employed by the researcher. Lastly, the researcher was running regression thereby analyze the influence of companies specific as well as macroeconomic factors on the dependent variable and discuss results accordingly based on the selected panel estimation model

3.7 Model Specification

The data type consumed for the purpose of this study was balanced panel data, by which the same number of time-series observations for each cross-section or the same number of cross-sectional at each point in time, taken. According to Brooks (2008) there are three vital qualities of a panel data. The first and may be the most important one is that the possibility of addressing a wider range of issues and deal with more complicated problems with panel data that would be impossible with pure time-series or cross-sectional data alone. Secondly, with panel data it is possible to examine how variables or correlation between them, change over time.

Doing this with pure time-series data would often need a long run of data in order to get a sufficient number of observations in order to allow researchers to run any valuable hypothesis tests. But, by summing up cross-sectional and time series data, it is possible to expand number of degrees of freedom thereby the power of a test, by using information on the dynamic behavior of a quite large number of cross sections at the same point in time. Furthermore, panel data can also assist to handle with problems of multicollinearity that may present if time series are modeled alone. At finally, employing a panel data rather than time series or cross sectional data alone; enables to structure the model in proper way and thus to remove the effect of some

types of omitted variables bias in regression outputs. By saying this, as one employed in majority of previous panel studies in relation with capital structure determinants including Amidu (2007) and Tornyeva (2013), the general panel equation for this study is:

$$Y_{it} = \beta_0 + \beta_1 x_{it} + \dots + \beta_n x_{it} + \epsilon_{it}$$

$$LEV_{it} = \beta_0 + \beta_1 (ISD)_{xt} + \beta_2 (MED)_{yt} + \epsilon_{it}$$

Where;

LEV_{it} is a dependent variable for insurance i at time t ; β_0 , β_1 and, β_2 represent estimated coefficients including the intercept; $(ISD)_{xt}$ represent the x -th insurance specific determinants at time t ; $(MED)_{yt}$ represent the y -th macroeconomic determinants at time t ; ϵ_{it} is the error term. The equation that account for individual explanatory variables which are specified for this particular study is given as follows.

$$LEV_{i,t} = \alpha + \beta_1(LQ_{i,t}) + \beta_2(PRI_{i,t}) + \beta_3(PGI_{i,t}) + \beta_4(SZI_{i,t}) + \beta_5(ATI_{i,t}) + \beta_6(gGDP_{i,t}) + \beta_7(INFi_{i,t}) + \beta_8(INFi_{i,t}) \epsilon_i, u_{i,t}$$

Where:

$LEV_{i,t}$ = the dependent variable represented by total leverage (total debt ratio) for company i at time t

α = the constant (intercept)

$\beta_1, \beta_2, \dots, \beta_5$ = respective coefficients for independent variables, out of this $\beta_1 - \beta_5$ represent slope coefficients for companies specific variables and $\beta_6 - \beta_8$ represent coefficients for macroeconomic factors.

$LQ_{i,t}$ = liquidity of insurance companies i , in year t

$PRI_{i,t}$ = profitability of insurance companies i , in year t

$SZI_{i,t}$ = size of insurance companies i , in year t

$TA_{i,t}$ = tangible asset of insurance companies i , year t

$FG_{i,t}$ = premium growth of insurance companies, year t

GDP_t = real GDP growth rate in year t

INF_t = inflation rate in year t

INT_t = interest rate in year t

ϵ_i = cross sectional fixed disturbance term which is constant over time

$u_{i,t}$ = an error term which varies with each cross section and throughout time

With the above multi variety regression equation, the impact of each of the explanatory variables on the leverage ratio estimate was assessed in terms of the statistical significance of the coefficients ' β_i '. Using a 10%, 5% and 1% levels of significance, an estimated coefficients considered to be statistically significant if p-value ≤ 0.1 , p-value ≤ 0.05 and p-value ≤ 0.01 respectively.

3.8 Description and Measurement of Variables

The objective of this thesis was to empirically investigate the determinants of capital structure decision Ethiopian insurance private companies during the period 2004 - 2018. Subsequently, the researcher wants to find relationships between leverage and companies specific and macroeconomic factors on the Ethiopian insurance private companies the best choice is to do regression analysis. Therefore, the researcher divides the variables into two groups, which are dependent and independent of the variable.

According to researcher research problem and hypothesis, researcher decided that measurements of companies leverage (LV) are dependent variables; and company's specific variable; liquidity, profitability, premium growth, size of the companies, and tangibility of asset, are independent variables. Macroeconomic variable, real GDP, interest rate and inflation are external independent variable

3.8.1. Dependent Variable

According to corporate finance literatures, there are three ways that usually used to measure capital structure including market value leverage, book value leverage, and interest coverage ratios. Among those three measures, book value leverage is used in a repeatable manner to measure capital structure in majority of empirical studies refer to capital structure determinants. Three ratios namely long term debt, total debt (total leverage), and debt to equity ratios are the most extensively used ratios to represent book value leverage, the most of empirical researches in relation with capital structure determinant. Previous research work that include Tesfa (2016)

Najjar and Petrov (2011), Solomon (2012), Woldemikael (2012), Mohamed and Mahmoud (2013), and Tornyeva (2013) employed total debt ratio (also known as total leverage) calculated as total debt divided by total assets to measure leverage of firms. For this study, the researcher has used the leverage ratio as a dependent variable which is measured by the ratio of total debt to total assets

$$\text{Leverage} = \text{Total debt} / \text{Total Assets}$$

3.8.2 Independent Variables

Based on the reviewed empirical as well as theoretical literatures, for the slack conducting this study the researcher used five companies specific variables taken from NBE (i.e. liquidity, profitability, companies size, premium growth and tangible asset) and three macroeconomic variables taken from MoFED (i.e. GDP growth rate, interest rate, inflation rate) those regressed against the dependent variable. Accordingly, the researcher expected these selected variables to have a potential influence on capital structure decision of selected private insurance companies in Ethiopia. Description of each selected explanatory variables for this study; including their measurement and expected relationship with the dependent variable, discussed the following

3.8.2.1 Liquidity

There are two different opinions on the association between liquidity and capital structure. The first view, as explained in Trade off theory, argues that companies with more liquidity (more current assets) tend to use more external borrowing, because of their ability in paying off their liabilities. The higher liquidity ratio would relatively have higher debt ratio due to greater ability of a companies to satisfy short-term contractual obligations on time.

In opposing to this, the pecking order theory trusts companies with financial slack (i.e. liquid assets such as cash and marketable securities) will prefer internal sources than debt or equity to finance future investments (Myers, 1984). Hence they argued negative significant relation between liquidity and capital structure. Most of the empirical studies, confirm the negative relation: Tesfa (2016) Daniel (2015) Ahmed et al. (2011), Harris and Raviv (1991), Najjar and Petrov (2011), Sharif &Woldemikael (2012) founds companies with high liquidity ratios or more liquid assets prefers to use these assets to finance their investments and discourage to raise

external funds (either equity or debt), in this study it is expected that there is a negative relationship between liquidity and leverage.

Hypothesis 1a: There is a significant negative relationship between liquidity and leverage in Ethiopian insurance company

According to numerous researches such as Tesfaye (2016) Daniel (2015) Saddam (2014) Ahmed (2011) Naveed (2010), Dawood. (2011), Liquidity is measured as a ratio of total current asset to short term liability. In this research, the ratio of current assets to current liabilities, which is the most suitable measure, was used to proxy liquidity

$$\text{Liquidity(LQ)} = \frac{\text{Total Current Assets}}{\text{Current Liabilities}}$$

3.8.2.2. Profitability

Since the crucial objective of any kinds of business entity is to gain profits, profitability has been the most important. Construct studied over the past many years of finance researches. According to “pecking order” theory that was recommended by Myers and Majluf (1984) have a pecking-order in the choice of financing their activities. That is, companies prefer internal funds rather than external funds. If external finance is required, the first choice is to issue debt, then possibly with hybrid securities such as convertible bonds, then eventually equity as a last resort (Brealey and Myers, 1991). This behavior may be due to the costs of issuing new equity, as a result of asymmetric information or transaction costs. On the other hand, Static trade-off theory (Myers and Majluf, 1984, and Myers, 1984) provides opposing view and argues, profitable companies have greater needs to shield income from corporate tax to increase profit and should borrow more than less profitable companies Nevertheless ,numerous empirical evidences from financial and non-financial companies (Ahmed et al., 2010, Gill et al., 2009, Najjar and Petrov, 2011,Rajan and Zingales, 1995, Sharif et al., 2012, and Teker., 2009) Bayeh(2011) Tesfa(2016)Saddam,(2014) Daniel (2015) found profitable companies use less debt financing in line with the pecking order theory. However, their studies Hassen (2011), Kumar et al. (2012), Sayeed (2011) Titman and Wessels, (1988).Ashenafi (2005) found profitable companies use more debt finance. Also found the inverse relationship between leverage and profitability. Although the researcher expects a negative relationship between profitability and leverage. That

is, as supported by pecking order theory, in this study, the researcher is claiming that profitable Insurance companies use less debt financing.

Hypothesis 1b: There is a significant negative relationship between profitability and leverage in Ethiopian insurance company

In literatures, various measures such as ratio of operating income over sales and operating income over total assets (Titman and Wessel (1988)), the return on total assets, which is calculated as the ratio of net profit after tax to total assets Tesfa(2016) (Rajan&Zingals (1995), Gaud et al (2005) were used as a measure of profitability. Profitability in this study was measured as a ratio of earnings before interest and tax (EBIT) to Average total assets a proxy for the measure of profitability (Return on asset),

$$\text{Profitability} = (\text{EBIT}) / \text{Average Total Asset}$$

3.8.2.3. Size of Companies

The impacts of companies size on leverage is ambiguous from the theoretical point of view as well as empirical view some authors encountered a positive relation between size and leverage; some others reported negative relation and others also found statistically insignificant relationship between them.

According to pecking order theory, however, informational asymmetry for large companies is smaller and as a result they would prefer to be financed by equity instead of debt (Myers and Majluf, 1984). Because, this reduces the chances of under evaluation of the new issued equity and thus encourage the large companies to use equity financing. This means there is negative relationship between the size and leverage of the companies

According to Trade off theory predicts a positive relationship between company size and their level of leverage. This implying that larger companies are typically more matured companies with a reputation in debt markets and consequently face lower agency costs of debt (Frank and Goyal, 2005) It has been found to be an important factor in determining capital structure decision of companies ever since the famous debt studies conducted by Gupta (1969) on US companies. Thereafter, many studies of capital structure choices have included company's size in their model besides theoretical argument, vast majority of empirical studies reviewed by the researcher including Amanuel (2011), Woldemikael (2012); Cekrezi (2013) Saddam (2014)

Daniel (2015) Bayeh (2011) found a robust positive association of companies size and leverage. As a result, in line with trade off theory and empirical evidences, company's size represented by natural logarithm of total assets was expected to have a positive relationship with companies' leverage

Contrary to the above, Faris (2010) found a negative relationship between leverage and companies size. A quite different result was also obtained by Dilek et al. (2009) using panel data analysis within the time period 2000-2007 on Turkish companies; and they report as the coefficient of the size of the companies is statistically insignificant and also its coefficient takes a value about zero. Secondly, Rajan and Zingales (1995) include size (which is proxied by the natural logarithm for sales) in their cross sectional analysis and stated that there is no clear theory to provide expectations as to be effect which size should have on gearing Ebru (2011) on Turkish companies states that theoretical expectation about the relationship of size and leverage is ambiguous. Most of the Empirical studies experienced mainly positive relationships. In the similar manner, in the same empirical investigation, company's size was found to have positive relationships to leverage

Hypothesis 1d: There is a significant positive relationship between insurance companies' size and their leverage in Ethiopia insurance company

Various researchers measured size of companies variable including Amanuel (2011), Woldemikael (2012), Cekrezi (2013) Saddam (2014) Daniel (2015) Bayeh (2011) measured by natural logarithm of total assets so this research also used similar measurement technique above empirical experience

Size Of Companies = Natural Logarithm Of Total Assets

3.8.2.4. Asset tangibility

Evidenced from literature the importance of assets owned by a companies as it affects the companies' capital structure choice. If a company has more tangible assets in their composition of total assets, it has higher capacity to raise debt on the collateral agreement. Most of the empirical studies evidenced from developing country a positive influence of asset tangibility on leverage Mohamed and Mahmoud (2013), Usman (2013) Attaullah and Safiullah (2007). The majority of empirical studies in developed countries also found a positive relationship between tangibility and leverages (Rajan&Zingals 1995). However, empirical studies for developing countries found

mixed relationship between these variables. On the other hand, some studies reported a negative relation between tangibility of assets and debt level; for example, sidra (2013). (Booth et al., 2001) In Ethiopia Ashenafi (2005). Static trade-off and pecking order theories maintain that there is a positive relation between leverage and tangibility of asset

According to agency cost theory of Jensen and Meckling (1976), there is a conflict between lenders and shareholders due to the possibility of moral hazard on the part of borrowers. This conflict creates incentives for shareholders to invest in a sub optimal way and lenders require tangible assets as collateral to protect them. The agency cost of debt increase when companies cannot collateralize their debt. Outsized proportion of a company's assets can be used as collateral to fulfill lenders requirements. Modigliani and Miller (1963), in trade-off theory, argue a reduction in financial distress costs for those companies with more tangible assets because of a better chance to get debt financing.

Empirical studies, Daniel (2015) Tesfa (2016), Bayeh and Hassan (2011), Najjar and Petrov (2011), Noulas and Genimaks (2011), and Titman and Wessels (1988) found companies with more proportion of tangible assets can raise more debt because their use as a collateral. Thus a positive relation between tangibility and leverage is predicted.

Hypothesis 1e: There is a significant positive relationship between the tangible assets growth and the Leverage in Ethiopia insurance company

As a proxy measure of tangibility, as indicated in the studies of Daniel (2015) Tesfa(2016) Bayeh(2011) Mohammed Amidu (2007), Adesola (2009), these studies were used the ratio of fixed assets over total assets. So this research also used similar measurement technique above empirical experience

$$\frac{\text{Tangible Assets} - \text{Fixed Assets}}{\text{Total Assets}}$$

3.8.2.5 Growth Opportunity

The trade-off theory predicts a negative relation between leverage and growth emphasizing that growth firms lose more of their value when they go into distress thereby they will be less leveraged. Similarly, agency cost theory also predicts an inverse relation of firm's leverage and its growth, reflecting that agency costs of free cash flow are less severe for growing firms which

leads them to use less debt. Inversely, pecking order theory predicts a positive association of firm's growth with its debt level, implying that firms with more growth opportunity should become more leveraged through time (Frank and Goyal, 2005). According to some empirical researchers including Bayeh (2011), Usman (2013), and Woldemikael (2012); growth opportunity of a firm and its leverage found to have a negative relationship. However, many others reviewed by the researcher; including Tesfa (2016) Saddam (2014) (Amanuel (2011), Solomon (2012), Tornyeva (2013), and Muhammad et al. (2013) found growth opportunity variable to have a positive impact on firm leverage. Premium growth measures premium growth is the percentage increase in gross written premiums

Hypothesis 1g: There is a significant positive relationship between the premium growth and the Leverage in Ethiopia insurance company

Samuel (2017) Nasser Najjar and Krassimir Petrov (2011) it can be measured Premium Growth Proxy for premium growth is the percentage increase in annual gross written premiums (GWP). The equation is expressed as: $PG = (GWP (t+1) - GWP (t)) / GWP (t)$.

Therefore this research also used the same formula to calculate premium growth

$PG = \frac{GWP (t+1) - GWP (t)}{GWP (t)}$

3.8.3 Macroeconomic Variables

3.8.3.1. Gross Domestic Product (GDP)

Gross Domestic Product (GDP) was one of the macroeconomic variables tested by very few studies Tesfa (2016) Saddam (2014) (Booth., 2001 and Muhammad, 1999). As noted in Frank and Goyal (2011), trade off theory predicts a positive impact of GDP growth rate of a country on leverage of companies operate within that country. This positive prediction implies that companies will have more debt level in the period of higher economic growth than they have in lower economic growth. Results of empirical studies of Balla and Mateus (2004) indicates positive relationship between GDP growth rate and leverage, in this study GDP factor represented by annual real gross domestic product of an economy and hypothesized to have a direct impact on leverage.

Hypothesis 2a: There is a significant positive relationship between real GDP growth rates of Ethiopian economy and leverage of insurance companies of Ethiopia

Tesfa (2016) Saddam (2014) were measured GDP growth factor as measured by annual real gross domestic product growth rate reflects how much a country's overall economy is growing as compared to its own one year lagged value. so for this study this measurement is suitable

GDP growth rate= Annual real GDP growth rate

3.8.3.2. Interest Rate

Under pecking order theory, there is no effect, or else an increase in the interest rate will tend to reduce debt level (Frank and Goyal, 2004). On the other hand, trade off theory predicts a positive relationship between interest rate and leverage of companies, in that companies will prefer more debt because an increase in interest rate would highly increase the cost of equity (Frank and Goyal, 2004). Researchers including, Tesfa (2016) Saddam (2014) Bas. (2009) and Cekrezi (2013) such a positive prediction of trade off theory for the relationship between interest rate and leverage. So this study also expected positive relation between interest and leverage

Hypothesis 2b: There exists a significant positive relationship between interest rate and leverage in Ethiopian insurance company

In several studies pertaining to capital structure determinants, most commonly interest rate factor is measured with lending rate of commercial banks within a country. Interchangeably, lending rate represents a cost that companies incur in order to raise debt. Saddam (2014) Bas. (2009) and Cekrezi (2013)

Thus, in this study, interest rate measured as an average lending rate of commercial banks in Ethiopia and expected to have a positive relation with the dependent variable.

interest rate= average lending rate of commercial banks in Ethiopia

3.8.3.3. Inflation Rate

The third and the last macroeconomic variables employed for this study's purpose was inflation Rate, according to Trade-off theory postulates a positive relationship between leverage and expected inflation. As cited in Frank and Goyal (2005), Taggart (1985) explained that such a positive relation of inflation and leverage is mainly due to features of the tax code, implying that

the real value of tax deductions on debt is higher when inflation is anticipated to be high. Empirical studies including Saddam (2014) Frank and Goyal (2004) and Tesfaye and Minga (2012) such a positive relation of inflation rate and debt level. In line with the tradeoff prediction and empirical findings, the researcher of this study hypothesized annual inflation rate variable to have a positive impact on debt level. And measured by annual general inflation rate in Ethiopia.

Hypothesis 2c: There exists a significant positive relationship between inflation rate and insurance companies' leverage in Ethiopia.

So according to above empirical review this study also used the similar measurement technique

Inflation= annual inflation rate in Ethiopia.

CHAPTER FOUR:

4. RESULTS AND DISCUSSIONS

The preceding chapter presented the research methods adopted in the study. This chapter analysis the determinants of capital structure selected private insurance companies in Ethiopia using the annual balanced panel data, where all the variables are observed for each cross-section and each time period. The study has a time series segment covering 15 years financial statements from national bank of Ethiopia (NBE) and ministry of finance and economic development (MoFED) from the period 2004 up to 2018 and a cross section segment, which considered eight Ethiopian insurance private companies.

4.1 descriptive analysis

In this section, results belong to various descriptive measures of total debt or total leverage ratio as well as for the companies specific and macroeconomic explanatory variables were discussed. Table 4.1 below shows mean, minimum, maximum and standard deviation values of leverage, profitability, liquidity, companies size, premium growth, asset tangibility and sample companies as well as macroeconomic indicators of real GDP growth rate, interest rate, and inflation rate. The total observation for the dependent variable of leverage as well as for independent variables was 120, composed of eight cross sections multiplied by 15 years data for each cross section

Table 4 .1 Summary of descriptive statistics

	LEV	INT	INF	GDP	LQ	PG	ROA	SZ	TA
Mean	0.6515	0.1029	0.2498	0.5282	1.0240	0.2288	0.1801	19.191	0.1962
Median	0.648	0.1188	0.1350	0.1150	1.0024	0.1846	0.1735	19.179	0.1732
Maximum	0.8224	0.1350	1.4869	2.8451	2.6040	0.8863	0.5854	20.847	0.6545
Minimum	0.4528	0.0165	0.0610	0.0980	0.2625	-0.2546	0.0442	16.526	0.0260
Std. Dev.	0.0780	0.0254	0.3445	0.8478	0.3154	0.2095	0.0838	1.0160	0.1191
Observations	120	120	120	120	120	120	120	120	120

Source: Researcher's own computation through EViews 9 based on financial statements of insurance companies, NBE report and (MoFED)

As scenario in the above table 4.1, it was found that the mean leverage (total debt divided by total assets) of insurance companies has a mean value was 65.15%, this scenario indicates that Ethiopia insurance private companies were facilitated their financing need for operation over three fifth or 65.15 % from debt sources of finance From total assets. In addition, remaining 34.85% of financing need facilitated through equity capital. Leverage ratio was found to be high in this study as compared to developed countries. For instance the mean debt ratio in the U.S and in U.K is 58% and 54% respectively (Rajan & Zingales, 1995). The major reason for higher leverage ratio indicates absent of stock market to raise equity in Ethiopia. Maximum and minimum leverage ratios, as measured by total debt divided total assets for a sample was 82.24 and 45.28 % respectively whereas the dispersion of debt ratios among the sample measured with standard deviation was 7.8 %

It is possible to say Ethiopia Insurance private companies generally facilitate their financing need through premium. Because, the result shows that the percentage of debt is high as compared to equity in financing the operation of the Ethiopian insurance companies. Although still now not sufficient to raise additional debt as far as the ratio of equity not high the required margin of the national bank maximum limit of 80%. The standard deviation (7.8 %) in this study was very low as compared to related findings around the related studies in Ethiopia. For example in, Tesfa (2016) study leverage ratios of insurance companies in Ethiopia had standard deviation of just above 9.9%. Another study made in Ethiopian insurance company by Getahun, (2014) Daniel (2015) Bayeh (2011) the leverage ratio had a standard deviation of 18.4%. 8.3%, 12.7% respectively Lower standard deviation is a good indication that most of the observations are concentrated around the mean

Variables of real GDP growth rate, interest rate, and inflation rate those were constant for all cross sections but varied over time. The mean interest rate measured by (average lending rate of commercial banks in Ethiopia) of Ethiopian economy in the last 15 years of observation period was 10.29 percent per annum with a standard deviation of 2.54 %. This indicates the existence relative stability in interest rate structure of commercial banks in Ethiopia. During the study period, a maximum interest rate was registered with 13.5 % whereas the minimum was 1.65 %.

This implies that on average insurance firms charged 10.29 per annum for every single ETB they borrowed throughout 15 years of investigation period. It was also found that during 15 years of study period, average lending rate of commercial banks ranged from a minimum of 1.65 % in 2004 up to a maximum of 12.25 percent in 2018.

Another macroeconomic variable employed by the researcher in order to examine its explanatory power on leverage on behalf of capital structure decision made by Ethiopian insurance firms was annual inflation rate

Average inflation rate which measured by (annual inflation rate in Ethiopia) of Ethiopian economy during the last 15 years of observation was 24.98 % per annum whereas the standard deviation was 34.45 % during the study period a maximum inflation rate was registered with 148% whereas the minimum was 6.1%. This indicates the existence of extremely high fluctuating inflation trend in Ethiopia for the last 15 years of observation period

The mean real GDP growth rate measured by (Annual real GDP growth rate) of Ethiopian economy in the last 15 years of observation period was 52.82 percent per annum with a standard deviation of 84.78 %. During the study period a maximum real GDP growth rate was registered with 284.5% whereas the minimum was 9.8% this indicates Ethiopian GDP growth rate high or over double GDP

The mean value of liquidity ratio which measured by (current assets divided by current liabilities) of sample Ethiopian insurance private companies under study period was 1.024/1. This indicate that those sample insurance companies have current or liquid assets that are 1.024 time greater than their short term liability this is slightly over stationary minimum standard margin of 0.95. It was also found that the maximum and minimum liquidity ratio records for the sample throughout the study period was 2.604 and 0.2625 respectively per every single ETB of current liability. On the other hand, the standard deviation of liquidity ratios from the mean for the sample was 0.3154 during the investigation period.

Growth opportunity, which is measured by the (percentage increase in annual gross written premiums), shows a mean value of 0.2288 with the standard deviation of 20.95%. This indicates that, on average, premium growth rate was 22.88% with a maximum value of growth was 88.63% and the minimum value of growth was -25.46%. This higher growth standard deviation

might be due to the difference in the age of the insurance companies. In the sample, some of the companies were as old as 30 years and others were only 17 years

During the study period, sample insurance companies average profitability was 18.01 % as measured by Return on Asset (ROA). This scenario indicates that those insurance companies during study era earned 18.01 % of before tax profit on every single ETB of their asset investment. Besides, the sample s maximum profitability record was a ROA of 58.54 % while the minimum appeared with a loss of 4.42 % per every ETB investment of asset.

The mean value of size measured by (Natural Logarithm of Total Assets) is 19.191 this shows that the average total assets of Ethiopian insurance private companies is 19.191 million ETB with a standard deviation (dispersion between insurance firms size) of 1.01. The size of sample insurance firms in fifteen years period of study ranged from a minimum of 16.526 up to a maximum of 20.847.

Asset tangibility measured by (fixed asset divided by total asset) the mean value of asset tangibility indicates 0.1962. This indicate that out of the total assets owned by insurance companies, 19.62 % is categorized as tangible or fixed assets remaining 82.38 are liquid asset of Insurance companies, this ratio indicates that Ethiopian insurance private companies hold excesses cash or liquid asset. Those engaged in nonlife insurance business required by law (NBE's directive) to hold at least 65% of the total assets in the form of liquid assets, i.e. cash and bank balances and 10% investment in equity share. It is for this reason that insurance companies generally assumed to have less fixed assets.

4.2 Correlation Analysis

Correlation coefficient is a way to index the degree to which two or more variables are associated with or related to each other (Brooks, 2008). Thus, it does not imply that changes in x cause changes in y , or vice versa. Rather, it is simply stated that there is evidence for a linear relationship between the two variables, and that movements in the two are on average related to an extent given by the correlation coefficient. Correlation coefficient between two variables ranges from -1 to one. A correlation coefficient of zero, on the other hand indicates that there is no linear relationship between the two variables...

Based on the correlation matrix independent variables; interest rate, inflation, gross domestic product, liquidity, premium growth, profitability (ROA), size of companies and asset tangibility measured as leverage dependent variable. Therefore, the table below presents the correlations among the variables, which data taken from balance sheet and income statement of eight Ethiopian insurance private companies and macroeconomic factor during the period 2004-2018 Table 4.2 below presents a Correlation matrix which shows the degree of linear relationship between the dependent and independent variables of the study.

Table 4.2 Correlation matrix dependent and independent variables

	LEV	INT	INF	GDP	LQ	PG	ROA	SZ	TA
LEV	1	0.120	0.034**	-0.096***	-0.515	0.027***	-0.141**	0.332**	-0.173
INT		1	0.213	0.441**	-0.084***	-0.041	0.319***	0.651	0.033***
INF			1	0.526	-0.070	0.067	0.150	0.299***	0.076
GDP				1	-0.075**	-0.142*	0.235	0.534**	0.078
LQ					1	0.152	0.106***	-0.331	-0.392***
PG						1	-0.081	-0.147*	-0.072
ROE							1	0.250	-0.200
SZ								1	-0.0167
TA									1

*** indicates correlation is significant at 1% level, ** indicates correlation is significant at 5% level and * indicates correlation is significant at 10% level.

Source: EVIEWS 9

According to the correlation matrix above and respective significance levels; explanatory variables inflation, gross domestic product and firm specific factors premium growth, profitability and size of company found to have a significant linear association with the dependent variable of leverage. From these independent variables inflation, premium growth and company size found to have significant at 5% significant level and positive correlation with leverage; whereas GDP growth rate and profitability appeared a negative and statistically significant association with the dependent variable at 1% level. More specifically, the correlation

coefficient of inflation, with leverage was $+0.034$ and significant at 5% level, which is similar with what the researcher expected. This indicates that in the year of higher, inflation rate the sample of Ethiopian insurance private companies facilitated their financing need throughout more liability finance as compared with a year of lower inflation rate. In other word, inflation increase firms become more leveraged and inflation decrease less leveraged and premium growth appeared a correlation coefficient of $+0.027$ with debt ratio and it was significant at 5% level. This indicates that more growing firm used more premium finance than less growing firm. which means more growth firm were more leveraged than less growth firms in case of Ethiopian insurance private companies. In addition, another firm specific variable, which found to have significant linear association with the dependent variable, was profitability. The correlation coefficient between ROA and leverage was -0.141 and statistically significant at 5% level. This denotes that firm with higher leverage have less profitability, which means more profitable insurance used internal source of finance or retained earned or equity finance to investment activity or for any financing need rather than debt finance. Lastly, the correlation coefficient of size variable with leverage was $+0.332$ and significant at 1% level, This indicates that the larger a size of a companies the more debt to facilitate financing need. In other word, firms with larger size in terms of total assets were more leveraged than small size firms with smaller total asset value in case of Ethiopian insurance private companies were as one macroeconomic variable, which is found to have significant linear association with the dependent variable was GDP growth rate. The correlation coefficient between Real GDP growth rate and leverage was -0.096 and statistically significant at 1% level. This indicates that in the year of higher economic growth, Ethiopian insurance private companies used less unearned premium to investment activity compared with a year of lower economic growth.

On the other hand, as stated in table 4.2, the remaining three independent variables found to have insignificant correlation with leverage represented by total liability divided to total asset ratio. The correlation between independent variables of the study is presented and discussed in Multicollinearity test portion of this paper. Nevertheless the correlation analysis contributed certain hints on what factors to relate with capital structure of private insurance companies in Ethiopia, a more detail discussion of results and conclusions to be made based on the multiple regression analysis results due to that regression is more powerful as well as flexible tool than correlation (Brooks, 2008).

4.2. Model Specification Test (Fixed effect Versus Random effect)

The first steps before running a regression analysis and to investigate significant factors that affect financing decision of private Ethiopian insurance companies are to specify an estimation model. According to Brooks (2008), there are mostly two classes of panel estimator approaches that can be suitable in financial research: fixed effects models (FEM) and random effects models

According to Gujarati (2004), fixed effect model is preferable if the number of time series data is larger than the number of cross-sectional units. While random effects model is preferable if number of cross sections is larger than time series.

Other criteria to select appropriate model according to Brooks (2008), fixed effect model is more reasonable when cross sectional unit in the sample size selected judgmentally from entire population. While random effects model is suitable when the cross sections units selected randomly

So above scenario obviously bespeak which model is preferable for this thesis; therefore the researcher select fixed effect model because the sample for this study was not selected randomly in addition the number of time series is greater than the number of cross section. Since the number of time, series were (15 year) and number of cross section were (eight units)

4.3 CLRM Assumptions and Diagnostic Tests

Generally, there are five major assumptions underlying CLRM which means OLS assumptions as described by Brooks (2008). The first of this assumptions required that the average value of an error terms to be zero. This assumption is no more vulnerable for violation, if a constant term is included in the regression equation. The second assumption holds that variance of the error terms is constant. This second assumption is known as the assumption of homoscedasticity. If the variance of the errors is constant, it is said to be homoscedastic. On the other hand, the violation of this assumption is known as Heteroskedasticity. The test associated with this assumption also called Heteroskedasticity test. Third assumption stated that covariance between the error terms is zero over time for time series data or over individual cross sections, for cross sectional data. Similarly speaking, this assumption holds that the errors are uncorrelated with one another. If the errors are correlated with one another, they are known to be auto correlated or serially correlated and the test to detect such problem is called autocorrelation tests. The fourth major assumption that underlies CLRM stated that the explanatory variables are not correlated with the errors of an

estimated model. Whereas, the fifth and the last major assumption of CLRM hold that the disturbances are normally distributed. To check whether the disturbances are normally distributed, a normality tests can be made.

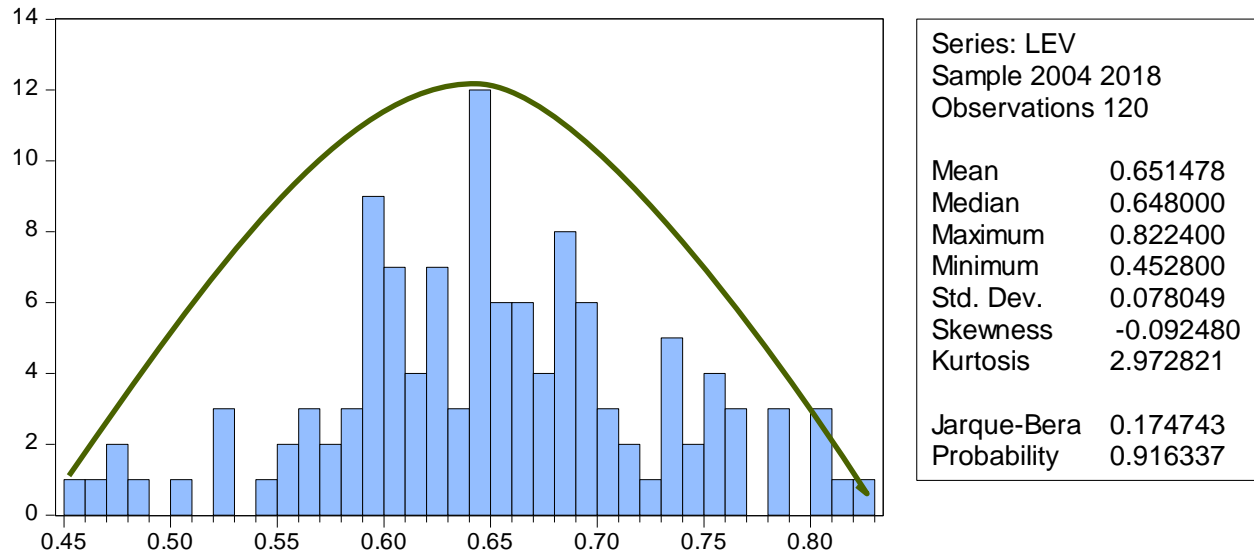
Moreover the above five major assumptions, there are also other few important implicit assumptions that bounds CLRM. The first one is that the explanatory variables are not correlated each other. If there is no relationship between the explanatory variables, they are known to be orthogonal each other. If explanatory variables highly correlated each other, it is called a multicollinearity problem. This problem can be checked by running a multicollinearity test.

In line with majority of previous researchers pertaining to capital structure determinants like Woldemikael (2012) and Bayeh (2011),Saddam(2014) Tesfa(2016) the researcher of this study employed four diagnostic tests with respect to four major CLRM assumptions. These four tests were normality, Heteroskedasticity, autocorrelation, and multicollinearity tests. Consequently, the following section presents the discussion of results from such diagnostic tests.

4.3.1 Normality Test

The assumption of normality holds that the disturbances of a regression equation are normally distributed. The normality can be fulfilled with a bell shaped distribution which has a kurtosis of 3 and a skeweness value of 0. As per brooks (2008), the most widely applied test for normality is a Bera Jarque or BJ test. Accordingly the researcher employed this test in order to check normality by using fixed effect regression output. This study establishes a null hypothesis for residual normality and an alternate hypothesis for non-normal distribution error.

Figure 4.1 Histogram



Source: EViews 9

The Normality can be safe until the probability of Jarque-bera is in greeter of 0.05, which means the null hypothesis of normally distributed error terms is accepted. On the other hand, if the p-value of a BJ test is below 0.05, the null hypothesis of normally distributed error terms to be rejected. Thus, as figure 4.1 depicts above, the probability of BJ is 0.91, which is sufficiently in greeter of 0.05. So, the null hypothesis was not to be rejected, confirming that the residuals were normally distributed

4.3.2 Multicollinearity Test

Among implicit assumptions of CLRM are required the independent variables of the study to be uncorrelated each other. In order to assure this implicit assumption, the researcher of present study used a correlation matrix of explanatory variables as presented

Table 4.3 Correlation Matrix of Explanatory Variables

	INT	INF	GDP	LQ	PG	ROE	SZ	TA
INT	1							
INF	0.213	1						
GDP	0.441	0.526	1					
LQ	-0.084	-0.070	-0.075	1				

PG	-0.041	0.067	-0.142	0.152	1			
ROE	0.3199	0.150	0.235	0.106	-0.081	1		
SZ	0.651	0.299	0.534	-0.331	-0.147	0.250	1	-
TA	0.033	0.076	0.078	-0.392	-0.072	-0.200	-0.016	1

Source: Eviews 9

According to Gujarati (2004), Multicollinearity is a severe problem if the correlation between two independent variables is greater than 0.8. But, as it is shown in table 4.3 above, the highest observed correlation for explanatory variables of this study was 0.65 between firm size and interest rate which is below 0.8. So possible to ignored, Multicollinearity was not a serious problem for this study

4.3.3 Heteroskedasticity Test

Under this unit the residual was tested to identify whether it was Heteroscedastic or Homoscedastic or whether the null hypothesis is accepted or rejected. The null hypothesis was accepted only if the p-value of observed R-squared was more than the significance level of 5 percent or 0.05 unless it was rejected and the alternative hypothesis was accepted. The null hypothesis of Heteroskedasticity test is residual is not Heteroskedastics or the residual is Homoscedastic and the alternative hypothesis was residual is Heteroskedastics or residual is not Homoscedastic. In the classical linear regression model, one of the basic assumptions is Homoscedasticity assumption that states as the probability distribution of the disturbance term remains same for all observations. That is the variance of each u_i is the same for all values of the explanatory variable. However, if the disturbance terms do not have the same variance, this condition of non-constant variance or non-homogeneity of variance is known as Heteroskedasticity (Said, 2015). Accordingly, in order to detect the Heteroskedasticity problems, Breusch-Pagan test was utilized in this study. This test states that if the p-value is significant at 95 confidence interval, the data has Heteroskedasticity problem, whereas if the value is insignificant (greater than 0.05), the data has no Heteroskedasticity problem. Thus, as shown in table below there is no Heteroskedasticity problem for this study hence the p value is 8.16% or (0.0816) showing insignificant value.

4.3.4 Autocorrelation Test

The last diagnostic test is Autocorrelation test a test that can be used to check whether the errors are uncorrelated each other thereby to assure whether the model was in line with the fourth assumption that required not serially correlated error terms. (Chris books, 2008) argued that the CLRM's error terms which are zero in cross sectional type errors are uncorrelated with one another. In addition he said that if the errors are not uncorrelated with one another, it would be stated that they are auto correlated or that they are serially correlated. This means they are auto correlated or they are serially correlated. To test this assumption the Durbin–Watson (DW) statistical test was applied. If the p-value of the Autocorrelation test is greater than the significance level of 5 percent the null hypothesis is accepted and the residual is serially correlated or auto correlated. If the p-value is less than 5 percent the null hypothesis is rejected and the alternative hypothesis is accepted and the residuals are not serially correlated or not auto correlated. Therefore, the residuals are serially correlated or auto correlated. Furthermore, the researcher tested the Autocorrelation assumptions that imply zero covariance of error terms over time. That means errors associated with one observation are uncorrelated with the errors of any other observation. As noted by Gujarati (2004), the best renowned test for detecting serial correlation is Durbin Watson test. Accordingly, if the computed nearest to two in application, it is assumed that there is no Autocorrelation problem. Thus, as shown in table (4.5) the computed below in this study was 1.991 which is nearest to 2 implying the absence of autocorrelation problem. Thus, this implies that error terms are not correlated with one another for different observation in this study

4.3.5. Summary of Diagnostic Test

To accept this model as a good one, it has to meet the required criteria of the post estimation test such as normality, serial correlation, and Heteroskedasticity and stability tests. And their respective null and alternative hypotheses are as follow:-

Normality

H₀:- the residuals are normally distributed.

H₁:- The residuals are not normally distributed.

Heteroskedasticity

H₀:- Homoscedastic variance

H₁:- Heteroscedastic variance.

Table 4.4:- model diagnostic test

Type of test	Type of test applied	Prob.	Significance	Reject/accept null hypothesis
Normality	Jarque-Bera	0.916337	insignificant	Accept
Heteroskedasticity	Breusch-Pagan LM	0.0816	insignificant	Accept

Source; Eview 9

The above table indicates that the CLRM estimated in this study passes all the diagnostic tests. This is because the p-value associated with OLS version of the statistic was unable to reject the null hypothesis specified for each test.

- A) The null hypothesis of the residuals are normally distributed (Jarque-Bera test) is failed to reject because the p-value is greater than the standard significant level (i.e. $0.916337 > 0.05$) so the residuals of this study are normally distributed.
- B) The last diagnostic test is Heteroskedasticity test. As we have seen from the above table 4.4, we can reject at 5% significant level due to its p-value associated with the test statistics are greater than the standard significance level(I.e. $0.0816 > 0.05$).

4.4 Regression Analysis and Discussion of Results

Table 4.5 Regression Results

Dependent Variable: LEV

Method: Panel Least Squares

Date: 05/02/20 Time: 17:19

Sample: 2004 to 2018

Periods included: 15

Cross-sections included: 8

Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.148206	0.164602	0.900389	0.3700
INT	0.075812	0.271727	0.279002	0.7808
INF	0.020997	0.014166	1.482245	0.1413
GDP	-0.031890	0.006878	-4.636293	0.0000
LQ	-0.075448	0.021861	-3.451249	0.0008
PG	0.025865	0.020468	1.263670	0.2092
ROA	-0.118350	0.061437	-1.926348	0.0568
SZ	0.032591	0.009423	3.458568	0.0008
TA	-0.131144	0.052068	-2.518718	0.0133

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.720153	Mean dependent var	0.651478
Adjusted R-squared	0.679790	S.D. dependent var	0.078049
S.E. of regression	0.044166	Akaike info criterion	-3.278177
Sum squared resid	0.202862	Schwarz criterion	-2.906511
Log likelihood	212.6906	Hannan-Quinn criter.	-3.127242
F-statistic	17.84210	Durbin-Watson stat	1.116850
Prob(F-statistic)	0.000000		

Source: Eviews 9

$LEV_{i,t} = \alpha + \beta_1(LQ_{i,t}) + \beta_2(PG_{i,t}) + \beta_3(PR_{i,t}) + \beta_4(SZ_{i,t}) + \beta_5(TA_{i,t}) + \beta_6(INT_{i,t}) + \beta_7(INF_{i,t}) + \beta_8(GDP_{i,t}) + \epsilon_{i,t}$
 while

$LEV_{i,t} = 0.148 - 0.0754(LQ_{i,t}) + 0.0258(PG_{i,t}) - 0.118(PR_{i,t}) + 0.032(SZ_{i,t}) - 0.131(TA_{i,t}) + 0.0758(INT_{i,t}) + 0.0209(INF_{i,t}) - 0.0318(GDP_{i,t}) + \epsilon_{i,t}$

This scenario represents interest rate, inflation, premium growth, and size of companies are increases; by 1%, the leverages of Ethiopian insurance private companies increase by 7.58%, 2.09%, 2.5% and 3.2% respectively. While gross domestic product, liquidity, profitability (ROA) and tangibility of asset increase by 1% were the leverage of private Ethiopian insurance companies were decrease by 3.2%, 7.5%, 11.8%, and 13.1% respectively. On other way, independent variables influence dependent variable leverage.

Among those variables, Liquidity, profitability and tangibility of asset were negative and statistically significant effects on leverage, whereas size of companies was statistically significant and positive effects on leverage. Macroeconomic variable GDP was significant and negative effects on leverages of Ethiopian insurance private companies. While inflation, interest rate and one firm specific factor growth opportunity were no significant effects on leverages of those companies

As depicted in fixed effects regression result as showed above table 4.5 the reliability and validity of the model was further enhanced by the Probability of (F statistic) value (0.000) this scenario represent a strong statistical significance. So the null hypothesis of the overall test of significance that all coefficients are equal to zero was rejected as the p-value was significantly less than 5% and R-squared is 0.72 which represent that around 72% of the variations in leverage was explained by the all independent variable which were (liquidity, growth opportunity, profitability, size of companies, asset tangibility, interest rate, inflation rate and, GDP growth rate) used for the model. Whereas the adjusted R-squared 0.68 represent that around 68% of the variations in leverage was explained by the remaining five significant factors which were, (liquidity, profitability, size of companies, asset tangibility, and GDP growth rate,) of the leverage of private insurance companies in Ethiopia. While the remaining 32% of the change in leverage regression model is explained by other unknown factors, which are not included in the regression line, both R-squared and Adjusted R-squared values in this study are found to be higher (has more explanatory power) than the previous results found in Ethiopia such as Bayeh (2011) Saddam(2014) and Tesfa (2016)

The dependent variable being explained is leverage which is measured by Total debt to Total Assets which the mean value is 0.6515 this indicate that private Ethiopian insurance companies used 65.15% unearned premium for financing need during study era. The independent macroeconomic factor variables that determine the capital structure interest rate which measured (average lending rate of commercial banks in Ethiopia) inflation (annual inflation rate in Ethiopia) and GDP (Annual real GDP growth rate) whereas firm specific factors of private insurance companies of Ethiopia is liquidity measures which measures (total current asset divide to current liability) growth opportunity measured by (annual premium growth rate) profitability earnings before interest and tax divided average total asset ratio (ROA), size of company measures (natural logarithm of total assets,) and tangibility of assets measures fixed assets to total assets ratio

Among these, GDP and liquidity are negative and statistically significant at 1% each and size of companies are positive and statistically significant at 1% on the other hand profitability was negative and significant at 10%, asset tangibility was also negative and significant at 5% whereas. Premium growth, interest rate and inflation were not statistically significant relation affect capital structure in private insurance companies of Ethiopian during study era

4.4.1. Discussion of Results

The regression analysis results based on fixed effects estimation. Here in this sub-section, detailed discussions of findings pertaining to firm specific and macroeconomic determinants for capital structure of private insurance companies in Ethiopia presented.

4.4.1.1. Firm Specific Variables

Liquidity

Tradeoff and Pecking order theory have two contrasting views about the relationship between liquidity. According to the Tradeoff theory there is a positive relationship between liquidity and leverage ratio, suggesting that the more liquid firm would use external financing due to their ability of paying back liabilities and to get benefit of tax-shields. In contrast with this view, pecking order theory assumes that the more liquid firm would use first its internal funds and would decrease level of external financing, resulting in negative relation between liquidity and leverage. Consistent with pecking order theory and the hypothesis of this study, the liquidity

ratio of Ethiopian insurance private companies was negatively related with their leverage ratio. The result shows that there is a significant impact at 1% significant level.

Specifically, panel fixed effect estimation with a coefficient of -0.075, which is statistically significant at 1% significance level and P-value of 0.0008, confirmed negative effects on leverage ratio. The negative relationship is in line with the pecking order theory, as more liquid firms will tend to use less debt in their capital structure. Liquid firms are in possession of more internal funds, which can be used as a source of finance.

Therefore, more liquid firms are far less leveraged than less liquid firms. This study confirms pecking order theory and accepts alternative hypothesis, as well as prior empirical studies found a negative significant effect on leverage; Among the empirical evidences reviewed by the researcher including, Tesfa (2016) Najjar & Birritu (2016), Petrov (2011), Dhanasekaran, (2012), Daniel (2015), and Mohamed Amin (2014). While the result also deviates from the empirical study which found positive effect on leverage of Kinde (2011), Bayeh (2011) and Usman (2013)

Growth Opportunity

Based on preceding theoretical views as well as empirical studies, the researcher predicted and hypothesized growth opportunity variable to have a positive significant relationship with the dependent variable.

However, the study result based on fixed effects estimator implies that the existence of positive as expected but insignificant relationship of growth opportunity and leverage. With a p-value of 0.20, this scenario represents that growth opportunity had no significant effect on capital structure decision of private insurance companies in Ethiopia.

According to pecking order theory assumption, growing firm requires high capital and internal funds are insufficient to meet requirements, and so firms use external borrowing. This results increase premium also increase in level of leverage. However, Trade-Off Theory argues the existence of a negative relationship between growth opportunities and level of debt. According to this theory as companies with good opportunities for growth are encouraged to invest in high risk projects to maximize shareholders' income in detriment to creditors.

Nevertheless, this study result based on fixed effects estimator implies that the existence of positive as expected but insignificant effects of growth opportunity and leverage. Reason it may

be that the measure used here, the percentage increase in annual gross written premiums did not reflect future growth possibilities enough. Thus, other more significant results might be obtained by using another measure (proxy) for growth, for instance, annual growth rate of total assets. This finding is consistent with prior empirical findings of Tesfa (2016), Saddam (2014) Woldemikael (2012) and Usman (2013) as well as Recognize Pecking Order Theory, but reject hypothesis

Profitability

According to the Pecking Order theory profitability has negative relationship between leverage. According to this theory firms passively accumulate retained earnings, becoming less levered when they are profitable, and accumulate debt, becoming more levered when they are unprofitable. On the other hand, pecking-order theory predicts that firms first use internal financing and then move to debt and finally they issue new equity when necessary. Therefore, pecking order theory suggests that there is a negative relationship between debt and profitability which is a source of internal funds although Tradeoff Theory contradict Pecking Order theory and it predicted a positive relationship between a firm's profitability and leverage ratio is expected on account of the advantage of taxes shield. More profitable firms should prefer debt to benefit from the tax shield

Nevertheless in this study, the fixed effect regression result shows, significant at 10%, significant level. (P- Value 0.056), and negative effects on leverage, a coefficient of beta value (-0.118) indicates that as the profitability of the insurance companies increased by 1% leverage decreased by 11.8%. They minimize their belief on debt financing. The negative effect of profitability to capital structure decision indicates a tendency to the confirming pecking order theory of capital structure. This shows that private insurance companies in Ethiopia would prefer to use their internal reserves or retained earnings first, followed by debt and equity as the choice of corporate financing. This result confirms the hypothesis of the study. Most empirical studies support this negative influence of profitability on leverage, Tesfa (2016), Saddam (2014) Daniel (2015) Harris and Raviv (1991), Rajan, Zingales and Mohamed Amin (2014) but this finding contradict Amanuel (2011) & Sidra (2013), and Tradeoff Theory

Size of companies

According to pecking order theory, for large companies is prefer to be financed by equity instead of debt (Myers and Mali, 1984).Because, this reduces the chances of evaluation of the new issued equity and thus encourage the large companies to use equity financing. This means there is negative relationship between the size and leverage of the company's .however Trade off theory contradicts pecking order theory, and it predicts a positive relationship between company size and their level of leverage. This indicates that larger companies are typically more matured companies with a reputation in debt markets and large firms will have more debt than small firms since larger firms are more diversified and have lower risk of default (Frank and Goyal, 2005) It has been found to be an important factor in determining capital structure decision of companies ever since the well-known debt.

Nevertheless fixed effect regression result shows positive and significant at 1% level with (p-value of 0.0008,) as expected and hypothesized. Thus, accept hypothesis, and confirm Trade off theory. This scenario implying that there is a significant and positive effect of company's size on leverage. Which means insurance firms with larger size were more leveraged than insurance firms with smaller size in Ethiopia under the study period. This indicates that the larger the size of a firm becomes the more debt it will use as a source of finance than equity. this study was similar with previous studies including Saddam(2014) Tesfa(2016) Woldemikael (2012), Solomon (2012), Usman (2013), Torneyeva (2013), Mohamed and Mahmoud (2013), and Naveed et al. (2010).

Tangibility of Assets

Agency theory model predicts negative relationship between tangibility of assets and leverage. Therefore, firms with less collateralizable assets might willingly choose higher debt levels to limit consumption of perquisites

Besides, as per this theory, agency costs associated with debt are lower for firms with more tangible assets. This scenario implying a negative relationship between tangibility of assets and leverage. On other hand, the agency cost of debt increase when companies cannot collateralize their debt. However, trade off theory and pecking order theory suggests that existence of a positive relationship. increase quantity of a company's assets can be used as collateral to fulfill lenders requirements Mayer's (1984), and companies with high ratio of fixed assets to total

assets can raise debt financing with relatively least cost reduction in financial distress costs for those firms with more tangible assets because of a better chance to get debt financing.

Nevertheless, the researcher hypothesized a positive relation between asset tangibility and leverage. Although, the results of fixed effect regression model indicated that tangibility had negative effects on leverage. The relationship was significant (P-value = 0.0133) at 5%. The result of the study accepts hypothesis in favor of the alternative hypothesis as the relationship between leverage and tangibility was found to be significant. However, the alternative hypothesis was not supported for the claim for positive association between leverage and asset tangibility.

This finding contradict trade off theory and pecking order theory as well as previous empirical studies including Saddam(2014), Bayeh (2011), Woldemikael (2012), Solomon (2012), Usman (2013), Torneyeva (2013) and Najjar &Petrov (2011). However, support for agency cost which predicts negative relation. Confirmed with results of empirical studies. Ebro (2011) Tesfa (2016) Daniel (2015) whereas studies for developed countries exhibited a positive relationship

4.4.1.2. Macroeconomic Variables

GDP Growth Rate

According to Tradeoff theory positive relation between GDP growth rate and leverage. which suggests that firms will have more debt in the period of high economic growth than did in lower economic growth. Therefore, researcher expected GDP growth rate of Ethiopian economy was a significant and positive effects on leverage of Ethiopian insurance private companies. Although the results of fixed effect regression model indicated that GDP growth rate statistically significant relation with leverage, at 1% significant level. (P- Value 0.000), but the coefficient of GDP was negative as not expected.

The negative coefficient of GDP growth rate represents private insurance companies were less debt or (leverage) to investment activities or any financing need during high economic growth throughout study era. In other way, insurance sectors used internal fund or equity finance to their investments activity or any financing need. on other way, which means this sector; reduce their volume of premium by reducing level of insurable property. This finding contradict tradeoff theory which predicts positive relationship between GDP growth rate and firm's leverage.as well as in empirical perspective, Saddam (2014) Tesfa (2016) Woldemikael (2012), Solomon (2012), Usman (2013), Torneyeva (2013) but consistent with Bokpin (2009),Tesfaye &Minga (2012)

Interest Rate

Tradeoff theory predicted positive relation between interest rate and debt level can be interpreted as firms will prefer more debt than equity in the times of higher interest rates. Because, as interest rate increases, equity has become somewhat more expensive than debt, that leads firms to issue more debt. Researcher expected interest rate and leverage of private insurance companies of Ethiopia. significant and positive relationship However, as it is shown in fixed effects estimation result the coefficient of interest rate variable was positive as expected but insignificant, with p-value of 0.7808 So, the hypothesis stating a significant positive relationship between interest rate of commercial banks and leverage of private insurance companies in Ethiopia, it is not significant so rejected hypothesis. Nevertheless the positive coefficient of interest rate is in line with tradeoff theory's prediction of direct relationship between interest rate and debt level; of private insurance companies but, found insignificant. This finding is in line with a study by, Saddam (2014) Mehdi et al. (2012).

Inflation Rate

According to trade off theory positive relationship between inflation and leverage reflects that firms more likely to raise substantial amount of debt in times of inflationary economy than they do in less inflationary state of an economy. This is due to that the real value of tax deductions on debt will be higher when inflation is expected to be high.

Thus, researcher expected inflation and leverage of Ethiopian insurance private companies has Significant and positive relations. However, as it shown in fixed effects estimation result shows that this was not a case in terms of significance. The coefficient of inflation was positive as expected but found statistically insignificant to explain the dependent variable with (p-value of 0.1413) to influence financing decision of private insurance companies of Ethiopia. So, the hypothesis stating a significant positive relationship between interest rate of commercial banks and leverage of private insurance companies in Ethiopia, so rejected hypothesis also positive correlation to leverage of the private insurance companies of Ethiopia implies if that inflation affects leverage of the firm. This can be explained from the results that the increase in the inflation rate actually the value of insurable properties which ultimately increase the premium of insurance companies This finding is in support of tradeoff theory, which suggests a positive impact of inflation rate on firms leverage, due to the real value of higher tax deductions on debt when inflation is expected to be high. Regarding empirical work, this finding is consistent with previous research by Saddam (2014) tesfa (2016) Tesfaye and Minga (2012)

Table 4.6. Summary of finding and hypostasis test Independent Variables and expected relationship with dependent variable and theory and Measurement

Item	Variable	Expected value	Actual value	Hypothesis test	Theory support finding	Empirical Reference
Firm specific factors	Liquidity (LQ)	(-)	(-)	Accepted	Pecking order theory	Tesfa(2016) Saddam(2014)Daniel et al(2015)
	Premium growth (PG)	(+)	(+)	Rejected	Pecking order theory	Woldemikael (2012) and Usman et al (2013)
	Profitability (ROA)	(-)	(-)	Accepted	Pecking order theory	Mohamed Amin (2014) and Bayeh et al (2011)
	Size of companies (SZ)	(+)	(+)	Accepted	Trade off theory	Saddam(2014) and Tesfa et al (2016)
	Asset tangibility (TA)	(+)	(-)	Accepted	agency cost theory	Bayeh (2011) Daniel(2015)
Macroeconomic factors	Interest rate (INT)	(+)	(+)	Rejected	Trade off theory	Saddam (2014) Mehdi et al. (2012).
	Inflation (INF)	(+)	(+)	Rejected	Trade off theory	Tesfaye and Minga et al (2012)
	Gross domestic product (GDP)	(+)	(-)	Accepted	Pecking order theory	Saddam(2014) and Tesfa et al (2016)

CHAPTER FIVE:

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter deals with the summary of the main findings, conclusions, recommendations and further research direction provided based on the findings of the study. Hence, this chapter is organized into four subsections. The first section presented the summary; the second and third section presented the summary, conclusion and recommendations whereas the last section suggested further research direction

5.1 summary

Capital structure decision is a business invests in new plant and equipment to generate additional revenues and income which is the basis for its growth. Capital structure is a critical decision for any business organization it shows how a company's finances its overall operations and growth by using different sources of funds. A source of fund is mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. Debt rises in the form of bond issues or long-term notes payable, while equity raise as common stock, preferred stock or retained earnings.

This study aimed to assess determinants of capital structure in private insurance companies of Ethiopia .In doing so, this research used eight Ethiopian private insurance companies data gathered from National Banks of Ethiopia and ministry of finance and economic development from the period 2004-2018. In order to achieve the intended objective, the study used simple OLS regression model for nine variables of the study which were both macroeconomic and bank specific variables using EVEIWS 9 software

Data was analyzed by using descriptive statistic, correlation matrix analysis, and multiple regression models. Diagnostic tests was made by the researcher in order to assure, assumption of classical linear regression model (CLRM) were tested/employed; the data was found to be normally distributed, free of Multi-collinearity problem and Heteroskedasticity. Breusch-Pagan test, LM test, Finally, fixed effect regression model results were discussed. Beyond to this researcher was selected three prominent theories of capital structure: peck king order theory, trade-off theory, and agency cost theory, and attempt to isolate which one theory which is pecking order theory describe better the financial decision behavior of the Ethiopian insurance companies. All these theories possess dissimilar characters to explain the corporate capital

structure. Trade-off theory suggests that optimal capital structure is a tradeoff tax shield debt financing and bankruptcy costs. Pecking order theory also states that firms prefer internal financing to external financing and risky debt to equity due to information asymmetries between insiders and outsiders of firm. Agency cost theory explains the financial behavior of firms in context of agent and principal relationship. The researcher has formulated eight hypotheses. For expect these hypotheses, eight explanatory traits from mixture of prominent previous research works on the capital structure have been selected

The finding of this study showed that liquidity,profitability,asset tangibility and GDP were statically significant negative relation with dependent variable total leverage whereas inflation, interest rate, premium growth were statically insignificant positive relation with leverage and size of company was statically significant positive relation with leverage. Finally, the coefficient of determination adjusted R-square is 0.68 which indicates that the explanatory variables were able to account 68% of the total variations of the leverage/dependent variable.

5.2 Conclusions

Insurance play great role by diversifying risk from business entity because of fear for financial losses, it transferring risk by accepting premium from policyholders and paying claims so Insurance companies are interested in determining the capital structure patterns, because these it require funds to settle the claims or pay damages at the time of loss. This is the case; the insurer is expected to pay for the claims from the capital of the insurance company. As well as supporting the growth of economy and for it well-functioning. Many activities that tackle the growth of the economy like import export tread, construction and all other forms of business transaction get embedded with some degree of risk that are inherently exposed to it. However the current business activity without Insurance companies is unreliable especially in Ethiopia because recent political condition is apparently not stable. So it may face risk during operating .risky businesses have not a capacity to retain all types of risks they are face during operations. If Insurance companies discontinue to providing Insurance in the economy then it might happen that firms or businesses stop their operations or might face insolvency due to high risk

Following a stepping stone work of Modigliani and Miller (1958), amply of theoretical as well as empirical works were conducted in relation with capital structure in general and regarding its determinant factors in particular. However, those theoretical and empirical works were almost contrary to each other. In relation with theoretical works, as well as empirical work as per the

researcher review; the three of them are strong than others namely; tradeoff theory, pecking order theory, and agency cost theory. More specifically, among the three theories of capital structure; pecking order theories are most powerful contenders with a tremendous support of empirical literatures. Consequently, explanatory variables of this study were selected based on tradeoff, pecking order and agency cost theories as well as the findings from majority of previous empirical studies pertaining to capital structure determinants. The general objective of this study was to examine firm specific factors such like (liquidity, profitability, size of companies, premium growth, asset tangibility) and macroeconomic variable (GDP growth rate, interest rate, inflation rate) determinants of capital structure decision of private insurance companies in Ethiopia thereby to identify prominent theory for insurance sector of the country

- ❖ **The liquidity** of the private insurance companies in Ethiopia influence their leverage ratio negatively though significant at 1% significance level,(P-value of 0.0008).this scenario represent that private insurance companies of Ethiopia have more liquid asset as well as the negative relationship indicated that more liquid firms will tend to use less debt in their capital structure. Liquid firms are in possession of more internal funds, which can be used as a source of financing need. Therefore more liquid firms are less leveraged than less liquid firms this study confirm pecking order theory and the hypothesis of this study, the liquidity ratio of Ethiopian insurance companies was negative relation with their leverage ratio
- ❖ **Growth opportunity** which is measured by growth rate of premium existence of positive as but insignificant relationship of growth opportunity and leverage with a p-value of 0.20 this scenario represents that growth opportunity had no significant influence on capital structure decision of private insurance companies in Ethiopia. although positive effects of growth on leverage ratio explained that Ethiopia Insurance private companies with relatively high growth opportunity requires more debt for financing decision than less for growing companies. however this study Consistent Pecking Order Theory, but the hypothesis made for this study, the result is found an insignificant positive relationship between growth opportunity and leverage ratio of the private insurance companies.in Ethiopia
- ❖ **The profitability** of the private insurance companies in Ethiopia influence their leverage ratio negatively though significant, at 10% significance level,(P-value of 0.0568) this

scenario represent that more profitable insurance companies were used internal generated fund and equity capital than debt capital for source of financing decision. This study confirm pecking order theory and accept the hypothesis of this study, the profitability ratio of Ethiopian insurance companies was negative relation with their leverage ratio

❖ **Size of companies** influence the private insurance companies their leverage through positively and statically significance at significant level 1% with (p-value of 0.0008,) which supports the tread off theory and the hypothesis formulated for the study this result shows that large sized private insurance companies, requires more debt financing than small sized insurance companies. Large size insurance companies are typically more mature and known companies can easily attract more risk transfers from individuals and business firms thereby increasing the leverage of the companies by premium financing

❖ **Asset tangibility** the fixed effect regression result regarding to the influence of tangibility of assets on the leverages was negative and significant at 5% with (p-value 0.0133). This study contradicted to the expected positive relationship, and pecking order theory, but confirm agency cost theory which tells debt are lower for firms with more tangible assets implying a negative relationship between tangibility of assets and leverage.

This scenario the relationship is significant at less than 5% implying that tangibility is one of the key determinates factors of the capital structure of Ethiopian insurance private companies. This mean the Ethiopian insurance private companies were not hold plenty tangible asset to debt purpose as a form of collateral .descriptive result above table 4.1 shows that percentage of fixed assets to total assets was 19.62 %. This is not sufficient because intangible assets are more difficult to price and hence the cost of debt increases.

❖ **Interest rate** predicted to have a positive as well as significant to leverage of the Ethiopia insurance private companies, but the fixed effect regression result indicated Ethiopian economy, at found to have a positive but statistically insignificant p-value of 0.78 relationships with the dependent variable which was represented by total leverage. Which indicated interest rate was not affect Ethiopian insurance private companies throughout the study period, however positive coefficient indicates that Ethiopian private insurance companies borrowed more in the year when interest rate was high than in the year when interest rate was low. In an interchangeable manner, a higher interest rate forced private Ethiopian insurance firms to issue more debt than equity. This result is in support to trade off theory of capital structure

❖ **Inflation rate** was predicted to have a positive and statically significant correlation to leverage of the insurance companies for Ethiopian economy, but fixed effect regression result found to have a positive and statistically insignificant p-value of 0.14 relationships with the dependent variable which was represented by total leverage. This implies that throughout the study period, Ethiopian private insurance companies borrowed more in the year when inflation rate was high than in the year when inflation rate was low. In an interchangeable manner, a higher inflation rate forced Ethiopian insurance firms to issue more debt than equity. This result is in support to trade off theory.

❖ **GDP growth rate** was predicted to have a positive and statically significant relation to leverage of the Ethiopian insurance private companies. However, surprisingly the fixed effect regression result shows a negative influence as well as significant at significant level 1% with (p-value of 0.0000), of GDP growth rate on the leverage.

This study contradicts with the research hypothesis that GDP has a positive relationship with leverage of insurance and empirical study Tesfa (2016) Saddam et al (2014) as well as trade off theory. This scenario represents that GDP growth increases when level of leverage decrease. On other way GDP increase by 1% can reduce the leverage ratio of Ethiopian insurance private companies by 3.18%.which means insurance private companies were used more internal fund and equity capital rather than debt capital to their financing need by reduce volume of premium by selecting insurable property and carefully managed throughout the study period.

Generally, to conclude, based on the fixed effect regression results of this study suggests that, liquidity, profitability companies size, tangibility of assets, and macroeconomic factors: GDP, were found to be significant determinant factors that affect capital structure decision (as represented by total leverage) of private insurance companies in Ethiopian whereas growth opportunity, inflation, and interest rate were insignificant. This study confirming trade off theories, pecking order theories and agency cost theory as prominent theories for the sector. Most specifically, among the three; pecking order theory is found as the most influential theory for firms than trade off theories and agency cost theories in context of private insurance companies in Ethiopian

5.3. Recommendations

Based on the major findings obtained from the fixed effect result, the researcher provided the following recommendations.

The analyses represent that the independent company's internal factors of liquidity, profitability, size of companies, and asset tangibility, as well as external factors of GDP were significantly influence leverage of Ethiopian insurance private companies. Thus, managers of these insurance companies better to consider the influence of these significant variables in determining their financing needs to maximize the value of the company and meet the shareholders return to the extent that gives value for their invested money.

- ❖ Among three-capital structure theory, the regression result of the variables emphasized pecking order theory remarkably seems to apply influence on the Ethiopian insurance private company's capital structure. It is, essential for managers of this sector to formulate a policy that promote the need to increase the equity capital and the internal growth and to use for future financing needs of the company.
- ❖ Above table 4.1 descriptive analysis, prove that, percentage of fixed assets to total assets was 19.62%, which menace Ethiopian insurance private companies holding 80.38 % liquid asset and 19.62 % is tangible asset. as well as negative sign represent investors of private insurance companies were not using their tangible assets a form of collateral for debt financing, and might not be proper valuation of the asset due to information asymmetry. Therefore advisable to managers of this sector, holding sufficient tangible asset, because holding a large amount of liquid assets is that it can counterbalance any unexpected and large claims costs without returning to asset sales or emergency funding. Because regulatory body directed for nonlife insurance companies are required to hold at least 65% of the total assets in the form of liquid assets, based on cash and bank balances and 10% investment in equity share. In this reason, private insurance companies hold inadequate fixed/tangible asset. Thus, the managements Ethiopian privte insurance companies better to eliminating the information asymmetries with investors.
- ❖ Pecking order model explains that companies should uses internal source of finance to facilitate their operation. In another word, this theory suggest that companies should list firms first use internal financing and then move to debt and finally they issue new equity

when necessary. Therefore, pecking order theory suggests that there is a negative relationship between debt and profitability which is a source of internal funds. thus recommended to insurance managers they follow pecking order pattern to optimize their capital structure

5.4. Directions for further research

This paper has examined determinants of capital structure an empirically on Ethiopia insurance private companies. To achieve this study the researcher used only secondary data, (quantitative, approach), this is not sufficient to assess factors, which affects these companies capital structure decision. As far as the researcher knowledge there is no a study that examine capital structure decision in Ethiopia by using primary and secondary data. Hence, future studies should address to identify the factor affecting capital structure decision in Ethiopian insurance companies will uses both primary and secondary data (mixed approach), to accomplish their research, find out full information about capital structure decision increase the observations, like government intervention, political instability, management efficiency, pandemic disease, socio-cultures of citizens, underwriting risk, Reinsurance dependency, land lease, dividend payout and motor insurance and corporate tax.

Reference

- ❖ Abate, G.A. 2012. Factors affecting profitability of insurance companies in Ethiopia: Panel evidence, Master's thesis, Addis Ababa University
- ❖ Abor, J., 2005. The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The journal of risk finance*
- ❖ Abzari, M., Fathi, S. and Nematizadeh, F., 2012. Analyzing the impact of financial managers' perception of macroeconomic variables on capital structure of firms listed in Tehran stock exchange. *International Journal of Academic Research in Economics and Management Sciences*, 1(3), p.131.
- ❖ Adesola, W.A., 2009. Testing static tradeoff theory against pecking order models of capital structure in Nigerian quoted firms. *Global Journal of Social Sciences*, 8(1)..
- ❖ Ahmed, N., Ahmed, Z. and Ahmed, I., 2010. Determinants of capital structure: A case of life insurance sector of Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 24(24), pp.7-12.
- ❖ Akinlo, O. and Olufisayo, O., 2011. The effect of working capital on profitability of firms in Nigeria: Evidence from general method of moments (GMM). *Asian Journal of Business and Management Sciences*, 1(2), pp.130-135.
- ❖ Alves, P.F.P. and Ferreira, M.A., 2011. Capital structure and law around the world. *Journal of Multinational Financial Management*, 21(3), pp.119-150
- ❖ Amanuel, M., 2011. 'The determinants of capital structure evidence from manufacturing share companies of Addis Ababa city'. Addis Ababa-Ethiopia
- ❖ Amidu, M., 2007. Determinants of capital structure of banks in Ghana: an empirical approach. *Baltic Journal of Management*.
- ❖ Anake, A.F., Obim, E.N. and Awara, E.F., 2014. Determinants of financial structure: Evidence from Nigerian quoted firms. *Research journal of finance and accounting*, 5(16), pp.53-66.
- ❖ Aremu, M.A., Ekpo, I.C., Mustapha, A.M. and Adedoyin, S.I., 2013. Determinants of capital structure in Nigerian banking sector. *International Journal of Academic Research in Economics and Management Sciences*, 2(4), p.27.
- ❖ Ashenafi, B., 2005. Determinants of capital structure in medium enterprises in Ethiopia. *Master's thesis, Addis Ababa University*.

- ❖ Ayele, A.G., 2012. Factors affecting profitability of insurance companies in Ethiopia: panel evidence. Addis Ababa University, Ethiopia.
- ❖ Baker, M. and Wurgler, J., 2002. Market timing and capital structure. *The journal of finance*, 57(1), pp.1-32.
- ❖ Baranoff, E. and Sager, T., 2003. The relations among organizational and distribution forms and capital and asset risk structures in the life insurance industry. *journal of Risk and Insurance*, 70(3), pp.375-400.
- ❖ Baruch, Y. and Holtom, B.C., 2008. Survey response rate levels and trends in organizational research. *Human relations*, 61(8), pp.1139-1160.
- ❖ Bas, T., Muradoglu, G. and Phylaktis, K., 2009. Determinants of capital structure in developing countries. *Cass Business School, London EC1Y 8TZ, UK*.
- ❖ Bayeh, A., 2011. Capital structure determinants: an empirical study on insurance industry in Ethiopia. Unpublished Thesis, Addis Ababa University School of Graduate Studies.
- ❖ Bhaduri, S.N., 2002. Determinants of corporate borrowing: some evidence from the Indian corporate structure. *Journal of Economics and Finance*, 26(2), pp.200-215.
- ❖ Birru, M.W., 2016. The impact of capital structure on financial performance of commercial banks in Ethiopia. *Global Journal of Management and Business Research*.
- ❖ Bizuayehu, T., 2016. DETERMINANTS OF CAPITAL STRUCTURE IN ETHIOPIAN INSURANCE COMPANIES (Doctoral dissertation, St. Mary's University).
- ❖ Bokpin, G.A., 2009. Macroeconomic development and capital structure decisions of firms. *Studies in economics and finance*.
- ❖ Bourgeon, J.M. and Dionne, G., 2013. On debt service and renegotiation when debt-holders are more strategic. *Journal of Financial Intermediation*, 22(3), pp.353-372
- ❖ Bowen, D.E. and Ostroff, C., 2004. Understanding HRM–firm performance linkages: The role of the “strength” of the HRM system. *Academy of management review*, 29(2), pp.203-221.
- ❖ Cassar, G. and Holmes, S., 2003. Capital structure and financing of SMEs: Australian evidence. *Accounting & Finance*, 43(2), pp.123-147.
- ❖ Cekrezi, A., 2013. Analyzing the impact of firm’s specific factors and macroeconomic factors on capital structure: A case of small non-listed firms in Albania. *Research Journal of Finance and Accounting*, 4(8), pp.90-95.

- ❖ Chen, L. and Jiang, G.J., 2001. The determinants of dutch capital structure choice (pp. 1-25). Research School Systems, Organization and Management.
- ❖ Chen, J. and Strange, R., 2005. The determinants of capital structure: Evidence from Chinese listed companies. *Economic change and Restructuring*, 38(1), pp.11-35.
- ❖ Cheng, J. and Weiss, M.A., 2012. Capital structure in the property-liability insurance industry: Tests of the tradeoff and pecking order theories. *Journal of Insurance Issues*, pp.143.
- ❖ Chieti, C., Wolmarans, H.P. and Vermaak, F.N., 2012. Impact of financial liberalization on capital structure: Evidence from the Johannesburg Securities Exchange.
- ❖ Črnigoj, M. and Mramor, D., 2009. Determinants of capital structure in emerging European economies: Evidence from Slovenian firms. *Emerging Markets Finance and Trade*, 45(1), pp.72-89.
- ❖ Cummins, J.D., Dionne, G., Gagné, R. and Nouria, A.H., 2009. Efficiency of insurance firms with endogenous risk management and financial intermediation activities. *Journal of Productivity Analysis*, 32(2), pp.145-159.
- ❖ Dang, V.A., 2013. Testing capital structure theories using error correction models: evidence from the UK, France and Germany. *Applied Economics*, 45(2), pp.171-190.
- ❖ Daniel, B., 2015. Determinants of Capital Structure of Insurance Companies in Ethiopia. Unpublished Master's thesis, Addis Ababa University, college of business and economics.
- ❖ Dawood, M.H.A.K., Moustafa, E.I. and El-Hennawi, M.S., 2011. The determinants of capital structure in listed Egyptian corporations. *Middle Eastern Finance and Economics*, 9(1), pp.83-99.
- ❖ Delcoure, N., 2007. The determinants of capital structure in transitional economies. *International Review of Economics & Finance*, 16(3), pp.400-415.
- ❖ Doherty, N., 1989. On the capital structure of insurance firms. In *Financial Models of Insurance Solvency* (pp. 267-281). Springer, Dordrecht.
- ❖ Frank, M.Z. and Goyal, V.K., 2009. Capital structure decisions: which factors are reliably important?. *Financial management*, 38(1), pp.1-37.
- ❖ Frank, M.Z. and Goyal, V.K., 2004. The effect of market conditions on capital structure adjustment. *Finance Research Letters*, 1(1), pp.47-55.
- ❖ Gajurel, D., 2006. Macroeconomic influences on corporate capital structure. *Available at SSRN 899049*.

- ❖ Garven, J.R., 1987. On the application of finance theory to the insurance firm. *Journal of Financial Services Research*, 1(1), pp.57-76.
- ❖ Getahun, M., 2014. Determinants of capital structure and its Impact on the performance of Ethiopian Insurance Industry (Doctoral dissertation, Jimma University).
- ❖ Gharaibeh, H. and Al-Najjar, B., 2007. Determinants of capital structure: Evidence from Jordanian Data. *Jordan Journal of Business Administration*, 3(2), pp.185-194.
- ❖ Gill, A., Biger, N., Pai, C. and Bhutani, S., 2009. The determinants of capital structure in the service industry: evidence from United States. *The Open Business Journal*, 2(1).
- ❖ Goyal, A.M., 2013. Impact of capital structure on performance of listed public sector banks in India. *International journal of business and management invention*, 2(10), pp.35-43.
- ❖ Gujarati, D.N., 2004. *Basic Econometrics*. McGraw-Hill Companies. New York.
- ❖ Gulati, D. and Zantout, Z., 1997. Inflation, capital structure, and immunization of the firm's growth potential. *Journal of Financial and Strategic Decisions*, 10(1), pp.77-90.
- ❖ Guruswamy, D. and Marew, A., 2017. Determinants of Profitability Performance of Insurance Companies: A Case Study of Selected Insurance Companies in Ethiopia. *I-Manager's Journal on Management*, 12(2), p.26.
- ❖ Hamidah, H., 2016. Analysis of Factors Affecting the Capital Structure and Profitability in Indonesians Manufacturing Company Year 2009 2013. *Jurnal Keuangan Dan Perbankan*, 20(2), p.196395.
- ❖ Harris, M. and Raviv, A., 1991. The theory of capital structure. *The Journal of Finance*, 46(1), pp.297-355.
- ❖ Hassan, S.U., 2012. Determinants of capital structure in the Nigerian listed insurance firms. *Chinese Business Review*, 11(7).
- ❖ Hussain, M.Q. and Nivorozhkin, E., 1997. *The capital structure of listed companies in Poland* (No. 97-175). International Monetary Fund.
- ❖ Jin-song, Y.U., 2005. A Positivistic Analysis of the Performance of Insurance Companies [J]. *Journal of Swupl*, 2.
- ❖ Kar, A.K., 2012. Does capital and financing structure have any relevance to the performance of microfinance institutions?. *International Review of Applied Economics*, 26(3), pp.329-348.

- ❖ Khanna, S., Srivastava, A. and Medury, Y., 2015. Do Capital Structure Decisions in Turbulent Environment Affect Value of Firm?. In Twelfth AIMS International Conference on Management, January (pp. 2-5).
- ❖ Kinde, B.A.2011, 'Determinants: Capital Structure an Empirical Study on Insurance Industry in Ethiopia'. Addis Ababa University, School of Graduate Study
- ❖ Kinde, M.B.A., 2013. Impact of firm level factors on capital structure: Evidence from Ethiopian Insurance companies. *Global Journal of Management and Business Research*.
- ❖ Kingsley, T., 2013. Determinants of Capital Structure of Insurance Companies in Ghana. *Research Journal of Finance and Accounting*. 4 (13). 52, 60.
- ❖ Koul, L., 2006. *Methodology of Educational Research 3rded. New Delhi: Wishwa Prakashan.*
- ❖ Kovenock, D. and Phillips, G., 1995. Capital structure and product-market rivalry: How do we reconcile theory and evidence?. *The American Economic Review*, 85(2), pp.403-408.
- ❖ Kumar, S., Colombage, S. and Rao, P., 2017. Research on capital structure determinants: a review and future directions. *International Journal of Managerial Finance*.
- ❖ Kumar, M.S., Dhanasekaran, M., Sandhya, S. and Saravanan, R., 2012. Determination of financial capital structure on the insurance sector firms in India. *European Journal of Social Sciences*, 29(2), pp.288-294.
- ❖ Laeven, R.J.A. and Perotti, E.C., 2010. Optimal Capital Structure for Insurance Companies Optimal Capital Structure for Insurance Companies*.
- ❖ Lemma, T.T. and Negash, M., 2013. Institutional, macroeconomic and firm-specific determinants of capital structure. *Management Research Review*.
- ❖ Lemmon, M.L., Roberts, M.R. and Zender, J.F., 2008. Back to the beginning: persistence and the cross-section of corporate capital structure. *The journal of finance*, 63(4), pp.1575-1608.
- ❖ Li, M. and Simerly, R.L., 2002. ENVIRONMENTAL DYNAMISM, CAPITAL STRUCTURE AND INNOVATION: AN EMPIRICAL TEST. *International Journal of Organizational Analysis* (1993-2002), 10(2).
- ❖ Margaritis, D. and Psillaki, M., 2010. Capital structure, equity ownership and firm performance. *Journal of banking & finance*, 34(3), pp.621-632.
- ❖ Mayers, D. and Smith Jr, C.W., 1994. Managerial discretion, regulation, and stock insurer ownership structure. *Journal of risk and insurance*, pp.638-655.

- ❖ Mirza, S.A. and Javed, A., 2013. Determinants of financial performance of a firm: Case of Pakistani stock market. *Journal of economics and International Finance*, 5(2), pp.43-52.
- ❖ Mohamed, S. and Mahmoud, E., 2013. The impact of corporate characteristics on capital structure: evidence from the Egyptian insurance companies, research paper in Cairo University.
- ❖ Modigliani, F. and Miller, M., 1958. The cost of capital, corporation finance and the theory of finance. *American Economic Review*, 48(3), pp.291-297
- ❖ Modigliani, F. and Miller, M.H., 1963. Corporate income taxes and the cost of capital: a correction. *The American economic review*, 53(3), pp.433-443.
- ❖ Morri, G. and Beretta, C., 2008. The capital structure determinants of REITs. Is it a peculiar industry?. *Journal of European Real Estate Research*.
- ❖ Muthama, C., Mbaluka, P. and Kalunda, E., 2013. An empirical analysis of macro-economic influences on corporate capital structure of listed companies in Kenya. *Journal of Finance and Investment Analysis*, 2(2), pp.41-62.
- ❖ Myers, S.C., 2001. Capital structure. *Journal of Economic perspectives*, 15(2), pp.81-102.
- ❖ Myers, S.C. and Majluf, N.S., 1984. Corporate financing and investment decisions when firms have information that investors do not have (No. w1396). National Bureau of Economic Research
- ❖ Myers, S.C., 1984. Capital structure puzzles (No. w1393). National Bureau of Economic Research.
- ❖ Mayers, D. and Smith Jr, C.W., 1994. Managerial discretion, regulation, and stock insurer ownership structure. *Journal of risk and insurance*, pp.638-655.
- ❖ Najjar, N. and Petrov, K., 2011. Capital structure of insurance companies in Bahrain. *International Journal of Business and Management*, 6(11), pp.138-145.
- ❖ Nissim, D., 2013. Implied cost of equity capital in the US insurance industry. *Journal of Financial Perspectives*, Forthcoming, pp.13-20.
- ❖ Nissim, D., 2010. Analysis and valuation of insurance companies. *CE/ ASA (Center for Excellence in Accounting and Security Analysis) Industry Study*, (2).
- ❖ Owolabi, S.A., Inyang, U.E. and Uduakobong, E., 2012. Determinants of capital structure in Nigerian firms: A theoretical review. *eCanadian Journal of Accounting and Finance*, 1(1), pp.7-15.

- ❖ Parvej, M. and Azhar, S., 2019. Impact of Foreign Direct Investment (FDI) on Financial Performance of Life Insurance Companies. *Think India Journal*, 22(10).
- ❖ Ponce, O.A. and Pagán-Maldonado, N., 2015. Mixed methods research in education: Capturing the complexity of the profession. *International Journal of Educational Excellence*, 1(1), pp.111-135.
- ❖ Rafique, M., 2011. Effect of profitability & financial leverage on capital structure: A case of Pakistan's automobile industry. Available at SSRN 1911395.
- ❖ Rajan, R.G. and Zingales, L., 1995. What do we know about capital structure? Some evidence from international data. *The journal of Finance*, 50(5), pp.1421-1460.
- ❖ Regasa D. Getachew (2014), Determinants of Leverage for Unlisted Firms: Evidence from Ethiopian Private Insurance Companies, *Journal of Poverty, Investment and Development, An Open Access International Journal Vol.4 2014*
- ❖ Saddam, M., 2014. Factors Affecting Capital Structure Decision: Evidence from Ethiopian Insurance Firms. An unpublished masters' research of Addis Ababa University.
- ❖ Saeed, M.M., Gull, A.A. and Rasheed, M.Y., 2013. Impact of capital structure on banking performance (A case study of Pakistan). *Interdisciplinary journal of contemporary research in business*, 4(10), pp.393-403.
- ❖ Salawu, R.O., 2007. The determinants of the capital structure of financial firms in Nigeria: The Financial Managers' Perspectives. *Global Journal of Business Research*, 1(1), pp.60-69.
- ❖ Sauerhoff, C., 2014. Problem and Hypotheses. In *Competitive Differentiation within the Shipbuilding Industry* (pp. 53-72). Springer Gabler, Wiesbaden.
- ❖ Shala,A,Ahmeti,S;,Bersha,V,and perjuci,E;,2014.The factors that determine the capital structure among insurance companies in Kosovo;, Empirical analysis ,*Academic journal of interdisciplinary studies*,3(2),pp,43-43
- ❖ Shah, A. and Khan, S., 2007. Determinants of capital structure: Evidence from Pakistani panel data. *International review of business research papers*, 3(4), pp.265-282.
- ❖ Shapiro, J.F., Singhal, V.M. and Wagner, S.N., 1993. Optimizing the value chain. *Interfaces*, 23(2), pp.102-117.
- ❖ Sharif, B., Naeem, M.A. and Khan, A.J., 2012. Firms Characteristics and Capital structure: A panel data analysis of Pakistans Insurance sector. *African Journal of Business Management*, 6(14), pp.4939-4947

- ❖ Solomon, M., 2012. Firms characteristics and capital structure: A panel data analysis from Ethiopian insurance industry. *International Journal of Research in Commerce and Management*,3
- ❖ Staking, K.B. and Babbel, D.F., 1995. The relation between capital structure, interest rate sensitivity, and market value in the property-liability insurance industry. *Journal of Risk and Insurance*, pp.690-718.
- ❖ Tesfaye, T.L. and Minga, N. 2012. Institutional, macroeconomic and firm-specific determinants of capital structure: The African evidence, *Management Research Review* Vol.36
- ❖ Taherdoost, H., 2016. Sampling methods in research methodology; how to choose a sampling technique for research. *How to Choose a Sampling Technique for Research (April 10, 2016)*.
- ❖ Titman, S. and Wessels, R., 1988. The determinants of capital structure choice. *The Journal of finance*, 43(1), pp.1-19.
- ❖ Tongkong, S., 2012. Key factors influencing capital structure decision and its speed of adjustment of Thai listed real estate companies. *Procedia-Social and Behavioral Sciences*, 40, pp.716-720
- ❖ Tornyeva, K., 2013. Determinants of capital structure of insurance companies in Ghana. *Research Journal of Finance and Accounting*, 4(13), pp.52-60..
- ❖ Umer, U.M., 2014. Determinants of capital structure: Empirical evidence from large taxpayer share companies in Ethiopia. *International Journal of Economics and Finance*, 6(1), pp.53-65.
- ❖ Woldemikael, S., 2012. Determinants of capital Structure of commercial banks in Ethiopia (Doctoral dissertation, Addis Ababa University).
- ❖ Younus, S., Ishfaq, K., Usman, M. and Azeem, M., 2014. Capital structure and financial performance: Evidence from Sugar industry in Karachi Stock Exchange Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4), pp.272-279.
- ❖ Voulgaris, F., Asteriou, D. and Agiomirgianakis, G., 2004. Size and determinants of capital structure in the Greek manufacturing sector. *International Review of Applied Economics*, 18(2), pp.247-262.
- ❖ Zeleke, H., 2007. Insurance in Ethiopia. Historical Development, Present Status and Future Challenges.

APPENDICES 1

Appendix 1: Autocorrelation; individual johansen contigration test

Kao Residual Cointegration Test

Series: LEV INT INF GDP LQ PG ROE SZ TA

Date: 05/02/20 Time: 17:13

Sample: 2004 2018

Included observations: 120

Null Hypothesis: No cointegration

Trend assumption: No deterministic trend

User-specified lag length: 1

Newey-West automatic bandwidth selection and Bartlett kernel

	t-Statistic	Prob.
ADF	-3.905084	0.0000
Residual variance	0.001498	
HAC variance	0.001332	

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RESID)

Method: Least Squares

Date: 05/02/20 Time: 17:13

Sample (adjusted): 2006 2018

Included observations: 104 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESID(-1)	-0.677082	0.101659	-6.660305	0.0000
D(RESID(-1))	0.226401	0.098878	2.289711	0.0241
R-squared	0.312977	Mean dependent var	-8.60E-05	
Adjusted R-squared	0.306241	S.D. dependent var	0.044687	
S.E. of regression	0.037221	Akaike info criterion	-3.724846	
Sum squared resid	0.141311	Schwarz criterion	-3.673992	
Log likelihood	195.6920	Hannan-Quinn criter.	-3.704244	
Durbin-Watson stat	1.990804			

Appendix 2 Heteroskedasticity- residual diagnostics test

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled

Periods included: 15

Cross-sections included: 8

Total panel observations: 120

Note: non-zero cross-section means detected in data

Cross-section means were removed during computation of correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	38.95936	28	0.0816
Pesaran scaled LM	0.395461		0.6925
Pesaran CD	2.086394		0.0369

Appendix 3: Summary of Raw Data

Companies	year	LEV	LQ	ROA	SZ	TA	PG	GDP	INF	INT
AIC	2004	0.64	1.11	0.10	18.44	0.06	0.12	0.12	0.07	0.08
AIC	2005	0.68	1.12	0.10	18.51	0.09	0.09	0.13	0.06	0.07
AIC	2006	0.71	1.16	0.12	18.88	0.05	0.51	0.13	0.11	0.07
AIC	2007	0.75	1.08	0.07	18.98	0.04	0.23	0.12	0.16	0.07
AIC	2008	0.80	1.00	0.08	19.25	0.05	0.44	0.11	0.15	0.08
AIC	2009	0.81	0.94	0.06	19.48	0.09	0.20	0.10	0.36	0.08
AIC	2010	0.81	0.89	0.08	19.62	0.18	0.38	0.11	0.28	0.12
AIC	2011	0.82	0.83	0.08	19.88	0.21	0.45	0.11	0.18	0.12
AIC	2012	0.81	0.67	0.09	20.04	0.30	0.34	0.10	0.34	0.12
AIC	2013	0.78	0.54	0.11	20.02	0.41	-0.07	0.10	0.14	0.12
AIC	2014	0.77	0.63	0.09	20.12	0.36	-0.06	0.12	0.08	0.12
AIC	2015	0.67	0.36	0.12	20.23	0.32	0.06	0.10	0.08	0.12
AIC	2016	0.64	0.26	0.11	20.30	0.34	0.18	1.85	0.13	0.13
AIC	2017	0.68	0.72	0.10	20.40	0.31	0.34	2.32	0.12	0.13
AIC	2018	0.67	0.54	0.10	20.45	0.35	0.14	2.37	1.49	0.04
AWIC	2004	0.60	1.28	0.10	18.13	0.12	0.49	0.12	0.08	0.08
AWIC	2005	0.61	1.16	0.19	18.28	0.12	0.51	0.13	0.06	0.07
AWIC	2006	0.66	1.10	0.10	18.48	0.11	0.43	0.12	0.11	0.07
AWIC	2007	0.69	0.99	0.10	18.72	0.15	0.33	0.12	0.16	0.07
AWIC	2008	0.69	0.82	0.15	18.85	0.21	0.08	0.11	0.15	0.08
AWIC	2009	0.67	0.79	0.12	19.02	0.24	0.04	0.10	0.36	0.08
AWIC	2010	0.69	0.83	0.19	19.19	0.25	0.06	0.11	0.28	0.12
AWIC	2011	0.74	0.78	0.17	19.62	0.34	0.39	0.11	0.18	0.12
AWIC	2012	0.77	0.85	0.15	19.97	0.23	0.56	0.10	0.34	0.12
AWIC	2013	0.73	0.89	0.21	20.14	0.21	0.05	0.10	0.14	0.12
AWIC	2014	0.69	0.86	0.20	20.18	0.25	0.07	0.12	0.08	0.12
AWIC	2015	0.70	0.83	0.21	20.29	0.26	0.16	0.10	0.08	0.12
AWIC	2016	0.67	0.82	0.19	20.55	0.26	0.08	1.85	0.13	0.13
AWIC	2017	0.64	0.90	0.21	20.73	0.23	0.11	2.32	0.12	0.13

AWIC	2018	0.64	0.88	0.18	20.85	0.25	0.11	2.37	1.49	0.14
GIC	2004	0.46	2.60	0.14	16.53	0.03	0.13	0.12	0.07	0.08
GIC	2005	0.48	2.46	0.13	16.95	0.25	0.42	0.13	0.06	0.07
GIC	2006	0.45	2.31	0.11	17.23	0.20	0.58	0.12	0.11	0.07
GIC	2007	0.48	1.54	0.13	17.42	0.36	0.17	0.12	0.16	0.07
GIC	2008	0.56	0.85	0.11	17.61	0.65	0.25	0.11	0.15	0.08
GIC	2009	0.53	0.69	0.14	17.89	0.41	0.03	0.10	0.36	0.08
GIC	2010	0.60	0.84	0.18	17.92	0.49	0.40	0.11	0.28	0.12
GIC	2011	0.57	0.92	0.15	18.00	0.45	0.48	0.11	0.18	0.12
GIC	2012	0.65	0.92	0.10	18.35	0.35	0.89	0.10	0.34	0.12
GIC	2013	0.65	1.13	0.22	18.64	0.27	-0.03	0.10	0.14	0.12
GIC	2014	0.57	1.35	0.23	18.85	0.23	0.19	0.12	0.08	0.12
GIC	2015	0.49	1.63	0.19	19.04	0.18	0.15	0.10	0.08	0.12
GIC	2016	0.50	1.47	0.17	19.21	0.15	0.12	1.85	0.13	0.13
GIC	2017	0.60	1.24	0.18	19.06	0.21	-0.08	2.32	0.12	0.13
GIC	2018	0.59	1.54	0.18	19.11	0.11	0.13	2.37	1.49	0.14
NLIC	2004	0.61	0.95	0.16	18.68	0.09	0.20	0.12	0.07	0.08
NLIC	2005	0.65	0.84	0.16	18.84	0.17	0.06	0.13	0.06	0.07
NLIC	2006	0.73	1.02	0.14	19.01	0.45	0.22	0.12	0.11	0.07
NLIC	2007	0.75	0.88	0.14	19.07	0.18	0.08	0.12	0.16	0.07
NLIC	2008	0.77	0.68	0.11	19.06	0.26	0.12	0.11	0.15	0.08
NLIC	2009	0.75	0.72	0.17	19.09	0.25	-0.07	0.10	0.36	0.08
NLIC	2010	0.64	0.93	0.27	19.23	0.20	0.39	0.11	0.28	0.12
NLIC	2011	0.65	0.96	0.23	19.40	0.18	0.35	0.11	0.18	0.12
NLIC	2012	0.64	1.09	0.22	19.71	0.13	0.50	0.10	0.34	0.12
NLIC	2013	0.65	1.11	0.21	19.86	0.15	-0.12	0.10	0.14	0.12
NLIC	2014	0.66	1.09	0.23	20.00	0.16	0.25	0.12	0.08	0.12
NLIC	2015	0.63	1.15	0.21	20.17	0.15	0.15	0.10	0.08	0.12
NLIC	2016	0.67	0.85	0.15	20.30	0.25	0.24	1.85	0.13	0.13
NLIC	2017	0.63	0.83	0.24	20.51	0.29	-0.04	2.32	0.12	0.13
NLIC	2018	0.65	0.97	0.21	20.49	0.30	0.49	2.37	1.49	0.14

NIC	2004	0.61	0.74	0.19	17.51	0.22	0.00	0.12	0.07	0.08
NIC	2005	0.59	0.98	0.24	17.94	0.16	0.79	0.13	0.06	0.07
NIC	2006	0.59	1.00	0.19	18.10	0.13	0.45	0.12	0.11	0.07
NIC	2007	0.63	1.05	0.21	18.41	0.09	0.35	0.12	0.16	0.07
NIC	2008	0.74	0.86	0.23	18.65	0.14	0.63	0.11	0.15	0.08
NIC	2009	0.72	0.94	0.21	19.10	0.11	0.19	0.10	0.36	0.02
NIC	2010	0.75	0.98	0.21	19.34	0.11	0.32	0.11	0.28	0.12
NIC	2011	0.74	1.00	0.22	19.54	0.11	0.12	0.11	0.18	0.12
NIC	2012	0.78	0.97	0.19	19.98	0.09	0.61	0.10	0.34	0.12
NIC	2013	0.73	1.05	0.22	20.06	0.09	-0.07	0.10	0.14	0.12
NIC	2014	0.70	1.11	0.19	20.29	0.09	0.07	0.12	0.08	0.12
NIC	2015	0.67	1.10	0.18	20.45	0.14	0.11	0.10	0.08	0.12
NIC	2016	0.65	1.06	0.17	20.53	0.15	0.09	1.85	0.13	0.13
NIC	2017	0.66	1.03	0.16	20.63	0.15	0.06	2.32	0.12	0.13
NIC	2018	0.66	1.03	0.15	20.73	0.16	0.07	2.37	1.49	0.14
NISCO	2004	0.56	1.08	0.20	18.55	0.28	0.02	0.12	0.07	0.08
NISCO	2005	0.52	1.08	0.21	18.51	0.30	0.12	0.13	0.06	0.07
NISCO	2006	0.58	1.20	0.19	18.63	0.27	0.26	0.12	0.11	0.07
NISCO	2007	0.58	1.08	0.22	18.66	0.26	0.00	0.12	0.16	0.07
NISCO	2008	0.63	0.97	0.17	18.78	0.25	0.45	0.11	0.15	0.08
NISCO	2009	0.57	0.91	0.26	18.83	0.31	-0.25	0.10	0.36	0.08
NISCO	2010	0.60	0.98	0.28	19.05	0.25	0.24	0.11	0.28	0.12
NISCO	2011	0.58	1.02	0.25	19.19	0.26	0.19	0.11	0.18	0.12
NISCO	2012	0.60	1.10	0.29	19.55	0.19	0.49	0.10	0.34	0.12
NISCO	2013	0.62	1.14	0.26	19.87	0.17	0.12	0.10	0.14	0.12
NISCO	2014	0.60	1.22	0.22	20.11	0.14	0.18	0.12	0.08	0.12
NISCO	2015	0.63	1.24	0.12	20.43	0.11	0.69	0.10	0.08	0.12
NISCO	2016	0.64	1.17	0.12	20.58	0.09	0.17	1.85	0.13	0.13
NISCO	2017	0.62	1.27	0.40	20.80	0.08	0.00	2.85	0.12	0.13
NISCO	2018	0.61	1.15	0.36	20.82	0.09	0.49	2.37	1.49	0.14
NICE	2004	0.65	0.76	0.21	17.01	0.30	0.18	0.12	0.07	0.08

NICE	2005	0.71	0.71	0.04	17.06	0.30	0.20	0.13	0.06	0.07
NICE	2006	0.68	0.73	0.12	17.27	0.24	0.23	0.12	0.11	0.07
NICE	2007	0.68	0.95	0.14	17.49	0.20	0.18	0.12	0.16	0.07
NICE	2008	0.60	0.93	0.11	17.60	0.16	0.26	0.11	0.15	0.08
NICE	2009	0.68	0.81	0.11	17.75	0.16	0.17	0.10	0.36	0.08
NICE	2010	0.70	0.99	0.11	17.96	0.13	0.24	0.11	0.28	0.12
NICE	2011	0.79	1.12	0.04	18.28	0.09	0.47	0.11	0.18	0.12
NICE	2012	0.75	1.05	0.38	18.79	0.06	0.57	0.10	0.34	0.12
NICE	2013	0.69	1.20	0.18	19.10	0.05	0.11	0.10	0.14	0.12
NICE	2014	0.74	1.12	0.10	19.35	0.04	0.07	0.12	0.08	0.12
NICE	2015	0.68	1.21	0.52	19.45	0.05	-0.06	0.10	0.08	0.12
NICE	2016	0.72	1.07	0.20	19.63	0.05	0.35	1.85	0.13	0.13
NICE	2017	0.70	1.09	0.59	19.81	0.06	0.13	2.32	0.12	0.13
NICE	2018	0.67	1.08	0.46	19.85	0.06	0.21	2.37	1.49	0.14
UNIC	2004	0.59	1.06	0.13	18.00	0.03	-0.14	0.12	0.07	0.08
UNIC	2005	0.59	1.02	0.12	17.93	0.03	-0.13	0.13	0.06	0.07
UNIC	2006	0.53	1.24	0.16	18.29	0.15	0.54	0.12	0.11	0.07
UNIC	2007	0.60	1.11	0.18	18.53	0.14	0.65	0.12	0.16	0.07
UNIC	2008	0.62	1.11	0.25	18.81	0.13	0.29	0.11	0.15	0.08
UNIC	2009	0.69	1.03	0.14	18.97	0.12	0.15	0.10	0.36	0.08
UNIC	2010	0.63	1.17	0.19	19.17	0.10	0.25	0.11	0.28	0.12
UNIC	2011	0.65	1.19	0.16	19.37	0.08	0.36	0.11	0.18	0.12
UNIC	2012	0.65	1.25	0.20	19.70	0.07	0.41	0.10	0.34	0.12
UNIC	2013	0.62	1.27	0.24	19.88	0.09	0.37	0.10	0.14	0.12
UNIC	2014	0.62	0.91	0.22	20.05	0.03	0.17	0.12	0.08	0.12
UNIC	2015	0.56	0.73	0.22	20.14	0.45	0.09	0.10	0.08	0.12
UNIC	2016	0.54	0.72	0.16	20.32	0.33	0.16	1.85	0.13	0.13
UNIC	2017	0.60	0.70	0.16	20.49	0.43	0.22	2.32	0.12	0.13
UNIC	2018	0.62	0.82	0.17	20.53	0.46	0.29	2.37	1.49	0.14