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STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

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FIRMS' CHARACTERISTICS AND CAPITAL STRUCTURE: A PANEL DATA ANALYSIS FROM ETHIOPIAN INSURANCE INDUSTRY

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ABSTRACT

The study examines the impact of firms' characteristics (size, profitability, growth, tangibility, liquidity, business risk, non-debt tax shields, dividend payout and age) on the capital structure of Ethiopian insurance industry during the period 2003-2010 using panel data. The data set is mainly composed of balance sheet, cash flow statements and profit and loss statements of 9 insurance companies. The study uses one of the panel data techniques specifically random effect Generalized Least Square (GLS) regressions. Based on the regression result the study founds size, growth, business risk and non-debt tax shield to have significant positive impact on the capital structure choice of insurance companies. However, profitability, tangibility, liquidity, dividend payout and age have no significant impact on the capital structure choice. Thus, the study reveals that the capital structure decisions of Ethiopian insurance industry depend on their size, growth opportunity, business risk and non-debt tax shield.

KEYWORDS
Insurance Company, capital structure, leverage, firm characteristics.

1. INTRODUCTION

In corporate finance the main question that have been raised so far is to what extent the company's assets should be financed in debt and internal sources? The issue of capital structure is a controversial issue since the time that Moldigiani and Miller (1958) raise the optimality of capital structure. The capital structure of a firm is defined by Brighum and Ehrhardt (2011, p.1089) as: "…. the manner in which a firm's assets are financed: that is the right side of balance sheet". Similarly, leverage is also defined by Brighum and Ehrhardt (2011, p.631) as: "…. the extent to which fixed income securities (debt and preferred stock) are used in firms' capital structure". Thus capital structure is a mixture of equity and debt capital of a firm resulting from the firm's financing decisions.

The main business of an insurer is to insure people against risks that are imperfectly correlated and can be diversified. Insurers' financial soundness is often measured by solvency indicators. However, the real solvency margin does not give enough information on the financial position of insurers as it does not take account of the risk profiles of their insurance obligations (Haan and Kakes, 2007). Hence Insurers need to have enough capital to be able to fulfill their insurance obligations if the insured events actually come to happen.

The value of an existing insurance contract depends upon the financial ability of the insurer to make good on its promise to meet the stated contingent claim payments. Besides, financial firms such as insurers and banks differ from most other types of firms in the economy in that their debt-holders are also their principal customers. These debt-holders (customers), thus, are more concerned about insolvency risk than the debt-holders of other types of firms (Cummins and Nini, 2002). Due to this the insurance business in Ethiopia and its solvency level is the regulated business by the National Bank of Ethiopia (FDRE, proclamation No.591/2008).

This study differs from previous studies in two major ways. First, the study includes two additional firm characteristics to study their impact on capital structure decision. Second, the study uses different measurement for independent variables by considering the characteristics of insurance business.

1.1. STATEMENT OF THE PROBLEM

According to AEMFI (2010) very limited amount of the insurance companies' returns are reinvested but their capital shown growth by 47.5% (NBE, 2010), which implies insurance companies of Ethiopia uses debt or other sources of financing, issuance of new equities. In addition, the summarized financial information of the insurance industry for the period 2001 to 2011, extracted from the National Bank of Ethiopia (NBE); shows inconsistency of decision in the use of capital while operating the insurance business. Furthermore, capital structure theories, such as trade-off, pecking order and agency cost theories have been developed to explain capital structure. But the problem of optimal capital structure is one of the central problems of corporate finance and has attracted much attention as a research fertile area (Noulas and Genimakis, 2011 and Olyinka, 2011). For instance, if we compare debt ratios (0.5932, 0.6254, 0.8209, 0.6772 and 0.7029) of five insurance companies (Ethiopian Insurance Corporation, Nyala insurance company, Africa insurance company, Nile insurance company and National insurance corporation, respectively) for the year 2010, there is lack of uniformity of decisions among insurance firms on their capital structure. Hence, it is advisable to investigate the determinants of capital structure.

1.2. PURPOSE AND SIGNIFICANCE OF THE STUDY

The purpose of this study is to investigate and identify the factors affecting the capital structure decisions of Ethiopian insurance industry during the period 2003 to 2010. Therefore, this research will be of interest to insurance regulatory authorities, company managers and shareholders.

2. LITERATURE REVIEW AND HYPOTHESIS FORMULATION

2.1. CAPITAL STRUCTURE THEORIES

The path-breaking study, which has been studied by Modigliani and Miller (1958), by their theory of capital structure irrelevance assuming perfection of capital markets without taxes and transaction costs, shows that the value of the company is not dependent on its financial structure. They conclude that a company's greater or lesser value depends on the ability of its assets to generate value, it being irrelevant if the assets originate in internal capital or external capital. This was based on the critical assumption that corporate income tax do not exist. However, the study of Modigliani and Miller (1963) took taxation under consideration and proposed that companies should use as much debt as possible. Companies have an advantage in using debt, which allows them to pay lower tax than they should. Since theory of finance can be applied to the study of insurance firms' capital structure decision (Garven, 1987) this study uses three common capital structure theories (static trade-off, pecking order and agency cost) to explain the Ethiopian insurance industry capital structure.

2.1.1. STATIC TRADE-OFF THEORY

In the corrected study of Modigliani and Miller (1963), a firm which is financed by more debt is benefited more from the tax shield of the interest payment deduction. But Miller (1977) argues a firm fully pays the statutory tax rate even if it is financed by debt partly because personal income tax on the interest payments of the debt offsets the corporate interest tax shield. However, Modigliani and Miller in 1963 concludes the optimal capital structure of a company can be reached by balancing the benefits and costs of borrowing, by holding the company's assets and investment plans constant, this borne the theory of Trade-off theory.

To reach at the optimal capital structure, the firm must use debt in a way that the benefits of debts become equal to costs of debts. Hence, the main benefits of corporate borrowing are tax shield for the company. Whereas the main costs of debt financing are financial distress cost and agency cost (Jensen and Meckling, 1976 and Myers, 1977). Financial distress includes the legal and administrative costs of bankruptcy, which arises from increasing the probability of the firm to become bankrupt in case of its failure to repay the debts. Examples of such costs are the increased interest cost charged by the creditors because of their need of higher monitoring and implementing control devices.

2.1.2. PECKING ORDER THEORY

The pecking order theory suggests that firms have a particular preference order for capital used to finance their businesses and this theory is based on informational asymmetries between equity provider and firm managers (Myers and Majluf, 1984 and Myers, 1984). Owing to the information asymmetries between the firm and potential investors, external capital is likely to be more expensive than internal capital and firms prefer retained earnings to debt, short-term debt over long-term debt and debt over equity. Issuing equity becomes more expensive as asymmetric information insiders and outsiders increase. Firms, in which information asymmetry is large, should issue debt to avoid selling under-priced securities. Therefore, under this theory, capital structure can be arranged by a specific hierarchy of preference for the issuance of new capital. This can be fulfilled by preferring retained earnings as the firm's main source of financing, followed by debt and if additional funds are needed the firm use external equity (issuing new equity) as the last resort.

2.1.3. AGENCY COST THEORY

According to Jensen and Meckling (1976) and Jensen (1986) the agency cost arises due to the conflict of interest between owners and managers or owners and debt holders. When equity is issued, different costs are arises with it, including agency cost of equity. This cost arises in the firm due to the conflict of interests between shareholder and managers associated to firm's decision. Whereas, when there is some disagreement between the shareholders and debt holder in the firm, the agency cost of debt would be arises. Thus, when the management inappropriately uses debt or equity in the formation of capital structure, it would be risky for the survival of the firm. To mitigate this problem Jensen (1986) suggests debt holders use their credit as a means controlling.

The primary agency problem in insurance companies is generally arises in two ways: Conflicts between owners and managers arise as managers do not share fully in the residual claim held by owners. Conflicts between owners and policyholders arise because policyholders' claims to assets have legal priority over owners' claims (Cummins and Nin, 2000). Therefore, owners prefer to use debt financing to transfer wealth from debt holders. Whereas, managers act opportunistically in the use financing means to get an incentives.

2.2. FIRM CHARACTIRSTICS AND CAPITAL STRUCTURE

Rajan and Zingales (1995) founds a considerable difference in capital structure variation among firms within different countries. However in addition to Rajan and Zingales (1995) Gill et al. (2009) and Lim (2012) also founds capital structure in both financial and non-financial firms are generally determined by similar set of factors. Parallel to this, Booth et al. (2001) also showed the factors that determine the capital structures of the firm in developing countries are similar with that of developed countries.

2.2.1. SIZE

Theoretically, static tradeoff theory states, for large companies the risk of bankruptcy is minimized due to economy of scale, the assets of that company would be financed in debt more, since this theory argues optimality of capital structure can be reached by balancing the benefits and costs of debt (Modigliani and Miller, 1984). This argument is supported by the empirical results of Ahmed et al. (2010), Kumar et al. (2012), Najjar and Petrove, (2011), Sharif et al. (2012) and Titman and Wessels (1988). Thus the size of the firm and leverage are positively related to confirm large firms employ more debt. However, the pecking order theory argues the informational asymmetry for large firms are 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 undervaluation of the new issued equity and thus encourage the large firms to use equity financing. This means there is negative relationship between the size and leverage of the firm. This was supported by the empirical investigation of Rajan and Zingales (1995). But Kinde (2011) founds insignificance influence. Since the majority of previous empirical studies agreed the researcher hypothesized as follows:

H_1: large insurance firms prefer more debt financing instead of equity.

2.2.2. PROFITABILITY

Theoretically pecking order (Myers, 1984) argues profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt). Whereas Static trade-off theory (Myers and Majluf, 1984, and Myers, 1984) provides contradictory view and argues, profitable firms have greater needs to shield income from corporate tax to increase profit and should borrow more than less profitable firms.

However, empirical evidences from financial and non-financial firms (Ahmed et al., 2010, Gill et al., 2009, Najjar and Petrov, 2011, Hijazi and Tariq, 2006, Oliyinka, 2011, Rajan and Zingales, 1995, Sharif et al., 2012, and Teker et al., 2009) found profitable firms use less debt financing in line with the pecking order theory. But Hessen (2011), Kumar et al. (2012) and Sayeed (2011) found profitable firms use more debt finance. Most of the earlier studies result inclined towards the negative relationship between leverage of the firm and its profitability by supporting the pecking order theory. Thus the researcher hypothesized as

H_2: profitable insurance firms use less debt financing

2.2.3. GROWTH OPPORTUNITY

Theoretically, pecking order theory argues, firms prefer debt financing for their growth instead of equity due to its riskiness (Myers and Majluf, 1984). Whereas, in static trade off theory, growing firms face financial distress and prefer to use equity financing. In addition, agency costs theory (Myers, 1977 and Jensen and Meckling, 1976) argue firms with greater growth opportunity have more internal sources, which enable them to transfer wealth from debt holders to shareholders and prefer to use internal sources due to the conflicts of interest between shareholders and creditors.

However, empirically Ahmed et al. (2010), Noulas and Genimaks (2011), Kumar et al. (2012), and Sharif et al. (2012) found growing firm was financed by more debt. But in the studies of Hassen (2011), Najjar and Petrove (2010), Olayinka (2011), Rajan and Zinglas (1995), Shah and Khan (2007) and Titman and Wessle (1988) growing firms are more financed by equity instead of debt. This is because of high growing firms expected to have high risk and difficult to get access to debt financing or growing firms may have better internal financing source and have lower needs of equity financing. Thus the researcher hypothesizes as:

H_3: Insurance firms with more growth opportunity will be financed by equity.

2.2.4. TANGIBILITY OF ASSETS

According to Jensen and Meckling (1976), in their agency cost theory, the agency cost of debt increase (due to the possibility of moral hazard on the part of borrowers) when firms cannot collateralize their debt. Large percentage of a firm's assets can be used as collateral to fulfill lenders favorable requirements. Modigliani and Miller (1963), under trade-off theory, argue firms with more tangible assets have better chance to get debt financing because of the reduction in financial distress costs.

Empirically, Hassan (2011), Najjar and Petrov (2011), Noulas and Genimaks (2011), Rajan and Zingales (1995), and Titman and wessels (1988) found firms with more proportion of tangible assets can raise more debt because their use as a collateral. In addition tangible assets can be used as a monitoring device (Titman and wessels, 1988 and Gill et al., 2009). Thus the researcher hypothesizes as:

H_4: Insurance companies with high levels of tangible assets tend to use more debt.

2.2.5. LIQUIDITY

Trade off theory believes that firms with higher liquidity ratio would relatively have higher debt ratio due to greater ability of a firm to satisfy short-term contractual obligations on time. In contrary to this, the pecking order theory believes firms 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).

Empirically, Ahmed et al. (2011), Harris and Raviv (1990), Najjar and Petrov (2011) and Sharif et al. (2012) founds firms 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 Kinde (2011) found insignificant effect of liquidity on leverage usage of insurance companies. Therefore, firms with more liquid assets inclined to use these assets instead of external source of finance. Hence the researcher hypothesized as

H_5: Insurance firms with high liquid assets prefer to utilize internal financial sources.

2.2.6. BUSINESS RISK

From theoretical view, static trade-off theory (Myers, 1984) argues risky firms can borrow less compared to safe firms. This is because the costs of financial distress offset the tax shields of debt. The more firms are risky, the greater the chance of the firm defaulting and being exposed to such costs. Empirically there are little evidence on the relationship between business risk and firm's leverage in financial industry. For instance (Abor, 2008; Barel, 2004; Booth et al., 2001; and Bradley et al., 1984) founds firm with high risk profile uses less long-term debt to finance its assets. Thus the researcher inclined to the hypothesis of:

H_6: Risky insurance firms tend to use less debt financing.

2.2.7. NON-DEBT TAX SHIELDS

According to Modigliani and Miller (1958) and Modigliani and Miller (1963), the interest payments on the debt can be treated as expenses to offset the taxation. The interest tax shields give incentives for Firms to use debt financing. But the tax deductions from depreciation and other non debt tax shields are substitutes for the tax benefits of debt financing (DeAngelo and Masulis, 1980). Previous empirical evidences (Bradley et al., 1984, Gill et al., 2009, Teker et al., 2009, and Titman and Wessels, 1988) found a negative relationship. But Noules and Genimeks (2011) and Tessema and Lavanya (2012), founds a positive and significant relationships between leverage and non-debt tax shield. Therefore the researcher hypothesized

H_7: Insurance firms with large non-debt tax shields expected to use less debt financing.

2.2.8. DIVIDEND PAYOUT

In the static trade-off theory, there is adverse relation between the dividend payout ratio and debt level of a company (Myers, 1984, and Myers and Maljuf, 1984). The low dividend payout ratio means increase in the equity base for debt capital and low chance of going into liquidation. Whereas pecking order theory shows the positive relationship between debt level and dividend payout ratio. Instead of distributing the high dividend, and meeting the financial need from debt capital, management retains the earnings (Myers, 1984, and Myers and Maljuf, 1984).

Empirically, Abor (2011) and Bancel and Mittoo (2002) founds negative relationship between dividend payments and long-term debt by supporting the static trade-off theory. But Barel (2004) founds dividend policy of a firm does not have impact in the usage of leverage financing. Thus, the researcher hypothesizes as.

H_8: Insurance firms with high dividend payout are expected to use less debt financing.

2.2.9. FIRM AGE

According to Abor (2008) firm's age is used as standard measure for firm's reputation in the case of capital structure model. As a firm stays in business longer, it establishes itself as a continuing business and therefore increases its capacity to take on more debt (Noules and Genimeks, 2011). Pecking order theory and the existence of asymmetrically distributed information to the market will makes the aged firms to have negative relationship with leverage of the firm (Myers, 1984). In parallel with these Ahmed et al. (2011), Hassen (2011), Sharif et al. (2012) and Tessema and lavanya (2012) founds the negative impact of age on debt finance. This is because of firm survives in business for a long period then it can accumulates more funds for running the operations of the business and then keeps away the firm to go for debt financing. Thus the researcher hypothesizes

H_9: Aged insurance firms use less debt financing.

3. RESEARCH METHODOLOGY

3.1. DATA SOURCES AND DATA COLLECTION METHODS

The study uses secondary data, which are audited financial statements of each companies (balance sheet, profit and loss statements and cash flow statements), and annual report of NBE, to investigate the determinants of capital structure decision. These data were collected by copying (with permission) from each companies and from the website NBE.

3.2. SAMPLING METHOD

According to the report of NBE (2012) on its website, there are 15 (fifteen) insurance companies currently operating in Ethiopia. Among these one is state owned and the remaining are privately incorporated insurance companies. All insurance companies which have full data for the period 2003-2010 are selected purposively using judgmental sampling in the sample frame. Because of the unavailability of audited financial statements (for the state owned insurance company) and late entrance to the market, 2011's and 2012's data and newly established insurance companies are excluded from the sample. Thus, the study considered 9 (nine) insurance companies (one state owned and eight privately incorporated) during the period of 2003-2010.

3.3. METHODS OF DATA ANALYSIS

The study employs descriptive, correlation and inferential statistics to analyze the collected data using Stata 11 software. Descriptive statistical tools such as mean, standard deviations, minimum and maximum were applied to describe relevant information about each variable. Correlation statistics is also used to identify directions of relationships and associations among variables. Inferential statistics is used to test the hypotheses formulated above. The estimations are made using a random effect GLS regression and the results are presented using tables.

3.3.1. MODEL SPECIFICATION

The study employs a panel data analysis that combines observations on cross- section of units over time. The general form of the model can be stated as:

$Y_{it} = \beta_o + \beta X'_{it} + \mu_{it}$ .....eq. 1

Here, μ_{it} is a random term expressed as $\mu_{it} = \alpha_i + \varepsilon_{it}$, where α_i is individual – specific effect or cross –section error component and ε_{it} is the remaining combined cross –section and time series error component. Accordingly, Hausman and Breusch - Pagan Lagrangian multiplier tests were used to select the appropriate model from fixed effect, random effect or pooled OLS models. The results of the tests suggest random effect Generalized Least Square (GLS) regression model is appear to fit for the data. Thus the expanded model for this study is stated as:

$LEV_{it} = \alpha_o + \beta_1 LnGRP_{it} + \beta_2 ROA_{it} + \beta_3 GR_{it} + \beta_4 ASTG_{it} + \beta_5 LIQ_{it} + \beta_6 RISK_{it} + \beta_7 NDTS_{it} + \beta_8 DVP_{it} + \beta_9 LGAG_{it} + u_i + \varepsilon_{it}$ .....eq 2

Where:

α_o= the constant term

$\beta_1 - \beta_9$ =The coefficients of the independent variables

i= Insurance firm t = Time or year

TABLE 1: VARIABLES DEFINITION

Variables	Definitions of variables
LEV (Leverage)	The proportion of total debt to total asset
LnGRP (size)	Natural logarithm of gross written premium
ROA (profitability)	The ratio of net income to total assets
GR (growth)	The percentage change in total assets
ASTG (Tangibility)	The proportion of total fixed assets to total assets
LIQ (Liquidity)	Current assets divided by current liability
RISK (Business risk)	The standard deviation of total claim divided by total premium
NDTS (Non-debt tax shield)	The proportion of depreciation and amortization to total assets
DVP (Dividend payout)	The division of dividend paid to net income
LGAG (Age)	Logarithm of the numbers of years exist in the business

u_i= unobserved heterogeneity ε_{it}= the error term

Concerning the classical linear regression model (CLRM) assumptions, the variance inflation factor (VIF) and Breusch-Pagan / Cook-Weisberg test indicates the regression model is not suffering from multicollinearity and heteroskedasticity problems. Similarly Shapiro-Wilk test and Ramsey RESET test results also reveals residuals are normally distribution and model misspecification is not problem (no omission of variables), respectively (see appendix)

4. RESULTS AND DISCUSSION

4.1. DESCRIPTIVE STATISTICS

The descriptive statistics in table 2, below, reveals Ethiopian insurance industry tends to have averagely 64% debt and 36% equity. The mean value of the LnGRP is 18.69. ROA, on average, is 0.059 0r 6%. This indicates the profitability of the Ethiopian insurance industry is on average 6%. Similarly the mean value of GR is 0.16998 which indicate during the sample period the Ethiopian insurance industry has grown by 17% annually on average with respect to their asset size. The

proxy of tangibility of assets (ASTG) during the sample period for the sampled insurance firms has the mean value of 0.1305. This indicates the sampled insurance firms have on average 13.05% of tangible assets which can be pledged as collateral to get debt access. Similarly liquidity (LIQ) of sample insurance firms' assets has the mean value of 2.83.Which indicates the sampled insurance industry have more than twice liquid assets over the current liability that is 283%. The mean value of the NDTS is 0.014, indicates, the sampled insurance companies have 1.4% of their total assets as non-debt tax shields.

TABLE 2: DESCRIPTIVE STATISTICS

Variable	Observations	Mean	Std. Dev.	Min	Max
LEV	63	0.640235	0.096845	0.3346	0.8209
LnGRP	63	18.69146	1.014022	16.5266	21.056
ROA	63	0.059402	0.060918	-0.0144	0.4611
GR	63	0.169983	0.150636	-0.0772	0.5335
ASTG	63	0.130493	0.086753	0.0233	0.3681
LIQ	63	2.828533	2.031816	0.2157	11.2468
RISK	63	0.062957	0.090365	0.0065	0.4098
NDTS	63	0.014187	0.012501	0.0002	0.0971
DVP	63	0.563056	0.940135	-2.07	4.3599
AG	63	14	7.159474	2	35

Source: Stata result

The sampled insurance companies have paid 56.31% their net income as dividend to their shareholder during the sample period. This is supported by the proxy for the dividend payout ratio DVP's mean value of 0.5631. The minimum value of the DVP is -2.07. Here the negative sign indicates some insurance companies have paid dividend up to 207% their net income while they are in loss. But the maximum value 4.36 indicates that some insurance companies in the samples have paid about 436% of their profit as dividend to their share holders.

4.2. CORRELATION COEFFICIENTS

Initially, the researcher conducted a Pearson correlation test to determine the direction of relationships and associations among the dependant and independent variables. Accordingly, the independent variables size of the insurance firms (LnGRP), business risk (RISK), dividend payout ratio (DVP), and firms age (LGAG) seem to have a relatively high correlation with the dependant variable leverage (LEV) of the sampled insurance firms, where the relation between LnGRP (0.4), RISK (0.24) and LGAG (0.27) and LEV is positive and significant, while the relation between DVP (-0.27) and LEV seems to be negative and significant.

TABLE 3: RESULTS OF THE CORRELATION TEST BETWEEN THE LEV OF THE ETHIOPIAN INSURANCE INDUSTRY AND EACH OF ITS HYPOTHESIZED FIRMS' CHARACTERISTICS

Variables	LEV	LnGRP	ROA	GR	ASTG	LIQ	RISK	NDTS	DVP
LnGRP	0.3977***								
ROA	0.0126	0.009							
GR	0.1075	0.0028	0.1253						
ASTG	0.0889	-0.2346*	0.1809	-0.0984					
LIQ	0.0548	-0.3757***	0.1037	-0.1282	0.101				
RISK	0.2437**	-0.1069	0.1609	-0.1787	0.1069	0.3274***			
NDTS	0.1571	-0.1814	0.0573	-0.1703	0.3546***	0.0874	0.0652		
DVP	-0.2723**	-0.0187	-0.01	-0.0819	-0.1358	-0.1149	-0.1688	-0.0224	
LGAG	0.2678**	0.5724***	-0.0344	-0.0031	-0.0466	0.0668	-0.0041	-0.1408	-0.2001

Notes: *Denotes significance at the 10% level, ** denotes significance at the 5% level, and *** denotes significance at the 1% level.

According to Gujarati (2004), as rule of thumb, if the pair-wise correlation coefficient between two regressors is high, say, in excess of 0.8, then multicollinearity is a serious problem. Using this threshold as indicator of collinearity none of the variables are collinear.

4.3. REGRESSION RESULTS

Table 4 reports the random-Effect Generalized Least Squares (GLS) results of the model obtained by regressing the dependant variable leverage with the nine independent variables of firms' characteristics- size of insurance companies, profitability, growth, Tangibility of assets, Liquidity of assets, business risk, Non-debt tax shield, Dividend payout ratios and age of insurance companies. The model is significant at *Wald chi^2 (36.82), df = 9, p–value < 0.01* and explains 41 percent (R^2) variance in capital structure of insurance companies. In testing hypotheses, the researcher converts the directional hypotheses stated above in to null form.

4.3.1. SIZE AND LEVERAGE

As the regression result on table 4 reveals, the size of the insurance firms, as expected, significantly and positively ($\beta = 0.06$, $z = 4.03$, $p < 0.01$) influence on the choice of capital structure. This indicates as size of the insurance firm increases by 1 percent the usage of leverage in insurance companies increase by 6%. This result is consistent with many empirical studies of Ahmad et al. (2010), Booth et al. (2001), Najjar and Petrove (2011), Kumar et al. (2012), Sharif et at.(2012) and Rajan and Zingales (1995). But contradicts with the empirical study of Kinde (2011); this could be because of the measurement difference of the variable.

TABLE 4: REGRESSION RESULTS OF THE MODEL

Variables	Coef.	Std. Err.	z	P>z	[95% Conf. interval]	
_cons	-0.5249597	0.2552563	-2.06	0.04	-1.025253	-0.0246666
LnGRP	0.060307	0.0149515	4.03	0	0.0310026	0.0896114
ROA	-0.1968731	0.1780498	-1.11	0.269	-0.5458443	0.1520981
GR	0.1457771	0.072357	2.01	0.044	0.00396	0.2875942
ASTG	0.1427746	0.1336665	1.07	0.285	-0.1192069	0.404756
LIQ	0.0099426	0.0062455	1.59	0.111	-0.0022983	0.0221835
RISK	0.2627062	0.1244352	2.11	0.035	0.0188178	0.5065947
NDTS	1.692627	0.8932481	1.89	0.058	-0.0581068	3.443361
DVP	-0.018266	0.0115084	-1.59	0.112	-0.0408221	0.0042901
LGAG	-0.0476298	0.0630164	-0.76	0.45	-0.1711396	0.07588
Obs. 63 R-square: within=0.2375, between=0.6312, overall=0.4099						
Wald chi^2 (9) = 36.82, prob. > chi^2 = 0.0000,						

Source: Stata result

The probable reason for this positive impact of size on leverage usage could be, as insurance companies collect more premium significant proportion of premiums is kept in outstanding claims and unearned premiums reserves, which are two of the main accounts on the liability side of the balance sheet.

4.3.2. GROTHE OPPORTUNITY AND LEVERAGE

Contrary to the expectation, growth opportunity of insurance companies, as shown on table 4, have significant and positive ($\beta = 0.146$, $z = 2.01$, $p < 0.05$), impact on the decision of insurance companies capital structure. Here this result indicates as the insurance companies' assets grew by 1%, debt financing increases by

14.6%. This finding is in compliance with previous studies of Hassen (2011), Kumar et al. (2012), Najjar and Petrov (2010), Olayinka (2011), Rajan and Zinglas (1995), Shah and Khan (2007), Sharif et al. (2012) and Titman and Wessle (1988). Positive sign shows that growing insurance firms should rely more and more on external borrowing to seize market opportunities. This argument is supported by the pecking order theory, which stressing upon same point. The probable reason for this result could be growing insurance companies can expand their branches to reach to additional customers (expand market share), which enables them to borrow more debt from their debt holders (customers).

4.3.3. BUSINESS RISK AND LEVERAGE

The variable business risk is positive and statistically significant at 5% level. Positive sign indicates that at the time of the destruction or loss of the subject matter, insurance companies prefer to use debt financing for settlement of claims than internal source of financing or equity financing. This result is in compliance with Ahmed et al. (2010), Barel (2004) and Kinde (2011) but contradicts the argument of trade-off theory which suggests that less risky insurance firm can take more debt as its ability to pay the interest payments on time or without any delay is reliable. Thus, as the insurance companies' business risk increases, they would find it easier to raise debt rather than equity finances, causing their leverage ratio increase; and vice versa. This is probably due to their sister banks which are willing to provide debt easily to them.

4.3.4. NON-DEBT TAX SHIELD AND LEVERAGE

The corporate tax deduction of depreciation and amortization and investment tax shields are substitute of the tax benefits of debt financing. As it has been observed from table 4, contrary to the expectation, the variable non-debt tax shield is positively ($\beta = 1.693$) and significantly affect the capital structure decisions of insurance companies. This result agrees with the empirical studies of Noules and Genimeks (2011) and Tessema and Lavanya (2012). Even the non-debt tax shield exists; firms are likely to make full use of debt tax shield in addition.

5. CONCLUSION AND RECOMMENDATION

This study examined the impact of firms' characteristics (size, profitability, growth, tangibility, liquidity, business risk, non-debt tax shield, dividend payout ratio and age of insurance companies) on the capital structure choice of Ethiopian insurance industry, using eight years data on 9 insurance companies for period 2003 to 2010. The study has employed the random-effect panel data regression to test the hypothesis formulated and to examine the relations and impact of firms' characteristics on capital structure choice.

Capital structure is the way in which firms can be financed either or in both of debt or equity financing. This capital structure is measured under this study as the use leverage. Thus, leverage was used as proxy for capital structure of insurance companies, which was measured as debt ratio- the ratio of total debt to total assets.

The empirical result indicates size, growth, business risk and non-debt tax shield are important firm's characteristics which have an impact on capital structure of Ethiopian insurance industry. Thus, the study found a positive and significant relationship between the size of insurance companies and their usage of leverage, which suggests Insurance Companies with large size would prefer debt financing than equity or internal source of financing. In contrast insurance companies with small size emphasizes on retained earnings or equity rather than debt financing.

Growth opportunity, business risk and non-debt tax shield of insurance companies have also positive and significant relationship with their capital structure decision, which implies growing insurance companies with profit volatility and more non-debt tax shield would prefer more debt financing to equity or internal source of financing. But insurance companies with less growth opportunity, stable profit and less amount of non-debt tax shield had relied on their internal source of financing or equity financing than debt financing.

Managers of Insurance companies with risky business and growing feature should strengthen their relationships with their main banks, in which to enable them to raise more debts to assist them out of their financial distress and to get assistance to their growth feature (investment), as the bank would be willing to launch several rescue operations to save the firm; e.g. by renegotiating loans, reducing the interest rate, or refinancing existing debt.

Financing access, either debt or equity, is the major issue for any firm for the expansion of its business. These equity and debt financing can be accessed from capital market as used in most developed and developing countries. Therefore, the government should work hard to establish or facilitate the establishment of capital market to mitigate financing problem besides to the banks role in loan access.

The macro-economic factors which have an impact on the capital structure choice and the effect of regulation on solvency and capital structure of insurance companies are recommended as promising area for further research.

REFERENCES

1. Abor, J. (2008), "Determinants of the capital structure of Ghanaian firms," Africa economic research consortium, paper 176, Nairobi.
2. Ahmed, N., Ahmed, Z., and Ahmed, I. (2010), "Determinants of capital structure: a case of life insurance sector of Pakistan," European journal Finance and Administrative science, Vol. 24, pp. 7-12.
3. Association of Ethiopian Micro Finance Institutions, http://www.aemfi-ethiopia.org/site/resources/category/2-occasional-papers.html?lang=en, retrieved at 03/25/2012
4. Baltagi, B., H. (2005), "Econometric analysis of panel data", 3rd ed. John Wiley & Sons Ltd, England
5. Bancel, F. and Mittoo, U. (2002), "The determinants of capital structure choice: A survey of European firms," Working paper series, University of Manitoba
6. Baral, J.K. (2004), "Determinants of Capital Structure: A Case Study of Listed Companies of Nepal'" The Journal of Nepalese Business Studies, Vol. 1, No.1, pp.1-13
7. Booth, L., Aivazian, V., Demirguc-Kunt, A., and Maksimovic, V. (2001), "Capital Structure in Developing Countries," Journal of finance, Vol. 56, pp. 97-129
8. Bradley, M., Jarrell, G., and Kim, E. (1984), "On the Existence of an Optimal Capital Structure: Theory and Evidence" The Journal of Finance, Vol.39, pp.857-878.
9. Brigham, F. E. and Ehrhardt, C. M. (2011), "Financial management: Theory and practice," 13thed, south-western Cengage learning, USA.
10. Buettner T., Overesch M., Schreiber U. and Wamser G. (2009), "Taxation and capital Structure choice-Evidence From a panel of German Multinationals", CESIFO Working paper No. 1841
11. Cameron A. C. and Trivedi P. K., (2009)," Micro econometrics Using Stata," a Stata press Publication, USA
12. Cummins, J.D., and Nini, G.P. (2002), "Optimal Capital Utilization by Financial Firms: Evidence from the Property-Liability Insurance Industry," Journal of Financial Services Research, Vol. 21, pp.15-53.
13. Dawood, M. H., Moutafa, S. I., and El-Hennawi, M. S. (2011), "The Determinants of Capital Structure in Listed Egyptian Corporations," Middle Eastern Finance and Economics, Vol.9, pp.83-99
14. DeAngelo, H. and Masulis, R. (1980), "Optimal capital structure under corporate and personal taxation," Journal of Financial Economics, Vol.8, pp.3–29.
15. EIC, (2008), Annual report. Available at http://www.eic.com.et/pages/annualreport.html
16. FDRE (2008) The National Bank of Ethiopia establishment (as amended), proclamation No. 591/2008, federal Negarit Gazeta, Addis Ababa , Ethiopia,
17. Feldblum, S. (2007), "Capital Structure, Solvency Regulation, and Federal Income Taxes for Property-Casualty Insurance Companies," Casualty actuarial society, Vol. 01 No.02, pp.157-172
18. Garven, R. (1987), "On the application of finance theory to the insurance firm," Journal of financial services research, Vol.1, No.1, pp.57-76
19. Gill, A., Biger, N., Pai, C., and Bhutani, S. (2009), "The Determinants of Capital Structure in Service Industry: Evidence from United States," The open Business journal, Vol.2, pp.48-53.
20. Gujaraty, D. (2004), "Basic Econometrics," 4thed, The McGrew-Hill Companies
21. Haan, L. and Kakes, L. (2007), Are non-risk based capital requirements for insurance companies binding? DNB working paper, No. 145
22. Harris, M. and Raviv, A. (1991), The theory of capital structure, Journal of Finance, 46, 297–355.

23. Hassan, S. U. (2011), "Determinants of capital structure in the Nigerian listed insurance firms," International conference on management proceeding,
24. Hijazi, S. T. and Tariq, Y. B. (2006), "Determinants of capital structure: A case for the Pakistani cement industry," The Lahore Journal of Economics, Vol. 11, No. 1, pp. 63-80.
25. Jensen M.C. (1986), "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," American Economic Review, Vol. 76, pp. 323-329.
26. Jensen, M. and Meckling, W. (1976), "Theory of the firm: managerial behaviour, agency costs and ownership structure," Journal of Financial Economics, vol.3, PP. 305–60.
27. Kindie, A. B. (2011), "Determinants of capital structure on Ethiopian insurance companies," Thesis Addis Ababa University, Addis Ababa
28. Kumar, S., Dhanasekaran, M., Sandhya, S., and Saravanan, R. (2012), "Determinants of financial capital structure on the insurance sector firms in India," European Journal of Social sciences, Vol. 29 , No. 2, pp. 288-294.
29. Lim, T. C. (2012), "Determinants of capital structure empirical evidence from financial services listed firms in china," International journal of economics and finance, Vol. 4, No. 3, pp. 191-203
30. Modigliani, F. and Miller, M. (1958), "The cost of capital, corporation finance and the theory of investment," American Economic Review, Vol. 48, pp. 261–97.
31. Modigliani, F. and Miller, M. (1963), "Corporate income taxes and the cost of capital: a correction," American Economic Review, Vol. 53, pp. 433–43.
32. Myers, S. (1984), "The capital structure puzzle, "Journal of Finance, Vol. 39, pp. 575–92.
33. Myers, S. and Majluf, N. S. (1984), "Corporate financing and investment decisions when firms have information that investors do not have," Journal of Financial Economics, Vol. 13, pp. 187–221.
34. Myers, S. C. (1977)," Determinants of corporate borrowing," Journal of Financial Economics, Vol. 5, pp. 147-175.
35. Najjar, N., and Petrov, K. (2011), "Capital structure of insurance companies in Bahrain," International journal of Business and Management, Vol. 6, No.11, pp. 138-145.
36. NBE (1998), "Licensing and supervision of insurance business: Manner of Reporting Financial Information," Directive No. SIB/17/1998, Viewed on 03/22/2012 and available at http://www.nbe.gov.et/directives/insurancebusiness.html
37. NBE (2004), Licensing and supervision of insurance business; manner of computing margin of solvency for insurance companies, Directive No. SIB/26/2004, Viewed on 03/22/2012 http://www.nbe.gov.et/directives/insurancebusiness.html
38. NBE (2010), Annual report. Available at http://www.nbe.gov.et/publications/annualreport.html
39. Niu, X. (2008), "Theoretical and practical review capital structure and its determinants," International Journal of Business and Management, Vol. 3, No.3, pp. 133-139.
40. Noulas, A. and Genimakis, G. (2011), "The determinants of capital structure choice: evidence from Greek listed companies," Applied Financial Economics, Vol. 21, No.6, pp. 379-387
41. Olayinka, A. (2011), "Determinants of capital structure: Evidence from Nigerian panel data," African Economic and Business Review, Vol. 9, No.1, pp. 1-16.
42. Rajan, R. and Zingales, L. (1995), "What do we know about capital structure? Some evidence from international data," Journal of Finance, Vol. 50, pp.1421–60.
43. Sayeed, M. A. (2011), "The determinants of capital structure for selected Bangladeshi Listed companies," International Review of business Research papers, Vol. 1, No.2, pp.21-36
44. Shah, A. and Khan, S. (2007), "Determinants of Capital Structure: Evidence from Pakistani Panel Data," International Review of Business Research Papers, Vol. 3, No.4 ,pp. 265-282.
45. Sharif, B., Naeem, M. A., and Khan, A. J. (2012), "Firm's characteristics and capital structure: A panel data analysis of Pakistan's insurance sector," African Journal of Business Management, Vol.6, No. 14, pp. 4939-4947.
46. Teker, D., Tasseven, O., and Tukel, A. (2009), "Determinants of capital structure for Turkish firms: A panel data analysis," International Research Journal of Finance and Economics, Vol. 29, pp. 179-187.
47. Tessema, F. G., and Lavanya, Y. (2012), "Determinants of capital structure decisions: evidence from Ethiopian manufacturing private limited companies (PLCs)," International journal of research Commerce, IT and Management, Vol. 2, No.2, pp.19-28
48. Titman, S. and Wessels, R. (1988), "The determinants of capital structure choice," Journal of Finance, No. 43, No.1, pp. 1–19.

APPENDIX

APPENDIX: OLS ASSUMPTIONS TESTS

1. MULTICOLLINEARITY TEST

Using the variance inflation factor

TABLE 3: VARIANCE INFLATION FACTOR

Variables	VIF	1/VIF
LnGRP	2.2	0.45429
ROA	1.86	0.5362
GR	1.54	0.64848
ASTG	1.29	0.77656
LIQ	1.21	0.82586
RISK	1.19	0.8374
NDTS	1.14	0.87897
DVP	1.13	0.88762
LGAG	1.12	0.89203
Mean VIF	1.41	

Note: A VIF > 10 or a 1/VIF< 0.10 indicates trouble

2. NORMALITY TEST

Normal distribution of the residual using Shapiro wilk test

H0: Variables are normally distributed

Variable	Observations	W	V	Z	Prob>z
residuals	63	0.97348	1.499	0.875	0.19066

3. BREUSCH-PAGAN / COOK-WEISBERG TEST FOR HOMOSKEDASTIC

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of LEV

         chi2(1)      =     0.02
         Prob > chi2  =   0.8867
```

It shows the error variances are hetroskedastic.

4. RAMSAY TEST FOR MODEL SPECIFICATION

```
. ovtest

Ramsey RESET test using powers of the fitted values of LEV
       Ho:  model has no omitted variables
                  F(3, 50) =      0.75
                  Prob > F =      0.5259
```

5. HAUSMAN TEST FOR RANDOM VS FIXED EFFECT

	---- Coefficients ----			
Variables	(b)	(B)	(b-B)	sqrt (diag(V_b-V_B))
	fe	re	Difference	S.E.
LnGRP	-0.0050192	0.060307	-0.0653262	0.0511693
ROA	-0.1332208	-0.1968731	0.0636522	.
GR	0.0317968	0.1457771	-0.1139803	.
ASTG	0.2331253	0.1427746	0.0903508	0.0679996
LIQ	-0.0136695	0.0099426	-0.0236121	0.0052912
RISK	-0.0562379	0.2627062	-0.3189441	0.0751521
NDTS	0.6720267	1.692627	-1.020601	.
DVP	0.0063884	-0.018266	0.0246544	.
LGAG	0.3833886	-0.0476298	0.4310184	0.2111814

b = consistent under Ho and Ha; obtained from xtreg
B=inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic
chi2(9) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 2.13
Prob>chi2 = 0.9892
(V_b-V_B is not positive definite)

6. BREUSCH AND PAGAN LAGRANGIAN MULTIPLIER TEST FOR RANDOM EFFECT

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        LEV[ID,t] = Xb + u[ID] + e[ID,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                     LEV |      .009379       .0968452
                       e |     .0033572       .0579412
                       u |            0              0

        Test:   Var(u) = 0
                                 chi2(1) =    11.75
                              Prob > chi2 =     0.0006
```

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