DETERMINANTS OF CAPITAL STRUCTURE - A STUDY OF LISTED BANKS FINANCE & INSURANCE COMPANIES IN COLOMBO STOCK EXCHANGE IN SRI LANKA

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Abstract

This study employs a pooled ordinary least square regression to analyze the determinants of the capital structure of 28 Listed Banks Finance & Insurance Companies in Colombo Stock Exchange for the period of 2008-2012 and further evidence of the capital structure theories. The results reflect the intermediate nature of the Sri Lankan corporate environment. The study suggests that some of the insights from modern finance theory of capital structure are moveable to Sri Lanka in that certain firm-specific factors that are relevant for explaining capital structure in developed economies are also relevant in Sri Lanka. Statistical results show that tangibility, profitability, growth, and liquidity are negatively related to the debt ratio, while size is related positively. Non-debt tax shield is not significantly related to the debt ratio. Furthermore, this results consistent with the forecasts of the trade-off theory, pecking order theory, and agency theory, and provide some help in understanding of financing behaviour of Sri Lankan firms. Also, this study explores the determinants of capital structure of Banks Finance & Insurance Companies of Sri Lankan firms and these findings will help to decision makers and policy makers to make optimal decisions.

Keywords: Determinants, Capital structure, Banks Finance & Insurance Companies, Debt ratio, Sri Lanka

INTRODUCTION

The Corporate sector growth is crucial to economic development. And the corporate finance pattern of the company is vital importance for the financial well being of companies in any sector. The issue of corporate capital structure is still contentious. Directly or indirectly, corporate finance decisions affect the various facets of the corporate management, which ultimately determine the wealth of investors. Public sector of Sri Lankan corporate finance decisions accomplishments affects not only the financial soundness of the concerned Private Equity (PE) but also the financial health of the nation as a whole, while these are essentially public investment decisions of the government and a number of Sri Lankan Government agencies are involved in this process.

Mainly, there are three conflicting theories of capital structure have been developed after the pioneering work of Modigliani and Miller (1958) on capital structure, those are named as static trade-off theory, agency cost theory and pecking order theory. From the time of the study of Modigliani and Miller (1958), a superfluity of research has been executed to identify the determinants of capital structure. On the other hand, the concerns of many capital structure studies are in developed countries such as Rajan and Zingales (1995) in G-7 countries, Burgman (1996) in US, Antonious, Guney and Paudyal (2002) in UK, Germany, and France, Bevan and Danbolt (2002) in UK, Akhtar (2005) in Australia, and Akhtar and Oliver (2009) in Japan.

There are a few number of publications that present evidence from developing countries such as Wiwattanakantang (1999) in Thailand, Booth *et al.* (2001) in India, Pakistan, Mexico, Brazil, South Korea, Jordan, Zimbabwe, Malaysia, Turkey, and Thailand, Pandey (2001) in Malaysia, Omet and Nobanee (2001) in Jordan, Chen (2004) in China, Buferna *et al.* (2005) in Libya, Prahalathan, B. (2010) in Sri Lanka and Sheikh and Wang (2011) in Pakistan. Concurrently, previous published studies on determinants of the capital structure of listed companies in CSE of Sri Lanka are also very limited.

To understand how firms in developing countries finance their operation activities, it is necessary to look at the determinants of their financing or capital structure decisions. Joshua Abor (2008) says that, company's financing decisions involve a wide range of policy issues. Thus this paper explores the determinants of listed Banks Finance & Insurance Companies' capital structure, in Colombo Stock Exchange (CSE) and further evidence to these debatable topics.

Research Objectives

In this study, capital Structure determinants of Banks Finance & Insurance sector firms in Sri Lankan context are examined. Therefore, the objective of this study is to examine the factors associated with the capital structure determinants of listed companies in CSE under the Banks Finance & Insurance sector, during the period of 2008 - 2012.

Specifically, the study is designed

1. To show how the Banks Finance & Insurance companies finance their business operation in Sri Lanka,
2. To show how the variables including tangibility, profitability, size, growth, liquidity, and non-debt tax shield influence the capital structure (leverage ratio) decisions of the Banks Finance & Insurance companies in Sri Lanka;
3. To identify a benchmark of capital structure for the Banks Finance & Insurance companies

Research Questions

Every research study is conducted to answer a certain research questions. Similarly, this paper also conducted to answer the following two specific research questions.

1. How and to what extent a certain firm specific factors i.e. tangibility (TANG), profitability (PROF), size (SIZE),growth (GROW), liquidity (LIQ), and non-debt tax shield (NDTS) determine the capital structure decisions of the Sri Lankan Banks Finance & Insurance companies?

2. Which capital structure theories can more explain the capital structure choice of firms in Sri Lankan Banks Finance & Insurance sector?

LITERATURE REVIEW

Theories of capital structure

Capital structure is stated as the specific mix of equity and debt, which used to finance their operating activities. One of the most puzzling issues in the corporate finance literature is capital structure theory. Over the years many studies on capital structure theory have emerged.

Four major theories have been proposed since then which attempt to explain the sum of leverage to be undertaken through a cost-benefit analysis of leverage. Those are based on tax benefits associated with debt use, bankruptcy cost, agency cost and asymmetric information. The first three are described in terms of the static trade-off choice, while the asymmetric information is rooted in the pecking order framework.

Capital structure theories assume the amount of leverage to be undertaken throughout a cost benefit analysis of leverage. The benefits of debt include the tax-advantage of debt as interest expense is tax deductible. Furthermore, Jermias (2008) said that debt financing not only offers the benefit of tax advantage to cost leaders but also accords increased efficiency due to constraints imposed by the debt holders. Whereas, potential costs of debt are bankruptcy costs, the agency costs and the loss of non-debt tax shields (Brealy & Myers, 2002). So these theories involve with the optimal capital structure of a careful balancing between these costs and benefits.

M&M capital structure theory

First, Modigliani and Miller (1958) theorized the issue by posing their "M&M capital structure irrelevance proposition" and they noted, there are no material effects on the firm value by the choice of proposition between equity and debt financing. But, Modigliani and Miller's debt irrelevance theorem is based on the following restrictive assumptions;

- No taxes
- No transaction costs
- No bankruptcy costs
- Equivalence in borrowing costs for both companies and investors
- Symmetry of market information (companies and investors have the same information)
- No effect of debt on a company's earnings before interest and taxes

Based on these assumptions, it can be seen that without taxes and bankruptcy costs, the Weighted Average Cost of Capital (WACC) should remain constant with changes in the capital structure of the company. For example, there will be no tax benefit from interest payments, no matter how the firm borrows and thus no benefits/ changes to the WACC. If, there are no benefits/changes from increases in debt, the capital structure does not influence a company's stock price. Thus, capital structure is irrelevant to a company's stock price.

However in practical, taxes and bankruptcy costs do significantly affect a company's stock price. Thus it did not hold in reality, when these assumptions are removed afterward choice of capital structure turn into an important value-determining factor (Sheikh & Wang, 2011). After that, Modigliani and Miller (1963) recommend in their studies that firms should use as much debt as possible due to tax-deductible interest payments. Interest expense is tax deductible, thus a larger interest expense will help to lower taxable profits and as a result lower taxes on profits. And in their other papers, Modigliani and Miller included the effect of taxes and

bankruptcy costs. Many recent studies like Um's study (as cited in Buferna, Bangassa & Hodgkinson, 2005) also recommend, that a high profit level offers increase to a higher debt capacity and related tax shields.

Trade-off theory

Trade-off theory states value-maximizing firms choose the level of debt by balancing tax benefits of debt against the debt related costs such as bankruptcy and agency costs (Berens & Cuny, 1995; Myers, 1984). Because, in most countries interest cost, in contrast to dividends, can be deducted from the companies' taxable income. The trade-off theory tells us that firms must choose a target debt ratio towards which they slowly move (Myers, 1984). Firms can get an interior optimum solution by using the trade-off theory. Berens and Cuny (1995), says that trade-off theory gives the rationale for cross-sectional variation in corporate debt ratios.

Miller (1988) reveals, "The optimal capital structure might be all debt" the trade-off theory consist the cost financial distress, and argues that debt levels are given by a trade-off between the bankruptcy costs and its present value of tax shield implied by debt financing. Bankruptcy costs may be either direct or indirect.

Jensen and Meckling (1976) says that direct costs consist of legal, consulting and restructuring expenses when a company experience financial distress, and indirect costs include lost of sales and profits, broken contracts, poor credit terms, increased costs of issuing debt to refinance current obligations and employee turnover.

Um's study (as cited in Buferna, Bangassa, & Hodgkinson, 2005) suggests that a positive relationship should exist between profitability and financial leverage because a high profit level gives rise to a higher debt capacity and accompanying tax shields. Thus, expected bankruptcy costs are lower and interest tax shields are more valuable for profitable companies. Theoretical predictions regarding relationship between profitability and leverage are contradictory. Because, pecking order theory anticipates a negative relationship, there are many empirical studies including Kester (1986) and Fama and French (2002) evidence for the negative relationship between profitability and leverage.

If the company defaults on the debt, firms with high levels of tangible assets will be in a position to provide collateral for debts then the assets will be seized but the company may be in a position to avoid bankruptcy. Therefore, that companies with high levels of tangible assets are less likely to default and will take on relatively more debt. So this resulting gives a positive relationship between tangibility and financial leverage.

Agency cost theory

Agency costs twig from the management and separation of ownership which inherently directs to a conflict of interest between the managers and the shareholders. According to Jensen and Meckling (1976), debt agency costs arise due to a contradiction of interest between debt providers on one side and shareholders and managers on the other side. A classical case of the agency problem also known as the free cash flow problem, it has been put forth by Jensen (1986).

Jensen (1986) discusses that the managers of a firm having excess free cash flows may over invest and engage in value destroying activities such as empire building. Firms could thereby increase leverage to discipline the managers. Increased leverage entrusts management to pay out the excess free cash flows on investing in profitable ventures to service the debt and interest payments. In like this situations, leverage maybe advantageous even when internal funds are available. It works as a control mechanism to discipline managers and controls the expropriation of private benefits (Dewatripont & Tirole, 1994; Lewis & Sappington, 1995). Debt-holders have a priority right on claims over equity-holders. Equity-holders may either engage in riskier projects or under invest to diminish the flow of benefits to debt-holders. Myers (1977) says that the problem of under-investment is specifically stronger for growth companies as it will cause them to pass on valuable investment opportunities. Those firms are better off under equity financing.

Titman and Wessels (1988) state that the costs associated with the agency relationship between shareholders and debt holders are likely to be higher for firms in growing companies; hence a negative relationship between growth and financial leverage is possibility.

Um's study (as cited in Buferna, Bangassa, & Hodgkinson, 2005) discusses that firm size can proxy for the debt agency costs (as monitoring cost) arising from conflicts between managers and investors. Furthermore, he pointed that the monitoring cost is lower for large firms than for small firms. Thus, larger firms will be induced to use more debt than smaller ones.

Pecking Order Theory (Information asymmetry)

Information asymmetry arises as a result of the separation of ownership and management. First, Myers and Majluf (1984) suggested about this pecking order theory, it started with the assumption of asymmetric information, representing that managers know more than the investors about their companies' prospects, values, risks, and about the characteristics of the firm's return stream or investment opportunities.

Pecking Order theory says that the firms pursue a financing hierarchy due to information costs (Myers and Majluf, 1984). When firms approach the external markets to raise capital, they primarily face information asymmetry costs and transaction costs, those additional costs make external capital more expensive and automatically lead firms to use internal over external funds.

Managers would attempt to issue equity when its market value is higher (Myers & Majluf, 1984). Naturally, the stock price usually falls when a stock issue is announced. That may create equity an expensive source of financing and direct firms to under-invest. Such problems not affect retained earnings. As well, as debt needs fixed interest payments, that is less sensitive to information asymmetries.

Likewise transaction costs also can dictate in a firm's sources of financing. Baskin (1989) indicates in his study that, "borrowing costs can be as low as 1% of the amount raised whereas the costs for issuing equity are anywhere between 4% and 15% of the total amount". Thus, this statement proof that debt can be a favored source of external financing than compared to equity, when the problem of asymmetric information is considered as the most important issue.

Therefore, the pecking order theory is a result of information asymmetries that exist between insiders of the firm and outsiders. And it proposes steps to raise the capital, that firms meet their capital requirement through internal funds first, then after go for external borrowing and finally equity issuance.

Unswerving with the pecking order theory, studies in developing countries of Al-Sakran (2001), Booth et al, (2001), Chen (2004), Pandey (2001), and Wiwattanakantang (1999) all discover a negative relationship between leverage ratios and profitability.

In this way, there have been extensive empirical studies investigating the theories of capital structure in various countries. These studies have identified certain key determinants of leverage such as tangibility, profitability, firm size, growth opportunities, non-debt tax shield, uniqueness, income variability, and industry classification dummies amongst many (Harris & Raviv, 1991; Rajan & Zingales, 1995;Myers & Majluf, 1984; Titman & Wessels, 1988; Bevan & Danbolt, 2002).

METHODOLOGY

Design & Sample

This study has focused on the Banks Finance & Insurance sector, initially all the 37 firms (Listed on the Colombo Stock Exchange as at 30th December 2012) in the Banks Finance & Insurance sector were selected. After screening 9 companies were left with incomplete data, finally only 28 firms selected. So we have 140 data (firm-years) for panel data analysis. This study is based on the financial data of sample firms from 2008-2012 and has been taken from Annual reports of those listed companies.

Model specification

According to the literature, we limit our self to the study of six firm-specific factors, namely , tangibility (TANG), profitability (PROF), size (SIZE),growth (GROW), liquidity (LIQ), and non-debt tax shield (NDTS). Hsiao (1985) indicates that, the application of panel data helps to reduce the collinearity among explanatory variables and gives more efficient coefficients. Hence, we decided to estimate the effects of explanatory variables on the debt ratios (measures of leverage) by using panel data (or time- series cross-sectional (TSCS) data).

Existing literature consist a great debate on the use of book leverage or market leverage. In favor to the market value arguments, some former studies include that market values better reflect a firms current cost of capital (Bradley et al, 1984; Frank & Goyal, 2007). If anyone follows this argument, they are largely immaterial in the context of a developing country, because reliable market values for debt and equity are difficult to obtain while the financial system is largely bank based. The corporate bond market has low liquidity and equity markets are highly volatile (Vuong and Tran, 2010). In consequence, we use only book values in our Measures of leverage.

Capital structure studies exploratory the determinants of leverage based on total debt may disguise the significant differences between short-term and long-term debt (Bevan & Danbolt, 2002). Thus, according to Bevan and Danbolt (2002) and Michaelas, Chittenden, and Poutziouris (1999) in this study we decompose debt into long-term and short-term debt. Thus, we define the models for our three measures of leverage (LTDR, STDR and TDR) are as follows;

Model – I (long – term debt ratio)

$$LTDR_{it} = a_0 + \beta_1 TANG_{it} + \beta_2 PROF_{it} + \beta_3 SIZE_{it} + \beta_4 GROW_{it} + \beta_5 LIQ_{it} + \beta_6 NDTS_{it} + \varepsilon_{it}$$

Model – II (short – term debt ratio)

$$STDR_{it} = a_0 + \beta_1 TANG_{it} + \beta_2 PROF_{it} + \beta_3 SIZE_{it} + \beta_4 GROW_{it} + \beta_5 LIQ_{it} + \beta_6 NDTS_{it} + \varepsilon_{it}$$

Model – III (total debt ratio)

$TDR_{it} = a_0 + \beta_1 TANG_{it} + \beta_2 PROF_{it} + \beta_3 SIZE_{it} + \beta_4 GROW_{it} + \beta_5 LIQ_{it} + \beta_6 NDTS_{it} + \varepsilon_{it}$

where:

$LTDR_{it}$ = long – term debt ratio of firm *i* at time *t*.

$STDR_{it}$ = short – term debt ratio of firm *i* at time *t*.

TDR_{it} = total debt ratio of firm *i* at time *t*.

$TANG_{it}$ = tangibility of firm *i* at time *t*.

$PROF_{it}$ = profitability of firm *i* at time *t*.

$SIZE_{it}$ = size of firm *i* at time *t*.

$GROW_{it}$ = growth opportunities of firm *i* at time *t*.

LIQ_{it} = current ratio of firm *i* at time *t*.

$NDTS_{it}$ = non-debt tax shields of firm *i* at time *t*.

a_0 = common y-intercept.

$\beta_1 - \beta_6$ = coefficients of the concerned explanatory variables.

ε_{it} = error term of firm $_i$ at time $_t$

Hypotheses

Based on the literature review, we developed testable hypotheses for characteristics determining the debt ratios of listed companies in CSE under the Banks Finance & Insurance sector firms. Table1 explores the measurement of variables and reference of those variables.

Table 1: Summary of variables, proxy and References

Abbreviation	Variable	Measurement(Proxy)	References
LTDR	Long term dept	Non-current debt / Total Assets	Bevan and Danbolt, (2002); Michaelas (1998)
STDR	Short term debt	Current liabilities / Total Assets	Bevan and Danbolt, (2002); Michaelas (1998)
TDR	Total dept	Total liabilities / Total assets	Bevan and Danbolt, (2002); Michaelas (1998)
TANG	Tangibility	Tangible Fixed Assets / Total Assets	Rajan and Zingales, (1995); Nguyen and Ramachandran, (2006)
PROF	Profitability (ROA)	Earnings before tax / Total Assets	Nguyen & Ramachandran, (2006); French, (2002)
SIZE	Size	logarithm of sales	Rajan and Zingales, (1995)
GROW	Growth	Percentage change in total assets	Nguyen & Ramachandran, (2006); Titman & Wessele, (1988)
LIQ	Liquidity	Current Assets/ Current Liabilities	Deesomsak *et al.*, (2004); Mazur, (2007); Jong *et al.,* (2008)
NDTS	Non-debt tax shield	Depreciation / Total assets	Wald(1999); Deesomsak *et al.*, (2004)

H_1: Tangibility is expected to have a positive influence on leverage.

H_2: profitability is expected to have a negative influence on leverage

H_3: Size is expected to have a positive influence on leverage

H_4: Growth is expected to have a positive influence on leverage

H_5: Liquidity is expected to have a negative influence on leverage

H_6: Non-debt tax shield is expected to have a negative influence on leverage

RESULT AND DISCUSSION

Descriptive statistic

Table 2 presents a summary of descriptive statistics of the dependent and independent variables used in 3 models of this study. Descriptive analysis explores mean, standard deviation, minimum, maximum, and No of Observations. The average capital structures (TDR, LTDR and STDR) are about 79.58%, 28.03%and 51.24%, which indicates Banks Finance & Insurance sector companies finance their asset of 79.58% by total debt during the study period (28.03% by long term debt and 51.24% by sort term debt).The maximum and minimum values of total debt to total assets ratios are 1.36 and 0.0094 respectively. The average (mean) of tangibility, profitability, size, growth, liquidity and non-debt tax shield are 0.5358739, 0.0363422, 6.549116, 9.283962, 4.338917 and 0.0049173 respectively. This indicates that they are in high riskier condition. The data itself is taken from 2008 to 2012 comprise of 28 listed companies under the Banks Finance & Insurance sector on the Colombo stock exchange, but they are different age companies.

Table 2: Descriptive analysis

Variable	Mean	Standard Deviation	Minimum	Maximum	No of Observations
Year	2010	1.419292	2008	2012	140
TDR	.7958878	.2255239	.0093676	1.355671	140
LTDR	.280352	.2429435	0	.8548855	140
STDR	.5124822	.2988078	.0062038	1.177798	140
TANG	.5358739	.2213199	.0096919	.8957911	140
PROF	.0363422	.0720559	-.1786801	.581767	140
SIZE	6.549116	.6512845	4.856578	7.741625	140
GROW	9.283962	28.25303	-255.9092	53.05584	140
LIQ	4.338917	16.11647	.1551113	155.5352	140
NDTS	.0049173	.0040078	0	.018001	140

Table 3 displays the correlation coefficiencies of the variables, including total debt ratio, long term debt ratio, sort term debt ratio, tangibility, profitability, size, growth, liquidity, and non-debt tax shield. When we look at the explanatory variables, there is a high positive relation between LIQ and PROFI (with correlation coefficient 0.73) whereas GROW and LTDR have week relation (0.018). And this table values show that most of the cross correlation coefficients for the independent variables are fairly small.

Table 3: Summary of Correlation analysis

Variables	TDR	LTDR	STDR	TANG	PROFI	SIZE	GROW	LIQ
LTDR	0.1852							
STDR	0.5860	-0.6304						
TANG	-0.0817	0.6163	-0.5193					
PROFI	-0.5925	-0.1188	-0.3994	-0.0702				
SIZE	0.4761	0.1684	0.2392	-0.0491	-0.0517			
GROW	-0.1523	0.0181	-0.1140	0.0907	0.1308	0.1254		
LIQ	-0.6395	-0.1860	-0.3680	-0.2086	0.7340	-0.1901	0.0995	
NDTS	0.1349	0.2807	-0.1000	0.3137	-0.1922	0.0382	-0.0695	-0.1946

Prior to testing hypotheses, the collected sample data were tested for multicollinearity issues and Table 4 shows the Variance Inflation Factor of explanatory variables (VIF). All VIF are less than 2.5, thus giving there is no multicollinearity problem and all explanatory variables are appropriate for testing of this study model.

Table 4: VIF coefficients

Variable	VIF	1/VIF
LIQ	2.45	0.408710
PROFI	2.29	0.437330
TANG	1.21	0.828839
NDTS	1.16	0.863646
SIZE	1.10	0.910798
GROW	1.06	0.942212
Mean VIF	1.54	

The results of the estimation of the panel data models with the capital structures (TDR, LTDR and STDR) and for the full sample of observations for the period 2008-2012 are displayed in the Tables from 5 to 7.

The pooled ordinary least square (OLS) was used for estimations. Table 5 shows the effect of explanatory variables on the Short term debt ratio. It indicates that tangibility, profitability, size, and liquidity proved to be significant in confidence level of 5 percent, while the variables growth and non-debt tax shield found highly insignificant.

The OLS regression has high adjusted R^2 as 0.5184 and appears to be able to explain variations in the Short term debt ratio. Furthermore, the F-statistic (F = 0.0000) confirms the significance of the OLS regression model for Short term debt ratio.

Table 5: The effect of explanatory variables on the Short term debt ratio

Variables	Coefficient	Std. Err.	t-statistic	P>|t|
TANG	-.7863794	.0872892	-9.01	0.000
PROFI	-.8409209	.3690979	-2.28	0.024
SIZE	.0660319	.0282966	2.33	0.021
GROW	-.0002429	.0006413	-0.38	0.705
LIQ	-.0058559	.001707	-3.43	0.001
NDTS	-1.852969	4.72219	-0.39	0.695
Constant	.5687677	.1958124	2.90	0.004

Note: R^2 = 0.5392; adjusted R^2 = 0.5184; F (6, 133) = 25.94; Prob > F = 0.0000

Table 6 shows the effect of explanatory variables on the Long term debt ratio. It indicates that tangibility and size proved to be significant in confidence level of 5 percent, while the variables profitability, growth, liquidity and non-debt tax shield found insignificant.

The OLS regression has adjusted R^2 as 0.4077 and appears to be able to explain variations in the Long term debt ratio. Furthermore, the F-statistic (F = 0.0000) confirms the significance of the OLS regression model for Long term debt ratio.

Table 6: The effect of explanatory variables on the Long term debt ratio

Variables	Coefficient	Std. Err.	t-statistic	P>|t|
TANG	.6785483	.0787072	8.62	0.000
PROFI	-.3326236	.3328095	-1.00	0.319
SIZE	.0790506	.0255146	3.10	0.002
GROW	-.0004658	.0005783	-0.81	0.422
LIQ	.0011269	.0015392	0.73	0.465
NDTS	4.274458	4.25792	1.00	0.317
Constant	-.6104715	.1765608	-3.46	0.001

Note: R^2 = 0.4333; adjusted R^2 = 0.4077; F (6, 133) = 16.95; Prob > F = 0.0000

Table 7 shows the effect of explanatory variables on the Total debt ratio. It indicates that tangibility, profitability, size, growth and liquidity proved to be significant in confidence level of 5 percent, while the variable non-debt tax shield founds insignificant.

The OLS regression has high adjusted R^2 as 0.6138 and appears to be able to explain variations in the Total debt ratio. Furthermore, the F-statistic (F = 0.0000) confirms the significance of the OLS regression model for total debt ratio.

Table 7: The effect of explanatory variables on the Total debt ratio

Variables	Coefficient	Std. Err.	t-statistic	P>|t	
TANG	-.1625148	.0589965	-2.75	0.007
PROFI	-.9269118	.2494639	-3.72	0.000
SIZE	.1373456	.0191249	7.18	0.000
GROW	-.0008813	.0004335	-2.03	0.044
LIQ	-.0050687	.0011537	-4.39	0.000
NDTS	1.954756	3.191607	0.61	0.541
Constant	.0377315	.1323446	0.29	0.776

Note: R^2 = 0.6305; adjusted R^2 = 0.6138; F (6, 133) = 37.82; Prob > F = 0.0000

The correlation coefficiencies of the variables explore profitability and liquidity has a negative and significant relationship with the short, long and total debt ratios. This result confirms that Sri Lankan Banks, Finance and Insurance Companies finance their activities following the financing pattern implied by the theory of pecking order. Furthermore, costly fund raising might also restrict the Banks, Finance and Insurance Companies to rely on internally generated funds. And also this confirms that information asymmetry is relevant in the capital structure decisions in Sri Lankan Banks, Finance and Insurance Companies. Most empirical evidence including Kester (1986) and Fama and French (2002) confirm the negative relationship between profitability and leverage.

Based on the trade-off theory recommendations, larger firms have to operate at high debt levels to diversify the risk and take the tax shields benefit on interest payments. This study finding also support to this theory by having explanatory variable of size has a positive and significant relationship on all three dept ratios.

As predicted by Hypothesis 1, Tangibility is expected to have a positive influence on leverage. According to correlation result of Table 3 and the regression results from Table 5, Table 6 and Table 7, TANG is found to have a negative and significant effect on short term and total debt ratio whereas a positive and significant effect on long term debt ratio. Therefore Hypothesis 1 is accepted in case of long term debt only.

Hypothesis 2 predicts that profitability has a negative influence on leverage. From the correlation result of Table 3 and the regression results from Table 5, Table 6 and Table 7, PROFI has a negative effect on short term, long term and total debt ratios, however on short term and total debt ratio only significant. So, Hypothesis 2 is accepted in case of short term and

total debt ratio and lends strong support for pecking order theory. This finding is coherent with previous findings of Nguyen, Diaz-Rainey and Gregoriou (2012).

In the Hypothesis 3, Size is expected to have a positive influence on leverage. This hypothesis is consistent with insinuation of the tradeoff theory suggesting that big firms earn more returns than the smaller firms as a result of diversification of investment and economies of scale. And they operate at high debt levels due to their ability to diversify their risk and to take the benefit of tax shields on interest payment. Based on the correlation result of Table 3 and the regression results from Table 5, Table 6 and Table 7, SIZE has a positive and significant effect on all measures of leverage. Therefore Hypothesis 3 is accepted. And this finding is coherent with previous findings of Gleason, Mathur, and Mathur (2000), Zeitun and Tian (2007) and Sheikh and Wang (2011).

Hypothesis 4 developed as growth is expected to have a positive influence on leverage. From the results of Correlation Table 3 and regression Table 5, Table 6 and Table 7, GROW has a negative and significant effect on total debt ratio whereas other debt ratios are insignificant and consistent with finding of Sheikh and Wang (2011). Therefore Hypothesis 4 is rejected.

Liquidity (LIQ) is expected to have a negative influence on leverage hypothesized as 5th Hypothesis. Based on the results of Correlation Table 3 and regression Table 5, Table 6 and Table 7, LIQ has a negative and significant effect on total debt and short term ratios whereas in the case of long term debt that is insignificant. Therefore Hypothesis 5 accepted in case of total debt and short term debt ratios only. The same result found in the study of Nguyen, Diaz-Rainey and Gregoriou (2012)

Hypothesis 6 forecasts that non-debt tax shield is expected to have a negative influence on leverage. Based on the regression results from Table 5, Table 6 and Table 7, NDTS has a positive and insignificant effect on total debt and long term debt ratios at the same time as negative and insignificant effect on short term debt ratio therefore Hypothesis 6 rejected. This study shows contradictory result regarding the variable non-debt tax shields.

CONCLUSIONS

This paper attempted to discover the determinants of capital structure of 28 Banks Finance & Insurance sector companies listed in the CSE Sri Lanka during the years 2008-2012. The investigations are performed using pooled ordinary least square (OLS) with the help of statistical computer package of STATA. This study employed with debt ratios of short, long and total debt ratios (a measure of leverage) as dependent variable. Capital structure refers exclusively to

long-term debt even though; we have included short-term debt as well because of its significant proportion in the makeup of total debt of the firms included in our study's sample.

According to the analysis results, tangibility is negatively influenced with short term and total debt ratios. This result is in contradiction with the predictions of the trade-off theory; however, it is in line with the suggestion of agency theory that, firms with less collateralizable assets may choose higher debt levels to limit the managers' consumptions of perquisites. Whereas tangible is a positive and significantly effect on long term debt ratios.

Profitability is influenced negatively with the short term, long term and total debt ratios. This result is strengthening pecking order theory rather than the predictions of the trade-off theory. The explanatory variable of firm size is positively influenced on the all measures of leverage. This finding supports the view of firm size as an inverse proxy for the probability of bankruptcy and also consistent with insinuation of the tradeoff theory. Insignificant influenced is found between the short term and long term debt ratios and growth opportunities.

Liquidity is negatively influenced with total debt and short term debt ratios whereas there is no statistically significant influenced between LIQ and long term debt ratio. This finding is unsurprisingly because long term lenders are more interested on tangibility and growth than liquidity. The negative influence of liquidity on total debt and short term debt ratios is consistent with the pecking order theory rather than with the predictions of the trade-off theory. This result indicates that liquid firms prefer to use accumulated cash and liquid assets instead of the option of external finance. The variable non-debt tax shields have contradictory result with measures of leverage.

Lastly, the models of total debt and short term debt have high explanatory power (R^2 = 0.63and 0.54 respectively). However, the model of long term debt has a good deal less explanatory power (R^2 = 0.43) hinting that a broader range of factors drive long term finance decisions. These findings noted, it is clear that there are differences between the three measures of leverage in terms of determinants.

However, the above results indicate that analysed models provide some help in understanding the financing behavior of   Sri Lankan Banks Finance & Insurance sector companies.

LIMITATIONS AND FUTURE RESEARCH

This study concentrated on analyzing the Determinants of capital structure and pooled ordinary least square (OLS) was used to show how the variables including tangibility, profitability, size, growth, liquidity, and non-debt tax shield influence the capital structure (leverage ratio) decisions of the Banks Finance & Insurance companies in Sri Lanka. The models of total debt

and short term debt have high explanatory power. However, the model of long term debt has a good deal less explanatory power hinting that a broader range of factors drive long term finance decisions. These findings noted, it is clear that there are differences between the three measures of leverage in terms of determinants. Thus, this research contributes to better understand the financing behavior of Sri Lankan Banks Finance & Insurance sector companies.

At the same times this study consist some limitations also, the main limitation of this research is that it explores listed companies in the Colombo stock exchange and particularly under the Banks Finance & Insurance sector only; potentially limiting generalization to other companies and sectors. The finding of the study reveals that the total debt, long term debt and short term debt have explanatory power of R^2 = 0.6, 0.433and 0.54 respectively, it means there is a room for other possible variables to influence as determinants of leverage. Thus, future researcher may consider these findings to incorporate other possible variables and this study can be replicated with different sectors in future research. Furthermore, our model hasn't included the macroeconomic factors, Sri Lankan's institutional environment and corporate governance structure, which should be further discussed.

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