CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE: EVIDENCE FROM SELECTED BUSINESS COMPANIES IN COLOMBO STOCK EXCHANGE SRI LANKA

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ABSTRACT

Capital structure is most significant discipline of company's operations. This researcher constitutes an attempt to identify the impact between Capital Structure and Companies Performance, taking into consideration the level of Companies Financial Performance. The analyze has been made the capital structure and its impact on Financial Performance capacity during 2005 to 2009 (05 years) financial year of Business companies in Sri Lanka. The results shown the relationship between the capital structure and financial performance is negative association at -0.114. Co-efficient of determination is 0.013. F and t values are 0.366, -0.605 respectively. It is reflect the insignificant level of the Business Companies in Sri Lanka. Hence Business companies mostly depend on the debt capital. Therefore, they have to pay interest expenses much.

Keywords: Capital Structure; Performance; Business Companies

1. INTRODUCTION

To understand how companies finance their operations, it is necessary to examine the determinants of their financing or capital structure decisions. Company financing decisions involve a wide range of policy issues. At the private, they have implications for capital market development, interest rate and security price determination, and regulation. At the private, such decisions affect capital structure, corporate governance and company development (Green, Murinde and Suppakitjarak, 2002). Knowledge about capital structures has mostly been derived from data from developed economies that have many institutional similarities (Booth et al., 2001). It is important to note that different countries have different institutional arrangements, mainly with respect to their tax and bankruptcy codes, the existing market for corporate control, and the roles banks and securities markets play.

Capital structure refers to a mixture of a variety of long term sources of funds and equity shares including reserves and surpluses of an enterprise. The historical attempt to building theory of capital structure began with the presentation of a paper by Modigliani & miller (MM) (1958). They revealed the situations under what conditions that the CS is relevant or irrelevant to the financial performance of the listed companies. most of the decision making process related to the CS are deciding factors when determining the CS, a number of issues e.g. cost, various taxes and rate, interest rate have been proposed to explain the variation in Financial Leverage across firms (Van Horne,1993; Hampton,1998; Titman and Wessels,1998).these issues suggested that the depending on attributes that caused the cost of various sources of capital the firm's select CS and benefits related to debt and equity financing

The relationship between capital structure and financial performance is one that received considerable attention in the finance literature. How important is the concentration of control for the company performance or the type of investors exerting that control are questions that authors have tried to answer for long time prior studies show that capital structure has relating with corporate governance, which is the key issues of state owned enterprise. To study the effects of capital structure or financial performance, will help us to know the potential problems in performance and capital structure.

2. LITERATURE REVIEW

Modigliani and Miller (M & M) (1958) wrote a paper on the irrelevance of capital structure that inspired researchers to debate on this subject. This debate is still continuing. However, with the passage of time, new dimensions have been added to the question of relevance or irrelevance of capital structure. M&M declared that in a world of frictionless capital markets, there would be no optimal financial structure (Schwartz & Aronson, 1979). This theory later became known as the "Theory of Irrelevance'. In M & M's over-simplified world, no capital structure mix is better than another. M & M's Proposition-II attempted to answer the question of why there was an increased rate of return when the debt ratio was increased. It stated that the increased expected rate of return generated by debt financing is exactly offset by the risk incurred, regardless of the financing mix chosen.

Jensen and Meckling (1976) argue that the shareholders-lenders conflict has the effect of shifting risk from shareholders and of appropriating wealth in their favor as they take on risky investment projects (asset substitution). Hence, shareholders, and managers as their agents, are prompted to take on more borrowing to finance risky projects. Lenders receive interest and principal if projects succeed, and shareholders appropriate the residual income; however, it is the lender who incurs the loss if the project fails. It is difficult and costly for debt holders to be able to assess and monitor

Firms in an oligopolistic market will follow the strategy of maximizing their output in favorable economic conditions to optimize profitability (Brander & Lewis 1986). The theory also holds in

unfavorable economic conditions; firms would take a cut in production and reduce their profitability. Shareholders, though, while enjoying increased wealth in good periods, tend to ignore a decline in profitability in bad times. This is due to the fact that unfavorable consequences are passed onto lenders because of shareholders' limited liability status. Therefore, the oligopolistic firms, in contrast to firms in competitive markets, would employ higher levels of debt to produce more when opportunities to earn higher profits arise. The implied prediction of the output maximization hypothesis is that capital structure and market structure have a positive relationship. In corporate finance, the agency costs theory supports the use of high debt, and it is consistent with the prediction of the output maximization hypothesis.

Brander and Lewis (1986) and Maksimovic (1988) provide the theoretical framework that links capital structure and market structure. Contrary to the profit maximization objective postulated in industrial organization literature, these theories are similar to the corporate finance theory in that they assume that the firm's objective is to maximize the wealth of shareholders. Furthermore, market structure is shown to affect capital structure by influencing the competitive behavior and strategies of firms.

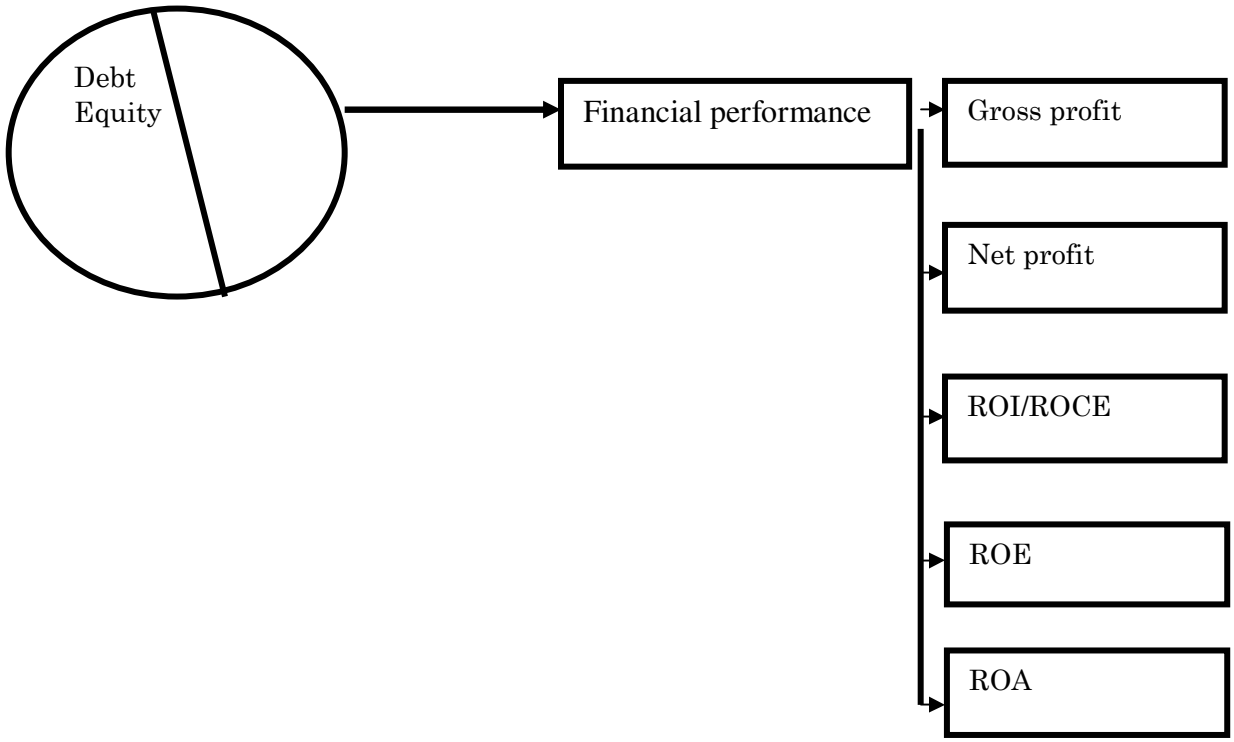
Mohammed Omran (2001) evaluates the financial and operating performance of newly privatized Egyptian state-owned enterprises and determines whether such performance differs across firms according to their new ownership structure. The Egyptian privatization program provides unique post-privatization data on different ownership structures. Since most studies do not distinguish between the types of ownership, this paper provides new insight into the impact that post-privatization ownership structure has on firm performance. The study covers 69 firms, which were privatized between 1994 and 1998. For these newly privatized firms, these study documents significant increases in profitability, operating efficiency, capital expenditures, and dividends. Conversely, significant decreases in employment, leverage, and risk are found, although output shows an insignificant decrease following privatization. The empirical results also show that Egyptian state-owned enterprises, which were sold to anchor-investors and employee shareholder associations, seem to outperform other types of privatization, such as minority and majority initial public offerings..

Huson Joher Aliahmed and Nazrul Hisyam Ab Razak Sr. (2008) examines the relationship between ownership structure and company performance has been issue of interest among academics, investors and policy makers because of key issue in understanding the effectiveness of alternative governance system in which government ownership serve as a control mechanism. Therefore, this paper examines the impact of an alternative ownership/control structure of corporate governance on firm performance among government linked companied (GLCs) and Non-GLC in Malaysia. It is believed that government ownership serve as a monitoring device that lead to better company performance after controlling company specific characteristics. We used Tobin's Q as market performance measure while ROA is to determine accounting performance measure. This study is based on a sample of 210 firms over a period from 1995 to 2005 Panel Based regression approach was used to determine the impact of ownership mechanism on firm's performance. Findings appear to suggest that there is a significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non-duality, leverage and growth. The finding is off significant for investors and policy marker which will serve as a guiding for better investment decision.

B.Nimalathasan & Valeriu Brabete (2010) pointed out capital structure and its impact on profitability: a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that Dept equity ratio is positively and strongly associated to all profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios)

3. CONCEPTUAL FRAME WORK

Based on the research question, the following conceptual model may be constructed. Conceptualization model shows the relationship between capital structure and Performance of listed Business companies in Sri Lanka



4. OBJECTIVES

The focus of this study is Impact of Capital Structure on Performance of the Business industry in listed companies in Srilanka.

- To reveal the impact of capital structure on financial performance
- To Evaluate the interrelationship between capital structure and performance
- To determine the determinants of a capital structure

5. HYPOTHESES

The following hypothesis is formulated for the study

H_0:-There is a negative relationship between capital structure and financial performance.

H_1:- The capital structure has significant impact on financial performance.

H_2:-There is positive relationship between capital structure and financial performance.

6.0 METHODOLOGY

To produce the above mentioned research objective, the data for this study was gathered from the financial statements as published by Business Companies. In addition, another source of data was through reference to the review of different articles, papers, and relevant previous studies. For this purpose, collecting data of Business firms is used which are listed on Colombo Stock Exchange.. All firms are taken for the study representing the period of 2005-2009, and

the average values of each item was considered for the purpose of ratio computation and analysis.

6.1 Mode of Analysis

1.Capital structure	Role of and equity	$\frac{\text{Debt}}{\text{equity}} \times 100$ $\frac{\text{Debt}}{\text{Total funds}} \times 100$
2.Financial Performance	Gross profit	$\frac{\text{Gross profit}}{\text{Net Sales}} \times 100$
	Net profit	$\frac{\text{Net profit}}{\text{Sales}} \times 100$
	ROA	$\frac{\text{PAIT}}{\text{Assets}} \times 100$
	ROI/ROCE	$\frac{\text{PBIT}}{\text{Equity}} \times 100$

7. RESULTS AND DISCUSSIONS

7.1 Correlation Analysis

Correlation is concern describing the strength of relationship between two variables. In this study the correlation co-efficient analysis is under taken to find out the relationship between capital structure and financial performance. It shows the amount of relationship exist between capital structure and financial performance**.**

Capital structure correlated with

	R value	r^2 value
Gross profit	0.360	0.1296
Net profit	- 0.110	0.0121
ROI	-0.104	0.0108
ROA	-0.196	0.0384
Performance	-0.114	0.0129

7.1.1 Capital structure and Gross profit

Table I

Variables	Capital structure	Gross profit
Capital structure	1	0.360
Gross profit	0.360	1

It shows the relationship between gross profit and capital structure variables. There is a weak positive relationship between two variables. The correlation is 0.360. significant level is 0.01. the co-efficient of determination is 0.1296. that is only 12.96% of variance in the capital structure is accounted by the gross profit.

So, There is a weak positive relationship between capital structure and gross profit

7.1.2 Capital structure and Net profit

Table II

Variables	Capital structure	Net profit
Capital structure	1	-0.110
Net profit	-0.110	1

It illustrates the relationship between net profit and capital structure variables. There is a weak negative relationship between two variables. The correlation is -0.110. Significant level is 0.01. The co-efficient of determination is 0.0121. That is only 1.21% of variance in the capital structure is accounted by the net profit.

7.1.3 Capital structure and ROI

Table III

Variables	Capital structure	ROI
Capital structure	1	-0.104
ROI	-0.104	1

It indicates the relationship between ROI and capital structure variables. There is a weak negative relationship between two variables. The correlation is -0.104. Significant level is 0.01. The co-efficient of determination is0.0108. that is only 1.08% of variance in the capital structure is accounted by the ROI.

7.1.4 Capital structure and ROA

Table IV

Variables	Capital structure	ROA
Capital structure	1	-0.196
ROA	-0.196	1

It shows the relationship between ROA and capital structure variables. There is a weak negative relationship between two variables. The correlation is -0.196 significant level is 0.01. the co-efficient of determination is 0.0384. that is only 3.84% of variance in the capital structure is accounted by the ROA.

7.1.5 Capital structure and Financial performance

Table V

Variables	Capital structure	Financial performance
Capital structure	1	-0.114
Financial performance	-0.114	1

It illustrates the relationship between performance and capital structure variables. There is a weak negative relationship between two variables. The correlation is -0.114. Significant level is 0.01. The co-efficient of determination is 0.0129. that is only 1.29% of variance in the capital structure is accounted by the performance.

7.2 Regression Analysis

Regression analysis is used to test the impact of financial performance on capital structure of the listed companies traded in Colombo stock exchange

7.2.1 Capital structure and Gross profit

Table VI

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	0.360a	0.129	0.098	0.32306

The above table shows the weak positive correlation between the capital structure and gross profit.

Table VII

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	sig
1(constant)	0.187	0.073		2.556	0.016
Capital structure	0.047	0.023	0.360	2.039	0.051

The above table indicates the coefficient of correlation between the capital structure and gross profit. multiple r2 is 0.1296. only 1.29% of variance of gross profit is accurate by the capital structure. But, remaining 98.21% of variance with gross profit is attributed to other factors.

7.2.2 Capital structure and Net profit

Table VIII

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	0.110a	0.012	-0.023	0.36514

The above table shows the weak negative correlation between the capital structure and net profit.

Table IX

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	sig
1(constant)	0.124	0.083		1.498	0.145
Capital structure	-0.015	0.026	-0.110	-0.584	0.564

The above table indicates the coefficient of correlation between the capital structure and net profit. Multiple r2 is 0.012. Only 1.2% of variance of net profit is accurate by the capital structure. But, remaining 98.8 % of variance with net profit is attributed to other factors

7.2.3Capital structure and ROI

Table X

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	0.104a	0.011	-0.025	115.19484

The above table shows the weak positive correlation between the capital structure and ROI.

Table XI

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	sig
1(constant)	31.283	26.050		1.201	0.240
Capital structure	-4.563	8.250	-0.104	-0.553	0.585

The above table indicates the coefficient of correlation between the capital structure and ROI. Multiple r2 is 0.011. Only 1.1% of variance of ROI is accurate by the capital structure. But, remaining 98.9% of variance with ROI is attributed to other factors

7.2.4 Capital structure and ROA

Table XII

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	0.196a	0.039	0.004	0.10866

The above table shows the weak positive correlation between the capital structure and ROA.

Table XIII

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	sig
1(constant)	0.099	0.025		4.020	0.000
Capital structure	-0.008	0.008	-0.196	-1.060	0.298

The above table indicates the coefficient of correlation between the capital structure and ROA. multiple r2 is 0.039. only 3.9% of variance of ROA is accurate by the capital structure. But, remaining 96.1% of variance with ROA is attributed to other factors

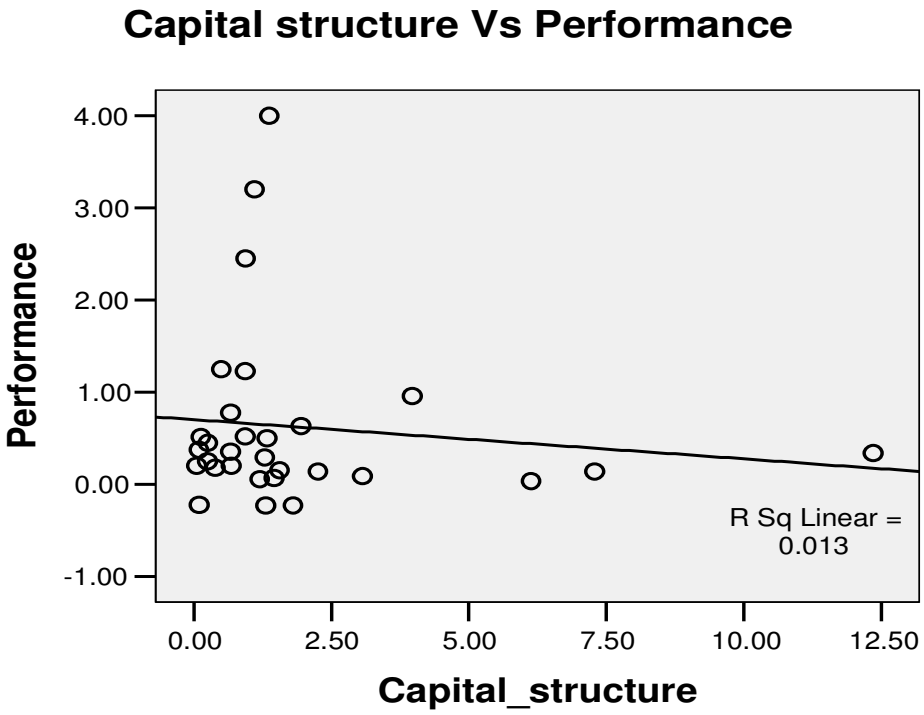
7.2.5 Capital structure and Financial performance

Table XIV

Model	**R**	**R Square**	**Adjusted R Square**	**Std.Error of the Estimate**
1	0.114a	0.013	-0.022	0.98395

The above table shows the weak positive correlation between the capital structure and performance.

Figure I



In the figure I, X axis indicates the capital structure and Y axis indicates the performance. From the above figure it is observable that there is a weak linear negative relationship between the two variables. The plot are scattered loosely around the linear line which mean that performance have some impact over the capital structure. According to the above figure linear equation is formulated as follows Y=0.704+-0.043x. and R Square is Linear 0.013.

The regression equation Y=0.704+-0.043X exhibits that the relationship between capital structure and performance. If capital structure is X=0, performance is to be 0.704. further capital structure is increased by one, the performance will be decreased by -0.043. Therefore, it can be said that there is a negative relationship between variables.

Table XV

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.354	1	.354	.366	.550[a]
	Residual	27.109	28	.968		
	Total	27.463	29			

a. Predictors: (Constant), Capital_structure

b. Dependent Variable: Performance

An examination with ANOVA (F–value) indicates that explains the most possible combination of predictor variables that could contribute to the relationship with the dependent variables. For model 1- F value is 0.366 we see that all of the corresponding F Value is insignificant in respect to their consequent values. However, it should be noted here that there may be some other variables which can have an impact on financial performance, which need to be studied.

Table XVI

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	sig
1(constant)	0.704	0.223		3.162	0.004
Capital structure	-0.043	0.070	-0.114	-0.605	0.550

The above table indicates the coefficient of correlation between the capital structure and performance. multiple r2 is 0.013. only 1.3% of variance of performance is accurate by the capital structure. But, remaining 98.7% of variance with performance is attributed to other factors.

8.0 DESCRIPTIVE STATISTICS

The Descriptive procedure displays univariate summary statistics for several variables in a single table and calculates standardized values (z scores). Variables can be ordered by the size of their means (in ascending or descending order), alphabetically, or by the order in which you select the variables. Here ,the sample consist of 30 listed companies traded in Colombo stock exchange.

It refers the following items, Sample size, mean, minimum, maximum, standard deviation, variance, range, sum, standard error of the mean, and kurtosis and skewness with their standard errors.

Table XVII

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std.	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Net_profit	30	2.32	-1.37	.95	.0953	.06590	.36097	.130
Gross_profit	30	1.44	.01	1.45	.2746	.06211	.34020	.116
ROI	30	626.02	-.95	625.07	22.7806	20.77840	13.80799	2952.259
ROE	30	.72	-.23	.48	.1324	.02738	.14997	.022
ROA	30	.56	-.25	.31	.0834	.01988	.10889	.012
Capital_structure	30	12.31	.05	12.36	1.8633	.47342	2.59302	6.724
Performance	30	4.23	-.23	4.00	.6242	.17767	.97314	.947
Valid N (listwise)	30							

The above table shows the values of range, minimum, maximum, mean and variance of independent, dependent variables. ROI has high mean value of 22.78% than other variables. It has high maximum value of 625.07 and high variance of 2952.26. at the same time according to the above table ROA has low maximum value and low mean value too than other variables. The maximum and minimum values for each performance measures indicate that the performance varies substantially among companies. Capital structure has high mean value compare to the financial performance.

9.0 CONCLUDING REMARKS

Correlation analysis explains, there is a weak positive relationship between gross profit and capital structure (0.360).at the same time, there is a negative relationship between net profit and capital structure (-0.110).it reflects the high financial cost among the firms. ROI and ROA also has negative relationship with capital structure at -0.104, -0.196 respectively.

It is focused on the overall point of view of the relationship between the capital structure and financial performance. There is a negative association at -0.114. Co-efficient of determination is 0.013. F and t values are 0.366, -0.605 respectively. It is reflect the insignificant level of the Business Companies in Sri Lanka.

Business companies mostly depend on the debt capital. Therefore, they have to pay interest expenses much.

8.1 Testing of Hypotheses

Statistical Techniques	**Results**
Correlation	-0.114
Co –efficient of determination	-0.0129

Based on the empirical results of this study, **H_1**this hypothesis come false .Because in this study the empirical results shows that there is a insignificant negative relationship

H_2: "There is a positive relationship between the capital structure and firm's financial performance".

At the first step of testing the hypothesis(H_1), hypothesis (H_1) was considered and tested for its validity. It has the following result between the capital structure and firm's financial performance measured by performance measures such as ROA , ROI ,Net profit margin and etc. Based on the above evidence gathered, the H2 was rejected. Because research result is negative relationship between the capital structure and firm's financial performance.

H_0: "there is a negative relationship between the capital structure and firm's financial performance".

After the rejection of H_1, the Null hypothesis (H_0) was tested for its validity. H_0 was accepted based on the above evidence gathered. it has been provided that there is a negative relationship between the capital structure and firm's financial performance(-0.114).

9.0 Suggestions and Recommendations

The following suggestions are recommended to increase the Company's financial performance based on capital structure.

- Performance standards should be established and communicated to the investors. This will help investors to achieve the standard and take better investment decisions.
- Identifying weaknesses of investment may be best one to improve the firm's financial performance, because it indicates the area which decision should be taken.
- Motivating the investors to help to achieve the high level of firm's financial performance..
- Political changes are very important factor in the share market. It is also determine the firm performance. Therefore, political should possible to increase the financial performance of the listed companies.
- Inflation and exchange rate also affect the listed company's performance. So, government should consider the economic growth to control the inflation.

REFERENCES

[1] Allen, L., Saunders, A., 2002. A survey of the cyclical effects in credit risk measurement models. Credit Ratings. Risk Publications, London.

[2] Altman, E., Brady, B., 2001. Explaining aggregate recovery rates on corporate bond defaults. Working paper, New York University.

[3] Arrelano, M., Bond, S., 1991. Some tests for panel data: Monte carlo evidence and an application to employment equations. Review of Economic Studies 58, 277–297.

[4] Barclay, M., Smith, C., 1995. The maturity structure of corporate debt. Journal of Finance 50, 609–631.

[5] Bhanot, K., Mello, A., 2006. Should corporate debt include a rating trigger. Journal of Financial Economics 79, 69–98. 548 D. Hackbarth et al. / Journal of Financial Economics 82 (2006) 519–550

[6] Cadenillas, A., Cvitanic, J., Zapatero, F., 2004. Leverage decision and manager compensation with choice of effort and volatility. Journal of Financial Economics 73, 71–92.

[7] Childs, P., Mauer, D., Ott, S., 2005. Interactions of corporate investment and financing decisions: the effects of agency conflicts. Journal of Financial Economics 76, 667–690.

[8] Cremers, M., Driessen, J., Maenhout, P., Weinbaum, D., 2005. Explaining the level of credit spreads: optionimplied jump risk premia in a firm value model. Working paper, Yale University.

[9] David, A., 2001. Pricing the strategic value of putable securities in liquidity crises. Journal of Financial Economics 59, 63–99.

[10] Driessen, J., 2005. Is default event risk priced in corporate bonds? Review of Financial Studies 18, 165–195.

[11] Drobetz, W., Wanzenried, G., 2004. What determines the speed of adjustment to the target capital structure? Working paper, University of Basel.

[12] Duffie, D., Lando, D., 2001. Term structures of credit spreads with incomplete accounting information. Econometrica 69, 633–664.

[13] Duffie, D., Singleton, K., 2003. Credit Risk: Pricing, Measurement, and Management. Princeton University Press, Princeton, NJ.

[14] Fama, E., 1986. Term premiums and default premiums in money markets. Journal of Financial Economics 17, 175–196.

[15] Fan, H., Sundaresan, S., 2000. Debt valuation, renegotiation, and optimal dividend policy. Review of Financial Studies 13, 1057–1099.

[16] Fischer, E., Heinkel, R., Zechner, J., 1989. Dynamic capital structure choice: theory and tests. Journal of Finance 44, 19–40.

[17] Franc- ois, P., Morellec, E., 2004. Capital structure and asset prices: some effects of bankruptcy procedures. Journal of Business 77, 387–411.

[18] Fries, S., Miller, M., Perraudin, W., 1997. Debt in industry equilibrium. Review of Financial Studies 10, 39–67.

[19] Giesecke, K., 2002. Correlated default with incomplete information. Working paper, Humboldt University.

[20] Gilson, S., 1997. Transactions costs and capital structure choice: evidence from

[21] Guo, X., Miao, J., Morellec, E., 2005. Irreversible investment with regime shifts. Journal of Economic Theory 122, 37–59.

[22] Hackbarth, D., 2004. Determinants of corporate borrowing: a behavioral perspective. Working paper, Indiana University.

[23] Hamilton, D., Cantor, G., Ou, S. 2003. Default and Recovery Rates of Bond Issuers: 2001. Moody's Investor Service.

[24] Huang, R., Ritter, J., 2004. Testing the market timing theory of capital structure. Working paper,

University of Florida.
[25] Karatzas, I., Shreve, S., 1991. Brownian Motion and Stochastic Calculus. Springer, New York.
[26] Korajczyk, R., Levy, A., 2003. Capital structure choice: macroeconomic conditions and financial constraints. Journal of Financial Economics 68, 75–109.
[27] Lambrecht, B., 2001. The impact of debt financing on entry and exit in a duopoly. Review of Financial Studies 14, 765–804.
[28] Leland, H., 1994. Corporate debt value bond covenants and optimal capital structure.
[29] Mello, A., Parsons, J., 1992. Measuring the agency cost of debt. Journal of Finance 47, 1887–1904.
[30] Merton, 1974. On the pricing of corporate debt: the risk structure of interest rates. Journal of Finance 29, 449–470.
[31] Miao, J., 2005. Optimal capital structure and industry dynamics. Journal of Finance 60, 2621–2659.
[32] Modigliani, F., Miller, M., 1958. The cost of capital, corporation finance, and the theory of investment. American Economic Review 48, 261–297.
[33] Morellec, E., 2004. Can managerial discretion explain observed leverage ratios? Review of Financial Studies 17, 257–294.
[34] Morellec, E., 2001. Asset liquidity, capital structure and secured debt. Journal of Financial Economics 61, 173–206.
[35] Nimalathasan, B., Valeriu B., 2010 Capital Structure and Its Impact on Profitability: A Study of Listed Manufacturing Companies in Sri Lanka (2010), Revista Tinerilor Economisti/The Young Economists Journal 13,55-61
[36] Shleifer, A., Vishny, R., 1992. Liquidation values and debt capacity: a market equilibrium approach. Journal of Finance 47, 1343–1366.
[37] Smith, C., Warner, J., 1979. On financial contracting: an analysis of bond covenants. Journal of Financial Economics 7, 117–161.
[38] Stohs, M., Mauer, D., 1996. The determinants of corporate debt maturity structure. Journal of Business 69, 279–312.
