DEBT MATURITY STRUCTURE OF LOW AND HIGH TOBIN'S Q FIRMS

By

BENJIE LEE CHIEN JIANG

Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of
Master of Science (Finance)

Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK
(Certification of Project Paper)

Saya, mengaku bertandatangan, memperakukan bahawa
(I, the undersigned, certified that)
BENJIE LEE CHIEN JIANG (813821)

Calon untuk Ijazah Sarjana
(Candidate for the degree of) **MASTER OF SCIENCE (FINANCE)**

telah mengemukakan kertas projek yang bertajuk
(has presented his/her project paper of the following title)

DEBT MATURITY STRUCTURE OF LOW AND HIGH TOBIN'S Q FIRMS

Seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of the project paper)

Bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that the project paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the project paper).

Nama Penyelia *(Name of Supervisor)* : **DR. KHAW LEE HWEI**

Tandatangan *(Signature)* : ____________________

Tarikh *(Date)* : **09 DECEMBER 2014**

PERMISSION TO USE

In presenting this dissertation/project paper in partial fulfilment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this dissertation/project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation/project paper. It is understood that any copying or publication or use of this dissertation/project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my dissertation/project paper.

Request for permission to copy or to make other use of materials in this dissertation/project paper in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRAK

Kajian ini mengkaji kesan perkembangan yang mempengaruhi struktur kematangan hutang daripada syarikat-syarikat Malaysia. Hasil kajian menunjukkan bahawa tiada perbezaan antara pembiayaan hutang jangka pendek dan jangka panjang di firma yang mempunyai perkembangan dengan Tobin's Q yang tinggi. Walau bagaimanapun, hubungan antara perkembangan dan kematangan hutang adalah negatif bagi firma-firma yang mempunyai Tobin's Q yang rendah. Oleh itu, ini menunjukkan bahawa firma yang berkembang dengan Tobin's Q tinggi tidak menggunakan struktur kematangan hutang untuk mengurangkan kos agensi hutang (agency cost of debt) yang disebabkan oleh masalah terkurang pelaburan (underinvestment problem), manakala firma-firma yang berkembang dengan Tobin's Q rendah mengekalkan tahap yang lebih tinggi untuk hutang jangka pendek, tetapi tahap yang lebih rendah untuk hutang jangka panjang bagi mengurangkan kos agensi ekuiti (agency cost of equity) disebabkan oleh masalah pelaburan yang berlebihan (overinvestment problem).

Katakunci: Hutang Matang ; Perkembangan ; Tobin's Q; Kos agensi

ABSTRACT

This study examines the effects of growth in influencing debt maturity structure of Malaysian companies. The result shows that growth firms with high Tobin’s Q are indifferent between short-term and long-term debt financing. However, the relationship between growth and debt maturity is negatively related for firms with low Tobin’s Q. Therefore, this implies that growth firms with high Tobin’s Q do not make use of debt maturity structure to mitigate the agency cost of debt caused by underinvestment problem, while growth firms with low Tobin’s Q maintain higher levels of short-term debt, but lower levels of long-term debt to mitigate agency cost of equity caused by overinvestment problem.

Keywords: Debt Maturity; Growth; Tobin’s Q; Agency cost

ACKNOWLEDGEMENT

I would like to take this opportunity to express my sincere appreciation to my supervisor, Dr. Khaw Lee Hwei who has provided me the guidance, support, and encouragement to complete this research.

On top of that, I am grateful to Freddy Teo who has helped me with the data arrangement using excel, which makes data compiling more efficient. It will also allow me to share his knowledge with other research students.

Last but not least, I am thankful for the encouragement and support given by my beloved family and friends.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

Bottom30	: Bottom 30% of the Sample Companies
EBIT	: Earnings before Interest and Taxes
et al.	: and Others
GICS	: Global Industry Classification Standard
Growth	: Growth Opportunities
H1	: First Hypothesis
H2	: Second Hypothesis
i.e.	: that is
NPV	: Net Present Value
R&D	: Research and Development
Risk	: Business Risk
Size	: Firm Size
Top30	: Top 30% of the Sample Companies
US	: United States of America

1. INTRODUCTION

This chapter discusses the intention and objectives of this study. They are divided into few sections as below:

1.1 Background of Study

1.2 Problem Statement

1.3 Significance of Study

1.4 Scope of Study

1.5 Research Objectives

1.1. Background of Study

Capital structure is the source of fund derived from a mixture of equity and debt used by firms to finance its operations and growth. The optimal capital structure contains the right debt and equity mix where company maximizes the firm value and minimizes its cost of capital.

Debt is a borrowing of fund from external source with the promise of returning the principal plus a pre-agreed interest rate. The benefits of debt financing include (1) shareholders is able to maintain their ownership and control of the company, (2) gain on business income tax deduction as business loan and interest payments on business loan is categorized as business expenses, and (3) a lower rate of payment on interest rate as compared to government taxes. On the other hand, one of the disadvantages

The contents of the thesis is for internal user only

REFERENCES

Ahn, S., Denis, D., & Denis, D. (2006). Leverage and investment in diversified firms. *Journal of Financial Economics, 79*, 317–337.

Akhtar, S. (2005). The determinants of capital structure for Australian multinational and domestic corporations. *Australian Journal of Management, 30*(2), 321-341.

Antoniou, A., Guney, Y., & Paudyal, K. (2006). The determinants of debt maturity structure: evidence from France, Germay and the UK. *European Financial Management, 12*, 161–194.

Atiyet, B. (2012). The pecking order theory and the static trade off theory: comparison of the alternative explanatory power in French firms. *Journal of Business Studies Quarterly, 4*(1), 1-14.

Bah, R., & Dumontier, P. (2001). R&D Intensity and Corporate Financial Policy: Some International Evidence. *Journal of Buiness Finance & Accounting, 28*(5&6), 671-692.

Barclay, M., & Smith, C. (1995). The maturity structure of corporate debt. *The Journal of Finance, L*(2), 609-632.

Barnea, A., Haugen, R., & Senbet, L. (1980). A rationale for debt maturity structure and call provisions in the agency theoretic framework. *Journal of Finance, 35*, 1223–1234.

Berger, A., Espinosa-vega, M., Frame, W., & Miller, N. (2005). Debt Maturity, Risk, and Asymmetric Information. *JOURNAL OF FINANCE, 60*(6), 2895-2923.

Bolton, P., & Scharfstein, D. (1990). A theory of predation based on agency problems in financial contracting. *American Economic Review, 80*(1), 93–106.

Booth, L., Aivazian, V., Demirguc-Kunt, A., & Maksimovic, A. (2001). Capital structures in developing countries. *Journal of Finance, 56*, 87–130.

Brick, I., & Ravid, S. (1985). On the relevance of debt maturity structure. *Journal of Finance, 40*, 1423-1437.

Brockman, P., Martin, X., & Unlu, E. (2010). Executive compensation and the maturity structure of corporate debt. *The Journal of Finance, 65*(3), 1123-1161.

Cai, K., Fairchild, R., & Guney, Y. (2008). Debt maturity structure of Chinese companies. *Pacific-Basin Finance Journal, 16*, 268–297.

Castanias, R. (1983). Bankruptcy risk and optimal capital structure. *Journal of Finance, 38*(5), 1617-1635.

Chittenden, F., Hall, G., & Hutchison, P. (1996). Small firm growth, access to capital markets and financial structure: Review of issues and an empirical investigation. *Small Business Economics, 8,* 59–67.

Deesomsak, R., Paudyal, K., & Pescetto, G. (2009). Debt maturity structure and the 1997 Asian financial crisis. *Journal of Multinational Financial Management, 19*, 26–42.

Demirguc-Kunt, A., & Maksimovic, V. (1998). Law, finance, and firm growth. *Journal of Finance, 53*(6), 2107-2137.

Demirguc-Kunt, A., & Maksimovic, V. (1999). Institutions, financial markets, and firm debt maturity. *Journal of Financial Economics, 54*, 295-336.

Dennis, S., Nandy, D., & Sharpe, I. (2000). The determinants of contract terms in bank revolving credit agreements. *Journal of Financial and Quantitative Analysis, 35*, 87-110.

Diamond, D. (1991). Debt maturity structure and liquidity risk. *Quarterly Journal of Economics, 106*, 709-737.

Diamond, D. (1993). Seniority and maturity of debt contracts. *Journal of Financial Economics, 33*, 341-368.

Doukas, J. (1995). Overinvestment, Tobin's q and gains from foreign acquisitions. *Journal of Banking & Finance*, *19*, 1285-1303.

Fan, J., Titman, S., & Twite, G. (2012). An international comparison of capital structure and debt maturity choices. *Journal of Financial and Quantitative Analysis*, *47*(1), 23–56.

Flannery, M. J. (1986). Asymmetric information and risky debt maturity choice. *Journal of Finance, 41,* 19-37.

Guedes, J., & Opler, T. (1996). The determinants of the maturity of corporate debt issues. *Journal of Finance, 51,* 1809-1833.

Hart, O., & Moore, J. (1994). A theory of debt based on the inalienability of human capital. *Quarterly Journal of Economics, 109,* 841–879.

Hart, O., & Moore, J. (1998). Default and renegotiation: A dynamic model of debt. *The Quarterly Journal of Economics, 113*(1), 1-42.

Hirshleifer, J. (1966). Investment decision under uncertainty: application of the state-preference approach. *Quarterly Journal of Economics, 80*(2), 252-277.

Hutchinson, R. (1995). The capital structure and investment decisions of the small owner-managed firms: some exploratory issues. *Small Business Economics, 7*, 231-239.

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review, 76*(2), 323–329.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Johnson, S. (2003). Debt maturity and the effects of growth opportunities, managerial discretion, and the security issue decision. *Review of Financial Studies, 16*, 209-236.

Jung, K., Kim, U., & Stulz, R. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics, 42*, 159–185.

Kale, J., Noe, T., & Ramirez, G. (1991). The Effect of Business Risk on Corporate Capital Structure: Theory and Evidence. *Journal of Finance, 46*(5), 1693-1715.

Kane, A., Marcus, A., & McDonald, R. (1985). Debt policy and the rate of return premium to leverage. *Journal of Financial and Quantitative Analysis, 20*(4), 479–499.

Kim, C., Mauer, D., & Stohs, M. (1995). Corporate debt maturity policy and investor tax-timing options: theory and evidence. *Financial Management, 24*, 33–45.

Kirch, G., & Terra, P. (2012). Determinants of corporate debt maturity in South America: Do institutional quality and financial development matter? *Journal of Corporate Finance, 18*, 980–993.

Kraus, A., & Litzenberger, R. (1973). A state-preference model of optimal financial leverage. *Journal of Finance, 28*(4), 911-922.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny., R. (1997). Legal determinants of external finance. *Journal of Finance, 52*, 1131–1150.

Lang, L., Ofek, E., & Stulz, R. (1996). Leverage, investmemt, and firm growth. *Journal of Financial Economics, 40*, 3-29.

Lemmon, M., & Lins, K. (2003). Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis. *The Journal of Finance, LVIII*(4), 1445-1468.

Lewis, C. (1990). A multiperiod theory of corporate financial policy under taxation. *Journal of Financial and Quantitative Analysis, 25*(01), 25–43.

Liew, P. (2007). Corporate governance reforms in Malaysia: the key leading players perspectives. *Corporate Governance: An Internationa lReview, 15,* 724–740.

McConnell, J., & Servaes, H. (1995). Equity ownership and the two faces of debt. *Journal of Financial Economics, 39*, 131-157.

Modigliani, F., & Miller, M. (1958). The cost of capital, corporation finance, and the theory of investment. *American Economic Review, 48*(3), 261-297.

Modigliani, F., & Miller, M. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review, 53*(3), 433-443.

Muniandy, B., & Ali, M. (2012). Development of financial reporting environment in Malaysia. *Research in Accounting Regulation, 24*, 115-125.

Myers, S. (1977). Determinants of corporate borrowing. *Journal of Financial Economics, 5*, 147-175.

Myers, S. (1984). The capital structure puzzle. *Journal of Finance, 39*(3), 574-592.

Myers, S., & Majluf, S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

Ozkan, A. (2000). An empirical analysis of corporate debt maturity structure. *European Financial Management, 6*(2), 197-212.

Pour, E., & Lasfer, M. (2013). Taxes, Governance, and Debt Maturity Structure. *Accademia Italiana di Economia Aziendale, AIDEA 2013 conference.* Lecce.

Rahman, M. A. (2011, June 15). An empirical study of the debt maturity structure of Malaysian firms. Sintok, Kedah Darul Aman, Malaysia: Universiti Utara Malaysia.

Rajan, R., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance, 50*, 1421–1460.

Scherr, F., & Hulburt, H. (2001). The debt maturity structure of small firms. *Financial Management*, 85-111.

Smith, C. (1977). Alternative methods for raising capital: Rights versus underwritten offerings. *Journal of Financial Economics, 5*(3), 273–307.

Smith, C., & Stulz, R. (1985). The determinants of firms' hedging policies. *Journal of Financial and Quantitative Analysis, 20*(04), 391–405.

Smith, C., & Warner, J. (1979). On financial contracting: An analysis of bond covenants. *Journal of Financial Economics, 7*, 117-161.

Smith, C., & Watts, R. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics*(32), 263-292.

Stephan, A., Talavera, O., & Tsapin, A. (2011). Corporate debt maturity choice in emerging financial markets. *The Quarterly Review of Economics and Finance, 51*, 141-151.

Stohs, M., & Mauer, D. (1996). The determinants of corporate debt maturity structure. *Journal of Business, 69*(3), 279-312.

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics, 26*, 3-27.

Sutedja, B., Yakob, N., & McGowan Jr., C. (2014). Relative valuation approach for valuing equity in Malaysia. In G. Gregoriou, & D. Lee, *Handbook of Asian Finance: REITs, Trading, and Fund Performance* (1 ed., Vol. 2, pp. 207–223). Oxford: Academic Press.

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *Journal of Finance, 43,* 1–19.