

**DEBT SECURITIES ISSUANCE IN MALAYSIA: TYPE OF SECURITY AND  
IMPACT ON EQUITY RETURNS, SYSTEMATIC AND TOTAL RISK**

**By**

**CHIN SZE KIM**

**Dissertation submitted to College of Business,  
Universiti Utara Malaysia,  
as a partial fulfillment of the requirements for the degree of  
Doctor of Business Administration**



**Kolej Perniagaan**  
(College of Business)  
**Universiti Utara Malaysia**

**PERAKUAN KERJA TESIS / DISERTASI**  
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa  
(We, the undersigned, certify that)

CHIN SZE KIM

calon untuk Ijazah  
(candidate for the degree of)

**DOKTOR PENTADBIRAN PERNIAGAAN (DBA)**

telah mengemukakan tesis / disertasi yang bertajuk:  
(has presented his/her thesis / dissertation of the following title):

**“DEBT SECURITIES ISSUANCE IN MALAYSIA: TYPE OF SECURITY AND IMPACT ON EQUITY  
RETURNS, SYSTEMATIC AND TOTAL RISK”**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.  
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada : **26 Mei 2010**

*That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:  
26 May 2010*

Pengerusi Viva  
(Chairman for Viva)

Prof. Dr. Rosli Mahmood

Tandatangan  
(Signature)

Pemeriksa Luar  
(External Examiner)

Prof. Dr. Obiyathulla Ismath Bacha

Tandatangan  
(Signature)

Pemeriksa Dalam  
(Internal Examiner)

Prof. Dr. Nor Hayati Ahmad

Tandatangan  
(Signature)

Tarikh: **26 May 2010**  
(Date)

Pelajar : Chin Sze Kim

(Name of Student)

Tajuk Tesis : Debt Securities Issuance in Malaysia: Type of Security and Impact on  
Equity Returns, Systematic and Total Risk

Program Pengajian : Doktor Pentadbiran Perniagaan (DBA)

Nama Penyelia/Penyelia-pen�elia : Prof. Dr. Nur Adiana Hiau Abdullah

(Name of Supervisor/Supervisors)



Tandatangan  
(Signature)

## ABSTRAK

Kajian ini meneliti hubungan antara ciri-ciri syarikat dengan tawaran sekuriti pinjaman dan mengkaji sama ada terdapat perbezaan antara syarikat yang menerbitkan sekuriti pinjaman kacukan dan bukan-kacukan. Seterusnya, kajian ini menyiasat kesan terbitan sekuriti pinjaman ke atas kelakuan pasaran ekuiti penerbit sekuriti pinjaman. Keputusan regresi menunjukkan wujud hubungan positif bagi saiz syarikat, manakala hubungan negatif bagi struktur pemilikan pengurusan dengan terbitan sekuriti pinjaman. Teknik regresi logit menunjukkan syarikat yang mempunyai keuntungan dan pemilikan pengurusan yang tinggi lebih cenderung menerbitkan sekuriti pinjaman bukan-kacukan daripada sekuriti pinjaman kacukan. Namun demikian, kajian ini mendapati tiada perbezaan ketara di antara penerbit sekuriti kacukan dan bukan-kacukan terhadap saiz syarikat, aset ketara dan peluang pertumbuhan. Keputusan kajian peristiwa secara umumnya menunjukkan syarikat yang menerbitkan sekuriti pinjaman mengalami peningkatan dalam pulangan syarikat tetapi penurunan dalam risiko sistematik manakala risiko keseluruhan tidak berubah. Sekuriti pinjaman kacukan mengalami penurunan dalam pulangan syarikat dan risiko sistematik tetapi peningkatan dalam risiko keseluruhan. Namun begitu, terbitan sekuriti pinjaman bukan-kacukan didapati tidak mempengaruhi kelakuan pasaran ekuiti. Implikasi daripada temuan kajian ini ialah syarikat yang mempunyai kedudukan kewangan yang kukuh perlu digalakkan untuk terlibat dalam sekuriti pinjaman kacukan. Seterusnya, penurunan risiko sistematik mampu mendorong terbitan sekuriti pinjaman agar kecairan pasaran dapat ditingkatkan. Akhir sekali, sekuriti pinjaman bukan-kacukan tidak sesuai digunakan sebagai isyarat pasaran kerana terbitan sekuriti ini tidak memberi kesan kepada kelakuan pasaran ekuiti.

## ABSTRACT

The study examines the association of company characteristics with debt securities offers and explores whether there is any significant difference between hybrid and non-hybrid debt securities issuers. In addition, the study investigates the impact of debt securities issuance on the equity market behaviour of the issuers. The regression result found a positive and significant association for company size but negative association for managerial ownership structure with debt securities issuance. Subsequently, using logistic regression techniques, the study revealed that companies with higher profitability and higher managerial ownership appear to favour non-hybrid debt securities to hybrid debt securities. Nonetheless, the study found no significant difference between hybrid and non-hybrid debt securities issuers in terms of company size, asset tangibility and growth opportunities. The event study results reveal that overall debt securities issuers experience increase in company return following the debt securities issuance and decrease in systematic risk while total risk remain unchanged. Hybrid debt securities experience significant fall in stock returns and systematic risk but an increase in total risk. Non-hybrid debt securities issues, however, are found to have no impact on equity market behaviour. Findings of the study imply the need to promote participation from financially strong companies in the hybrid debt securities segment. Further, the decline in systematic risk for debt securities issuing companies could motivate the issuance of debt securities and thus improve the market liquidity. Finally, non-hybrid debt securities are not appropriate to be used for market signal as no impact on market behaviour was found following the non-hybrid debt securities issuance.

## **ACKNOWLEDGEMENTS**

Special appreciation is extended to my supervisor, Professor Dr. Nur Adiana Hiau Abdullah, Director of Quality Management Centre, Universiti Utara Malaysia, for her professional guidance, great insights, valuable suggestions and constructive comments that led to the initiation and completion of this study.

I would also wish to acknowledge my sincere gratitude to Ms Carrie Cheah of Securities Commission of Malaysia, Encik Ikmal Azmi of Rating Agency of Malaysia and Mr Beh of OSK Investment Bank Bhd for their kind assistance rendered during the course of information searching in preparing and writing up this dissertation. A special appreciation is extended to the Malaysian Finance Association (MFA) for giving me the opportunity to present the first part of my dissertation and to get valuable feedback in the national conference. I am also particularly grateful to the MFA president, Professor Dr. Fauzias Mat Nor who has provided me with useful comments and suggestions to enhance the quality of this research.

Last, but not least, I would like to take this opportunity to thank my father, Mr. Chin Chow Shoot, my late mother, Mdm Yong Nget Fong, my brothers, Sze Yune and Sze Yuan, my sister, Sze Min, for their unconditional support and encouragement during the course of my doctoral studies. A heartfelt thank you to my husband, Oo Teik, and four wonderful children, Win Nie, Ai Lin, Kheng Young and Min Hui, for their love, understanding and endless patience at all times. To them, I dedicate this dissertation.

## TABLE OF CONTENTS

	page
<b>ABSTRAK</b>	ii
<b>ABSTRACT</b>	iii
<b>ACKNOWLEDGEMENTS</b>	iv
<b>TABLE OF CONTENTS</b>	v
<b>LIST OF TABLES</b>	ix
<b>LIST OF FIGURES</b>	xi
<b>LIST OF APPENDICES</b>	xii
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.1    Debt Securities .....	2
1.2    Debt Securities in Asian Markets .....	3
1.3    Debt Securities in Malaysia .....	7
1.4    Debt Securities Market Infrastructure in Malaysia .....	14
1.5    Non-hybrid versus Hybrid Debt Securities .....	16
1.6    Problem Statement .....	18
1.7    Research Questions .....	23
1.8    Research Objectives .....	25
1.9    Significance of Research .....	26
1.10   Organization of the Dissertation .....	29
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>31</b>
2.1    Debt Securities & Company Characteristics .....	32
2.1.1   Trade-off theory .....	32
2.1.2   Information asymmetry theory .....	34
2.1.3   Agency theory .....	37
2.2    Hybrid Securities as a Financing Choice .....	38
2.2.1   Risk-shifting (asset-substitution) theory .....	39
2.2.2   Backdoor equity-financing theory .....	41
2.3    Debt Securities & Company Market Behaviour .....	42
2.3.1   Signaling theory .....	43
2.4    Prior empirical studies on Debt Securities Offer and Company Characteristics .....	45

2.5	Prior empirical studies on Hybrid Debt Securities and Company Characteristics .....	51
2.6	Company Characteristics .....	52
2.6.1	Company size .....	54
2.6.2	Profitability .....	56
2.6.3	Asset tangibility .....	57
2.6.4	Growth opportunities .....	58
2.6.5	Managerial ownership .....	59
2.7	Prior empirical studies on Debt Securities Offer and Company Risks & Return .....	61
2.8	Prior empirical studies on Hybrid Debt Securities and Company Risks & Return.....	65
<b>CHAPTER 3 RESEARCH DESIGN &amp; METHODOLOGY</b>		<b>68</b>
3.1	Theoretical Framework .....	68
3.2	Hypotheses Development .....	72
3.2.1	Debt securities & company characteristics .....	73
3.2.1.1	Company size .....	73
3.2.1.2	Profitability .....	74
3.2.1.3	Asset tangibility .....	75
3.2.1.4	Growth opportunities .....	76
3.2.1.5	Managerial ownership .....	77
3.2.1.6	Hybrid vs non-hybrid debt securities .....	77
3.2.2	Debt securities & equity market behaviour .....	78
3.2.2.1	Impact of debt securities offer on company risks & return .....	79
3.2.2.2	Hybrid vs non-hybrid debt securities .....	80
3.3	Samples/Data Collection .....	80
3.4	Research Model for H1 to H6 (Research Area I) .....	85
3.4.1	Dependent variable .....	85
3.4.2	Independent variables .....	86
3.4.3	Research techniques .....	89
3.4.3.1	Multiple regression technique .....	90

3.4.3.2	Discriminant function analysis technique .....	91
3.4.3.3	Logistic regression technique .....	93
3.5	Research Models for H7 to H9 (Research Area II) .....	94
3.5.1	Estimation of company return .....	95
3.5.1.1	Market adjusted returns (MAR) .....	101
3.5.1.2	Analysis technique .....	102
3.5.2	Estimation of systematic risk.....	103
3.5.2.1	Issues in estimating systematic risk .....	105
3.5.2.2	Scholes-Williams technique .....	107
3.5.2.3	Analysis technique .....	108
3.5.3	Estimation of total risk .....	111
3.5.3.1	Analysis technique .....	112
<b>CHAPTER 4 RESULTS &amp; DISCUSSION</b>		<b>114</b>
4.1	Debt Securities and Company Characteristics .....	114
4.1.1	Descriptive statistics .....	115
4.1.2	Correlation analysis .....	116
4.1.3	Multicollinearity analysis .....	117
4.1.4	Multiple regression analysis .....	118
4.1.5	Hybrid vs non-hybrid debt securities .....	121
4.1.5.1	Discriminant function analysis .....	122
4.1.5.2	Logistic regression analysis .....	125
4.1.5.3	Comparison between discriminant function and logistic regression analysis .....	128
4.1.6	Analysis of results in comparison to theoretical underpinning .....	129
4.1.7	Analysis of results in comparison to previous studies .....	132
4.2	Findings for Company Equity Market Behaviour .....	134
4.2.1	Company return.....	134
4.2.1.1	Statistical results .....	135
4.2.1.2	Graphic presentation .....	143

4.2.2	Systematic risk .....	148
4.2.3	Total risk .....	153
4.2.4	Summary .....	156
4.2.5	Analysis of results in comparison to theoretical underpinning .....	161
4.2.6	Analysis of results in comparison to previous studies .....	163
4.3	Integration of Research Area I and II .....	166
<b>CHAPTER 5 CONCLUSION &amp; IMPLICATION</b>		<b>169</b>
5.1	Overall Conclusion .....	169
5.2	Implication of the Study .....	173
5.3	Limitation and Recommendation for Future Research .....	177
<b>LIST OF REFERENCES</b>		<b>180</b>
<b>APPENDICES</b>		<b>192</b>

## LIST OF TABLES

	page	
Table 1.1	Size and composition of East Asian local currency debt securities markets (in USD billions) .....	5
Table 1.2	Size and composition of East Asian local currency bond markets (% of GDP) .....	7
Table 1.3	New issue of debt securities (RM million) .....	9
Table 1.4	Funds raised in the capital market and banking system .....	10
Table 1.5	Total proposals of debt securities versus equity (2000-2007) ....	11
Table 1.6	New issues of debt securities by sector from 2005 to 2007 (in RM million) .....	11
Table 2.1	Past research works on company characteristics and capital structure (1995 – 2008) .....	50
Table 2.2	Company characteristics used in prior studies (1995 – 2008) ...	54
Table 2.3	Past research works on company return & risks .....	64
Table 3.1	Number of debt securities issues per year (2000 – 2007) .....	83
Table 3.2	Number of debt securities issues per industry (2000 – 2007) ...	84
Table 3.3	Summary of suspended days for the sample during the test period $t=-60$ to $t=+60$ .....	106
Table 4.1	Descriptive statistics of variables ( $N = 100$ ) .....	115
Table 4.2	Correlation matrix .....	116
Table 4.3	Multicollinearity test .....	118
Table 4.4	Model summary .....	119
Table 4.5	Standardized coefficients for model I & II .....	120
Table 4.6	Mean and median of variables for hybrid and non-hybrid sample .....	122

Table 4.7	Discriminant function analysis results .....	123
Table 4.8	Group structure and standardized canonical discriminant function coefficients .....	124
Table 4.9	Logistic regression analysis results .....	126
Table 4.10	Comparison of findings between DFA and LR.....	129
Table 4.11	Daily AAR surrounding the issue of debt securities for 100 observations .....	140
Table 4.12	Daily AAR surrounding the issue of hybrid debt securities (29 observations) .....	141
Table 4.13	Daily AAR surrounding the issue of non-hybrid debt securities (71 observations) .....	142
Table 4.14	t-test over different intervals of CAAR .....	147
Table 4.15	Systematic risk (observed beta) – comparison between parametric and non-parametric tests .....	150
Table 4.16	Systematic risk (S-W beta) – comparison between parametric and non-parametric tests .....	151
Table 4.17	Overall results for systematic risks (S-W beta) .....	153
Table 4.18	Total risk – comparison between parametric and non-parametric tests .....	154
Table 4.19	Overall results for total risks .....	156
Table 4.20	Summary of findings for research area I and II .....	166

## LIST OF FIGURES

	page	
Figure 2.1	Degree of information asymmetry .....	36
Figure 3.1	Theoretical Framework .....	71
Figure 3.2	Timeline for event windows .....	98
Figure 4.1	Graph for cumulative average abnormal return for all observation .....	143
Figure 4.2	Graph for cumulative average abnormal return for hybrid issuers .....	145
Figure 4.3	Graph for cumulative average abnormal return for non-hybrid issuers .....	146
Figure 4.4	The analytical path to the final conclusion of company return .....	159
Figure 4.5	The analytical path to the final conclusion of company risks ....	160

## LIST OF APPENDICES

	page
APPENDIX I      Objective & the selected strategic initiatives of Capital Market Masterplan .....	192
APPENDIX II      Guidelines on the offering of debt securities - principal terms and conditions .....	193
APPENDIX III      Listing requirements of debt securities .....	194

## **CHAPTER 1**

### **INTRODUCTION**

Raising external capital through security offerings is an important event in the financing decision of corporations. The use of different types of securities and their effects on company value varies from country to country due to differences in financial systems and institutional factors (Rajan & Zingales, 1995; De Haan & Hinloopen, 1999; Lee, Lee & Lee, 2000; Pandey, 2004; Isachenkova & Mickiewicz, 2004; Hovakimian, Hovakimian & Tehranian, 2004; Buferna, 2005; Guha & Kar, 2006; Abor, 2008). Generally, there are two main ways of obtaining external financing for corporations, i.e. by issuing equity or by incurring debts. Issuing equity or shares to the public is usually undertaken in the stock market while incurring debt is usually through direct bank borrowings or by issuing debt securities such as bonds, notes and commercial papers in the capital market.

Along with the analysis of bank loans and equity issues, the investigation of debt securities offerings to the public has been an interesting area of academic research in corporate finance as debt securities instruments are gradually becoming an important corporate financing alternative. The purpose of this dissertation is to analyze the effect of debt securities financing decisions of Malaysian corporations by specifically examining the contributing company characteristics to debt securities issuance decision and the spillover effect of debt securities issuance to equity market behaviour.

The contents of  
the thesis is for  
internal user  
only

## LIST OF REFERENCES

Abhyankar, A., & Dunning, A. (1999). Wealth effects of convertible bond and convertible preference share issues: An empirical analysis of the UK market. *Journal of Banking and Finance*, 23, 1043-1065.

Abor, J. (2008). Determinants of the capital structure of Ghanaian firms. African Economic Research Consortium, *AERC Research Paper 176*, Nairobi, March 2008.

Agrawal, M., Kishore, R., & Rao, H.R. (2006). Market reactions to e-business outsourcing announcements: An event study. *Information and Management*, 43, 861-873.

Aitken, M., & Segara, R. (2006). *The impact of warrant introductions on the behaviour of underlying securities: Australian evidence*. University of Sydney.

Akerlof, G. A. (1970). The market for "Lemon": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84(3), 488-500.

Allen, D.E. (1991). The determinants of the capital structure of listed Australian companies: The financial manager's perspective. *Australian Journal of Management*, 16(2), University of New South Wales.

Altman, E., Gande, A., & Saunders, A. (2004). Informational efficiency of loans versus bonds: Evidence from secondary market prices. *Journal of Financial Research*, 29(4), 481-501.

Ammann, M., Fehr, M., & Seiz, R. (2004). New evidence on the announcement effect of convertible and exchangeable bonds. *Journal of Multinational Financial Management*, 16(1), 43-63.

Asami, T., & Mori, J. (2001). *Regional cooperation in developing bond markets*. Paper presented at International Conference on "Regional Financial Markets & Centers". The Australian National University and the International Monetary Fund, November 15-16, 2001, Sydney.

Asia Development Bank. (2008, April), *Asia Bond Monitor*. Kuala Lumpur, Malaysia: Author.

Asia Development Bank. (2009). *Asia Bond Monitor*, first quarter 2009. Kuala Lumpur, Malaysia: Author.

Bancel, F., & Mittoo, U.R. (2004). Why European firms issue convertible debt? *European Financial Management*, 10(2), 339-373.

Bank for International Settlements (2007). *Financial stability and local currency bond markets*. CGFS papers no. 28.

Bank Negara Malaysia, annual reports 2005-2007.

Bank Negara Malayaia, monthly statistical bulletin extracted from [www.bnm.gov.my](http://www.bnm.gov.my).

Barakat, M. & Terry, R. (2008). *A re-evaluation of event-study methodology*. Working paper, Southwestern Finance Association Conference, US. March 6 & 7, 2008.

Barclay, M.J., & Smith, C. (2005). The capital structure puzzle: The evidence revisited. *Journal of Applied Corporate Finance*, 17(1), 8-18.

Barnes, M.L., & Ma, S. (2001). *Market efficiency or not? The behavior of China's stock prices in response to the announcement of bonus issues*. Discussion paper no. 0120. Adelaide University, Australia.

BARRA (1998). United States Equity Risk Model, Risk Model Handbook. BARRA Inc. 02/98.

Bartholdy, J., Olson, D., & Peare, P. (2006). *Conducting event studies on a small stock exchange*. Working paper F-2006-03, Department of Business Studies, Aarhus School of Business, Denmark.

Berger, A., & Humphrey, D. (1997). Efficiency of financial institutions: international survey and directions for future research. *European Journal of Operational Research*, 98, 175-212.

Berkovitch, E., Gesser, R., & Sarig, O. (2004). *Going public: Public debt or public equity?* The Rodney L. White Center for Financial Research. Working paper 31-04. The Wharton School, University of Pennsylvania.

Best, R., & Zhang, H. (1993). Alternative information sources and the information content of bank loans. *Journal of Finance*, 48, 1507-1522.

Booth, L., Aivazian, V., Kunt, A.D., & Maksimovic, V. (2001). Capital structures in developing countries. *Journal of Finance*, 55(1), 87-130.

Bradbury, M., & Lloyd, S. (1994). An estimate of the direct costs of bankruptcy in New Zealand. *Asia-Pacific Journal of Management*, 11, 103-111.

Bradley, M., Jarrell, G.A., & Kim, E.H. (1984). On the existence of an optimal capital structure: Theory and evidence. *Journal of Finance*, 39, 857-878.

Brennan, M., & Kraus, A. (1987). Efficient financing under asymmetric information. *Journal of Finance*, 42, 1225-1243.

Brennan, M., & Schwartz, E. (1988). The case for convertibles. *Journal of Applied Corporate Finance*, Summer, 55-64.

Brown, E. (1999). Long-run performance analysis of a new sample of UK IPOs. University of Edinburgh, August 1999.

Brown, S., & Warner, J. (1980). Measuring security price performance. *Journal of Financial Economics*, 8, 205-258.

Brown, S., & Warner, J. (1985). Using daily stock returns, the case of event studies. *Journal of Financial Economics*, 14, 3-31.

Buferna, F. (2005). *Determinants of capital structure: Evidence from Libya*. Research paper series no. 2005/08, University of Liverpool.

Cantillo, M., & Wright, J. (2000). How do firms choose their lenders? An empirical investigation. *Review of Financial Studies*, 13, 155-189.

Carlsson, P., Holm, O., & Sello, M. (2006). *Corporate hybrid capital – Expensive debt or cheap equity?* School of Business Economics and Law, Goteborg University.

Carroll, C., & Sears, R.S. (1994). Dividend announcements and changes in beta. *The Financial Review*, 29, 371-393.

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

Chaplinsky, S., & Hansen, R.S. (1993). Partial anticipation, the flow of information and the economic impact of corporate debt sales. *The Review of Financial Studies*, 6(3), 709-732.

Charitou, A., Vafeas, N., & Zachariades, C. (2005). Irrational investor response to stock splits in an emerging market. *International Journal of Accounting*, 40(2).

Chen, J. J. (2003). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, 57, 1341-1351.

Chen, C., Dong, L., & Wen, M.M. (2005). *Backdoor equity financing, firm characteristics, and shareholders' wealth*. Center for China Finance & Business Research.

Cheung, Y.L., & Chan, Y. (2002). Bond markets in the Pacific Rim: Development, market structure and relevant issues in fixed-income securities markets. *Asia-Pacific Development Journal*, 9(1).

Chung, K.H. (1993). Asset characteristics and corporate debt policy: An empirical

test. *Journal of Business Finance & Accounting*, 83-98.

Cohen, K.J., Hawawini, G.A., Maier, S.F., Schwartz, R.A., & Whitcomb, D.K. (1983). Fiction in the trading process and estimation of systematic risk. *Journal of Financial Economics*, 12, 263-278.

Collins, D., & Kothari, S. (1989). An analysis of the cross-sectional and intertemporal determinants of earnings response coefficients. *Journal of Accounting & Economics*, 11, 143-181.

Corrado, C.J., & Zivney, T.L. (1992). The specification and power of the sign test in event study hypothesis tests using daily stock returns. *Journal of Financial and Quantitative Analysis*, 27(3), 465-478.

Davidson, W., Glascock, J., & Schwartz, T. (1995). Signaling with convertible debt. *Journal of Financial & Quantitative Analysis*, 30(3), 425-440.

Davis, K. (2005). *The systematic risk of debt: Australian evidence*. Blackwell Publishing Ltd, University of Adelaide and Flinders University, 2005.

De Haan, L., & Hinloopen, J. (1999). *Debt or equity? An empirical study of security issues by Dutch companies*. De Nederlandsche Bank Staff Report No. 41, Amsterdam.

De Haan, L., & Hinloopen, J. (2002). Ordering the preference Hierarchies for internal finance, bank loans, bonds and share issues. *Tinbergen Institute Discussion Paper T1 2002-072/2*, the Netherlands.

De Jong, A., & Veld, C. (2001). An empirical analysis of incremental capital structure decisions under managerial entrenchment. *Journal of Banking and Finance*, 25, 1857-1895.

Denis, D.J., & Mihov, V.T. (2003). The choice among bank debt, non-bank private debt and public debt: Evidence from new corporate borrowings. *Journal of Financial Economics*, 70, 3-28.

De Roon, F., & Veld, C. (1998). Announcement effects of convertible bond loans and warrant-bond loans: An empirical analysis for the Dutch market. *Journal of Banking and Finance*, 22, 1481-1506.

Devic, A., & Krstic, M. (2001). Comparable analysis of the capital structure determinants in Polish and Hungarian enterprises – empirical study. *Economics and Organization*, 1(9), 85-100.

Dutordoir, M., & De Gucht, L.V. (2004). *Why do Western Europe firms issue convertibles instead of straight debt or equity?* Research workshop, Columbia University.

Eichengreen, B. (2004). *Why doesn't Asia have bigger bond markets?* NBER Working paper series.

Essig, S. (1991). *Convertible securities and capital structure determinants.* Unpublished PhD thesis, Graduate School of Business, University of Chicago, Chicago.

Fama, E. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, 25, 383-417.

Fama, E.F., & French (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics*, 49, 283-306.

Fama, E.F., & French, K.R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of Financial Studies*, 15, 1-33.

Faulkender, M., & Petersen, M. A. (2006). Does the source of capital affect capital structure? *Review of Financial Studies*, 19, 45-79.

Ferri, M.G., & Jones, W. H. (1979). Determinants of financial structure: A new methodological approach. *Journal of Finance*, 34(3), 631-44.

Fowler, D., & Rorke, C. (1983). Risk measurement when shares are subject to infrequent trading: Comment. *Journal of Financial Economics*, 17, 5-26.

Frank, M.Z., & Goyal, V.K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics*, 67.

Friend, I., & Hasbrouck, J. (1988). Determinants of capital structure, in Andy Chen ed.: *Research in Finance*, 7, (JAI Press Inc., New York), 1-19.

Friend, I., & Lang, L. (1988). An empirical test of the impact of managerial self-interest on corporate capital structure. *Journal of Finance*, 43, 271-281.

Gao, Y., & Tse, Y.K. (2003). *Market segmentation and information value of earnings announcements: Some empirical evidence from an event study on the Chinese stock market.* Unpublished working paper.

Gaud, P., Jani, E., Hoesli, M., & Bender, A. (2005). The capital structure of Swiss companies: An empirical analysis using dynamic panel data. *European Financial Management*, 11(1).

Gebhardt, W.R., Hvidkjaer, S., & Swaminathan, B. (2005). Stock and bond market interaction: Does momentum spillover? *Journal of Financial Economics*, 75(3).

Green, R. (1984). Investment incentives, debt and warrants. *Journal of Financial Economics*, 13, 115-136.

Guha, K. B., & Kar, S. (2006). The corporate debt market. *A firm-level panel study for India*. UNU-WIDER World Institute for Development Economics Research, Research paper no. 2006/50, United Nations University.

Hair, J. F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate Data Analysis* (6th ed.). New Jersey: Pearson Education International.

Hakansson, N. H. (1999). *The role of a corporate bond market in an economy – and in avoiding crises*. Research program in Finance working paper RPF-287, Institute of Business and Economic Research, University of California, Berkeley.

Hale, G., & Santos, J.A.C. (2006). *Evidence on the costs and benefits of bond IPOs*. Working paper 2006-42, Federal Reserve Bank of San Francisco.

Hall, G.C., Hutchinson, P.J., & Michaelas, N. (2004). Determinants of the capital structures of European SMEs. *Journal of Business Finance and Accounting*, 31(5/6), 711-728.

Harris, M., & Raviv, A. (1991). The theory of capital structure. *Journal of Finance*, 46(1), 297-355.

Healy, P.M., & Palepu, K.G. (1990). Earnings and risk changes surrounding primary stock offers. *Journal of Accounting Research*, 28, 25-48.

Henderson, B.J. (2005). *Convertible bonds: New issue performance and arbitrage opportunities*. PhD thesis (unpublished), University of Illinois.

Hijazi, S. T., & Tariq, Y. (2006). Determinants of capital structure. A case for the Pakistan cement industry. *The Lahore Journal of Economics*, 11(1), 63-80.

Hotchkiss, E.S., & Ronen, T. (2002). The informational efficiency of the corporate bond market: An intraday analysis. *Review of Financial Studies*, 15(5), 1325-1354.

Hovakimian, A., Hovakimian, G., & Tehranian, H. (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics*, 71, 517-40.

Hovakimian, A., Opler, T., & Titman, S. (2001). The debt equity choice. *Journal of Financial Quantitative Analysis*, 36, 1-24.

Ibrahim, M., & Wong, A. (2005). *The corporate bond market in Malaysia*. BIS Paper no. 26, February: 114-128.

Isachenkova, N., & Mickiewicz, T. (2004). *Ownership characteristics and access to finance. Evidence from a survey of large privatized companies in Hungary and Poland*. William Davidson Institute Working Paper No. 666, March 2004.

Jensen, M. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*, 76, 323-339.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and the ownership structure. *Journal of Financial Economics*, 3, 305-60.

Joher, H., Ali, M., & Nazrul (2006). The impact of ownership structure on corporate debt policy: Two stage least square simultaneous model approach for post crisis period: Evidence from Kuala Lumpur Stock Exchange. *International Business & Economics Research Journal*, 5(5).

Jones, E.A.E., & Danbolt, J. (2004). *Empirical evidence on the determinants of the stock market reaction to product and market diversification announcements*. European Business Management School, EBMS working paper EBMS/2004/4.

Jong, A. de Kabir, R., & Nguyen, T. T. (2006). *Capital structure around the world: The role of firm- and country-specific determinants*. Unpublished seminar paper, Department of Financial Management, RSM Erasmus University.

Jung, K., Kim, Y.C., & Stulz, R.M. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics*, 42, 157-185.

Jung, M., & Sullivan, M.J. (2008). The signaling effects associated with convertible debt design. *Journal of Business Research*, JBR-06712.

Kabir, R. (2003). *Corporate financing in the Netherlands: Some empirical evidence*. WP 03-32, project financed by the European Commission, DG Research.

Kang, J.K., Kim, Y.C., Park, K.J., & Stulz, R.M. (1995). An analysis of the wealth effects of Japanese offshore dollar-denominated convertible and warrant bond issues. *The Journal of Financial and Quantitative Analysis*, 30(2), 257-270.

Kapoor, A.K., & Pope, R.A. (1997). The relationship between corporate debt issuance and changes in systematic risk. *Journal of Financial & Strategic Decision*, 10(3).

Kim, C.S., Mauer, D.C., & Sherman, A.E. (1998). The determinants of corporate liquidity: Theory and evidence. *Journal of Financial and Quantitative Analysis*, 33, 335-359.

Kim Y.C., & Stulz, R.M. (1992). Is there a global market for convertible bonds? *Journal of Business*, 75-91.

Kish, R.J., & Miles, L. (1993). Market reactions to callable and noncallable debt issues. *Journal of Applied Business Research*, 9, 54-64.

Kleidt, B., & Schiereck, D. (2006). *Systematic risk changes around convertible debt offerings: A note on recent evidence*. Working paper no. 2-2006, European Business School, International University Schloss Reichhartshausen.

Kothari, S.P., & Warner, J.B. (2006). *Econometrics of event studies*. WP, Center for corporate governance, Dartmouth.

Krishnaswami, S., Spindt, P.A., & Subramaniam, V. (1999). Information asymmetry, monitoring and the placement structure of corporate debt. *Journal of Financial Economics*, 51, 407-434.

Lee, I., & Loughran, T. (1998). Performance following convertible bond issuance. *Journal of Corporate Finance*, 4, 185-207.

Lee, J-W, Lee, Y.S., & Lee, B-S (2000). The determination of corporate debt in Korea. *Asian Economic Journal*, 14(4), 333-356.

Leland, H.E., & Pyle, D.H. (1977). Information asymmetries, financial structure, and financial intermediation. *Journal of Finance*, 22, 371-388.

Lewis, C.M., Rogalski, R.J., & Seward, J.K. (1999). Is convertible debt a substitute for straight debt or for common equity? *Financial Management* 28, 5-27.

Lewis, C.M., Rogalski, R.J., & Seward, J.K. (2001). The long-run performance of firms that issue convertible debt: An empirical analysis of operating characteristics, analyst forecasts, and risk effects. *Journal of Corporate Finance*, 7(4), 447-474.

Lewis, C.M., Rogalski, R.J., & Seward, J.K. (2002). Risk changes around convertible debt offerings. *Journal of Corporate Finance*, 8, 67-80.

Lewis, C.M., Rogalski, R.J., & Seward, J.K. (2003). Industry conditions, growth opportunities and market reaction to convertible debt financing decisions. *Journal of Banking and Finance*, 27(1), 153-181.

Linn, S.C., & Pinegar, J.M. (1988). The effect of issuing preferred stock on common and preferred stockholder wealth. *Journal of Financial Economics*, 22, 155-184.

Luengnaruemitchai, P., & Ong, L.L. (2005). *An anatomy of corporate bond markets: growing pains and knowledge gains*. IMF WP/05/152.

MacKinlay, A.C. (1997). Event studies in economics and finance. *Journal of Economics*, 1, 303-335.

Malatesta, P., & Thompson, R. (1985). Partially anticipated events: A model of stock price reactions with an application to corporate acquisitions. *Journal of Financial Economics*, 14, 237-251.

Markowitz, H (1952). Portfolio selection. *Journal of Finance*, March 1952, 77-91.

Marsh, P. (1982). The choice between equity and debt: An empirical study. *Journal of Finance*, 37, 121-144.

Martel, M.C.V., & Padron, Y.G. (2006). Debt and information content: Evidence in the Spanish stock market. *International Research Journal of Finance & Economics*, 4.

Mase, B. (1999). The predictability of short-horizon stock returns. *European Finance Review*, 3(2), 161-173.

Masulis, R.W. (1983). The impact of capital structure change on firm value: Some estimates. *Journal of Finance*, 38, 107-126.

Mayers, D. (1998). Why firms issue convertible bonds: The matching of financial and real investment options. *Journal of Financial Economics*, 83-102.

Mayers, D. (2000). Convertible bonds: Matching financial and real options. *Journal of Applied Corporate Finance*, 13(1), 8-16.

Metha, R.D., & Kahn, A.Q. (1995). Convertible bond issues: Evidence from security markets. *Financial Review*, 30(4), 781-807.

Michaelas, N, Chittenden, F., & Poutziouris, P. (1999). Financial policy and capital structure choice in U.K. SMEs: empirical evidence from company panel data. *Small Business Economics*, 12, 113-130.

Mihov, V. T. (2000). *Pecking order in the sources of corporate borrowing: Evidence from new debt issues*. Unpublished doctoral thesis, Purdue University.

Miller, M., & Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, 40, 1031-1051.

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

Modigliani, M., & Miller, M. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review*, 53, 433-43.

Myers, S.C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 9, 147-175.

Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance*, 39, 575-592.

Myers, S., & Majluf, N. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, June, 187-222.

Narayanan, M.P. (1988). Debt versus equity under asymmetric information. *Journal of Financial and Quantitative Analysis*, 23, 39-51.

Navarrete, A. F. (2001). *The role of the corporate bond market in Mexico as a source of financing*. Paper presented at conference on Financial Markets in Mexico, Center for Research on Economic Development and Policy Reform, Stanford University, October 3-6, 2001.

Ng, M. (2007). *An overview of the domestic bond market*. OSK Securities Bhd. Continuing Professional Education, 6 January, 2007.

Noe, T., & Rebello (1996). Asymmetric information, managerial opportunism, financing, and payout policies. *Journal of Finance*, 51, 637-60.

Nur Adiana Hiau Abdullah (1999). *An empirical investigation of the effect of rights issue announcements on share returns and the determinants of abnormal returns on the Kuala Lumpur Stock Exchange*. Unpublished doctoral dissertation, Aston University.

Pandey, I.M. (2001). *Capital structure and the firm characteristics: Evidence from an emerging market*. Indian Institute of Management Ahmedabad, India.

Pandey, I.M. (2002). Capital structure and market power interaction: Evidence from Malaysia. *Capital Market Review*, 10(1), 23-40.

Pandey, I.M. (2004). Capital structure, profitability and market structure: Evidence from Malaysia. *Asia Pacific Journal of Economics & Business*, 8(2), 78-91.

Prasad, S.J., Green, C.J., & Murinde, V. (2001a). *Company financing, capital structure, and ownership: A survey, and implications for developing economies*. SUERF Studies No. 12, February.

Prasad, S.J., Green, C.J., & Murinde, V. (2001b). *Corporate financial structures in developing economies: Evidence from a comparative analysis of Thai and Malay corporations*. Finance and Development Research Programme Working Paper, No. 35, December.

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

Reilly, F.K., & Brown, K.C. (2009). *Investment analysis and portfolio management* (9th ed.). Thomson, South-Western, USA.

Ross, S.A. (1977). The determination of financial structure: The incentive-signaling approach. *Bell Journal of Economics*, 8, 23-40.

Scholes, M., & Williams, J. (1977). Estimating beta from non-synchronous data. *Journal of Financial Economics*, 5, 309-327.

Schramade, W. (2005). *Bond market entry and agency costs of equity*. RSM Erasmus University, The Netherlands.

Securities Commission of Malaysia (2001). *Capital Market Masterplan Malaysia: Objectives and strategic initiatives*. Executive summary, February, 2001: Author.

Securities Commission of Malaysia (2004). *Guidelines on the offering of private debt securities*. July 2004: Author.

Securities Commission of Malaysia, annual reports 2005-2007.

Sharma, K. (2000). *The underlying constraints on corporate bond market development in Southeast Asia*. DESA discussion paper no 14, Economic & Social Affairs, United Nations.

Shyam-Sunder, L., & Myers, S.C. (1999). Testing static tradeoff against pecking order models of capital structure. *Journal of Financial Economics*, 51, 219-244.

Smith, J., Clifford, W., & Warner, J.B. (1979). On financial contracting: an analysis of bond covenants. *Journal of Financial Economics*, 7(2), 117-161.

Soongswang, A. (2007). An investigation of tender offer effects on Thai target firms during the bid period. *International Research Journal of Finance & Economics*, 9, 88-104.

Stein, J. C. (1992). Convertible bonds as backdoor equity financing. *Journal of Financial Economics*, 32, 3-21.

Suchard, J-A., & Singh, M. (2006). The determinants of the hybrid security issuance decision for Australian firms. *Pacific-Basin Finance Journal*, 14, 269-290.

Titman, S., & Wessel, R. (1988). The determinants of capital structure choice. *Journal of Finance*, 43, 1-18.

Travlos, N., Trigeorgis, L., & Vafeas, N. (2001). Shareholder wealth effects of dividend policy changes in an emerging stock market. The case of Cyprus. *Multinational Finance Journal*, 5(2), 87-112.

Treptow, F. (2002). *Information arbitrage between individual stocks and corporate bonds: Evidence from co-movements in returns*.

Um, T. (2001). *Determination of capital structure and prediction of bankruptcy in Korea*. Unpublished PhD thesis. Cornell University.

Wald, J.K. (1999). How company characteristics affect capital structure: An international comparison. *Journal of Financial Research*, 22, 161-187.

Warner, J.B. (1977). Bankruptcy costs: Some evidence. *Journal of Finance*, 32, 337-347.

Wedig, G., Sloan, F.A., Assan, M., & Morrisey, M.A. (1988). Capital structure, ownership, and capital payment policy: The case of hospitals. *The Journal of Finance*, 43, 21-40.

Wiwattanakantang, Y. (1999). An empirical study on the determinants of the capital structure of Thai firms. *Pacific-Basin Finance Journal*, 7, 371-403.

Yosha, O. (1995). Information disclosure costs and the choice of financing source. *Journal of Financial Intermediation*, 4, 3-20.

Yu, I-W, Fung, L., & Tam C-S. (2007). *Assessing bond market integration in Asia*. Working paper 10/2007, Research department, Hong Kong Monetary Authority.