

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**MARKET TIMING AND CAPITAL STRUCTURE: MALAYSIAN
EVIDENCE**

TENGGU MUHAMMAD FARHAN BIN TENGGU MD YUSOFF



UUM
Universiti Utara Malaysia

**MASTER OF SCIENCE FINANCE
UNIVERSITI UTARA MALAYSIA
2017**

**MARKET TIMING AND CAPITAL STRUCTURE: MALAYSIAN
EVIDENCE**

By:

TENGGU MUHAMMAD FARHAN BIN TENGGU MD YUSOFF



UUM
Universiti Utara Malaysia

**Dissertation Submitted to
School of Economics, Finance and Banking
Universiti Utara Malaysia
In Partial Fulfillment of the Requirement for the Degree of Master of
Science (Finance)**



**Pusat Pengajian Ekonomi,
Kewangan dan Perbankan**

SCHOOL OF ECONOMICS, FINANCE, AND BANKING

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(Certification of Research Paper)

Saya, mengaku bertandatangan, memperakukan bahawa
(I, the undersigned, certified that)

TENGGU MUHAMMAD FARHAN BIN TENGGU MD. YUSOFF (821044)

Calon untuk Ijazah Sarjana
(Candidate for the degree of)

MASTER OF SCIENCE (FINANCE)

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

MARKET TIMING AND CAPITAL STRUCTURE: MALAYSIA EMPIRICAL EVIDENCE

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

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the dissertation).

Nama Penyelia : **Dr. Faizah Ismail**
(Name of Supervisor)

Tandatangan :
(Signature)

Tarikh : **21 Jun 2017**
(Date)

DECLARATION

I hereby declare that this project paper is based on my original work except for the citations and quotations that are used in this study. All of them have been duly acknowledged. I also declare that this project paper has not previously been submitted to any Master's program in Universiti Utara Malaysia and any other institutions.

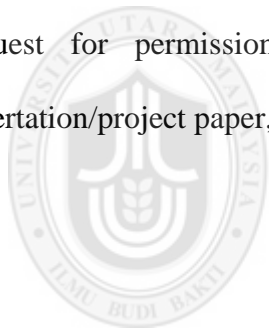


Tengku Muhammad Farhan Bin Tengku Md Yusoff
821044
School of Economics, Finance and Banking
Universiti Utara Malaysia
2017

PERMISSION TO USE

In presenting this dissertation/project paper in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library makes it freely available for inspection. I further agree that permission for copying of this dissertation/project paper in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor or, in her absence, by the Dean of School of Economics, Finance and Bankings. It is understood that any copying or publication or use of this dissertation/project paper or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my dissertation.

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



UUM
Universiti Utara Malaysia

Dean of School of Economics, Finance and Bankings

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

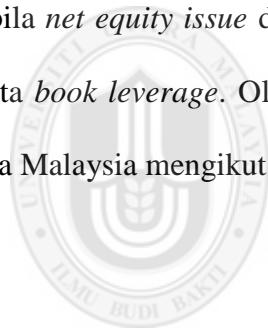
ABSTRACT

This paper is to examines whether the market-timing are found to be relevant in Malaysian firms financing decision. Limited studies have been conducted in the emerging or developing country such as Malaysia. Thus, this study have two objectives to be achieve in this study which are (1) to identify the determinants of the change in book leverage based the market-to-book, profitability, asset tangibility, and size, (2) to seek whether the financing decision in Malaysian firms were mostly made through net equity issues as implied by the market timing theory. In the descriptive analysis show one notable finding is when the mean of net equity issues increases at IPO+5 associated with decreasing mean of book leverage and market leverage. The determinants support most of the past studies in market timing. Thereby, this study found an indicator or sign that Malaysian firms follow the market timing behavior, yet not conclusive.

Keywords: Market timing, capital structure, market-to-book

ABSTRAK

Kajian ini adalah bertujuan untuk mengkaji sama ada *market timing theory* didapati relevan dalam pembiayaan firma di Malaysia. Kajian yang dijalankan di negara membangun adalah terhad seperti di Malaysia. Oleh itu, kajian ini mempunyai dua objektif untuk dicapai iaitu (1) untuk mengenal pasti penentu perubahan dalam *book leverage* berasaskan *market-to-book*, *profitability*, *asset tangibility* dan *firm size*, (2) untuk mencari sama ada pembiayaan di firma Malaysia kebanyakannya dibuat melalui *net equity issue* seperti yang dicadangkan oleh *market timing theory*. Penentu ini menyokong kebanyakan kajian masa lalu dalam *market timing*. Dalam analisis deskriptif menunjukkan satu penemuan yang ketara untuk *market timing theory* apabila *net equity issue* di IPO+5 meningkat yang berhubung kait dengan penurunan purata *book leverage*. Oleh itu, kajian ini mendapati penunjuk atau petanda bahawa firma Malaysia mengikut tingkah laku *market timing theory*, namun tidak konklusif.



Universiti Utara Malaysia

ACKNOWLEDGEMENT

الرد يم الرحمن الة ب سم

In the name of Allah, the Most Gracious and the Most Merciful

Alhamdulillah. All praise goes to Allah SWT for His kindness, mercy and blessing which has guided me to face all the trials and tribulations to complete this dissertation.

First and foremost, I would like to express my sincere gratitude and appreciation to my supportive, charismatic, and committed supervisor Dr. Faizah Ismail, for her constructive comments, encouragement and suggestions. Without her patience and guidance, I might not be able to complete this thesis.

Not to forget, to all my lecturers at Universiti Utara Malaysia who had taught me a lot, thank you very much. To all my classmates, especially Zainuddin Md Zaki, Fadli Othman, Munirah Baharuddin and Sufian Abdullah who had helped me a lot when I was in trouble and down. Thank you for all your support.

Finally, I also would like to express my dedication to my parents, Mr. Tengku Md. Yusoff Bin Mahmood and Mrs Zawiah Binti Md Noor, and all my family members, for their full moral and financial support for me to finish my study. I love everyone of you.

May Allah bless.

Sincerely,

Tengku Muhammad Farhan Bin Tengku Md Yusoff

TABLE OF CONTENTS

DECLARATION	
PERMISSION TO USE	
ABSTRACT	i
ABSTRAK	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER ONE: INTRODUCTION	
1.1 Introduction	1
1.2 Background of the study	1
1.3 Problem statement	2
1.4 Research question	4
1.5 Research objectives	4
1.6 Significance of the study	4
1.7 Scope of the study	4
1.8 Organization of the study	5
CHAPTER TWO: LITERATURE REVIEW	
2.1 Introduction	6
2.2 Overview of the capital structure theory and empirical evidence	6
2.3 The market timing theory of capital structure	10
2.4 Market timing evidence from developing and/or emerging markets	12
2.5 Determinants of market timing theory	13
2.5.1 Market-to-book ratio	13
2.5.2 Profitability	14
2.5.3 Asset tangibility	15
2.5.4 Firm size	15
2.6 Capital structure decision in Malaysia	16
2.7 Summary	17
CHAPTER THREE: RESEARCH DESIGN	
3.1 Introduction	18

3.2 Data collection and sample design	18
3.3 Theoretical framework and hypothesis developments	19
3.4 Chapter summary	21
CHAPTER FOUR: FINDINGS AND DISCUSSIONS	
4.1 Introduction	22
4.2 Descriptive analysis	22
4.2.1 Correlation analysis	24
4.3 Linear regression analysis	25
4.4 Findings and Discussions	28
4.5 Summary	29
CHAPTER FIVE: CONCLUSIONS	
5.1 Introduction	30
5.2 Descriptive analysis	30
5.3 Determinants of capital structure based on the market timing theory	31
5.4 Applicability of market timing behavior	32
5.5 General conclusion of the study	32
5.6 Limitations of the study	33
5.7 Recommendations for the future research	33
References	34

LIST OF TABLES

Table 4.1	Summary Statistics of Capital Structure and Financing Decision	23
Table 4.2	Correlation Matrix	24
Table 4.3	Determinants of Annual Changes in Leverages and Components	27



LIST OF FIGURE

Figure 3.1 Theoretical framework

20



CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Introduction

Capital structure is a firm's choice in managing its long-term financing in an attempt to maximize value. This capital structure involves the firm's financing choices comprising debt, short-term or long-term, equity, or combination. However, a firm needs to meet its appropriate strategy to finance its investment in order to expand its business, and at the same time avoiding the company from facing any financial distress that could lead to bankruptcy.

This chapter addresses and outlines the basis and plan of this study. This chapter is to provide the snapshot on the background of the study in Section 1.2, problem statement in Section 1.3, research questions in Section 1.4, research objectives in Section 1.5, significance of the study in Section 1.6 and Section 1.7 discusses the scope of the study. Finally Section 1.8 explains the organization of this dissertation.

1.2 Background of the study

Most of the studies on capital structure determinants are still inconclusive (see Titman & Wessels, 1988). These studies mostly tested the two traditional theories of pecking-order and trade-off. However, not many have test the market timing theory by Baker and Wurgler (2002) which made its debut later. Likewise, most Malaysian based studies also tend to test the two traditional theories and similar results have been reported (see Deesomsak *et al.* 2004 and Mahmood, 2007). This study attempts to move a step ahead in testing the market timing theory by Baker and Wurgler (2002) and seek the relevance of this recent theory in Malaysian firms. Thus far, limited

The contents of
the thesis is for
internal user
only

REFERENCES

- Alti, A. (2006). How persistent is the impact of market timing on capital structure?. *The Journal of Finance*, 61(4), 1681-1710.
- Alti, A., & Sulaeman, J. (2012). When do high stock returns trigger equity issues? *Journal of Financial Economics*, 103(1), 61-87.
- Arosa, C. M. V., Richie, N., & Schuhmann, P. W. (2014). The impact of culture on market timing in capital structure choices. *Research in International Business and Finance*, 31, 178-192.
- Baharuddin, N. S., Khamis, Z., Mahmood, W. M. W., & Dollah, H. (2011). Determinants of capital structure for listed construction companies in Malaysia. *Journal of Applied Finance and Banking*, 1(2), 115-132.
- Baker, M., & Wurgler, J. (2002). Market Timing and Capital Structure. *The Journal of Finance*, 57(1), 1-32.
- Bancel, F., & Mittoo, U. R. (2004). Cross-country determinants of capital structure choice: a survey of European firms. *Financial Management*, 103-132.
- Bastos, D. D., & Nakamura, W. T. (2009). Determinantes da estrutura de capital das companhias abertas no Brasil, México e Chile no período 2001-2006. *Revista Contabilidade & Finanças*, 20(50), 75-94.
- Booth, L., Aivazian, V., Demirguc-Kunt, A., & Maksimovic, V. (2001). Capital structures in developing countries. *The Journal of Finance*, 56(1), 87-130.
- Bougatef, K., & Chichti, J. (2010). Equity market timing and capital structure: Evidence from Tunisia and France. *International Journal of Business and Management*, 5(10), 1-15.
- Brendea, G. (2012). Testing the Impact of Market Timing on the Romanian Firms' Capital Structure. *Procedia Economics and Finance*, 3, 138-143.
- Cassar, G., & Holmes, S. (2003). Capital structure and financing of SMEs: Australian evidence. *Accounting & Finance*, 43(2), 123-147.

- Chen, D. H., Chen, C. D., Chen, J., & Huang, Y. F. (2013). Panel data analyses of the pecking order theory and the market timing theory of capital structure in Taiwan. *International Review of Economics & Finance*, 27, 1-13.
- Chen, A. H., & Kim, E. (1979). Theories of corporate debt policy: A synthesis. *The Journal of Finance*, 34(2), 371-384.
- Chen, L., & Zhao, X. (2006). On the relation between the market-to-book ratio, growth opportunity, and leverage ratio. *Finance Research Letters*, 3(4), 253-266.
- Claggett, E. T. (1991). Capital structure: convergent and pecking order evidence. *Review of Financial Economics*, 1(1), 35.
- De Bie, T., & De Haan, L. (2007). Market timing and capital structure: Evidence for Dutch firms. *De Economist*, 155(2), 183-206.
- De Jong, A., Kabir, R., & Nguyen, T. T. (2008). Capital structure around the world: The roles of firm-and country-specific determinants. *Journal of Banking & Finance*, 32(9), 1954-1969.
- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14(4-5), 387-405.
- Elliott, W. B., Koëter-Kant, J., & Warr, R. S. (2008). Market timing and the debt-equity choice. *Journal of Financial Intermediation*, 17(2), 175-197.
- Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of financial studies*, 15(1), 1-33.
- Fama, E. F., & French, K. R. (2005). Financing decisions: who issues stock? *Journal of Financial Economics*, 76(3), 549-582.
- Frank, M. Z., & Goyal, V. K. (2004). The effect of market conditions on capital structure adjustment. *Finance Research Letters*, 1(1), 47-55.
- Ghosh, A., Cai, F., & Li, W. (2000). The determinants of capital structure. *American Business Review*, 129-132.

- Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60(2), 187-243.
- Heinkel, R., & Zechner, J. (1990). The Role of Debt and Preferred Stock as a Solution to Adverse Investment Incentives. *Journal of Financial and Quantitative Analysis*, 25(01), 1-24.
- Hofstede, G. (2001). Culture's recent consequences: Using dimension scores in theory and research. *International Journal of Cross Cultural Management*, 1(1), 11-17.
- Hovakimian, A. (2006). Are observed capital structures determined by equity market timing? *Journal of Financial and Quantitative analysis*, 41(01), 221-243.
- 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(3), 517-540.
- Hovakimian, A., Opler, T., & Titman, S. (2001). The debt equity choice. *Journal of Financial and Quantitative Analysis*, 36, 1–24.
- Huang, R., & Ritter, J. R. (2005). Testing the market timing theory of capital structure. *Journal of Financial and Quantitative Analysis*, 1, 221-246.
- Hussin, F., & Ching, C. W. (2013). The contribution of economic sectors to economic growth: the cases of Malaysia and China. *International Journal of Academic Research in Economics and Management Sciences*, 2(2), 147.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jung, K., Kim, Y. C., & Stulz, R. (1996). Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics*, 42(2), 159-186.
- Kayhan, A., & Titman, S. (2007). Firms' histories and their capital structures. *Journal of Financial Economics*, 83(1), 1-32.

- Leland, H. E., & Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *The Journal of Finance*, 32(2), 371-387.
- Lemmon, M.L., Zender, J.F., 2004. Debt capacity and tests of capital structure theories. Working paper, University of Utah.
- Lerner, J. (1994). Venture capitalists and the decision to go public. *Journal of Financial Economics*, 35(3), 293-316.
- Lewis, C. M., & Tan, Y. (2016). Debt-equity choices, R&D investment and market timing. *Journal of Financial Economics*, 119(3), 599-610.
- Loughran, T., Ritter, J. R., & Rydqvist, K. (1994). Initial public offerings: International insights. *Pacific-Basin Finance Journal*, 2(2), 165-199.
- Mahajan, A., & Tartaroglu, S. (2008). Equity market timing and capital structure: International evidence. *Journal of Banking & Finance*, 32(5), 754-766.
- Mahmood, W. M. W., & Zakaria, R. (2007). Profitability and capital structure of the property and construction sectors in Malaysia. *Pacific Rim Property Research Journal*, 13(1), 92-105.
- Marsh, P. (1982). The choice between equity and debt: An empirical study. *The Journal of Finance*, 37(1), 121-144.
- Miller, M. H. (1977). Debt and taxes. *The Journal of Finance*, 32(2), 261-275.
- Modigliani, F., & Miller, M. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(3), 261-297.
- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American Economic Review*, 53(3), 433-443.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.
- Nor, F. M., Haron, R., Ibrahim, K., Ibrahim, I., & Alias, N. (2011). Determinants of target capital structure : Evidence on South East Asia countries, 6(3), 39–61.

- Pagano, M., Panetta, F., & Zingales, L. (1998). Why do companies go public? An empirical analysis. *The Journal of Finance*, 53(1), 27-64.
- Pandey, I. M., & Chotigeat, T. (2004). Theories of capital structure: Evidence from an emerging market. *Studies in Economics and Finance*, 22(2), 1-19.
- Rajan R, Zingales L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, 50, 1421–60.
- Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The Bell Journal of Economics*, 23-40.
- San, O. T., & Heng, T. B. (2011). Capital structure and corporate performance of Malaysian construction sector. *International Journal of Humanities and Social Science*, 1(2), 28-36.
- Stiglitz, J. (1969). A Re-Examination of the Modigliani-Miller Theorem. *The American Economic Review*, 59(5), 784-793.
- Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26(1), 3-27.
- Titman, S., & Wessels, R. (1988). The Determinants of capital structure choice. *Journal of Finance*, 43(1),1-19.
- Veen, R. (2016). *Capital structure changes of Amsterdam listed firms during the 2008 financial crisis: market-timing or trade-off behavior?* (Master's thesis, University of Twente).
- Welch, I. (2004). Capital Structure and Stock Returns. *Journal of Political Economy*, 112(1), 106–132.