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MARKET TIMING AND CAPITAL STRUCTURE: MALAYSIAN EVIDENCE

TENGKU MUHAMMAD FARHAN BIN TENGKU MD YUSOFF

Universiti Utara Malaysia

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MARKET TIMING AND CAPITAL STRUCTURE: MALAYSIAN EVIDENCE

By:

TENGKU MUHAMMAD FARHAN BIN TENGKU MD YUSOFF

Universiti Utara Malaysia

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Science (Finance)



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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

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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.

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Sincerely,

Tengku Muhammad Farhan Bin Tengku Md Yusoff

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Figure 3.1 Theoretical framework



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

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REFERENCES

- Alti, A. (2006). How persistent is the impact of market timing on capital structure?. *The Journal of Finance*, 61(4), 1681-1710.
- Altı, 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 Perferred 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.