THE CO-MOVEMENT OF THE MALAYSIAN STOCK RETURN

NAKESVARI A/P SHANMUGAM

MASTER OF SCIENCE (FINANCE)
UNIVERSITI UTARA MALAYSIA
JUNE 2011

The Co-Movement of the Malaysian Stock Return

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science (Finance) at the Graduate School of Management, Universiti Utara Malaysia

by

Nakesvari a/p Shanmugam

PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the university's library may make it freely available for inspection. I further agree that permission for copying of this thesis is any manner, in whole or in a part, for scholarly purposes may be granted by my supervisor or, in their absence, by the Dean of College of Business. It is understood that any copying or publications or use of this thesis or parts thereof 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 Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis. Request for permission to copy or to make use of materials in this thesis, in whole or in part, should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business,
Accounting Building,
Universiti Utara Malaysia,
06010 Sintok,
Kedah Darul Aman.

ABSTRAK

Kajian analisa tentang dasar dan pulangan saham yang merangkumi tahun 1999 hingga 2010 dengan menggunakan 389 sampel saham yang masih aktif tersenarai di Bursa Malaysia. Data dianalisis menggunakan regresi OLS yang terkumpul dan hasilnya menunjukkan bahawa semua pembolehubah selain kadar cukai efektif iaitu saiz, ROA, nilai sebenar terhadap nilai pasaran (BVMV), nilai inflasi dan kadar penyebaran signifikan pada tahap 1%. Namun begitu, nilai R^2 menunujukkan bahawa kadar kekuatan penjelasan terhadap model yang digunakan dalam kajian adalah sangat lemah.

Dengan ini, dapat disimpulkan bahawa semua pembolehubah yang telah dikenalpasti di atas dapat digunakan untuk menjangkakan pulangan saham di Malaysia kerana ia mampu menjelaskan pulangan saham. Dengan demikian, dapat dikatakan bahawa dasar unsur ini boleh digunakan sebagai alat untuk mrngukur tahap pengaruh mereka terhadap pulangan saham. Akhirnya, pelaburan di pasaran saham boleh menjadi bentuk pelaburan yang boleh dijangka jika pelabur mengetahui tentang apa yang mereka lakukan.

Katakunci: kadar pulangan saham, nilai sebenar terhadap harga pasaran, ROA, saiz, inflasi, kadar penyebarandancukai.

ABSTRACT

The study of the fundamental analysis and stock return covers the period from 1999 to 2010 with the sample of 389 Malaysian stocks that are actively traded in Bursa Malaysia. The data has been analysed using Pooled OLS regression and the results showed that all the variables namely size, ROA, book to market ratio (BVMV), inflation and spread are significant at 1% level except effective tax rate. However, the R^2 indicated that the explanation power of the models is very weak.

It can be concluded that all the variables that have been indentified above can be used to predict Malaysian stock return as they are able to explain the stock return. Thus, it tells that the fundamental factors can be used as an analytical tool to measure their influential level towards the stock returns. Finally, investing in the stock market could be a predictable form of investment if the investors know on what they are doing.

Keywords: Stock return, Book to Market value, ROA, Size, Inflation, Spread and Tax

DECLARATION

I hereby declare that this project paper is my original work expect for quotations and citations which have been duly acknowledged and that it has not been previously or concurrently submitted for any other degree at Universiti Utara Malaysia or other institutions.

………………………………..
NAKESVARI A/P SHANMUGAM

ACKNOWLEDGEMENTS

I would like to thank Dr.Nurwati Ashikkin Bt. Ahmad Zaluki and Mr. Puspakaran of College of Business (UUM Sintok) for their guidance and foresight that have enabled me to make this project paper a reality. Besides that, I would like to thank my friends namely Suthagar Pillai, Ramzi Tarazi, Zarina and Zulmi for their support throughout the completion of this thesis.

Lastly, I would like to thank everyone who has either directly or indirectly helped me to complete this project paper successfully.

TABLE OF CONTENTS

PERMISSION TO USE i
ABSTRAK ii
ABSTRACT iii
DECLARATION iv
ACKNOWLEDGEMENTS v
TABLE OF CONTENTS vi
LIST OF TABLES ix
LIST OF FIGURES ix

CHAPTER ONE: INTRODUCTION

1.0 Background of the Study 01
1.1 Overview of the Malaysian Market 03
1.2 Research Objective 05
1.3 Research Question 05
1.4 Significance of the Study 05
1.5 Format of the Study 06

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction 07
2.1 Related Empirical Studies 07
2.1.1 Stock return, BVMV and Size 07
2.1.2 ROA 10
2.1.3 Inflation 10
2.1.4 Spread 11
2.1.5 Tax 12
2.2 Conclusion 13

CHAPTER THREE: DATA AND METHODS

3.0 Introduction 20
3.1 Data Collection Method 20
3.2 Statistical Tests 21
3.3 Hypothesis 21
3.4 Theoretical Framework 22
3.4.1 Independent & Dependent Variables 25
3.4.1.1 Size 25
3.4.1.2 Book to Market ratio 25
3.4.1.3 Return on Asset 26
3.4.1.4 Effective Tax Rate 26
3.4.1.5 Spread 27
3.4.1.6 Inflation 27
3.4.1.7 Stock Return 27
3.5 Conclusion 28

CHAPTER FOUR: RESULTS

4.0 Introduction 29
4.1 The companies' description 29
4.2 Results of the Model 1 31
4.2.1 Descriptive Analysis of Financial Ratios 31
4.2.2 Correlation Analysis of Financial Ratios 32
4.2.3 Regression Analysis of Financial Ratios 32
4.3 Results of the Model 2 34
4.3.1 Descriptive Analysis of Macroeconomic variables 34
4.3.2 Correlation Analysis of Macroeconomic variables 35
4.3.3 Regression Analysis of Macroeconomic variables 36
4.4 Results of the Model 3 37
4.4.1 Descriptive Analysis of Model 1 & 2 37
4.4.2 Correlation Analysis Model 1 & 2 38
4.4.3 Regression Analysis Model 1 & 2 39
4.5 Conclusion 41

CHAPTER FIVE: CONCLUSIONS AND DISCUSSIONS

5.1 Introduction 43
5.2 Conclusions 43
5.3 Limitation & Recommendation 46

REFERENCES 47
APPENDICES 50

LIST OF FIGURES

Figure 2.1: Literature Matrix of Financial Ratios 15
Figure 2.2: Literature Matrix of Macroeconomic variables 17
Figure 3.1: Financial Ratios 22
Figure 3.2: Macroeconomic Variables 23
Figure 3.3: Combine of the Financial Ratios & Macroeconomic Variables 24

LIST OF TABLES

Table 4.1: The List of Companies by Sector 30
Table 4.2.1 : Descriptive Analysis of Financial Ratios 31
Table 4.2.2 : Correlation Analysis of Financial Ratios 32
Table 4.2.3: Regression Analysis of Financial Ratios 34
Table 4.2.3.1: Coefficients Analysis of Financial Ratios……………………………….....34
Table 4.3.1: Descriptive Analysis of Macroeconomic Variables 35
Table 4.3.2: Correlation Analysis of Macroeconomic Variables 35
Table 4.3.3: Regression Analysis of Macroeconomic Variables 36
Table 4.3.3.1: Coefficients Analysis of Macroeconomic Variables………………………..37
Table 4.4.1: Descriptive Analysis of Model 1 & 2 38
Table 4.4.2: Correlation Analysis of Model 1 & 2 39
Table 4.4.3: Regression Analysis of Model 1 & 2 40
Table 4.4.3.1: Coefficients Analysis of Model 1 & 2……………………………………...41

CHAPTER 1

INTRODUCTION

1.0 Background of the Study

The Capital Asset Pricing Model known as CAPM has been introduced by the Sharpe (1964) and Lintner (1965) to predict the risk and return relationship in evaluating the performance of the stocks. The major drawback of this model is due to it is solely depends on the beta in predicting the returns. Therefore, later studies done by Fama and French (1992, 1993) found that the beta has no explanatory power and the ratio of book-to-market value and firm size are the significant factors explaining cross-section mean returns. Thus, CAPM is being challenged since this model used risk index beta in measuring the returns.

Although there are voluminous researches have been undertaken relating to the cross-sectional behaviour of stock returns to the different variables in many developed countries but yet few studies describing the emerging markets including Malaysia. (e.g., Kürşat and Güner, 2000; Choudhury, 2003; Lee & Lee, 2008). Most of the listed names have just focused on each variable like Price-Earnings ratio, Price-to-Book ratio and Dividend Yield ratio at a particular time in influencing the return in their research. Thus, focusing on the interaction among these most important fundamental variables in investment strategy like return on asset, book-to-market value, leverage, price earning and size are less investigated and published.

Furthermore, there are theoretical implications to support that a connection between stock returns and macroeconomic variables exists, among them are Fama (1981), Nousheen et al. (2008), Sezgin et al.(2008) and who have said this. Thus, a replacement of imputation

The contents of the thesis is for internal user only

REFERENCES

Aydogan, K., & Gursoy, G. (2001). The P/E and price-to-book ratios as predictors of stock returns in emerging equity markets. Faculty of Business Administration Bilkent University.

Basu S. (1983). The relationship between earnings yield, market value, and return for NYSE Common Stocks: Further Evidence, *Journal of Financial Economics,* 12 (4), pp. 129-156.

Barber, Brad M., and John d. Lyon (1997). Firm size, book-to-market ratio, and security returns: A Holdout Sample of Financial Firms, *Journal of Finance 52, pp 875- 883.*

Campbell, J., and Ammer,J. (1993). What moves the stock and bond markets? A variance decomposition for long-term asset returns. *Journal of Finance, Vol. 48, No. 1 (Mar., 1993), pp. 3-37.*

Chan, C., Hamao, Y., Lakonishok, J., Louis, K., (1991). Fundamentals and stock returns in Japan, *Journal of Finance*, Vol. 46, No. 5, pp. 1739 – 1764.

Chen, N.F, Roll R. & Ross S.A (1986). *Economic forces and the stock market*. *Journal of Business,* Vol 59 (3), pp 383-403.

Chordia, T et al. (2005). An empirical analysis of stock and bond market liquidity. *Review of Financial Studies, Vol. 18, No. 1 (Spring, 2005), pp. 85-129*

Chris, B. Sotiris, T. & Stephen, L. (2000). The cyclical relations between traded property stock prices ad aggregate time –series. *Journal of Property Investment & Finance, Vol 18 (6), pp. 540-564.*

Collins, J., & Kemsley, D. (2000). Capital gains and dividend taxes in firm valuation: Evidence of triple taxation. *Accounting Review, Vol. 75, No. 4, pp. 405-427.*

Conine et al. (1989). On optimal production and the market-to book- ratio given limited shareholder diversification. *Journal of Management Science, Vol. 35, No. 8, pp. 1004-1013*

Fama, Eugene F., and French, (1992). The cross-section in expected stock returns, *Journal of Finance*, 47, pp. 427-466.

Girard et al. (2008). Risk and return in the next frontier .*Journal of Emerging Market Finance, vol. 7, pp. 43-80.*

J.Flannery, M.,& A.Protopapadakis A. (2002). Macroeconomic factors do influence aggregate stock returns. *Review of Financial Studies, Vol. 15, No. 3, pp. 751-782.*

Kolluri,B., and Wahab,M. (2007), Stock returns and expected inflation: evidence from an asymmetric test specification. *Review of Quantitative Finance and Accounting, vol. 30(4), pp. 371-395.*

Lam, K. (2002). The relationship between size, book-to-market equity ratio, earnings– price ratio, and return for the Hong Kong stock market. *Global Finance Journal, vol. 1, pp. 163–179.*

Lev, B & Thiagarajan,S.R.(1993). Fundamental Information Analysis. *Journal of Accounting Research, vol. 31, No. 2,pp. 190-215*

Manjunatha, T., and Mallikarjunappa, T. (2006). An empirical testing of risk factors in the returns on Indian capital market. *Decision 33, 93-110*.

Martini, Mulyono, & Khairurizka.(2009). The effect of financial ratios, firm size and cash flow from operating activities in the interim report to the stock return. *Chinese Business reviw, vol.8, serial No.72.*

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

Mnzava (2009). The significance of corporate tax as a determinant of systematic risk: Evidence using United Kingdom(UK) data. *KCA Journal of Business Management,Vol.2,issue 1.*

Patelis, A. (1997). Stock return predictability and the role of monetary policy. *Journal of Finance, Vol. 52, No. 5 , pp. 1951-1972.*

Paul Alagidede, (2009). Relationship between stock returns and inflation. *Journals of Applied Economics Letters, vol. 16(14), pp.1403-1408.*

Ramazan & Ugur (2005), Inflation, stock returns and real activity in Turkey. *Empirical Economics Letter, vol. 4(3), ISSN: 1681 8997.*

Schwert G.W. (1981). The adjustment of stock prices to information about inflation. Journal of Finance. Vol xxxvi, (1).

Sharpe, W, F**. (**1964). Capital Asset Prices: A theory of market equilibrium under conditions of risk. *Journal of Finance.*, pp. 425–42

Sialm, C. (2006). Tax Changes and Asset pricing: Cross-Sectional evidence. Retrieved May 2, from http://finance.wharton.upenn.edu/~rlwctr/Sialm.Paper.pdf

Tang, Gordon Y. N., and Wai (2004). The risk-return relations in the Singapore stock market. *Pacific-Basin Finance Journal*, pp. 179-195.

Xiao, M.L., & Huaiyu, D. (2010). Firm Characteristics, Stock Returns and Structural Change: A Panel Data Analysis of China's Investable Companies. Retrieved 17, from http://mba.nida.ac.th/asianfa2010/paper/358

Yee, Tat Kong (2006). Effect of size and book-to-market on stock return: evidence in Malaysia. *Unpublished master's thesis from Open University Malaysia.*