Universiti Utara Malaysia

MALAYSIAN PROPERTY AND CONSTRUCTION COMPANIES: DIVERSIFICATION POTENTIAL, STOCK PRICE BEHAVIOUR AND ITS RESPONSE TOWARDS MACROECONOMIC SHOCKS

NUR ATIQAH BINTI ABDULLAH

DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
August 2016

MALAYSIAN PROPERTY AND CONSTRUCTION COMPANIES:
DIVERSIFICATION POTENTIAL, STOCK PRICE BEHAVIOUR AND ITS
RESPONSE TOWARDS MACROECONOMIC SHOCKS

NUR ATIQAH BINTI ABDULLAH

Thesis submitted to
School of Economics, Finance and Banking
Universiti Utara Malaysia,
In Fulfillment of the Requirement for the Degree of Doctor of Philisophy

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)

NUR ATIQAH ABDULLAH

calon untuk Ijazah   **DOCTOR OF PHILOSOPHY**
(candidate for the degree of)

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

MALAYSIAN PROPERTY AND CONSRUCTION COMPANIES: DIVERSIFICATION POTENTIAL, STOCK PRICE BEHAVIOUR AND ITS RESPONSE TOWARDS MACROECONOMIC SHOCKS

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:
22 Mei 2016.
(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:
22 May 2016).

Pengerusi Viva *(Chairman for Viva)*	:	Prof. Dr. Abdul Razak Chik	Tandatangan *(Signature)*
Pemeriksa Luar *(External Examiner)*	:	Prof. Dr. Fauzias Mat Nor	Tandatangan *(Signature)*
Pemeriksa Dalam *(Internal Examiner)*	:	Assoc. Prof. Dr. Kamarun Nisham Taufil Mohd	Tandatangan *(Signature)*

Tarikh: **22 May 2016**
(Date)

Nama Pelajar *(Name of Student)*	:	**Nur Atiqah Abdullah**

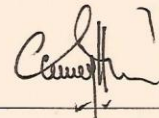|		
Tajuk Tesis / Disertasi *(Title of the Thesis / Dissertation)*	:	**Malaysian Property and Consruction Companies: Diversification Potential, Stock Price Behaviour and Its Response towards Macroeconomic Shocks**

Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy**
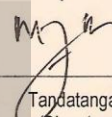
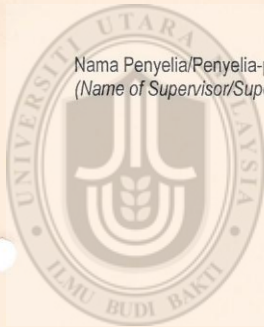|		
Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Prof. Dr. Nur Adiana Hiau Abdullah**

Tandatangan
(Signature)

Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Prof. Dr. Mohd Zaini Abd Karim**

Tandatangan
(Signature)

Universiti Utara Malaysia

PERMISSION TO USE

In presenting this thesis in fulfillment 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 thesis 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 thesis. It is understood that any copying or publication or use of this thesis or 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 thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

<div align="center">

Dean of School of Economics, Finance and Banking
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

</div>

ABSTRACT

This thesis investigates diversification benefits of investing in the property and construction stocks in Malaysia from 1995 to 2013 by using correlation analysis. Panel ARDL (autoregressive distributed lag) is used to examine the relationship between both sectors' stock prices and their fundamental variables (NAV (net asset value), EPS (earnings per share) and DPS (dividend per share)), where it involves panel cointegration and error correction mechanism (ECM). Another objective of this thesis is to discover the impact of macroeconomic shocks on both sectors' stock prices, which is investigated through the impulse response analysis and variance decomposition analysis. Annual data from twenty-eight listed property companies and sixteen listed construction companies are evaluated. Diversification benefits do exist between both sectors' stocks. EPS is a significant fundamental variable for explaining both sectors' stock price change while NAV is only significant in influencing property stock price changes. DPS is not relevant for both sectors. The ECM shows that both sectors' stock prices move back to equilibrium at a fairly similar speed. The impulse response functions results indicate that interest rate changes influence stock prices the most while trade openness shocks have slight effects on the stock prices. Variance decomposition analysis found that the percentage movement in the stock prices is highest when shocked by interest rate changes while trade openness changes do not influence the stock prices significantly. The impact on property stock prices is higher to economic shocks compared to the construction sector. The findings could aid investors in making sound decisions about their investment as it is proven that they could benefit from investing in both sectors. Investors could look into the fundamental variables which are useful in determining the stock prices movements. Policy makers should control the interest rate adjustments, determine the GDP growth rate, monitor the inflation rate and trade openness policies as shocks to these variables are proven to affect stock prices significantly.

Keywords: property sector, construction sector, diversification, fundamental variables, macroeconomic shocks

ABSTRAK

Tesis ini mengkaji manfaat kepelbagaian melabur dalam saham hartanah dan pembinaan di Malaysia dari tahun 1995-2013 dengan menggunakan analisis korelasi. Analisis panel ARDL (autoregresif lat teragih) digunakan untuk mengkaji hubungan di antara harga saham kedua-dua sektor dengan pemboleh ubah–pemboleh ubah asasnya (NAV (nilai aset bersih), EPS (perolehan per syer) dan DPS (dividen per syer)) di mana ia melibatkan kaedah kointegrasi panel dan anggaran pembetulan ralat (ECM). Satu lagi objektif tesis ini adalah untuk mencari kesan kejutan makroekonomi terhadap harga saham kedua-dua sektor yang disiasat melalui analisis tindakbalas impuls dan varians penguraian. Data tahunan daripada dua puluh lapan syarikat hartanah dan enam belas syarikat pembinaan yang tersenarai dalam Bursa Malaysia dinilai. Manfaat kepelbagaian ternyata wujud di antara saham kedua-dua sektor. EPS didapati merupakan pemboleh ubah asas yang penting bagi menerangkan perubahan harga saham kedua-dua sektor manakala NAV hanya penting dalam mempengaruhi perubahan harga saham sektor hartanah sahaja. DPS didapati tidak relevan untuk kedua-dua sektor. ECM menunjukkan bahawa harga saham kedua-dua sektor bergerak kepada keseimbangan pada kelajuan yang agak sama. Keputusan analisis tindakbalas impuls menunjukkan bahawa perubahan kadar faedah paling banyak mempengaruhi harga saham manakala kejutan keterbukaan perdagangan kurang memberi kesan pada harga saham. Analisis varians penguraian mendapati bahawa peratus perubahan dalam harga saham adalah paling tinggi apabila dikejutkan dengan perubahan kadar faedah manakala perubahan keterbukaan perdagangan tidak mempengaruhi harga saham. Kesan ke atas harga saham sektor hartanah adalah lebih tinggi apabila dikejutkan berbanding sektor pembinaan. Hasil kajian ini dapat membantu pelabur dalam membuat keputusan yang bernas kerana terbukti bahawa mereka boleh mendapat manfaat daripada pelaburan dalam kedua-dua sektor. Para pelabur boleh mengawasi pemboleh ubah-pemboleh ubah asas yang didapati berguna dalam menentukan pergerakan harga saham. Pihak kerajaan perlu mengawal pelarasan kadar faedah, menentukan kadar pertumbuhan KDNK (Keluaran Dalam Negara Kasar), memantau kadar inflasi dan dasar keterbukaan perdagangan kerana perubahan pada pemboleh ubah-pemboleh ubah ini terbukti memberi kesan kepada harga saham secara signifikan.

Kata kunci: sektor hartanah, sektor pembinaan, kepelbagaian, nilai-nilai asas, kejutan makroekonomi

Acknowledgements

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ETP	:	Economic Transformation Programme
GNI	:	Gross National Income
NKEA	:	National Key Economic Area
KL	:	Kuala Lumpur
KV	:	Klang Valley
GDP	:	Gross National Product
MRT	:	Mass Rapid Transit
PPP	:	Public-Private Partnership
US	:	United States of America
UK	:	United Kingdom
NAV	:	Net Asset Value
ARM	:	Adjustable Rate Mortgages
ECM	:	Error Correction Mechanism
DPS	:	Dividend per Share
EPS	:	Earnings per Share
ARDL	:	Autoregressive Distributed Lag
CPI	:	Consumer Price Index
SC	:	Securities Commission
BNM	:	Bank Negara Malaysia
CMSA	:	Capital Markets and Services Act 2007
BAFIA	:	Banking and Financial Institutions Act 1989
NPL	:	Non Performing Loan
LTV	:	Loan-To-Value
KLCI	:	Kuala Lumpur Composite Index
FTSE	:	Financial Times Stock Exchange
MESDAQ	:	Malaysian Exchange of Securities Dealing and Automated Quotation
ACE	:	Alternative Market of Bursa Malaysia Securities
REHDA	:	The Real Estate and Housing Developers' Association of Malaysia
INSPEN	:	The National Institute of Valuation
NAPIC	:	National Property Information Centre
FIC	:	Foreign Investment Committee
FDI	:	Foreign Direct Investments
OPR	:	Overnight Policy Rate
CIDB	:	Construction Industry Development Board

PIA	: Public Amenities Maintenance Projects
PIAS	: Basic Infrastructure Projects
EPF	: Employees Provident Fund
10MP	: Tenth Malaysian Plan
MPT	: Modern Portfolio Theory
EMH	: Efficient Markets Hypothesis
MHPI	: Malaysian Housing Price Index
REIT	: Real Estate Investment Trust
BRICS	: Brazil, Russia, India, China and South Africa
NYSE	: New York Stock Exchange
OU	: Ornstein Uhlenbeck Process
DDM	: Dividend Discount Model
RIM	: Residual Income Model
ROA	: Return on Assets
ROE	: Return on Equity
BVPS	: Book Value per Share
EVA	: Economic Value Added
GAAP	: Generally Accepted Accounting Principles
R&D	: Research and Development
P/E	: Price/earnings
P/CF	: Price/Cash Flow
P/BV	: Price/Book Value
P/S	: Price/Sales
CAPM	: Capital Asset Pricing Model
APT	: Arbitrage Pricing Model
FVM	: Fundamental Valuation Model
HPM	: Hedonic Price Model
VAR	: Vector Autoregressive Regression
ASEAN	: Association of Southeast Asian Nations
RM	: Ringgit Malaysia
USD	: US Dollar
EUR	: Euro Dollar
JPY	: Japanese Yen
AMEX	: American Stock Exchange
NASDAQ	: National Association of Securities Dealers Automated Quotations

S&P	: Standard and Poor's	
DJIA	: Dow Jones Industrial Average	
DR	: Debt Ratio	
NPM	: Net Profit Margin	
PBR	: Price-to-Book Ratio	
ETR	: Effective Tax Rate	
IBES	: Institutional Brokers' Estimate System	
CRSP	: The Centre for Research in Security Prices	
T-Bill	: Treasury Bill	
ROCE	: Return on Capital Employed	
PPI	: All-Property Price Index	
URA	: Urban Redevelopment Authority	
M1	: Measure of Physical Money Supply	
M2	: Measure of Money Supply that includes Cash, Checking Deposits and Near Money	
KLSE	: Kuala Lumpur Stock Exchange	
SES	: Stock Exchange of Singapore	
TSE	: Toronto Stock Exchange	
PMG	: Pooled Mean Group	
MG	: Mean Group	
LLC	: Levin-Lin-Chu	
ADF	: Augmented Dickey-Fuller	
SBC	: Schwartz Bayesian Criterion	
VMA	: Vector Moving Average	
IRF	: Impulse Response Function	
PP	: Phillips-Perron	
NOPAT	: Net Operating Profit after Taxes	

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Property companies listed on Bursa Malaysia mainly consist of three categories: namely, the property development companies, plantation holding companies and property investment companies. Most of the property companies listed on Bursa Malaysia are property development companies carrying out building development, which means that these companies are directly related to the construction sector. This study will focus only on property development companies as it is comparable to the construction sector, where the aim is to compare the price behaviors of these two sectors.

As at 31st October 2014, the property sector in Bursa Malaysia has eighty-six counters while in comparison, the construction sector consists of forty-four counters. Both sectors are also generally vulnerable to economic conditions. Prices for both sectors soar whenever the economy booms and dip during economic downturns. This can be seen from the movement of both indices. Thus, it can be said that both sectors complement each other in terms of contributing to the country's economic growth. According to the Malaysian Economy in Figures 2013, a report which was published on 30th December 2013 by the Economic Planning Unit of the Malaysian Prime Minister's Department, the construction sector turnover in year 2013 was valued at RM10.45billion with a volume of 5.84billion units while the turnover for the property sector was valued at RM14.87billion (volume of 12.40billion units). This shows that there is some

The contents of the thesis is for internal user only

REFERENCES

Abdullah, F., Chai, V.C., Anuar, K., & Tan, T.S. (2004). An overview on the growth and development of the Malaysian construction industry. *Workshop on Construction Contract Management, 2004,* Universiti Teknologi Malaysia.

Abdullah, H., Abu Bakar, N.A., & Hassan, S. (2005). Analysis of FDI inflows to China from selected ASEAN countries: a panel cointegration approach. *Working paper, College of Arts and Sciences, Universiti Utara Malaysia.*

Adams, A., & Venmore-Rowland, P. (1989), Property share valuation. *Journal of Valuation, 8* (4), 127-142.

Akyuz, Y. (2014). *Liberalization, financial instability and economic development (1ˢᵗ ed.).* London: Anthem Press.

Alam, M.M., & Uddin, M.G.S. (2009). Relationship between interest rate and stock price: Empirical evidence from developed and developing countries. *International Journal of Business and Management, 4*(3), 43-51.

Alajekwu, U.B., Ezeabasili, V.N., & Nzotta, S.M. (2013). Trade openness, stock market development and economic growth of Nigeria: Empirical evidence. *Research Journal of Finance and Accounting, 4*(3), 120-127.

Aslanidis, N., Osborn, D.R., & Sensier, M. (2010). Co-movements between U.S. and U.K. stock prices: The role of time-varying conditional correlations. *International Journal of Finance & Economics, 15*(4), 366-380.

Bahmani-Oskooee, M. (2001). How stable is M2 money demand functions in Japan? *Japan and the World Economy, 13*(4), 455-461.

Bahmani-Oskooee, M., & Nasir, A.B.M. (2004). ARDL approach to test the productivity bias hypothesis. *Review of Development Economics, 8*(3),483-488.

Bai, Z. (2014). Study on the impact of inflation on the stock market in China. *International Journal of Business and Social Science, 5*(7(1)), 261-271.

Baillie, R.T., Booth, G.G., Tse, Y., & Zabotina, T. (2002). Price discovery and common factor models. *Journal of Financial Markets, 5*, 309-321.

Bali, T.G., Demirtas, K.O., & Levy, H. (2008). Nonlinear mean reversion in stock prices. *Journal of Banking and Finance, 32* (5), 767-782.

Ball, M., Farshchi, M., & Grili, M. (2000). Competition and the persistence of profits in the UK construction industry. *Construction and Management Economics, Taylor Francis Journals, 18* (7), 733-745.

Baltagi, B.H. (1998). Panel data methods. *Handbook of Applied Economics Statistic,* 291-323.

Balvers, R., Wu, Y., & Gilliland, E. (2000). Mean reversion across national stock markets and parametric contrarian investment strategies. *The Journal of Finance, 55*(2), 745-772.

Banerjee, A., Dolado, J.,& Mestre, R. (1998). Error-correction mechanism tests for cointegration in a single equation framework. *Journal of Time Series Analysis, 19,* 267-283.

Bank Negara Malaysia. (2009). *Statutory Requirements 2009.* Retrieved from: http://www.bnm.gov.my/files/publication/ar/en/2009/ar2009_book.pdf

Bank Negara Malaysia. (2013). *Financial Stability and Payment Systems Report 2013.*

Retrievedfrom:http://www.bnm.gov.my/files/publication/fsps/en/2013/fs2013_book.pdf

Bank Negara Malaysia. (2013). *2nd Quarter 2013 Economic Report.* Retrieved from: http://www.bnm.gov.my/files/publication/qb/2013/Q2/p00.pdf

Bank Negara Malaysia. (2013). *4th Quarter 2013 Economic Report.* Retrieved from: http://www.bnm.gov.my/files/publication/qb/2013/Q4/4Q2013_fullbook_en.pdf

Bank Negara Malaysia. (2014). *Annual Report 2013.* Retrieved from: http://www.bnm.gov.my/files/publication/ar/en/2013/ar2013_book.pdf

Bank Negara Malaysia. (2014). *Monthly Statistical Bulletin January 2014.* Retrieved from:http://www.bnm.gov.my/files/publication/msb/announcement/MSB_annou ncement_Jan2014.pdf

Bardhan, A., Edelstein, R., & Tsang, D. (2008). Global financial integration and real estate security returns. *Real Estate Economics, 36*(2), 285-311.

Barker, R.G. (1999). Survey and market-based evidence of industry-dependence in analysts' preferences between the dividend yield and price-earnings ratio valuation models. *Journal of Business Finance and Accounting, 26* (3-4), 393-418.

Barkham, R., & Geltner, D. (1995). Price discovery in American and British property markets. *Real Estate Economics, 23* (1), 21-44.

Basu, P., & Morey, M.R. (2005). Trade opening and the behavior of emerging stock market prices. *Journal of Economic Integration, 20,* 68-92.

Beine, M., & Candelon, B. (2011). Liberalisation and stock market co-movement between emerging economies. *Quantitative Finance, 11*(2), 299-312.

Bernanke, B.S., & Kuttner, K.N. (2005). What explains the stock market's reaction to Federal Reserve policy? *The Journal of Finance, 60* (3), 1221-1257

Bernanke, B.S., & Mihov, I. (1995). Measuring monetary policy. *Quarterly Journal of Economics, 113* (3), 869-902.

Binici, M., Cheung, Y.W., & Kon, S.L. (2012). Trade openness, market competition and inflation: some sectoral evidence from OECD countries. *International Journal of Finance and Economics, 17*(4), 321-336.

Bodie, Z., Kane, A., & Marcus, A. (2013). *Investments* (10th ed.). New York: McGraw Hill/Irwin.

Boyd, J.H., Hu, J., & Jagannathan, R. (2005). The stock market's reaction to unemployment news: why bad news is usually good for stocks. *Journal of Finance, 60*(2), 649-672.

Brooks, C., & Tsolascos, S. (1999). The impact of economic and financial factors on UK property performance. *Journal of Property Research, 16* (2), 139-152.

Brounen, D., & Laak, M.T. (2005). Understanding the discount: evidence from European property shares. *Journal of Real Estate Portfolio Management, 11* (3), 241-251.

Brown, K.C., & Reilly, F.K. (2011). *Analysis of investments and management of portfolios* (10th ed.). Canada: South-Western Cengage Learning.

Brown, R.L., Durbin, J., & Evans, J.M. (1975). Techniques for testing the constancy of regression relations over time. *Journal of the Royal Statistical Society, 37,* 149-192.

Burdekin, R.C.K., Denzau, A.T., Keil, M.W., Sitthiyot, T., & Willett, T.D. (2004). When does inflation hurt economic growth? Different nonlinearities from different economies. *Journal of Macroeconomics, 26*(3), 519-532.

Campbell, J.Y., & Shiller, R.J. (1988). Stock prices, earnings, and expected dividends. *The Journal of Finance, 43* (3), 661-676.

Cecchetti, S.G., Lam, P.S., & Mark, N.C. (1990). Mean reversion in equilibrium asset prices. *The American Economic Review, 80* (3), 398-418.

Chan, K.T., Yap, V.C., & Nur, Q.A. (2012). Stock performance of the property sector in Malaysia. *Journal of Modern Accounting and Auditing, 8*(20), 241-246.

Chan, S.G., Karim, M.Z.A. (2005). Stock price integration in the Malaysian stock market. *Thammasat Economic Journal, 23* (3), 123-144.
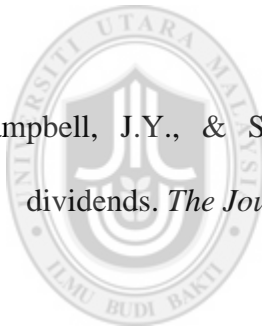
Chang, H.L., Chen, Y.S., Su, C.W, & Chang Y.W. (2008). The relationship between stock price and EPS: Evidence based on Taiwan panel data. Economic Bulletin, 13, (30), 111-112

Chau, K.W., MacGregor, B.D., & Schwann, G.M. (1997). Price discovery in the Hong Kong real estate market. *The Royal Insitution of Chartered Surveyors.* ISBN 0-85406-864-3.

Chauduri, K. (2003). Mean reversion in stock prices: evidence from emerging markets. *Managerial Finance, 29* (10), 22-37.

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

Chen, S.L., & Kim, H. (2011). Nonlinear mean reversion across national stock markets: Evidence from emerging Asian markets. *International Economic Journal, 25*(2), 239-250.

Chiang, R., Liu, P., & Okunev, J. (1995). Modeling mean reversion of asset prices towards their fundamental variables. *Journal of Banking and Finance, 19* (8), 1327-1340.
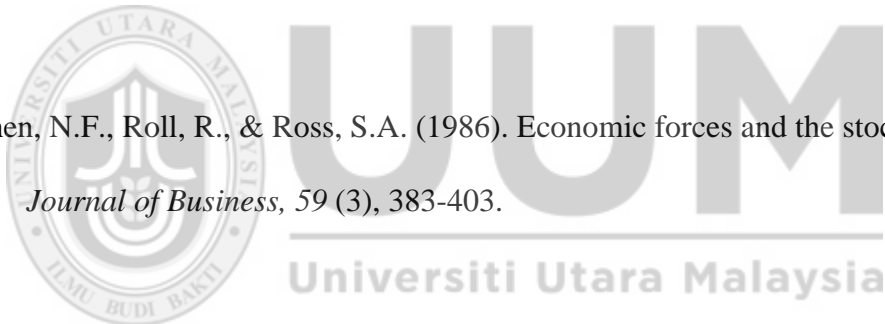
Chowdhury, K. (2012).   Modeling the dynamics, structural breaks and the determinants of the real exchange rate of Australia. *Journal of International Financial Markets, 22*(2), 343-358.

Clapp, J.M., & Giacotto, C. (1992). Estimating price indices for residential property: a comparison of repeat sales and assessed value methods; *Journal of American Statistical Association, 87* (418), 300-306.

Constantinides, G.M. (1989). Theory of valuation: overview and recent developments. *Theory of Valuation: Frontiers of Modern Financial Theory*, *Volume 1*, Totowa, N.J.: Rowman and Littlefield.

Corgel, J.B., McIntosh, W., Ott, S.H. (1995). Real Estate Investment Trusts: A review of the financial economics literature. *Journal of Real Estate Literature, 3*(1), 13-43.

Culik, M., & Valecky, J. (2010). Application of the linear and non-linear M-R models at electricity time-series at deregulated markets, *Working paper, 5ᵗʰ International Conference on Control and Modeling Financial Risk,* Ostrawa Technical University.

Cutler, D.M., Poterba, J.M., & Summers, L.H. (1989). What moves stock prices*? Journal of Portfolio Management, 15* (3), 4-12.

Damodaran, A. (2006). *Damodaran on Valuation-Security Analysis for Investment and Corporate Finance*, (2nd ed.). New Jersey: John Wiley & Sons.

De Bondt, W.F.M., & Thaler, R. (1985). Does the stock market overreact? *The Journal of Finance, 40* (3), 793-805.

De Jong, F. (2002). Measures of contributions to price discovery: a comparison. *Journal of Financial Markets, 5*, 323-327.

Demirakos, E.G., Strong, N.C. & Walker, M. (2004). What valuation models do analysts use? *Accounting Horizons, 18* (4), 221-240.

Department of Statistics Malaysia. (2014). *Quarterly Construction Statistics, Third Quarter2014*.Retrievedfrom:https://www.statistics.gov.my/index.php?r=column/ctwoByCat&parent_id=76&menu_id=OEY5SWtFSVVFVUpmUXEyaHppMVhEdz09#

Department of Statistics Malaysia. (2015). *National Accounts -Time Series Data.* Retrievedfrom:https://www.statistics.gov.my/dosm/uploads/files/3_Time%20Series/Malaysia_Time_Series_2015/01Akaun_Negara.pdf

Department of Statistics Malaysia. (2015). *Employment Time Series Data.* Retrieved from:https://www.statistics.gov.my/dosm/uploads/files/3_Time%20Series/Malaysia_Time_Series_2015/21Guna_Tenaga.pdf

Dhakal, D., Kandil, M., & Sharma, S.C. (1993). Causality between the money supply and share prices: A VAR investigation. *Quarterly Journal of Business and Economics, 32*(3), 52-74.

Ding, D.K., Harris, F.H.D., Lau, S.T., & McInish, T.H. (1999). An investigation of price discovery in internationally-linked markets: equity trading in Malaysia and Singapore. *Journal of Multinational Financial Management, 9*, 317-329.

Domian, D.L., Louton, D.A., & Racine, M.D. (2007). Diversification in portfolios of individual stocks: 100 stocks are not enough. *Financial Review, 42*(4), 557-570.

Draper, D.W., & Findlay, M.C. (1982). Capital asset pricing and real estate valuation. *Real Estate Economics, 10* (2), 152-183.

Easley, D., & O'Hara, M. (1987). Price, trade size and information in securities markets. *Journal of Financial Economics, 19* (1), 69-90.

Economic Planning Unit Malaysia. (2013). *The Malaysian Economy in Figures 2013*. Retrieved from: http://www.epu.gov.my/documents/10124/2257e64f-b08d-41b7-bed0-b6e6498c38a3

Elton, J. E., & Gruber, M.J. (1997). Modern portfolio theory, 1950 to date. *Journal of Banking & Finance, 20* (11-12), 1743-1759.

Elton, J.E., Gruber, M.J., & Padberg, M.W. (1976). Simple criteria for optimal portfolio selection. *The Journal of Finance, 31* (5), 1341-1357.

Enders, W. (2010). *Applied Econometric Time Series (3ʳᵈ ed.).* New Jersey: John Wiley & Sons.

Engle, R.F., & Granger, C.W.J. (1987). Cointegration and error correction: representation, estimation, and testing. *Econometrica, 55* (2), 251-276.

Fabozzi, F.J., Gupta, F., and Markowitz, H.M. (2002). The legacy of modern portfolio theory. *The Journal of Investing, 11* (3), 7-22.

Fama, E.F. (1969). Efficient capital markets: a review of theory and empirical work. *The Journal of Finance, 25* (2), 383-417.

Fama, E.F. (1991). Efficient capital markets II. *Journal of Finance, 46* (5), 1575-1617.

Fama, E.F., & French, K.R. (1988a). Permanent and Temporary Components of Stock Prices. *The Journal of Political Economy, 96* (2), 246-273.

Fama, E.F., & French, K.R. (1988b). Dividend yields and expected stock returns. *Journal of Financial Economics, 22*, 3-25.

209

Fernandez, P. (2007). A more realistic valuation: APV and WACC with constant book leverage ratio, *Journal of Applied Finance, 17* (2), 13-20.

Fernandez, P. (2007). Company valuation methods. The most common errors in valuation. *IESE Working Paper No. 449,* IESE Business School, Madrid, Spain.

Filis, G. (2009). The relationship between stock market, CPI and industrial production in Greece and the impact of oil prices: Are any new findings emerging from the examination of their cyclical components using recent data? *International Conference on Applied Econometrics*, 163-176.

Glezakos, M., & Mylonakis, J. (2012). The impact of accounting information on stock prices: Evidence from the Athens Stock Exchange. *International Journal of Economics and Finance, 4*(2), 56-68.

Gonzalo, J., & Granger, C.W.J. (1995). Estimation of common long-memory components in cointegrated systems. *Journal of Business and Economic Statistics, 13* (1), 27-35.

Goswami, G., & Jung, S.C. (1997). Stock market and economic forces: Evidence from Korea. *Working Paper, Graduate School of Fordham University*.

Graham, M., Kiviaho, J., & Nikkinen, J. (2012). Integration of 22 emerging stock markets: A three-dimensional analysis. *Global Finance Journal, 23*(1), 34-47.

Granger, C.W.J. (1981). Some properties of time series data and their use in econometric model specification. *Journal of Econometrics, 16 (1),* 121-130.

Granger, C.W.J., & Weiss, A.A. (1983). *Time series analysis of error correcting models. Studies in Econometrics, Time Series and Multivariate Statistics*. New York: Academic Press, 255-278.

Grimes, A. (1991). The effects of inflation on growth: Some international evidence. *MPRA Paper No.68526, Weltwirtschaftliches Archiv, 127*(4), 631-644.

Guirguis, H., & Schmidt, M.B. (2005). Output variability and money-output relationship. *International Journal of Business and Economics, 4* (1), 53-66.

Gujerati, D.N. (2003), *Basic Econometrics. 4th Ed*. New York: McGraw-Hill.

Gunasekarage, A., Pisedtasalasai, A., & Power, D. (2005). Macroeconomic influence on the stock market: Evidence from an emerging market in South Asia. *Journal of Emerging Market Finance, 3*(3), 285-304.

Gylfason, T., & Herbertsson, T.T. (2001). Does inflation matter for growth? *Japan and the World Economy, 13*, 405-428.

Habibullah, M.S., & Baharumshah, A.Z. (1996). Money, output and stock prices in Malaysia: an application of the cointegration tests. *International Economic Journal, 10* (2), 121-130.

Hansen, B.E. (1992). Tests for parameter instability in regressors with I(1) processes. *Journal of Business and Economic Statistics, 10*(3), 321-335.

Hardouvelis, G.A. (1987). Macroeconomic information and stock prices. *Journal of Economics and Business, 39*, 131-140.

Harris, F.H.D., McInish, T.H., Shoesmith, G.L., & Wood, R.A. (1995). Cointegration, error correction, and price discovery on informationally linked security markets. *Journal of Financial and Quantitative Analysis, 30* (4), 563-579.

Hasbrouck, J. (1995). One security, many markets: determining the contributions to price discovery. *The Journal of Finance, 50* (4), 1175-1199.

Hasbrouck, J. (2002). Stalking the "efficient price" in market microstructure specifications: an overview. *Journal of Financial Markets, 2,* 329-339.

Hausman, J. (1978). Specification tests in Econometrics. *Econometrica, 46*(6), 1251-1271.

He, L.T. (1997). Price discovery in the Hong Kong security markets: evidence from cointegration tests. *Journal of International Financial Markets, Institutions & Money, 7,* 157-169.

Heaney, R., & Sriananthakumar, S. (2012). Time-varying correlation between stock market returns and real estate returns. *Journal of Empirical Finance, 19*(4), 583-594.

Ho, T.S.Y., Schwartz, A.R., & Whitcomb, D.K. (1985). The trading decision and market clearing under transaction price uncertainty. *The Journal of Finance, 40*(1), 21-42.

Hoang, N.T., & McNown, R.F. (2008). Panel data unit root tests using various estimation methods. *Working paper, Department of Economics, University of Colorado at Boulder*.

Hoesli, M. (1994). Real estate as a hedge against inflation: Learning from the Swiss case. *Journal of Property Valuation and Investment, 12*(3), 51-59.

Hoesli, M., Jani, E., & Bender, A. (2005). Monte Carlo simulations for real estate valuation. *Journal of Property Investment and Finance, 24* (2), 102-122.

Hon, C.H. (2009). The impact of property market developments on the real economy of Malaysia. *International Research Journal of Finance and Economics*, (30), 66-86.

Hui, H.C. (2009). The impact of property market developments on the real economy of Malaysia. *International Research Journal of Finance and Economics, 30*, 66-86.

Hushak, L.J. (1975). The urban demand for urban-rural fringe land. *Land Economics, 51* (2), 112-123.

Ibrahim, M.H. (1999). Macroeconomic variables and stock prices in Malaysia: an empirical analysis. *Asian Economic Journal, 13* (2), 219-231.

Im, K.S., Pesaran, M.H., & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics, 115*, 53-74.

Islam, M.R, Khan, T., Choudhury, T.T., & Adnan, A.M. (2014). How earnings per share (EPS) affects on share price and firm value. *European Journal of Business and Management, 6*, (17), 97.

Jegadeesh, N. (1991). Seasonality in stock price mean reversion: evidence from the U.S. and the U.K. *The Journal of Finance, 46* (4), 1427-1444.
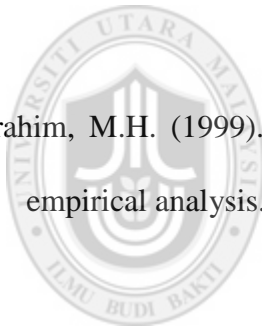
Kaabia, M. B., Gil, J.M., & Chebbi, H.E. (2002). The effect of long-run identification on impulse response functions: An application to the relationship between macroeconomics and agriculture in Tunisia. *Agricultural Economics Review, 3*(2), 36-48.

Kakes, J., & Pattanaik, S.(2000). The transmission of monetary shocks in the Euro area: A VAR analysis based on Euro-wide data. *Banca Nazionale del Lavoro Quarterly Review, 53*(213), 171-186.

Kalyanaraman, L., & Al Tuwajri, B. (2014). Macroeconomic forces and stock prices: Some empirical evidence from Saudi Arabia. *International Journal of Financial Research, 5*(1), 81-92.

Karim, M.Z.A., Harif, A.A.M, & Adziz, A. (2006). Monetary policy and sectoral bank lending in Malaysia. *Global Economic Review, 35* (3), 303-326.

Khan, R.A. (2008). Role of construction sector in economic growth: empirical evidence from Pakistan economy. *First International Conference on Construction in Developing Countries, Karachi, Pakistan.*

Kim, M.J., Nelson, C.R., & Startz, R. (1991). Mean reversion in stock prices? A reappraisal of the empirical evidence. *Review of Economic Studies, 58,* 515-528.

Koo, R.C. (2010). Lessons from Japan: a balance sheet recession, *CFA Institute Conference proceeding quarterly, 2010* – CFA Institute.

Kyriazis, D., & Anastassis, C. (2007). The validity of the Economic Value Added approach: an empirical application. *European Financial Management, 13* (1), 71-100.

Lee, C., & Lee, W.H. (2008). Can financial ratios predict the Malaysian stock return? *UPM Publication (2008).* Retrieved from: http://www.econ.upm.edu.my

Lee, C.L., & Ting, K.H. (2009). The role of Malaysian securitized real estate in a mixed asset portfolio. *Journal of Financial Management of Property and Construction, 14* (3), 208-230.

Lee, S., & Stevenson, S. (2005). Real estate portfolio construction and estimation risk. *Journal of Property Investment and Finance, 23* (3), 234-253.

Lee, S.P., Isa, M., & Lim, W.L. (2012). Dividend changes and future profitability: Evidence from Malaysia. *Asian Academy of Management Journal of Accounting and Finance, 8*(2), 93-110.

Lehmann, B.N. (2002). Some desiderata for the measurement of price discovery across markets. *Journal of Financial Markets, 5,* 259-276.

Levin, A., Lin, A.C., & Chu, C.S.J. (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of Econometrics, 108*, 1-24.

Li, D.Y., Iscan, T.B., & Xu, K. (2010). The impact of monetary policy shocks on stock prices: Evidence from Canada and the U.S. *Journal of International Money and Finance, 29*(5), 876-896.

Liang, Q., & Cao, H. (2007). Property prices and bank lending in China. *Journal of Asian Economics, 18*(1), 63-75.

Lin, C.H. (2012). The co-movement between exchange rates and stock prices in the Asian emerging markets. *International Review of Economics and Finance, 22* (1), 161-172.
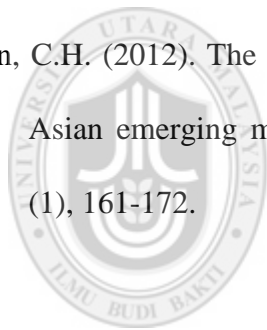
Lin, T.C., & Lin, Z.H. (2011). Are stock and real estate markets integrated? An empirical study of six Asian economies. *Pacific-Basin Finance Journal, 19*(5), 571-585.

Liow, K.H. (1996). Property companies' share price discounts and property market returns. The Singapore evidence. *Journal of Property Finance, 7* (4), 64-77.

Liow, K.H. (2001). Real estate and corporate valuation: an asset pricing perspective. *Managerial and Decision Economics, 22,* 358-368.

Liow, K.H. (2003), Property company stock price and net asset value: a mean reversion perspective. *Journal of Real Estate Finance and Economics, 27* (2), 235-255.

Liow, K.H., Ibrahim, M.F., & Huang, Q. (2006). Macroeconomic risk influences on the property stock market. *Journal of Property Investment and Finance, 24*(4), 295-323.

Liow, K.H., & Li, Y. (2006). Net asset value discounts for Asian-Pacific real estate companies: long-run relationships and short-run dynamics. *Journal of Real Estate Financial Economics, 33*, 363-388.

Liow, K.H. & Yang. H. (2005). Long-term co-memories and short-run adjustment: Securitised real estate and stock markets. *The Journal of Real Estate Finance and Economics, 31*(3), 283-300.

Liu, C.H., Hartzell, D.J., Greig, W., & Grissom, T.V. (1990). The integration of the real estate market and the stock market: some preliminary evidence. *Journal of Real Estate Finance and Economics, 3*, 261-282.

Liu, J., Nissim, D., & Thomas, J. (2001). Equity valuation using multiples. *Journal of Accounting Research, 40* (1), 135-172.

Lo, A.W, & MacKinlay, A.C. (1988). Stock prices do not follow random walks: evidence from a simple specification test. *Review of Financial Studies, 1*, 41-66.

Maddala, G.S., & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics, Special Issue, (1999),* 631-652.

Madhavan, A. (2000). Market microstructure: a survey. *Journal of Financial Markets, 3,* 205-258.

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.

Malkiel, B.G. (2003). The efficient market hypothesis and its critics. *Journal of Economic Perspectives, 17* (1), 59-82.

Mallick, H., & Mahalik, M.K. (2010). Constructing the economy: the role of construction sector in India's growth. *Journal of Real Estate Financial Economics, 40,* 368-384.

Malpezzi, S., & Wachter, S.M. (2004). The role of speculation in real estate cycles. *Revised Draft, May 27, 2004.* University of Wisconsin.

Markowitz, H. (1952). Portfolio selection. *The Journal of Finance, 7* (1), 77-91.

Maybank Berhad. (2014). *Real-time market info*. Retrieved from: http://www.maybank2u.com.my/mbb_info/m2u/public/personalDetail04.do?chC atId=/mbb/Personal/INV-Investment&programId=INV01- ShareTrading&cntTypeId=0&cntKey=INV01.05

Maysami, R.C., Lee, C.H., & Hamzah, M.A. (2004). Relationship between macroeconomic variables and stock market indices: cointegration evidence from stock exchange of Singapore's All-S sector indices, *Jurnal Pengurusan, 24*, 47-77.

McCue, T.E., & Kling, J.L. (1994). Real estate returns and the macroeconomy: some empirical evidence from real estate investment trust data, 1972-1991. *The Journal of Real Estate Research, 9* (3), 277-287.

McIntosh, C. (1995). Real estate investment trusts: A review of the financial economics literature. *Journal of Real Estate Literature, 3* (1), 13-43.

Miller, H.M., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business, 34* (4), 411-433.

Ministry of Finance Malaysia. (2008). *First Economic Stimulus Package*. Retrieved

from:http://www.treasury.gov.my/pdf/ekonomi/rangsangan_ekonomi/pakej_rang

sangan_ekonomi.pdf

Mishra, A.K. (2004). Stock market and foreign exchange market in India: Are they

related? *South Asia Economic Journal, 5*(2), 209-232.

Morri, G. (2005). Explaining deviations from NAV in UK property companies:

rationality and sentimentality. *Real Estate and Planning Working Papers, Henley*

Business School, Reading University.

Mukherji, S. (2011). Are stock returns still mean-reverting? *Review of Financial*

Economics, 20 (1), 22-27.

Mukhtar, T. (2010). Does trade openness reduce inflation? Empirical evidence from

Pakistan. *The Lahore Journal of Economics, 15*(2), 35-50.

Muldavin, S.R. (1997). Net asset value "premiums". *Real Estate Finance, 14* (2), 74-

78.

Naik, P.K., & Padhi, P. (2012). The impact of macroeconomic fundamentals on stock

prices revisited: Evidence from Indian data. *Eurasian Journal of Business and*

Economics, 5(10), 25-44.

Nain, M.Z., & Kamaiah, B. (2012). On the relationship between nominal and real effective exchange rates in India: Evidence from the ARDL Bounds Tests. *The IUP Journal of Applied Economics, 11*(4), 50-59.

Narayan, P.K., & Narayan, S. (2007). Mean reversion in stock prices: new evidence from panel unit root tests. *Studies in Economics and Finance, 24* (3), 233-244.

National Economic Advisory Council, Malaysia. (2010). *New Economic Model.* Retrieved from:http://www.mampu.gov.my/documents/10228/25989/27-07-04-2010-economicmodel_malaysia.pdf/8834e445-db30-4822-9e37-8548499e361c

National Property Information Centre, Malaysia. (2014). *Property Market Report 2013.*Retrievedfrom:http://napic.jpph.gov.my/portal/web/guest/main-page?p_p_id=ViewPublishings_WAR_ViewPublishingsportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_pos=1&p_p_col_count=2&_ViewPublishings_WAR_ViewPublishingsportlet_action=renderReportPeriodScreen&publishingId=445&pageno=1&language=

Nissim, D., & Penman, S.H. (2001). Ratio analysis and equity valuation: from research to practice. *Review of Accounting Studies, 6* (1), 109-154.

Norman, E., Sirmans, G.S., & Benjamin, J.D. (1995). The historical environment of real estate returns. *Journal of Real Estate Portfolio Management, 1*(1), 1-24.

O'Connell, P. (1998). The overvaluation of purchasing power parity. *Journal of International Economics, 44*, 1-19.

Oh, K.Y., Kim, B., & Kim, H. (2006). An empirical study of the relation between stock price and EPS in panel data: Korea case. *Applied Economics, 38*(20), 2361-2369.

Ong, S.E. (1994). Structural and vector autoregressive approaches to modeling real estate and property stock prices in Singapore. *Journal of Property Finance, 5* (4), 4-18.

Pahlavani, M., Wilson, E., & Worthington, A.C. (2005). Trade-GDP Nexus in Iran: An application of the autoregressive distributed lag (ARDL) model. *American Journal of Applied Sciences, 2* (7), 1158-1165.

Palepu, K.G., & Healy, P.M. (2004). *Business Analysis Valuation: using financial statements, text and cases*. 5th Ed., New York: South-Western College Publishing.

Pandey, I.M. (2003). Corporate dividend policy and behavior: The Malaysian evidence. *Asian Academy of Management Journal, 8*(1), 17-32.

Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors. *Oxford Bulletin of Economics and Statistics, Special Issue (1999),* 653-670.

Pedroni, P. (2004). Panel cointegration: asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. *Econometric Theory, 20,* 597-625.

Penman, S.H. (2010). *Financial statement analysis and security valuation (4th ed.).* New York: McGraw-Hill/Irwin.

Pesaran, M.H., & Smith, R. (1995). Estimating long-run relationships from dynamic heterogenous panels. *Journal of Econometrics, 68*(1), 79-113.

Pesaran, M.H., & Pesaran, B. (1999). *Microfit 4: An interactive econometric software package*. Oxford: Oxford University Press.

Pesaran, M.H., & Pesaran, B. (2009). *Time series econometrics – using Microfit 5*. New York: Oxford University Press.

Pesaran, M.H., Shin, Y., & Smith, R.J. (1999). Bounds testing approaches to the analysis of long-run relationships. *Cambridge Working Papers in Economics*, No.9907.

Pesaran, M.H., Shin, Y., & Smith, R.J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289-326.

Pesaran, M.H., Shin, Y., & Smith, R.P. (1999). Pooled mean group estimation of dynamic heterogenous panels. *Journal of the American Statistical Association, 94* (446), 621-634.

Pesaran, M.H., & Smith, R.P. (1998). Structural analysis of cointegrating VARs. *Journal of Economic Surveys, 12* (5), 471-505.

Phillips, S. (1985*). Regulation and the futures markets, theory and practice, review of Future Market Research* in Amihud, Ho & Schwartz (1985*), Market making and the changing structure of the securities industry*, Boston: Lexington Books.

Poterba, J.M., & Summers, L.H. (1988). Mean reversion in stock prices: evidence and implications. *Journal of Financial Economics, 22*, 27-59.

Rasheed, A.A., & Tajudeen, A.B. (2006). Performance analysis of listed construction and real estate companies in Nigeria. Journal of Real Estate Portfolio Management, 12 (2), 177-184.

Ratanapakorn, O., & Sharma, S.C. (2007). Dynamic analysis between the U.S. stock returns and the macroeconomic variables. *Applied Financial Economics, 17*(5), 369-377.

225

Reilly, F.K., & Brown, K.C. (2006). *Investment Analysis and Portfolio Management, 8th Ed.* Ohio: Thomson South-Western.

Richardson, S.A., Sloan, R.G., & You, H. (2012). What makes stock prices move? Fundamentals vs. Investor recognition. *Financial Analysts Journal, 68*(2), 30-50.

Romer, D. (1993). Openness and inflation: theory and evidence. *The Quarterly Journal of Economics, CVIII* (4), 869-903.

Sachsida, A., Carneiro, F.G., & Loureiro, P.R.A. (2003). Does greater trade openness reduce inflation? Further evidence using panel data techniques. *Economics Letters, 81*(2), 315-319.

Saji, T.S., & Harikumar, S. (2013). Long-run behavior of equity returns: An exploration of Indian experience. *Asian Journal of Management, 4*(1), 22-27.

Samreth, S. (2008). Estimating money demand function in Cambodia: ARDL approach. *MPRA Paper No. 16274*

Schreiber, P.S., & Schwartz, R.A. (1986). Price discovery in securities markets. *The Journal of Portfolio Management, 12* (4), 43-48.

226

Schwann, G.M., & Chau, K.W. (2003). News effects and structural shifts in price discovery in Hong Kong. *Journal of Real Estate Finance and Economics, 27* (2), 257-271.

Scott, L.O. (1990). Do prices reflect market fundamentals in real estate markets? *The Journal of Real Estate Finance and Economics, 3* (5), 5-23.

Seiler, M.J., Webb, J.R., & Myer, N.F.C. (1999). Diversification issues in real estate investment. *Journal of Real Estate Literature, 7* (2), 163-179.

Shahbaz, M. (2012). Does trade openness affect long-run growth? Cointegration, causality and forecast error variance decomposition tests for Pakistan. *Economic Modelling, 29*(6), 2325-2339.
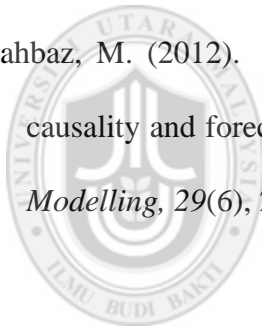
Sims, C.A. (1980). Macroeconomics and reality. *Econometrica, 48* (1), 907-931

Sims, C.A. (1981). Current monetary policy research at the Federal Reserve Board: Discussion. *Journal of Finance, American Finance Association, 36*(2), 515-17.

Sims, C.A. (1992). Interpreting the macroeconomic time series facts: the effects of monetary policy. *European Economic Review, 36* (5). 975-1011.

Sing, T.F., Liow, K.H., & Chan, W.J. (2002). Mean reversion of Singapore property prices towards their fundamental variables. *Journal of Property Investment & Finance, 20* (4), 374-383.

Singh, T., Mehta, S., & Varsha, M.S. (2011). Macroeconomic factors and stock returns: Evidence from Taiwan. *Journal of Economics and International Finance, 2*(4), 217-227.

Skim Rumah Pertamaku. (2013). *Criteria and Traits, My First Home Scheme Application.* Retrieved from: http://www.srp.com.my/en/criteria.html

Spierdijk, L., Bikker, J.A., & Hoek, P.V. (2010). Mean reversion in international stock   markets: An empirical analysis of the 20th century. *De Nederlandsche Bank Working Paper, No. 247.*

Stock, J.H., & Watson, M.W. (2001). Vector autoregressions. *Journal of Economic Perspectives, 15*(4), 101-115.

Subramanyam, K.R. & Venkatachalam, M. (2001). Earnings, cash flows and ex post intrinsic value of equity. *The Accounting Review, 82* (2), 457-481.

Sukhija, S. (2014). An explicit model on fundamental factors affecting stock prices of BSE listed companies in India: An inter industry approach. *European Journal of Business and Management, 6*(37), 196-202.

228

Summers, L.H. (1986). Does the stock market rationally reflect fundamental variables? *The Journal of Finance, 41* (3), 591-602.

Suresh, K.G., Joseph, A., & Sisodia, G. (2013). Efficiency of emerging stock markets: Evidences from "BRICS" stock indices data using nonlinear panel unit root test. *Journal of Economic and Financial Modeling, 1*(1), 56-61.

The ETP Transformation Story. (2010). *Overview of the ETP*. Retrieved from: http://etp.pemandu.gov.my/About_ETP-@-Overview_of_ETP.asx

Ting, K.H. (2002). Listed property companies in Malaysia: a comparative performance analysis. *Paper presented at Seventh Annual Pacific RIM Real Estate Society Conference, Christchurch, New Zealand*.

Ting, K.H., Nassir, A.M., & Newell, G. (2002). Impact of Asian financial crisis on Malaysian corporate real estate disposals. *Pacific Rim Property Research Journal, 12* (1), 55-84.

Uhlenbeck, G.E., & Ornstein, L.S. (1930). On the theory of the Brownian motion. *Physical Review, 36*, 823-841.

Unit Kerjasama Awam Swasta. (2015). *Latar Belakang Maklumat UKAS*. Retrieved from: http://www.ukas.gov.my/web/guest/latar-belakang

Vogt, W.P. & Johnson, R.B. (2011). *Dictionary of statistics and methodology: A nontechnical guide for the social sciences (4th ed.).* California: Sage Publications Inc.

West, T., & Worthington, A. (2006). Macroeconomic risk factors in Australian commercial real estate listed property trust and property sector stock returns using GARCH-M. *Queensland University of Technology School of Economics and Finance Discussion Papers and Working Papers Series*, No.160.

Wongbangpo, P., & Sharma, S.C. (2002). Stock market and macroeconomic fundamental dynamic interactions: ASEAN-5 countries. *Journal of Asian Economics, 13* (1), 27-51.

Worthington, A., & West, T. (2001). Economic value-added: A review of the theoretical and empirical literature. *Asian Review of Accounting, 9*(1), 67-86.

Yan, B., & Zivot, E. (2007). The dynamics of price discovery. *Working paper, AFA 2005 Philadelphia Meetings.*

Yang, J., Zhou, Y., & Leung, W.K. (2012). Asymmetric correlation and volatility dynamics among stock, bond and securitized real estate markets. *The Journal of Real Estate Finance and Economics, 45*(2), 491-521.

Yavas, A., & Yildirim, Y. (2011). Price discovery in real estate markets: A dynamic analysis. *Journal of Real Estate Finance and Economics, 42*(1), 1-29.