

Studies on Asia Real Estate Investment Trusts Performance Evaluation for International Portfolio

劉俊佑、賴文魁；莊宏富

E-mail: 9607749@mail.dyu.edu.tw

ABSTRACT

Asia Real Estate Investment Trusts(REITs) has developed into a new financial commodity in recent years and its market has grown mature recently. With the help of REITs, small investors are more able to invest in real estate which brings contributions to the real estate market. This research uses REITs of Asia countries as samples to calculate the risk and return. It can also analyze and compare the risk and return of each sample. In addition, it is able to evaluate the performance of every sample with various kinds of performance indicators and analysis. This research also tries to make optimal portfolio of Asia REITs with Markowitz's "Modern Portfolio Theory" to find out the weight of each sample. From studies of correlation coefficient indicate that only CapitalMall and SuntecReit show a high positive correlation. With the result of analysis of three different kinds of portfolio, it appears that the positive correlation coefficient has minimal influences on the portfolio. These three kinds of portfolio and the weight of samples can offer valuable references for the investors.

Keywords : Real Estate Investment Trusts ; Portfolio ; Performance Evaluation

Table of Contents

內容目錄 中文摘要	iii 英文摘要
iv 誌謝辭	v 內容目錄
vi 表目錄	viii 圖目錄
x 第一章 緒論	1 第一節 研究背景
1 第二節 研究動機	2 第三節 研究目的
3 第四節 研究架構	3 第二章 文獻回顧
5 第一節 不動產投資信託	5 第二節 投資組合
21 第三節 績效評估指標	25 第三章 研究方法
33 第一節 研究範圍及期間	33 第二節 時間序
列GARCH模型	39 第四節
35 第三節 績效評估指標	43 第一
投資組合分析	43 第四章 實證結果與分析
投資組合分析	46 第一節 樣本報酬與風險分析
樣本報酬與風險分析	46 第二節 時間序列GARCH (1.1) 模型
第三節 投資績效衡量分析	52 第四節 投資組合分析
55 第五章 結論與建議	64 第一節 結論
64 第二節 研究建議	66 參考文獻
67 附錄A	74 附錄B
79	

REFERENCES

一、中文部分: 余文德, 鄭紹材, 黃沛璿(2005), 國內不動產證券化商品投資風險之研究, 中華建築學刊, 2(1), 35-43。吳秋璇, 陳品橋, 吳嘉欽, 劉忠聖(2005), REITS不動產投資信託, 台北市:英屬維京群島商高寶國際有限公司。李宜豐(2004), 不動產金融商品:理論與實務, 台北市:福茂鑑價顧問股份有限公司。李昇鑫(2002), 我國實施不動產證券化探討, 國立台灣大學財務金融研究所未出版之碩士論文。林保宏, 黃怡蓁(2006a), 台灣不動產證券化對營建開發業影響之初探(下), 現代營建, 324, 55-60。林保宏, 黃怡蓁(2006b), 台灣不動產證券化對營建開發業影響之初探(上), 現代營建, 323, 54-65。邱昭賢(1996), 國內不動產證券化之研究, 私立東海大學管理研究所未出版之碩士論文。張金鶴(2006), 民國94年不動產市場回顧與展望-兼論不動產證券化對不動產市場之影響, 臺灣經濟金融月刊, 42(6), 99-110。張金鶴, 白金安(1992a), 不動產證券化與市地開發之研究(下), 國立政治大學學報, 65, 225-249。張金鶴, 白金安(1992b), 不動產證券化與市地開發之研究(上), 國立政治大學學報, 64, 345-390。張耀仁(2002), 不動產估價理論解析, 高雄市:考用出版社。陳怡芳(1997), 不動產證券化運用於都市更新之研究, 國立中興大學都市計畫研究所未出版之碩士論文。陳亭蘭(2003), 不動產證券化法制之研究--兼評不動產證券化條例草案, 國立中正大學法律學研究所未出版之碩士論文。楊秀鳳(2000), 投資人於現有稅負下

運用不同投資管道投資不動產證券化商品之最適策略研究，私立逢甲大學土地管理研究所未出版之碩士論文。謝文倩(2003)，不動產證券化之研究，國立臺灣大學財金研究所未出版之碩士論文。二、英文部分: Ambrose, B. W., & Linneman, P. (2001). REIT Organizational Structure and Operating Characteristics. *Journal of Real Estate Research*, 21(3), 146-162. Bhasin, V., Cole, R. A., & Kiely, J. K. (1997). Changes in REIT liquidity 1990-1994: Evidence from. *Real Estate Economics*, 25(4), 615-630. Bollerslev, T. (1986). GENERALIZED AUTOREGRESSIVE CONDITIONAL HETROSKEDEASTICITY. *Journal of Econometrics*, 31(3), 307-327. Box, G., & Jenkins, G. (1970). Time series analysis forecasting and control. San Francisco: Holden-Day. Brueggeman, W. B., & Fisher, J. D. (1997). Real Estate Finance And Investments (10 ed.). New York: McGraw-Hill College Division. Capozza, D. R., & Lee, S. (1995). Property Type, Size and REIT Value. *Journal of Real Estate Research*, 10(4), 363-380. Chan, K. C., Hendershott, P. H., & Sanders, A. R. (1990). Risk and Return on Real Estate: Evidence from Equity REITs. *Journal of the American Real Estate & Urban Economics Association*, 18(4), 431-452. Cumby, R. E., & Glen, J. D. (1990). Evaluating the Performance of International Mutual Funds. *Journal of Finance*, 45(2), 497-521. Dellva, W. L., & Olson, G. T. (1998). The relationship between mutual fund fees and expenses and their effects on performance. *Financial Review*, 33(1), 85-104. Dickey, D. A., & Fuller, W. A. (1979). Distribution of the Estimators for Autoregressive Time Series With a Unit Root. *Journal of the American Statistical Association*, 74(366), 427-431. Dickey, D. A., Hasza, D. P., & Fuller, W. A. (1984). Testing for Unit Roots in Seasonal Time Series. *Journal of the American Statistical Association*, 79(386), 355-367. Dowd, K. (1999). A Value at Risk Approach to Risk-Return Analysis. *Journal of Portfolio Management*, 25(4), 60-67. Droms, W. G., & Walker, D. A. (1994). INVESTMENT PERFORMANCE OF INTERNATIONAL MUTUAL FUNDS. *Journal of Financial Research*, 17(1), 1-14. Engle, R. F. (1982). AUTOREGRESSIVE CONDITIONAL HETROSCECDASTICITY WITH ESTIMATES OF THE VARIANCE OF UNITED KINGDOM INFLATION. *Econometrica*, 50(4), 987-1007. Essyyad, M., & Wu, H. K. (1988). THE PERFORMANCE OF U.S. INTERNATIONAL MUTUAL FUNDS. *Quarterly Journal of Business & Economics*, 27(4), 32-46. Eun, C. S., Kolodny, R., & Resnick, B. G. (1991). U.S.-based international mutual funds: A performance evaluation. *Journal of Portfolio Management*, 17(3), 88-94. Granger, C. W. J., & Newbold, P. (1974). SPURIOUS REGRESSIONS IN ECONOMETRICS. *Journal of Econometrics*, 2(2), 111-120. Grinblatt, M., & Titman, S. (1994). A study of monthly mutual fund returns and performance evaluation techniques. *Journal of Financial & Quantitative Analysis*, 29(3), 419-444. Grubel, H. G. (1968). INTERNATIONALLY DIVERSIFIED PORTFOLIOS: WELFARE GAINS AND CAPITAL FLOWS. *American Economic Review*, 58(5), 1299-1314. Grubel, H. G., & Fadner, K. (1971). THE INTERDEPENDENCE OF INTERNATIONAL EQUITY MARKETS. *Journal of Finance*, 26(1), 89-94. Gyourko, J., & Sinai, T. (1999). The REIT Vehicle: Its Value Today and in the Future. *Journal of Real Estate Research*, 18(2), 355-375. Hunter, J. E., & Coggin, T. D. (1990). An Analysis of the Diversification Benefit from International Equity Investment. *Journal of Portfolio Management*, 17(1), 33-37. Jensen, M. C. (1968). THE PERFORMANCE OF MUTUAL FUNDS IN THE PERIOD 1945-1964. *Journal of Finance*, 23(2), 389-416. Kroll, Y., Levy, H., & Markowitz, H. M. (1984). Mean-Variance Versus Direct Utility Maximization. *Journal of Finance*, 39(1), 47-61. Lessard, D. R. (1976). World, Country, and Industry Relationships in Equity Returns . Implications for Risk Reduction Through International Diversification. *Financial Analysts Journal*, 32(1), 32-38. Levy, H., & Lerman, Z. (1988). The Benefits of International Diversification in Bonds. *Financial Analysts Journal*, 44(5), 56. Levy, H., & Markowitz, H. M. (1979). Approximating Expected Utility by a Function of Mean and Variance. *American Economic Review*, 69(3), 308-317. Levy, H., & Sarnat, M. (1970). International Diversification of Investment Portfolios. *American Economic Review*, 60(4), 668-675. Malkiel, B. G. (1995). Returns from Investing in Equity Mutual Funds 1971 to 1991. *Journal of Finance*, 50(2), 549-572. Markowitz, H. (1952). PORTFOLIO SELECTION. *Journal of Finance*, 7(1), 77-91. McDonald, J. G. (1974). OBJECTIVES AND PERFORMANCE OF MUTUAL FUNDS, 1960-1969. *Journal of Financial & Quantitative Analysis*, 9(3), 311-333. Mull, S. R., & Soenen, L. A. (1997). U.S. REITs as an Asset Class in International Investment Portfolios. *Financial Analysts Journal*, 53(2), 55-61. S. Michael, G. (1990). Equity Real Estate Investment Trusts and Real Estate Returns. *Journal of Real Estate Research*, 5(2), 259-263. Schwager, J. (1985). Alternative to Sharpe Ratio Better Measure of Performance. *Futures : The Magazine of Commodities & Options*, 14, 56-58. Sharpe, W. F. (1966). MUTUAL FUND PERFORMANCE. *Journal of Business*, 39(1), 119-138. Su Han, C., Wai Kin, L., & Ko, W. (1998). Institutional Investment in REITs: Evidence and Implications. *Journal of Real Estate Research*, 16(3), 357-374. Treynor, J. L. (1965). How to Rate Management of Investment Funds. *Harvard Business Review*, 43(1), 63-75.