

# The study of information efficiency and momentum strategies of foreign institutional investor invest

朱葛君、陳美玲

E-mail: 345327@mail.dyu.edu.tw

## ABSTRACT

We are mainly exploring the transaction information of electronic industry in Taiwan and Korea stock market. In the study, we are going to discuss whether there is information efficiency or not. Besides, we used the factors of cumulative return, cumulative revenue and cumulative market capitalization to point out the best investment strategies for foreign investment in Taiwan and Korea electronic stock market. And further, we also utilize return, revenue and market capitalization to explore the suitable holding period for foreign investment in Taiwan and Korea electronic stock market. The results showed that there is a long-term relationship of equilibrium between the shareholdings of foreign investment at electronic and electronic index through co-integration test. It indicated that both of electronic stock markets from Taiwan and Korea belonged to inefficiency markets. For a concealer of foreign investment, he/she could get a remuneration based on the transaction information in market. As above mentioned, the electronic companies (top 3) which got foreign investment in Taiwan required a suggestion of contrarian strategy except Honhai. Half investors who invested in Korea (the top 3 electronic companies) supported the foreign investment to adopt momentum strategy. Finally, we found that the suitable holding period of top three electronic companies in Taiwan and Korea, it just had three days of suitable holding period in Taiwan, and had three months of suitable holding period in Korea.

Keywords : Information Efficiency、Momentum Strategy、Contrarian Strategy

## Table of Contents

中文摘要 . . . . .	iii	英文摘要 . . . . .	viii
. . . iv 致謝詞 . . . . .		v 內容目錄 . . . . .	
. . . . . vi 表目錄 . . . . .		viii 圖目錄 . . . . .	
. . . . . ix 第一章 緒論 . . . . .	1	第一節 研究背景與動機 . . . . .	1
. . . . . 1 第二節 研究目的 . . . . .	5	第三節 研究架構 . . . . .	5
. . . . . 6 註釋 . . . . .	8	第二章 文獻探討 . . . . .	8
. . . . . 9 第一節 資訊效率性 . . . . .	9	第二節 動能、反向投資策略相關文獻 . . . . .	9
. . . . . 14 第三節 營收成長率、市值成長率相關文獻 . . . . .	17	第三章 研究方法 . . . . .	17
. . . . . 20 第一節 研究對象、樣本來源與研究期間 . . . . .	20	第二節 單根檢定 . . . . .	20
. . . . . 21 第三節 共整合檢定 . . . . .	23	第四節 投資策略之績效衡量 . . . . .	23
. . . . . 25 第五節 ARCH效果檢定 . . . . .	26	第四章 實證結果分析 . . . . .	26
. . . . . 27 第一節 敘述性統計 . . . . .	27	第二節 ARCH檢定 . . . . .	27
. . . . . 31 第三節 單根檢定 . . . . .	33	第四節 共整合檢定結果 . . . . .	33
. . . . . 36 第五節 投資策略之檢驗 . . . . .	41	第六節 最適持有期間之結果分析 . . . . .	41
. . . . . 44 第五章 結論與建議 . . . . .	47	第一節 結論 . . . . .	47
. . . . . 47 第二節 建議 . . . . .	48	參考文獻 . . . . .	48
. . . . . 49			

## REFERENCES

一、中文部分 王盈傑(2004),「台灣股市動量策略與反向策略之整合研究」,國立中正大學國際經濟研究所。林麗珍(2005),「以不同的進場點與黃金分割率所形成之濾嘴比率檢驗台灣股票市場效率性」,國立中正大學國際經濟研究所碩士論文。林秋輝(2008),「台灣股市動能策略研究」,國立中山大學財務管理研究所碩士論文。林銘燦(2001),「股票市場價格動能與週轉率之研究」,銘傳大學金融研究所未出版之碩士論文。周建忠(2000),「投資期間與反向投資策略績效評估」,中央大學財務管理所碩士論文。吳彥儒(2009),「從隨機共整合角度檢驗股力評價模型-以台灣股市為例」,國立中山大學經濟學研究所碩士論文。洪祥文(1988),「台灣股票市場投資者過度反應之研究」,證券管理雜誌, pp.2-13。張雅雯(2003),「以正逆價差檢驗台灣股票市場效率性」,逢甲大學碩士論文。張尚遠(2006),「動能策略應用於台灣股市」,國立台灣大學國際企業研究所碩士論文。張瑞霞(2006),「以不同的黃金分割率所形成濾嘴檢

測台灣股市之效率性」，逢甲大學經營管理碩士在職專班碩士論文。夏斌威(2008)，「考慮投資人情緒下之動量策略」，淡江大學財務金融研究所碩士論文。徐清彰(2002)，「新興市場之動能交易策略分析」，私立元智大學財務金融研究所碩士論文。高耀宇(2006)，「反向操作策略獲利性之研究以台灣股市為例」，國立中央大學財務金融所博士論文。郭玲珍，「上市公司每月營運情形公告資訊內含之研究」，政治大學會計研究所碩士論文，1996。陳一如、謝秀津，(1998)，「臺灣股票上市公司的外資持股比例對其股價之影響」，臺灣經濟金融月刊，第35卷第11期，p85-96。陳正佑(2002)，「台股動量策略與反向策略投資績效之研究」，中山大學財務管理研究所博士論文。黃怡姿(2009)，「營收動能策略:以台灣股市為例」，淡江大學財務金融學系碩士班碩士論文。甯正宇(2008)，「台灣股市營收動能策略之實證研究」，國立政治大學經營管理碩士在職專班論文。謝政能(1990)，「台灣股票市場過度反應之研究」，國立中山大學企業管理研究所碩士論文。蔡德淵(2002)，「台灣股市漲時重勢、跌時重質之實證研究」，成功大學企業管理研究所碩士論文。蘇弘哲(1995)，「台灣地區上市公司每月營收公告對股價之研究」，淡江大學金融研究所碩士論文。蘇永裕(2003)，「追漲殺跌策略報酬與景氣循環之間互動關係之研究」，雲林科技大學財務金融研究所碩士論文。

二、英文部份 Alexander, S. S. (1961). Price movement in speculative markets: trends or random walks. *Industrial Management Review*, 2, 7-26. Aulton, A. J., Ennew. C. T., and Rayner. A. J. (1997). Efficiency Tests of Futures Markets for UK Agricultural Commodities. *Journal of Agricultural Economics*. Vol. 48. NO.3. pp.408-424. Albert, R. L. and G. V. Henderson. (1995). Firm size, overreaction, and return reversals. *Quarterly Journal of Business and Economics*. Vol.34, No 4, pp.60-80. Banz, R., (1981). The relation between return and market value of common stock. *Journal of Financial Economics* 9,3-18. Barberis, Shleifer and Vishny. (1998). A model of investor sentiment. *Journal of Financial Economics* 49(3),307-343. Brealey R. and Myers, S. (1985) *Principles of corporate finance*. 3a Ed. (5a Ed.1996) Mc Graw-Hill. Nueva York. Chang, R.P., Mcleavey, D.W., Rhee, S.G. (1995). Short-term abnormal returns of the contrarian strategy in the Japanese stock market. *Journal of Business Finance and Accounting*, Vol.22, pp.1035-1048. Conrad, J., and Kaul, G. (1998). An anatomy of trading strategies. *Review of Financial Studies*, 11(6), 489-519. Chordia, T., and L. Shivakumar. (2002). "Momentum, Business Cycle, and Time-Varying Expected Returns. *Journal of Finance* 57, 565-574. Chan, K., A. Hameed, and W. Tong. (2000). Profitability of Momentum Strategies in the international Equity Market. *Journal of Financial and Quantitative Analysis* 35, 153-172. De Bondt, Werner F. M., and Richard Thaler. (1985). Does the Stock Market Overreact? *Journal of Finance* 40, 793-905. Dietrich, J. R., Kachelmeier S. J., Kleinmuntz D. N., and Linsmeier T. J. (2001). Market Efficiency, Bounded Rationality. and Supplemental Business Reporting Disclosures. *Journal of Accounting Research*, 39, 243-268. Dornbusch and Park,. (1995). Financial integration in a second-best world: Are we still sure about our classical prejudices. In: R. Dornbusch and Y.C. Park, Editors, *Financial Opening: Policy Lessons for Korea*, Korea 's Institute of Finance, Seoul, Korea . Daniel, Hirshleifer, and Subrahmanyam,. (1998). Investor Psychology and security market under-and overreactions. *Journal of Finance* 53, 1839-1886. DeBondt, W.F.M., Thaler, R., (1987). Further evidence on investor overreaction and stock market seasonality. *Journal of Finance* 42, 557 – 581. Dickey David. A., and Wayne A. Fuller(1979). Distribution of Estimators for Autoregressive Time Series With a Unit Root. *Journal of the American Statistical Assoc.*,74,427-431. Engle, R. F., & Granger, C. W. J. (1987). Cointegration and error correction: Representation, estimation and testing. *Econometrica*, 55(5), 251-276. Fama, E. F. (1965). The behavior stock prices. *The Journal of Business*, 38(3), 34-105. Fama, E. P. and Blume, M. E. (1966). Filter rules and stock market trading. *Journal of Business*, 39, 226-241. Fama, E. F. (1970). Efficient capital markets: a review of theory and empirical work. *Journal of Finance*, 25(6), 383-417. Fama, E. (1976). *Foundations of Finance: Portfolio Decisions and Securities Prices* (Basic Books Inc., New York). Fama, Eugene F., and Kenneth R. French,. (1995). Size and book-to market factors in earnings and returns. *Journal of Finance* 50,131-155. Grinblatt, M., & Keloharju, M. (2000). The investment behavior and performance of various investor types: A study of Finland 's unique data set. *Journal of Financial Economics*, 55(1), 43-67. Granger, C. W. J., and P. Newbold, 1974. Spurious Regressions in Econometrics, *Journal of Econometrics* 26 1045-1066 Hadi. M. M. (2006). Review of Capital Market Efficiency: Some Evidence from Jordanian Market. *International Research Journal of Finance and Economics*, Vol. 3. pp.13-27. Hong, Harrison and Stein, Jeremy C., (1999). Differences of Opinion, Rational Arbitrage and Market Crashes. NBER Working Paper. Josephl Kang, Ming-hua liu, Sophie Xiaoyan Ni. (2002). Contrarian and momentum strategies in the China stock market:1993- 2000. *Pacific-Basin Finance Journal* 10, 243-265. Jegadeesh, N., and S. Titman, (1993), Returns to buying winners and selling losers: Implications for stock market efficiency. *Journal of Finance* 48,65-91. Johansen, S. (1992), Determination of cointegration rank in the presence of a linear trend, *Oxford Bulletin of Economics and Statistics*, 54(3):383-97 Jegadeesh, N., Titman, S., (1995). Overreaction, delayed reaction, and contrarian profits. *Review of Financial Studies* 8, 973 – 993. Levy, R. (1967). Relative strength as a criterion for investment selection. *Journal of Finance*, 55(13), 2017-2069. Lee, S. B. and J. S. Chung. (1996). Price Limits and Stock Market Efficiency, *Journal of Business Finance & Accounting* 23, 585-601. Moosa, Imad-A and Nabell Al-Loughani.(1994). Unbiasedness and Time Varying Risk Premia in the Crude Oil Futures Market. *Energy Economics*. Vol. 16. No. 2. pp. 99-105. Mandelbrot, Benoit (1963), "The Variation of Certain Speculative Prices," *Journal of Business*, 36, 394-419. Pan, M. S. (2003). Sources of Winner-Loser Effects in National Stock Markets. Working Paper, Shippensburg University. Schiereck, D., W. De Bondt, and M. Weber. (1999), Contrarian and Momentum Strategies in Germany. *Financial Analysts Journal*, 55, No. 6, pp.104-16. Sharma, S. C., and Womgbangpo, P. (2002). Long-term trend and cycles in ASEAN stock markets. *Review of Financial Economics*, 11(5), 299-315. Stiglitz, J. E. (1998). Responding to economic crises: policy alternatives for equitable recovery and development. Paper presented to North-South Institute, Ottawa, Canada, 29 September. Tumarkin, R., and Whitelaw R.F. (2001). News or Noise? Inteniat Postings and Stock Prices. *Financial Analysts Journal*, 57, 41-45. Radelet and Sachs, 1998 Radelet, S., Sachs, J., (1998). The onset of the East Asian financial crisis. Unpublished Working Paper, Harvard University. Reinganum,. (1983). Uncertain Innovation and the Persistence of Monopoly. *American Economic Review*.73,741-48 Zarowin, P. (1990). Size, Seasonality and Stock Market Overreaction. *Journal of Financial and Quantitative Analysis*, Vol.25, No 1(March),pp.11-25.