

The Study of Information Efficiency and Momentum Strategies about Institutional Investors Transaction Information in ..

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ABSTRACT

This paper divides two parts. First, we use co-integration to examines weather the transaction information about institutional investors in Taiwan stock market can be used to forecast stock price. The daily data of Taiwan stocks holding by institutional inves-tors and stock price is from September 2002 to August 2007. Second, some arbitrage strategies are constructed to test the return in short, intermediate and long horizons. Furthermore, we try to find the cause of momentum profit by ANOVA test. The main empirical findings are summarized as follow. We find that only transac-tion information about foreign investors can be use to forecast stock price. In short-term, the investors in Taiwan stock market should adopt contrarian strategy, and momentum strategies should be adopted in long-term. Turnover rate is a factor of reversal. For winner stocks, contrarian strategies should be used in short-term and momentum strate-gies in long-term. However, for loser stocks, momentum strategies can catch profit all the time. Whatever the turnover is high or low, contrarian strategies shold be used in short-term and momentum strategies in long-term. Finally, we find that the profit is re-sult from autocovariance.

Keywords : institutional investor ; information efficiency ; momentum strategy

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REFERENCES

- Alexander, S. S. (1961). Price movement in speculative mar-kets:Trends or random walks. *Industral Management Review*, 2, 7-26. Alexander, S. S. (1964). Price movements in speculative mar-kets:Trends or random walks. *Industral Management Review*, 5, 25-46. Alonso, A. B., & G. Rubio (1990). Overreaction in the Spanish equity market. *Journal of Banking and Finance*, 14, 469-481. Amihud, Y., & H. Mendelson (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*, 17, 223-249. Antonoiu, A., Galariotis, E. C., & S. I. Spyrou (2006). Short-term contrarian strategies in the London Stock Exchange:Are they profitable? Which factors affect them? *Journal of Business Fi-nance & Accounting*, 33(5-6), 839-867. Atkins, A. B., & E. A. Dyl (1990). Price reversals, bid-ask spreads, and market efficiency. *Journal of Financial and Quantitative Analysis*, 25, 535-547. Avramov, D., Chordia, T., & A. Goya, (2006) Liquidity and autocor-relations in individual stock returns. *Journal of Finance*, 61, 5, 2365-2394. Barberis, N., Shleifer, A., & R. Vishney (1998). A model of investor sentiment. *Journal of Financial Economics*, 49, 307-343. Brennan, M., Chordia, T., & A. Subrahmanyam (1998). Alternative factor specifications, security characteristics, and the cross-section of expected stock returns. *Journal of Financial Economics*, 49, 345-373. Brown, K. C., & W. V. Harlow (1998). Market overreac-tion:Magnitude and intensity. *Journal of Portfolio Management*, 2, 6-13. Brunetti, M., & C. Torricelli (2007). The internal and cross market ef-ficiency in index option markets: an investigation of the Italian market. *Applied Financial Economics*, 17(1), 25. Chan, H.-L., & W. De Bondt (2004). Style momentum within the

S&P-500 index. *Journal of Empirical Finance*, 11, 483-507. Chan, K. C. (1988). On the contrarian investment strategy. *Journal of Business*, 61, 147-163. Chan, K., Hameed, A., & W. Tong (2000). Profitability of momentum strategies in the international equity markets. *Journal of Financial and Quantitative Analysis*, 35, 153 – 172. Chopra, N., Lakonishok, J., & J. R. Ritter (1992). Measuring abnormal performance: do stocks overreact? *Journal of Financial Economics*, 31, 235-268. Clare, A., & S. Thomas (1995). On the contrarian investment strategy. *Journal of Business*, 61, 146-163. Conrad, J., & G. Kaul (1993). Long-term market overreaction or biases in computed returns? *Journal of Finance*, 48, 39-63. Conrad, J., & G. Kaul (1998). An anatomy of trading strategies. *Review of Financial Studies*, 11, 489-519. Covrig, V., & M. Melvin (2005). Tokyo insiders and the informational efficiency of the yen/dollar exchange rate. *International Journal of Finance & Economics*, 10(2), 185-193. Da Costa, N. C. A., Jr. (1994). Overreaction in the Brazilian stock market. *Journal of Banking & Finance*, 18, 633-642. Daniel, K., Hirshleifer, D., & A. Subramanyam (1997). A theory of overconfidence, self-attribution, and security market under- and over-reactions. University of Michigan.

Davidson, W. N. (1989). Note on the behavior of security return: A test of stock market overreaction and efficiency. *Journal of Finance Research*, 2, 245-252. De Bondt, W., & R. Thaler (1985). Does the stock market overreact? *Journal of Finance*, 40, 793-805. De Bondt, W., & R. Thaler (1987). Further evidence on investor over-reaction and stock market seasonality. *Journal of Finance*, 42, 557-581. Demir, I., Muthuswamy, J., & T. Walter (2004). Momentum returns in Australian equities: The influences of size, risk, liquidity and return computation. *Pacific-Basin Finance Journal*, 12, 143-158. Dickey, D., & W. A. Fuller (1981). Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root. *Econometrica*, 49, 1057-1072. Dissanaike, G. (1994). On the computation of returns in tests of the stock market overreaction hypothesis. *Journal of Banking & Finance*, 18, 1083-1094. Dragota, V., & E. Mitrica (2004). Emergent capital markets' efficiency: The case of Romania. *European Journal of Operational Research*, 155, 353-360. Dwyer, G., & M. Wallace (1992). Cointegration and market efficiency. *Journal of International Money and Finance*, 11, 318-327. Engle, R. F., & C. W. J. Granger (1987). Co-integration and error correction: representation, estimation and testing. *Econometrica*, 55, 251-276. Fama, E. F. (1965). The behavior stock prices, *The Journal of Business*, 38, 34-105. Fama, E. F. (1970). Efficient capital markets: a review of theory and empirical work. *Journal of Finance*, 25, 383-417. Fama, E. F., & E. M. Blume (1996). Filter rules and stock market trading. *Journal of Business*, 39, 226-241. Fama, E., & K. French, (1988). Permanent and temporary components of stock prices. *Journal of Political Economy*, 96, 246-273. Fama, E. F., & K. French (1996). Multifactor explanations of asset pricing anomalies. *Journal of Finance*, 51, 55-84. Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics*, 49, 283-306. Fong, W. M., Wong, W. K., & H. H. Lean, (2005). International momentum strategies: a stochastic dominance approach. *Journal of Financial Markets*, 8, 89-109. Fung, A. K.-W. (1999). Overreaction in the Hong Kong stock market. *Global Finance Journal*, 10:2, 223-230. Garcia, D., Sangiorgi, F., & B. Urošević (2007). Overconfidence and market efficiency with heterogeneous agents. *Economic Theory*, 30(2), 313-336. Gonzalo, J. (1994). Five Alternative Methods of Estimating Long-Run Equilibrium Relationships, *Journal of Econometrics*, 60, 203-233. Grinblatt, M., & S. Titman (1989). Portfolio performance evaluation: Old issues and new insights, *The Review of Financial Studies*, 2, 393-416. Griffin, J.M., Ji, X., & J. S. Martin (2003). Momentum investing and business cycle risk: evidence from pole to pole. *Journal of Finance*, 58, 2515 – 2548. Grundy, B., & J. Martin (1998). Understanding the nature of risks and the source of the rewards to momentum investing. University of Pennsylvania. Hon, M.T., & Tonks, I., (2003). Momentum in the UK stock market. *Journal of Multinational Financial Management*, 13, 43-70. Hong, H., & J. Stein. (1999). A Unified Theory of Underreaction, Momentum Trading, and Overreaction in Financial Markets. *Journal of Finance*, 54, 6, 2143-2184. Jefferis, K., & G. Smith (2005). The changing efficiency of African stock markets. *South African Journal of Economics*, 73(1), 54-67. Jegadeesh, N. (1990). Evidence of predictable behaviour of security returns. *Journal of Finance*, 45, 881-898. Jegadeesh, N., & S. Titman (1993). Returns to buying winners and selling losers: implications for stock market efficiency. *Journal of Finance*, 48, 65-91. Jegadeesh, N., & S. Titman (2001). Profitability of momentum strategies: an evaluation of alternative explanations. *Journal of Finance*, 699-720. Jegadeesh, N., & S. Titman (2002). Cross-sectional and time-series determinants of momentum returns. *The Reviews of Financial Studies*, 15, 143-157. Johansen, S., & K. Juselius (1992). Testing Structural Hypotheses in a Multivariate Cointegration Analysis of PPP and UIP for UK. *Journal of Econometrics*, 52, 211-244. Kahneman, D., & Tversky, A. (1979). The prospect theory: An analysis of decision under risk, *Econometrica*, 46, 171-185. Kahneman, D., & Tversky, A. (1982). Intuitive predictions: biases and corrective procedures. Reprinted in Kahneman, Slovic, and Tversky, *Judgement under Uncertainty: Heuristics and Biases*, Cambridge, England, Cambridge University Press. Lakonishok, J., Shleifer, A., & R. Vishney (1994). Contrarian investment, extrapolation, and risk. *Journal of Finance*, 49, 1541-1578. Lee, C. M. C. & B. Swaminathan (2000). Price momentum and Trading volume. *Journal of Finance*, 55, 2017-2069. Levy, R. (1967). Relative strength as a criterion for investment selection. *Journal of Finance*, 55, 2017-2069. Liu, W., Norman, S., & X. Xu (1999). The profitability of momentum investing. *Journal of Business Finance and Accounting*, 26, 1043-1091. Lo, A., & A. MacKinlay (1988). Stock prices do not follow random walks: evidence from a simple specification test. *The Review of Financial Studies*, 41-66. Laopodis, N. T. (2005). Feedback trading and autocorrelation interactions in the foreign exchange market: Further evidence, *Economic Modelling*, 22(5), 811-827. Lesmond, D. A., Schill, M. J. & C. Zhou (2004). *Journal of Financial Economics*, 71, 349-380. MacKinnon, R. (1991). Determination of the subunit stoichiometry of a voltage-activated potassium channel. *Nature* 350, 232-235. Mookerjee, R., & Q. Yu (1997). Macroeconomic variables and stock prices in a small open economy: The case of Singapore. *Pacific-Basin Finance Journal*, 5, 377-388. Moskowitz, T., & M. Grinblatt (1999). Do industries explain momentum? *Journal of Finance*, 54, 1249-1290. Nijman, T., Swinkels, L., & M. Verbeek (2004). Do country or industries explain momentum in Europe? *Journal of Empirical Finance*, 11, 461-481. O'Neal, E. S. (2000). Industry momentum and sector mutual funds. *Financial Analysis Journal*, 56, 4, pg.37. Pan, M. S., Liano, K., & G.-C., Huang (2004). Industry momentum strategies and autocorrelations in stock returns. *Journal of Empirical Finance*, 11, 185-202. Pantula, S. G., Gonzalez-Farias, G., & Fuller, W. A. (1994). A

Com-parison of Unit-Root Test Criteria. *Journal of Business & Economic Statistics*. Phengpis, C. (2006). Market efficiency and cointegration of spot ex-change rates during periods of economic turmoil: Another look at European and currency crises. *Journal of Economics and Business*, 58(4), 323. Poterba, J. M. & L. H. Summers (1988). Mean reversion in stock prices: Evidence and Implications. *Journal of Financial Economics*, 22, 1, 27-59. Rentzler, J., Tandon, K., & S. Yu (2006). Short-tern market efficiency in the futures markets: TOPIX futures and 10-year JGB futures. *Global Finance Journal*, 16, 330-353. Rouwenhorst, G. K. (1997). International momentum strategies. *Journal of Finance* 53, 267 – 284. Samitas, A., Kenourgios, D., & N. Konstantopoulos (2006). The small business capital market behavior in Athens Stock Ex-change. *Small Business Economics*, 27(4-5), 409-417. Serletis, A. (1993). Money and stock prices in the United States, *Applied Financial Economics*, 3, 51-54. Sharma, S.C., & P. Womgbangpo (2002). Long-term trend and cycles in ASEAN stock markets. *Review of Financial Economics*, 11, 299-315. Shieh, S-J. (2006). Evolution of momentum and popularity. *Journal of Evolutionary Economics*, 16, 4, 419-433. Swinkels, L. (2002). International industry momentum. *Journal of Asset Management*, 3, 2, 124 Thaler, R., & E. Johnson (1990). Gumbling with the house money and trying to break even: The effect of the prior outcomes on risky choice. *Management science*, 36, 643-660. Tversky, A., & D. Kahneman (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47, 2, 263-292. Wang, H., & R. B. Pandey (2004). A momentum trading approach to technical analysis of Dow Jones industrials. *Physica, A*, 331, 639-650. Watkins, B.D. (2006). Do emerging markets with consistent returns have better future performance? *Quantitative Finance*, 6(5), 411-422. Xiang, J., He, J., & M. Cao (2002). Continuous overreaction, insiders trading activities and momentum strategies. *Journal of Multina-tional Financial Management*, 12, 429-449.