

The Relationship Among Foreign Investment, Stock Price and Foreign Exchange Market - The Application of Wild Bootstrap M

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ABSTRACT

Some of variables are tried to be included in order to measure the foreign investment, Stock price, foreign exchange market in our study. They are separated into stationary variables and non-stationary variables by the ADF test. Furthermore, they are divided into six linear structural regression models in order to discuss the relationship among foreign investment, stock price and foreign exchange market. In fact, Heteroskedasticity is generally had in financial data. Hence, the ARCH Model is used into the linear structural regression model to observe the conditional heteroscedasticity. However, there are still problems in the setting of the ARCH model, even though it is used into the linear structural regression model. Wild bootstrap method proposed by Wu (1986) is applied into the linear structural regression model in our study can solve this problems. Our major findings are as follows: (1) Foreign investment is influenced by its past-period values. Foreign investment has the Clustering Phenomenon. (2) Foreign investment is positively influenced by stock price, stock price introduced in nature logarithm, stock returns at lag one period. (3) They are negatively influenced between stock price and exchange rate at lag one period. They are negatively influenced between stock price introduced in natural logarithm and exchange rate introduced in natural logarithm at lag one period. They are negatively influenced between stock returns and exchange rate fluctuations at lag one period.

Keywords : Foreign Investment ; stock price ; Foreign Exchange Market ; Heteroskedasticity ; Wild bootstrap method

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REFERENCES

- 一、中文文獻 田慧琦 (1995)。外資買賣對短期市場之衝擊與長期績效。證交資料, 441, 47-75。劉曦敏、賴宏忠 (1996)。利率、匯率與股價之長期均衡因果關係-共整合分析法之應用。證券金融, 49, 23-42。黃柏農 (1998)。台灣的股價與總體變數之間的關係。證券市場發展, 10 (4), 89-109。吳中書 (1998)。台灣匯率與資本移動關聯性之探討。中央銀行季刊, 21 (2), 48-63。康信鴻、溫晉慶 (2000)。東亞各國外資、股價指數與匯率的相關性。台灣經濟金融月刊, 36 (8), 34-48。劉祥熹、李崇主 (2000)。台灣地區外資、匯率與股價關聯性之研究-VAR與VECM之應用。證券市場發展, 12 (3), 1-41。姜淑美、鄭婉秀、邱建良 (2003)。外資交易行為、股市及匯市動態關係之研究。風險管理學報, 5 (1), 45-64
- 二、英文文獻 Aggarwal, R. (1981)。Exchange rates and stock prices: A study of U.S. capital markets under floating exchange rates. Akron Business and Economics Review, 12 (2), 7-12。Ajayi, R. A., & M. Mougoue (1996)。On the dynamic relation between stock prices and exchange rates. Journal of Financial Research, 19, 193-207。Ajayi, R. A., J. Friedman, & S. M. Mehdian (1998)。On the relationship between stock returns and exchange rates: Tests of Granger causality. Global Finance Journal, 9 (2), 241-251。Athukorala, & Rajapirana, S. (2003)。Capital Inflows and the Real Exchange Rate: A Comparative Study of Asia and Latin America. Black Publishing Ltd, 613-635。Bekaert, G., & C. R. Harvey (1997a)。Foreign Speculators and Emerging Equity Market. NBER

working paper, 6312. Bekaert, G., & C. R. Harvey (1997b) . Emerging Equity Market Volatility. *Journal of financial economic*, 43, 29-77.

Bahmani-Oskooee, M., & A. Sohrabian (1992) . Stock prices and the effective Exchange rate of the dollar. *Applied Economics*, 24, 459-464.

Chan, L. K. C., & J. Lakonishok (1993) . Institutional Trades and Intraday Stock Price Behavior. *Journal of Financial Economics*, 33, 173-199.

Dickey, D. A., & W. A. Fuller (1979) . Distribution of the Estimators for Time Series Regressions with a Unit Root. *Journal of Future American Statistical Association*, 74 (366) , 427-431. Dickey, D. A., & W. A. Fuller (1981) . Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root. *Econometric*, 49 (4) , 1057-1072. Dickey, D. A., & W. A. Fuller (1990) . 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., & W. A. Fuller (1990) . Distribution of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of the Business and Economic Statistics*, 4 , 249-273. Efron, B. (1979) . Bootstrap methods: another look at jackknife. *Annals of Statistics*, 7, 1-26. Engle, R. (1982) . Autoregressive Conditional Heteroscedasticity with Estimates of the Variance of U.K. Inflation. *Econometrica*, 50, 987-1007. Fama, E. F. (1970) . Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance*, 25, 383-417. Hamao, Y., & Mei, J., (2001) . Living with the " enemy " : an analysis of foreign investment in the Japanese equity market. *Journal of International Money and Finance*, 20, 715-735. Kamesakaa, A., Nofsingerb, J. R., & Kawakitac, H., (2003) . Investment patterns and performance of investor groups in Japan. *Pacific-Basin Finance Journal*, 11, 1-22. Kim, & Singal (1994) . Opening up of Stock Markets: Lessons from and for Emerging Economies. University of Michigan Press. Said S. E., & D.A. Dickey (1984) . Testing for Unit Roots in Autoregressive Moving Average Models of Unknown Order. *Biometrika*, 71, 599-607. Scholes, M. S. (1972) . The markets for securities: substitution versus price pressure and the effects of information on share price. *Journal of Business*, 4, 179-211. Wu, C. F. J. (1986) . Jackknife, bootstrap, and other resampling methods in regression analysis, *The Annals of Statistics*, 14, 1261-1295.