Stability of Beta Coefficient and Business Cycle: An Example of American Stock Market

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ABSTRACT

Investors always care about the issue of the relationship between of risk (beta cof-ficient) and return. Pettengill, Sundaram, and Mathur (1995) discovered that their rela-tionshup would be affected positive (negative) excess market return. Therefore, this the purpose of this paper is to think about its asymmetry relationship of risk and return un-der the bull market and bear market whether it exists or not. For this reason, the study of subject is taken advantage of French (2008) about American top 30 industries portfolios and research time is from 27/10/1997 to 31/12/2006. The findings are: first, in the posi-tive excess market return and bull market both beta coefficient and return are significant positive relationship; second, in the negative excess market return and bull market both beta coefficient and return are insignificant and negative relationship; third, in the posi-tive excess market return and bear market both beta coefficient and return are insignifi-cant and positive relationship; finally, in the negative excess market return and bear market both beta coefficient and return are significant and negative relationship.

Keywords : beta coefficient ; return ; asymmetry relationship ; excess market return ; bull market ; bear market

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REFERENCES

一、中文部份 呂寶珍(2000)，與時變動市場系統風險之估計－臺灣股票市場之實證，高雄第一科技大學財務管理所未出版之碩士論文。 李俊緯(2000)，台灣股市 β 係數穩定性之研究－Nonparametric Kernel Method之應用，實踐大學企業管理研究所未出版之碩士論文。 許時淦(2000)，公司貝它值與權益成本估計之研究，東海大學管理研究所未出版之碩士論文。 楊踐為，陳玲慧(1997)，臺灣股票之系統風險與無風險利率於不同景氣市場時之穩定性探討，企銀季刊，21(3)，57-72。 蔡佳賓(2000)，公司貝他值估計之研究－期別與離群效果，東海大學企業管理學系未出版之碩士論文。 二、英文部分 Banz, R. (1981). The relationship between return and market value of common stocks. Journal of Financial Economics, 9(1), 3-18. Bhardwaj, R. K., & Brooks, L. D. (1993). Dual betas from bull and bear markets: Reversal of the size effect. Journal of Financial Research, 16, 269-283. Blume, M. E. (1971). On the assessment of risk. Journal of Finance, 26, 1-10. Bollerslev, T. P., Engle, R. F., & Jeffrey, M. W. (1988). A capital as-set pricing model with time-varying covariances. Journal of Po-litical Economy, 96, 116-131. Brenner, M., & Smidt, S. (1977). A simple model of non-stationarity of systematic risk. Journal of Finance, 32, 1081-1082. Brooks, R., & Faff, R. (1997a). A note on beta forecasting. Applied Economics Letter, 4, 77-78. Chan, K. C., & Chen N-F. (1988). An unconditional asset-pricing test and the role of firms size as an instrumental variable for risk. Journal of Finance, 43, 309-325. Chen, S. N. (1982). An examination of risk return

relationship in bull and bear markets using time varying betas. Journal of Financial and Quantitative Analysis, 17(2), 265-286. Chen, K., Cheng, D., & Hite, G. (1986). Systematic risk and market power : An application of Tobin ' s. Quarterly Review of Eco-nomics and Business, 26(1), 58-72. Clinebell, J. M., Squires, J. R., & Stevens, J. L. (1993). Investment performance over bull and bear markets: Fabozzi and Francis revisited. Quarterly Journal of Business and Economics, 32(4), 14-25. Cohen, K. J., Hawawini, G. A., Maier, S. F., Schwartz, R. A., & Whitcomb, D. K. (1980). Implications of microstructure theory for empirical research on stock price behavior. Journal of Fi-nance, 35(2), 249-257. Dejong, D. V., & Collins, D. W. (1985). Explanations for the instabil-ity of equity beta: Risk-free rate changes and leverage effects. Journal of Financial and Quantitative Analysis, 20(1), 73-94 . Fabozzi, F. J., & Francis, J. C. (1977). Stability tests for alphas and betas over bull and bear market conditions. Journal of Finance, 32, 1093-1099. Fabozzi, F. J., & Francis, J. C. (1979). Mutual fund systematic risk for bull and bear markets: An empirical examination, Journal of Finance, 34(5), 1243-1250. Fama, E. F., & MacBeth, J. (1973). Risk, return and equilibrium: Em-pirical test. Journal of Political Economy, 81, 607-613. Fama, E. F., & French, K. R. (1992). The corss-section of expected stock returns. Journal of Finance, 47(2), 427-465. Fletcher, J. (1997). An examination of the cross-sectional relationship of beta and return: UK evidence. Journal of Economics and Business, 49, 211-211. Fletcher, J. (2000). On the conditional relationship between beta and return in international stock returns. International Review of Financial Analysis, 9, 235-245. French, R. K. (2008). Home page.
[Online]. Available: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/index.html [2008, August 8]. French, R. K., Schwert, G. W., & Stambaugh, R. F. (1987). Expected stock returns and volatility. Journal of Financial Economics, 19, 3-29. Granger, C. W. J., & Silvapulle, P. (2001). Large returns, conditional correlation and portfolio diversification: A value-at-risk ap-proach. Quantitative Finance, 1, 542-551. Hamada, R. (1973). The effect of the firm ' s capital structure on the systematic risk of common stock. Journal of Finance, 27(2), 435-452. Hodoshima, J., Garza-Gomez, X., & Kunimura, M. (2000). Cross-sectional regression analysis of return and beta in Japan. Journal of Economics and Business, 52, 515-533. Kim, M. K., & Zumwalt, J. K. (1979). An analysis of risk in bull and bear markets. Journal of Financial and Quantitative Analysis, 1015(5), 1015-1025. Lintner, J. (1965). The valuation of risk asset and the selection of risk investments in stock portfolios and capital budgets. Review of Economics and Statistics, 47(1), 13-37. Lakonishok, J., & Shapiro, A. (1984). Stock return, beta, variance and size: An empirical analysis. Financial Analysts Journal, 40, 36-41. Lakonishok, J., & Shapiro, A. (1986). Systematic risk, total risk and size as determinants of stock market returns. Journal of Banking and Finance, 10, 115-132. Markowitz, H. (1952). Portfolio selection. Journal of Finance, 7, 77-91. McEnally, R. W., & Todd, B. T. (1993). Systematic risk behavior of financially distressed firms. Quarterly Journal of Economics and Business, 32(1), 3-19. Mossin, J. (1966). Equilibrium in a capital asset market. Econometrica, 34(4), 768-783. Pettengill, G. N., Sundaram, S., & Mathur, I. (1995). The conditional relation between beta and returns. Journal of Financial and Quantitative Analysis, 30(1), 101-116. Peyser, P. S. (1994). Beta, market power and wage rate uncertainty. Journal of Industrial Economics, 42(2), 217-226. Sharpe, W. F. (1964). Capital asset prices: A theory of market equilib-rium under conditions of risk. Journal of Finance, 19(2), 425-442. Wiggins, J. B. (1992). Betas in up and down markets. The Financial Review, 27(1), 107-123.