

# Beta係數穩定性與景氣循環：以美國股票市場為例

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## 摘要

風險(係數)與報酬間的關係一直是投資人所關心的議題，Pettengill, Sundaram, and Mathur (1995)發現兩者的關係會受到市場超額報酬為正或為負的影響。在此，本文主要是在考量市場為多頭與空頭下，探討其風險與報酬的不對稱關係是否會依然存在。在此，以美國30大產業投資組合為研究對象，研究期間從1997年10月27日至2006年12月31日，其實證結果發現，市場超額報酬正且多頭下，係數與報酬有顯著正相關；市場超額報酬為負且空頭下，係數與報酬呈無顯著負相關；市場超額報酬為正且空頭下，係數與報酬為無顯著正相關；最後，市場超額報酬為負且空頭下，係數與報酬是顯著負相關。

關鍵詞：係數;報酬;不對稱關係;市場超額報酬;多頭市場;空頭市場

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## 參考文獻

- 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。許時滄(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 Political 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 Economics 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 Finance*, 35(2), 249-257. Dejong, D. V., & Collins, D. W. (1985). Explanations for the instability 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: Empirical test. *Journal of Political Economy*, 81, 607-613. Fama, E. F., & French, K. R. (1992). The cross-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 approach. *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 equilibrium 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.