

貝它估計值的時段效應偏誤：以台灣股市為例

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摘要

本文主要目的為探討台灣股票市場是否存在 OLS 法日報酬貝它估計值的時段效應偏誤，並且評估 Scholes 與 Williams (1977) 與 Dimson (1979) 修正法是否有效。研究設計是一種類似被控制的試驗，並用重複測量變異數分析比較結果差異。研究樣本從台灣證券交易所公開上市之公司普通股中隨機抽樣，共 585 家。樣本期間自 2006 年 12 月 27 日到 2012 年 1 月 5 日，涵蓋五年。以 .05 的顯著水準而言，本研究發現 OLS 法日報酬貝它估計值存在時段效應偏誤。而且，Scholes-Williams 法與 Dimson 法皆有時段效應偏誤問題。所以，在學術上採用事件研究法或檢定效率市場假說，或者在實務上評估股票價格、計算資金成本、評量組合風險以及基金經理人投資績效等，都不能用日報酬資料估計貝它。而應用月甚至更長時段的報酬。

關鍵詞：非同步交易，時段效應偏誤，重複測量

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The Intervalling Effect Bias of Beta Estimated:

The Case of Taiwanese Stock Market

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Abstract

The purpose of this paper is to explore whether intervalling effect bias exists in Taiwanese stock market and whether the methods proposed by Scholes and Williams (1977) and Dimson (1979) can effectively adjust for this bias. The study design is similar to a controlled experiment. With repeated measures analysis of variance, the differences among the beta estimates are analyzed. A random sample of 585 listed firms is collected. The sample period ranges from December 27, 2006 to January 5, 2012, covering 5 years. At a significance level of 0.05, this study finds that beta estimated with OLS using daily interval shows the intervalling effect bias. Neither Scholes and Williams method nor Dimson method can correct the bias. Thus, in using the event study method or testing the efficient market hypothesis, or otherwise in valuing stock, calculating cost of capital, assessing portfolio risk or fund manager performance, daily returns cannot be used to estimate betas. Instead, monthly or longer returns should be used.

Keywords: non-synchronous trading, intervalling effect, repeated measures

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