LV10088

The impact of tick size reduction on stock market quality: Evidence from a call stock market

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Abstract

The issue of tick size reduction has received considerable attention from researchers, practitioners, and policymakers. Previous literature examines the effects of tick size reduction in stock markets where employ continuous auction method in most trading sessions of the trading day. However, little studies pay attention to the impact of tick size reduction in a call stock market.

The Taiwan Stock Exchange is an order-driven call stock market. Starting from March 1, 2005, the Taiwan Stock Exchange has changed the tick size. According to the new tick size rules, the Taiwan Stock Exchange reduced tick size by 80% from NT$0.50 to NT$0.10 for stocks with price ranged from NT$50 to NT$100. The significant change of tick size provides an opportunity to investigate the effects of tick size reduction on the market quality in the call stock market.

Using the intraday data from September 1, 2004 to August 31, 2005, the results indicate that the market quality on the Taiwan Stock Exchange is improved after tick size reduction. A smaller tick size is associated with a lower standard deviation of returns, a higher trade probability, a less negative return autocorrelation, and a larger variance ratio. Even controlling the bid-ask bounce errors, the effects of tick size reduction are still significant.

Keywords: Tick size reduction, Market liquidity, Price efficiency, Call stock market