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Research Article

Futures trading, spot market volatility, and market efficiency: The case of the Korean index futures markets

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Abstract

We examine the effect of the introduction of index futures trading in the Korean markets on spot price volatility and market efficiency of the underlying KOSPI 200 stocks, relative to the carefully matched non-KOSPI 200 stocks. Employing both an event study approach and a matching-sample approach for the market data during the period of January 1990–December 1998, we find that the introduction of KOSPI 200 index futures trading is associated with greater market efficiency but, at the same time, greater spot price volatility in the underlying stock market. We also find that KOSPI 200 stocks experience lower spot price volatility and higher trading efficiency than non-KOSPI 200 stocks after the introduction of futures trading. The trading efficiency gap between the two groups of stocks, however, declines over time and vanishes following the addition of options trading. Overall, our results suggest that while futures trading in Korea increases spot price volatility and market efficiency, there exists volatility spillover to stocks against which futures are not traded. We provide several factors unique in the Korean markets including circuit breakers, sidercar system, restrictions on foreign ownership, and inactive program trading as potential factors to explain some of our puzzling evidence. We further consider the potential effect of changes in daily price limits utilized by the Korea Stock Exchange during the testing period on our empirical findings. © 2004 Wiley Periodicals, Inc. Jrl Fut Mark 24:1195–1228, 2004

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