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Vega-informed trading and options market reform

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ABSTRACT

This study examines the effect of reform to the KOSPI200 options market on volatility trading. We find that the information quality of net volatility demand significantly changes after the reform. The overall options demand for volatility does not predict spot market volatility before the market reform, but it does so after the reform. The significant information content of volatility trading can be attributed to the vega-weighted net demand of institutional investors.

KEYWORDS:

KOSPI200 options | Market microstructure | Market reform | Vega information | Volatility trading

JEL CLASSIFICATION:

G10 | G13 | G14

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

[1] We classify options trades as those made by domestic individual investors, domestic institutional investors, and foreign institutional investors. The proportions and trading volumes of foreign individual investors and government-owned firms are negligible in the KOSPI200 options market.

[2] The lagged realized volatility (RV) is included in our model to take into account volatility persistency and clustering. If we do not control for the RV time series, the significantly estimated coefficients on the options demand measures do not guarantee volatility information content of options trading. When we incorporate more lagged RV terms into the regression equation, our conclusion remains the same.

[3] For robustness, we construct some additional demand measures: 1) the net demand measure (e.g., D_t =∑K∑T 1CtK,T∂CtK,T∂σt(BuyCalltK,T−SellCalltK,T)\break+∑K∑T 1PtK,T∂PtK,T∂σt(BuyPuttK,T−SellPuttK,T)); 2) the volume-adjusted demand measure (e.g., PD_t =∑K∑T 1CtK,T∂CtK,T∂σt(BuyCalltK,T/OVt)+∑K∑T 1PtK,T∂PtK,T∂σt\break(BuyPuttK,T/OVt), where OVt denotes the total options trading volume on day t.); and 3) the standardized demand measure that mitigates the multicollinearity problem (Kleinbaum, Kupper, and Muller 1988). The additional tests based on these measures yield essentially the same conclusions.

Additional information

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