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Relative performance of bid–ask spread estimators: Futures market evidence

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Abstract

The issue of transaction costs is the mainstay of the equity market microstructure. Research in the microstructure of futures markets has lagged behind. A primary reason is that futures exchanges in the U.S. do not record bid–ask quotes, requiring these costs to be imputed from transaction price data. A reliable estimator of bid–ask spreads would significantly enhance microstructure research in futures markets. Unique intraday data from the Sydney Futures Exchange (SFE) that include both transaction prices and bid–ask spreads allow us to compare bid–ask spread estimation techniques proposed in the literature against the benchmark of actual spreads in a futures market, and thus identify the best-performing estimator. To maximize relevance, we impose all the constraints that apply in U.S. futures data to perform our estimations. We find that the four bid–ask spread estimators considered significantly underestimate the actual spreads. However, simple moments-based estimators perform better in predicting spreads.

JEL classification: G10

Keywords: Transaction costs; Bid–ask spreads; Spread estimators; Futures markets

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