

A Range-based Regime Switching Model for Futures Hedging

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Abstract

This paper proposes a range-based Markov regime switching dynamic conditional correlation GARCH model (*RBMS-DCC*) for dynamic futures hedging. We investigate if range-based model is superior to return-based model under regime-shifting environment. Results of hedging exercises on Hang Seng index futures and DAX index futures reveal that out-of-sample, range-based *DCC* is superior to return-based *DCC* and range-based regime switching *DCC* is superior to return-based regime switching *DCC*. It is also found that allowing the range-based *DCC* to be state-dependent improves the hedging performance compared to state-independent *DCC* models.

JEL classification:
C32 - Time-Series Models
C51 - Model Construction and Estimation
G10 – General

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