
HeiKaMEtrics-Seminar

Joint Heidelberg, Karlsruhe and Mannheim research seminar in Econometrics

Measuring Dynamic Connectedness with Bayesian VAR Models

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Abstract:

The connectedness index methodology proposed by Diebold and Yilmaz (2014) relies on rolling sample windows estimation of VAR model. The resulting dynamic total connectedness measure possesses excessive persistence which potentially renders the identification of the beginning and end of the crisis episodes difficult. In order to provide a solution to the excessive persistence problem, we estimate a large TVP-VAR model of daily stock return volatilities for 28 U.S. and European financial institutions. Our results clearly show that dynamic connectedness measures from the TVP-VAR model do not suffer from the excessive persistence problem. As a direct consequence, the dynamic total connectedness index obtained from the TVP-VAR model shows more pronounced jumps during important crisis moments than the DY index obtained from rolling windows estimation, better capturing the increase in tensions in financial markets.