

Working Paper Series

Does the Spillover Index Reflect Systemic Shocks? A Bootstrap-Based Probabilistic Analysis

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Does the Spillover Index Reflect Systemic Shocks? A Bootstrap-Based Probabilistic Analysis*

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Abstract

The spillover index introduced by Diebold and Yilmaz (Economic Journal, 2009, vol. 119, pp. 158-171) is widely used in the analysis of financial market interlinkages. Abrupt increases in the spillover index are thought to be associated with systemic events but formal statistical support for this effect has yet to be provided. We develop a new bootstrap-based technique to evaluate the probability that the spillover index increases over an arbitrary time period following an exogenously defined event. Using the authors' original dataset, our results lend qualified support to the notion that the spillover index increases in a statistically significant manner in the wake of systemic shocks.

JEL classification: C32, C58, G15

Keywords: Spillover index; systemic events; bootstrap-after-bootstrap procedure

