

Disentangling the sources of connectedness between economic variables

Jozef BARUNÍK^{a,b*} and Tomáš KŘEHLÍK^{a,b}

^a Institute of Economic Studies, Charles University,
Opletalova 21, 110 00, Prague, Czech Republic

^b Institute of Information Theory and Automation,
The Czech Academy of Sciences, Pod Vodarenskou Vezi 4,
182 00, Prague, Czech Republic

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Abstract

In this paper, we study the sources of connectedness between economic variables disentangling the dependence due to mere correlation, persistence, and frequencies. We construct new frequency dependent connectedness measure based on the spectral counterpart to the forecast error vector decomposition of generalized vector auto-regression (VAR). The measure conveniently decomposes the connectedness to the frequencies and thus provide important insights for the literature. Moreover, by altering the estimated covariance matrices we identify the effect of correlation between variables. The usefulness of the method is supported by various simulation scenarios. In the macroeconomic application, we find important short-term and long-term structural patterns driving the business cycles connectedness of the largest economies. In the stock markets application, we identify rich dynamics in the frequency structure of the spillover index. We document different periods with short-term, as well as long-term components dominating the structure of connectedness.

Keywords: Connectedness, spillovers, spectral analysis

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*Corresponding author, Tel. +420(776)259273, Email address: barunik@utia.cas.cz