

Dynamic Interdependencies Networks of G-7 Economic Policy Uncertainties: Evidence from the TVP-VAR Frequency Connectedness

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Abstract

This study analysis dynamic connectedness networks of G-7 economic policy uncertainties (EPU) in January 1998 and April 2021 and by employing the time-varying parameter VAR (TVP-VAR) frequency connectedness approach of Barunik and Ellington (2020). In this context, we build a network dynamic by using the spectral representation of time-varying variance decomposition matrices. By doing so, we estimate short-, medium-, and long-term connectedness between G-7 EPUs over a period that consists of two upheavals, the GFC and the COVID-19 pandemic. Additionally, we employ a locally stationary TVP-VAR model using the Quasi-Bayesian Local Likelihood (QBLL) methods which allow drawing from the posterior distributions of the dynamic adjacency matrix. Both short-term network connectedness reflecting the GFC and the COVID-19 pandemic indicate precipitous intensifications of spillovers among the economic policy uncertainties during the economic turmoil episodes. Additionally, our results underline considerable strong short-term EPUs interdependencies relative to medium-, and long-term EPUs connectedness for the two epochs.

Keywords: TVP-VAR, QBLL, Economic Policy Uncertainty Index, Network Connectedness

JEL Codes: C10, C40, C58