



# Interactions Between Global Value Chains and Foreign Direct Investment:

## A Network Approach

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# Abstract

The world economy is increasingly shaped by cross-border production and investment activity. The paper uses complex network analysis along with panel data econometric techniques to study the structure and interactions between the networks of global value chains (GVC) and foreign direct investment (FDI). The analysis reveals that both FDI and GVC networks have a distinct core-periphery structure dominated by a relatively small number of countries with the USA constituting the global hub interlinked with regional European and Asian clusters, which, in turn, are centered around regional hub countries like China and Germany. Simultaneous equation model regressions using three-stage least squares suggest that FDI centrality facilitates GVC centrality of countries. However, FDI centrality is driven to a large extent by the FDI statutory restrictions and tax offshore regulations, rather than GVC connectivity.

**Keywords:** global value chains; foreign direct investment; network analysis; cross-border connectivity; simultaneous equation model

**JEL classification:** F10, F14, F15, F21



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