

# **Senior and junior supervisor research topic application for the IPhD Programme in Regional Development, 2023-24**

Name/position of the senior supervisor: Tamás Sebestyén, full professor  
Highest academic degree : Phd, habil.

## **Title of the suggested research topic:**

Systemic risk and efficiency gains in global production networks

## **The international relevance, importance, and timeliness of the research topic:**

Global supply networks developed over the recent decades brought significant efficiency gains with economic growth but also led to the development of systemic risk that signals the fragility of these systems. A basic question is to understand this trade-off between risk and efficiency that is supported by an increasing literature as well as a widening range of available data. The EconNet Team is forming at UPFBE since 2015, focusing on empirical and theoretical aspects of these questions.

## **Which UP-FBE research could the PhD candidate join?**

EconNet research.

## **Possible research directions:**

Measuring systemic risk in production networks. Database development on the basis of global company level IO data. Network-focused development international trade models. Measuring economic resilience and its network aspects.

## **The supervisor's expertise and experience in the research field**

Tamás Sebestyén has been actively developing the EconNet research group at UPFBE, in which already 4 researchers have finished their PhD, contributing to a vibrant community focusing on the empirical and theoretical aspects of economic networks, supply/production chains.

## **The most important publications in the research field over the last five years**

Longauer, Dóra ; Sebestyén, Tamás: Hálózatformálódás, aszimmetria és egyensúly monopolisztikus versenyben. SZIGMA 53 : 2 pp. 137-166. , 30 p. (2022)

Sebestyén, Tamás ✉ ; Szabó, Balázs: Market interaction structure and equilibrium price heterogeneity in monopolistic competition. NETNOMICS 22 : 2-3 pp. 259-282. , 24 p. (2022)

Braun, Erik ✉ ; Sebestyén, Tamás ; Kiss, Tibor: The strength of domestic production networks: an economic application of the Finn cycling index. APPLIED NETWORK SCIENCE 6 Paper: 69 , 26 p. (2021)

Iloskics, Zita ; Sebestyén, Tamás: A sokkterjedés szerkezeti jellemzőinek változásai a fejlett gazdaságok között. STATISZTIKAI SZEMLE 99 : 7 pp. 661-699. , 39 p. (2021)

Braun, Erik ; Kiss, Tibor ; Sebestyén, Tamás: A magyar járműipar kapcsolati szerkezetének vizsgálata: A német járműipartól való függőség alakulása. KÖZGAZDASÁGI SZEMLE 67 : 6 pp. 557-584. , 28 p. (2020)