

Abstract

The central issue of this thesis is investigating the eventuality of systemic breakdowns in the international financial system through examining systemic dependence between bank and insurance sectors. Standard models of systemic risk often use correlation of stock returns to evaluate the magnitude of interconnectedness between financial institutions. One of the main drawbacks of this approach is that it is oriented towards observations occurring along the central part of the distribution and it does not capture the dependence structure of outlying observations. To account for that, we use methodology which builds on the Extreme Value Theory and is solely focused on capturing dependence in extremes. The analysis is performed using the data on stock prices of the EU largest banks and insurance companies. We study dependencies in the pre-crisis and post-crisis period. The objective is to discover which sector poses a higher systemic threat to the international financial stability. Also, we try to find empirical evidence about an increase in interconnections in recent post-crisis years. We find that in both examined periods systemic dependence in the banking sector is higher than in the insurance sector. Our results also indicate that extremal interconnections in the respective sectors increased, while an increase in bank-to-insurer relationships is the most noticeable.

JEL Classification F12, F21, F23, H25, H71, H87

Keywords financial stability, systemic risk, dependence in extremes, Extreme Value Theory

Author's e-mail jprochazkova11@gmail.com

Supervisor's e-mail boril.sopov@gmail.com