

TOPIC “Interbank exposures: an empirical examination of credit risk spillover effect between financial institutions in Russian Federation from 2000 to 2017”

## **Abstract**

Stability of financial systems has always been of interest to researchers, though for different reasons over the years. With multiple financial crises over the last few decades, many research studies are dedicated to the analysis of the interbank lending market as a substantial distribution channel for financial distress. In particular, current changes to the Russian banking system and the Central bank policies aimed to stabilize the banking system as Russia builds free market economy, significantly affect the financial sector.

This paper is an attempt at examining the evolution and principal factors of contagion risk between the actors of Russian banking system for the period from 2000 to 2017. To conduct the analysis, we used the information on Russian interbank lending market and bank financial statements. The goal of this research is to assess the changes in the level of credit risk spillover as a factor of systemic risk minimization.

The hypothesis of our research could be formulated as follows: the policy of the Central bank of Russia influenced the shift in the structure of interbank market from the model where banks had relatively symmetric links to more centered system and as a result decreased the contagion risk in the financial system comparing to the previous periods. The first part of the study, presented here, show the preliminary results on the Russian bank network composition and network predictors of fund movements between the banks.

In this study to test the hypothesis stated, we used a number of statistical methods of analysis: regression analysis, statistical forecasting, etc. Most importantly, the network analysis is applied to model the network of Russian financial institutions, where the nodes represent the banks and the links describe the type and the size of financial flows between them.

Preliminary results show that some banks form directional connections with other banks that only allow them to receive, not send, the funds via interbank exchanges. Also, it appears that some node attributes, such as being located in the same region, also reduce the probability of a new tie formation (in this case, ability to send or receive funds to those banks which were not connected before), also reducing the default risk. The results of this study could be used both by banks and regulatory authorities to improve the methodologies of credit scoring, when making a lending decision and to conduct stress-testing more efficiently for individual bank and for financial system as a whole.

**Key words:** Financial system stability, contagion in the financial sector, network analysis, interbank market.