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## **NON-TECHNICAL SUMMARY (PROJECT RRC14+63 – THE RELATIONSHIP BETWEEN SOVEREIGN AND BANK CRISES)**

The global banking system proved significantly vulnerable to systemic risk during the 2007-2009 financial crisis. In a paper "Systemic risk of the global banking system - an agent-based network model approach" the authors construct an agent-based network model of systemic risk to a banking system, and use it for stress-testing of several different regulatory measures. First, the simulations confirm that sufficient capital buffers in individual banks are crucial for protecting the stability of the whole system. Second, the findings indicate that the regulatory measures installed as preventive measures to ensure that the banks possess sufficient capital buffers have almost no positive effects on stability when the system is collapsing. Finally, the authors highlight various data deficiencies which prevent the researchers and regulators from fully understanding the complete range of systemic risk and make it difficult to devise effective and targeted regulatory measures at this time.

A paper "The Nexus Between Systemic Risk and Sovereign Crises" looks at the relationship between the financial system and sovereign debt crises by analyzing sovereign support to banks and banks' resulting exposure to the bonds issued by weak sovereigns. The authors construct an agent-based network model of an artificial financial system allowing us to analyze the effects of state support on systemic stability and the feedback loops of risk transfer back into the financial system. The model is tested with various parameter settings in Monte Carlo simulations. The authors present the following key results: firstly, in the short term, all the support measures improve the systemic stability. Secondly, in the longer run, there are settings which mitigate the systemic crisis and settings which contribute to systemic break-down. Finally, the authors find differences among the effects of the different types of support measures. While bailouts and recapitalization are the most efficient support type and guarantees execution is still a viable solution, the results of liquidity measures such as asset relief or funding liquidity provision are significantly worse.