

LUNCH SEMINAR SERIES

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"CAN BANKS DEFAULT OVERNIGHT? MODELING ENDOGENOUS CONTAGION ON O/N INTERBANK MARKET"

Abstract

We propose a new model of the liquidity driven banking system focusing on overnight interbank loans. This significant branch of the interbank market is commonly neglected in the banking system modeling and systemic risk analysis. We construct a model where banks are allowed to use both the interbank and the securities markets to manage their liquidity demand and supply as driven by prudential requirements in a volatile environment. The network of interbank loans is dynamic and simulated every day. We show how only the intrasystem cash fluctuations, without any external shocks, may lead to systemic defaults, what may be a symptom of the self-organized criticality of the system. We also analyze the impact of different prudential regulations and market conditions on the interbank market resilience. We confirm that central bank's asset purchase programs, limiting the declines in government bond prices, can successfully stabilize bank's liquidity demand. The model can be used to analyze the interbank market impact of macroprudential tools.

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