Abstract

Linkages between economic agents in form of financial assets might contribute to transmission of shocks between different parts of the economy. Aim of this thesis is to enrich the ongoing discussion about the spread of contagion through the economy. We provide an analysis of financial interlinkages in the Czech economy and using the contingent claims analysis (CCA) model we attempt to quantify risks in the system that that are implied by the existence of these linkages. We use different techniques within the framework of the model to obtain various indicators that can be used to assess stability of the system. Using simulations we find that size of losses due to riskiness of debt depends strongly on the origin of a shock and it is higher for shocks originating in the household sector than for shocks originating in the sector of the non-financial corporations. We also find that size of a decrease in capital of the banking sector needed to cause a distress in the system as relatively high and stable in time.

JEL Classification E01, E44, G01, G12, G20

Keywords Balance sheet contagion, financial accounts,

network models, contingent claims analysis, systemic risk

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