Contagion risk in the Bolivian financial system – Analysis through interbank payment networks and the credit operations financing to firms

Jonnathan R. Cáceres Santos

Abstract

The aim of this paper is to propose a model of financial contagion that incorporates the connection network between banks-firms and banksbanks in the case of the Bolivian financial system.

The results found with information as of August 2016 showed that the banks of the Bolivian financial system had sufficient primary capital reserves (Tier 1) to absorb the unexpected losses.

In the stress scenario, the results showed that the fall of the most interconnected bank would have produced effects of the third round and a financial contagion that would reach three banks and a global loss of 31,9% of the primary capital.

The proposed model allows obtaining relevant information to approach the systemic importance of groups of companies and banks. Likewise, it constitutes a follow-up tool for the design of macroprudential policies that allow the preservation of financial stability.

JEL Classification: *C15, G21*

Keywords: *Systemic risk, payments system, topology of networks, financial contagion*