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Identifying Central Bank Liquidity Super-Spreaders in Interbank Funds Networks ^{*}

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Abstract

We model the allocation of central bank liquidity among the participants of the interbank market by using network analysis' metrics. Our analytical framework considers that a super-spreader simultaneously excels at borrowing and lending central bank's liquidity for the whole network, as measured by financial institutions' *hub centrality* and *authority centrality*, respectively. Evidence suggests that the Colombian interbank funds market exhibits an inhomogeneous and hierarchical network structure, akin to a core-periphery organization, in which a few financial institutions fulfill the role of central bank's liquidity *super-spreaders*. Our results concur with evidence from other interbank markets and other financial networks regarding the flaws of traditional direct financial contagion models based on homogeneous and non-hierarchical networks. Also, concurrent with literature on lending relationships in interbank markets, we confirm that the probability of being a super-spreader is mainly determined by financial institutions' size, but leverage and lending concentration as well. We provide additional elements for the implementation of monetary policy and for safeguarding financial stability.

JEL: E5, G2, L14

Keywords: Interbank Markets; Networks; Super-spreaders; Central Bank Liquidity; Financial Stability

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