

---

[Download](#)

Keep in mind

The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). It contributes to the dissemination and promotion of the work by researchers from the institution. This series is indexed at Research Papers in Economics (RePEc).

On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

#### AUTHORS AND/OR EDITORS

[Martínez-Ventura, Constanza León-Rincón, Carlos Eduardo](#)

Publication Date:  
Monday, 13 of January 2014

Under the view that the market is a weighted and directed network (Barabási, 2003), this document is a first attempt to model the Colombian money market within a spatial econometrics framework. By estimating two standard spatial econometric models, we study the cost of collateralized borrowing (i.e.

---

sell/buy backs) among Colombian financial institutions, and its relationship with the effects induced by traditional variables (leverage, size and borrowing levels), and by spatial variables resulting from observed linkages among financial institutions. The model that best fits the data is the Spatial Durbin Model, whose main findings indicate that (i) traditional variables are of low explanatory power by themselves; (ii) there exists a significant spatial dependence with regard to the cost of collateralized borrowing; (iii) the inclusion of spatial lags of the same traditional factors results in a model able to explain the existence of borrowing spreads that vary across financial institutions despite the collateralized nature of sell/buy backs; (iv) direct and spill-over effects from the spatially lagged value of financial leverage are the most significant for determining the cost of collateralized borrowing. Results are valuable since making connectedness an explanatory variable breaks with the traditional (reductionist) understanding of financial markets, which concurs with the current interest in the macro-prudential perspective of financial stability.