

---

[Borrador número 1022](#)

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*). 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.

AUTHOR OR EDITOR

Carlos León

In complex systems, homogeneity (i.e. lack of diversity) has been documented as a source of fragility. Likewise, financial sector's homogeneity has been documented as a contributing factor for systemic risk. We assess homogeneity in the Colombian case by measuring how similar banks are regarding the structure of their overall financial statements, and their lending, investment, and funding portfolios. Distances among banks and an agglomerative clustering method yield the hierarchical structure of the banking system, which exhibits how banks are related to each other based on their financial structure. The Colombian banking sector displays homogeneous features, especially among the largest banks. Results enable to study to what extent the banking sector is homogeneous, and to identify banking firms

---

that have a (n) (un) common financial structure. Yet, as we neither examine Colombian banking system complexity nor banks' soundness nor higher dimensions of diversity, conclusive inferences about systemic risk and financial stability are pending.

The series Borradores de Economía is published by the Economic Studies Department at the Banco de la República (Central Bank of Colombia). 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.