

# Structure of Control in Financial Networks: an Application to the Brazilian Stock Market

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The financial architecture of a company can be understood through the ownership network, in which the firms are linked together by property relations, forming complex patterns. The structure of the ownership of a company reflects the structure of economic power or financial control. In this work, following a similar approach as in Glattfelder and Battiston [1] and Rotundo and D’Arcangelis [2], we formalize the Brazilian financial control using complex networks, considering direct and indirect control. Data are provided by BM&F BOVESPA, with 416 listed companies and 1670 autonomous agents, updated on July 2017.

## References

- [1] GLATTFELDER, J. B.; BATTISTON, S., *Backbone of complex networks of corporations: the flow of control*, Physical Review E, 8, p.036104, 2009.
- [2] ROTUNDO, G.; D’ARCANGELIS, A. M., *Ownership and control in shareholding networks*, Journal of Economic Interaction and Coordination, 5, p.191-219, 2010.