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Financial networks based on Granger causality: A case study

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Highlights

1. Richer linkages are detected among the 21 stock indexes based on the PMIME than with the CGCI.
2. Both the PMIME and the CGCI indicate a strong influence of the US market on the other ones.
3. High values of the network measures are obtained during the 2007-2009 crisis regime which is in accordance with the observed interdependence among the international stock markets.
4. The PMIME indicates that several years after the financial crisis, connectivity among stock markets does not revert to the before-crisis states and therefore there is a dense structure between the international stock markets.