



Interlinkages and structural changes in cross-border liabilities: a network approach

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We study the international interbank market through a geometrical and a topological analysis of empirical data. The geometrical analysis of the time series of cross-country liabilities shows that the systematic information of the interbank international market is contained in a space of small dimension, from which a topological characterization could be conveniently carried out. Weighted and complete networks of financial linkages across countries are developed, for which continuous clustering, degree centrality and closeness centrality are computed. The behavior of these topological coefficients reveals an important modification acting in the financial linkages in the period 1997-2011. Here we show that, besides the generalized clustering increase, there is a persistent increment in the degree of connectivity and in the closeness centrality of some countries. These countries seem to correspond to critical locations where tax policies might provide opportunities to shift debts. Such critical locations highlight the role that specific countries play in the network structure and helps to situate the turbulent period that has been characterizing the global financial system since the Summer 2007 as the counterpart of a larger structural change going on for a more than one decade.

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