Discussion: A Framework for Analyzing Contagion in Banking Networks by T.R. Hurd and J.P. Gleeson

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Model

- adapt a *network model* to banks
- if a bank has lots of relations with other banks and such a bank defaults then it can lead to a cascade of bankruptcies
Model

- $Y_\nu$ and $Z_\nu$ irrelevant. What matters are edges and probabilities.
- edges annihilate instead of decreasing some intensity
- paper provides equations describing default cascade. Leads to some function $G(\cdot)$
- if $\|G \circ G \circ G \circ \cdots\| < 1$ then stability, else explosion...
Economic Questions

• what are the implications for the regulator? Control variable?
• which ones are the most nevralgic banks?
• what should banks focus on during stress tests? what should they report to the regulator?
• banks are static: if a node breaks one would expect other edges to pop up?
• no central bank
Empirical Questions

• How can one implement this model in practice?
  • one needs more than count of edges: actual amounts lent. Number of edges may be a bad proxy for amounts.
  • scale: where should the network finish. Also companies and even individuals belong to *The Matrix*
  • calibration of $P_1^+, P_2^+, \ldots$
  • Here $N \rightarrow \infty$. FED (2009), Supervisory Capial Assessment Programm: 19 banks
  • Here focus on contagion, impression that direct effect of external shock dominates
The bigger picture?

- Other research in this area
