Distress Dispersion and Systemic Risk in Networks

by

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Discussion by

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Summary (1)

- Model of interlinkages
- Four dates: t=0,1,2,3
- At t=0 firms borrow \$1 and invest in a project
- No credit risk (return R), but liquidity risk
- a comes at t=2, the rest R - a comes at t=3.
- Debt is due at t=2

Summary (2)

- Debt is due at t=2
- If the firm does not have enough liquidity to pay debt holders, it has to liquidate some of the project.
- There is a per unit cost of c for liquidating projects early.
- Hence, firms have incentives to co-insure against liquidity shocks to prevent costly liquidations.

Summary (3)

- At t=1 public signal about the expected cash flow at t=2 (v)
- Still uncertainty about the realization at t=2
- Firms with low v are in distress (subject to liquidity risk)
- Firms with high v are liquid.
- At t=1 firms engage in insurance contracts for using swap contracts
- Exchange liquidity at t=2 for returns at t=3.

Assumptions and results

- Local Contingency: Price depends on connections of firms *i* and *j* but not on the connections of the firms they are connected to.

- This creates the wedge between the social optimum and the equilibrium.

- Firms have at most two connections (for simplicity).

- The surplus from connections increase as the difference between firms increase (liquid vs. distressed firm).

Results

- Social optimum:

- The most distressed firm gets isolated
- Others get connected (risk-sharing).

- Equilibrium:

- The most distressed firm is not isolated, gets connected to the most liquid firm (distress link).

- Sparse (not full) connections among other firms (not enough risk-sharing links).

Comments: Liquidity risk

- Liquidity risk arises from delayed cash flows
- Diamond and Rajan
- It would good to mention this.

Comments: Debt holders

- Debt holders require payment at t=2 of 1 unit.
- Is that insured?
- Why is the face value of debt equal to 1?
- Debt holders do not care about liquidity risk?

Comments: Fire sales

- Cost of liquidation is fixed at *c*.
- Cash-in-the-market pricing: More assets sold, the higher the discount.
- *c* increasing in the fraction of assets sold.
- Results get stronger, larger wedge between the social optimum and the equilibrium?

Comments: Resolution (1)

- Merger & Acquisition and Purchase & Assumption are preferred options.
- Private resolution
- Minimize use of public funds
- Minimize disruptions
- Prevents moral hazard (as opposed to bailouts)
- **Works well only when the good apple does not get rotten by the bad apple.**

Comments: Resolution (2)

- This has not always been the case.
- Lloyds acquisition of HBOS took down Lloyds
- Forced acquisitions may not always deliver the desired result.

Interlinkages or Resolution

- The paper tries to do both.

- Is the paper about liquidity insurance and interlinkages?

- Is it about resolution?

- Is this the right set up to study resolution and show that M&A or P&A works well when the healthy bank can absorb the distressed bank?

Overall

- The paper is on an important topic.
- Endogenous formation of networks
- Inefficiencies that may arise
- Focus and the results can be strengthened.
- Nice paper, highly recommended!