### Network-motivated Lending Decisions

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## Paper's Strengths

- Extremely interesting paper with a clear objective
- Intuitive and novel idea

*Objective*: to provide a rationale for forbearance, the behavior by which a bank keeps supplying additional credit at a lower interest rate to under-performing or non-performing firms.

*Idea*: In a supply network, an influential firm generates positive externalities by supporting other firms' activity. Its exit may damage the sales and, hence, the bank may find optimal to internalize this externality by forbearing on debt collection and/or bail out such firm.

Forbearance can improve bank's profit (welfare)

# **Empirical Findings**

*Empirical test*: use TSR Corporate Relationship Database, which provides information about inter-firm transactions in Japan, to verify the theory.

*Results*: the cost of credit is lower for more influential firms within the supply networks among borrowers of a bank, and this effect is more clearly observed for more risky firms whose main bank is a regional bank

## Comments and related Suggestions

#### Theory

 Bank is a coalition of agents (profits of banks = income of agents). It is not clear why the paper considers depositors (eq. 15 does not includes payment to depositors).

This is an easy route to translate profits effects into welfare effects, however, it involves doubts on ownership and on welfare.

 It is not clear if the equilibrium is uniquely determined: decisions are taken simultaneously. Prices determine households income, firms profits and bank profits. Yet prices depends on how many firms are financed (*e<sub>i</sub>*) which in turn depends on banks maximizing choice.

### Comments and related Suggestions

- In this model there is no difference between equity and debt: bank gets all firms' profit. This might create problem with the empirical test (based on interest rate).
- Why households cannot directly consume the liquidity they own? Why they cannot invest and obtain ρ?
- What happens if households value differently than banks intermediate goods (different utility function)?
- Firms with zero profit are indifferent between exiting the market and operating. Why firms with negative profit would operate?

## Comments and related Suggestions

#### Estimation

- Does the variable *risk* really captures unprofitable firms (negative return on investment) or simply more risky investment (higher volatility)?
- A negative effect of the influence coefficient v<sub>i</sub> on the variable interest rate Interest costs/total outstanding loans (assets?) – could capture not a decrease in the interest rate for more influential firms in difficulties but an increase in the loan exposure.
- Does really the baseline result of a negative coefficient on the influence coefficient v<sub>i</sub> (table 6) captures a forbearance effect due to the network? Or rather a size effect? Consequently, the marginal effects (table 7) could capture non linearities.