Comments on the Ogura-Okui-Saito Paper

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Summary

- Static Model (One-period model)
- Representative agent and monopolistically competitive firms
- Firms use products of other firms as inputs and outside input (labor).
- Rigid supply-chain network structure of the firms
- Monopoly bank owns all firms in the network and choose whether or not to let the firms operate.

Summary 2

- Positive externality = Leontief multiplier effect:
  Aggregate demand externality due to monopolitic competition
- Firm z at the center of the network exert positive externality
- Bank undertakes Forbearance lending, ie, loan to a firm with negative profit.
  - Monopoly bank owns all firms in the supply-chain network
    $\Rightarrow$ It is optimal for bank to lend to Firm z even if it has negative value, as Firm z exerts sufficient positive externality to other firms in the network.
- Forbearance lending is welfare enhancing.

Comment 1

- Is it a model of recession or economic crisis?
  It seems not, because $\cdots$
  - Static model.
  - "Forbearance" = let a negative-value firm continue operation.
  - "Forbearance" is good if the firm is connected to many firms because of the positive externality.
  - "Forbearance" should be observed in the normal times or boom periods.
- The main message of this model should be on the structure of the economy, not business fluctuations.
  - Center firms exert the positive externality on other firms to a large extent.
  - Periphery firms do so to a small extent.

Comment 2

- The Network externality in this model may be used to explain a structural feature of the economy:
  Interest rate spread between large firms and small firms.
  - Existing explanation: The spread is risk premium. Large firms are more safe than small firms.
  - New explanation from this model: The spread is due to the network externality. Large firm is more connected than small firms.
- It is worthwhile to modify the model such that the loan rate, ρ, is endogenous and firm-specific.
  Conjecture is
  - ρ_z for the center firm z is low,
  - ρ_i for the periphery firm i is high.

Comment 3

- Can we judge whether Forbearance Lending is good or bad from this model?
  There are problematic settings in the model:
  - One bank lends to all firms in the supply-chain network.
    $\Leftarrow$ Realistic? If not, forbearance lending by one bank may have negative externality on the other banks.
  - Debt write-off equals closure of the firm.
    $\Leftarrow$ They are not equal usually. Forbearance lending may hinder rehabilitation of the debt-ridden firm.
- Fukuda and Nakamura (2009): Forbearance may be good, because some zombie firms recovered their profitability after the crisis period. $\Leftrightarrow$ Not compatible with this model.

- This model can justify the government's bailout of big companies like GM in the center of the supply-chain. But not forbearance lending by private financial institutions.

Small comments

- The rigorous model of decentralized banks should be developed or delete Section 2.3.2.
- This model is consistent with “Disorganization” theory (Blanchard and Kremer 1998, QJE) on the transformation of the post-communist economies.
- Detailed analysis on the relationship between
    - the characteristics of the supply-chain network (random network, scale-free network, etc.) and
    - the extent of the externality (the influence factor v)