Solidarity group lending & global games

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Research question

- How does the strength of social cohesion within the microentrepreneurial community induce group loan members to cooperate towards the socially desirable outcome rather than act in their own self-interest?
Game-theoretic approach

Coordination game
- Common knowledge of the fundamentals of the setting
- Only strategic uncertainty
- Multiple pure Nash strategy equilibria

Global game
- Heterogeneous signals of the fundamentals
- Both fundamental & strategic uncertainty
- Unique switching equilibrium
- Group members have different perceptions of the social cohesion within the microentrepreneurial community and of possible social sanctions.

- Therefore, they extract different risk premia from equally risky investment projects.

- Strategies are conditional on private risk premia.

- Global games literature: Carlsson and van Damme (1993); Morris and Shin (2003); Bond and Rai (2009).
Game equilibrium

Prior belief over peers' actions

Unique switching strategy

Private signal of social cohesion
Results

- Conditional on her own risk premium, a borrower takes the action which is a best response to her belief over her peers' actions.

- Switching strategy: A borrower invests in a safe (risky) project if her risk premium lies below (above) a critical threshold.

- Unique strategy surviving iterated elimination of dominated strategies.
Results

- “Switching equilibrium”: threshold value of risk premium.
- “Failure point”: threshold number of peers investing in a safe project below which group loan just fails.
- Switching equilibrium depends on failure point, but not only...
Results

- Coordination on safe projects is easier to achieve for:
  - Lower failure point;
  - Higher sure return on the safe project or lower expected return on the risky project;
  - Lower probability of success of the risky project;
  - Higher (non-monetary) value of business support services offered by the lender;
  - Lower compensation amount due to the lender in case of a peer’s default.
Further research

- Network extension
- Local interaction games
- Banking