Discussion on 'Risk-sharing or risk-taking? Counterparty risk, incentives and margins' by Biais, Heider and Hoerova

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Research Question and Answer

- The paper studies risk-sharing contracts and a possible moral hazard problem on the side of the protection seller
- Method: Builds the model where risk-sharing contract is written between a risk-averse protection buyer (e.g. commercial bank) and a risk-neutral protection seller (e.g. investment bank or insurance company)

Results:

- When the hedge becomes liability for the seller it reduces her incentives to exert effort and avoid default
    1. To reduce this counterparty risk, buyer may prefer to reduce insurance
    2. Counterparty risk increases as pledgeable income decrease
    3. Retrading of contracts leads higher counterparty risk

Assumptions

- 4 stages:
  1. Write contract where payment τ is conditional on future outcome $\tilde{\theta}$, news $\tilde{s}$ and return on seller's assets $\tilde{R}$
  2. News becomes public information
  3. Protection seller decides whether to exert effort on investment decision
  4. $\tilde{\theta}$ and $\tilde{R}$ realize and τ is paid
- Buyer offers the contract that maximizes her welfare s.t. seller's participation constraint holds
- Seller decides whether to exert effort, if not he is imposed on the risk of default with probability $1 - p$

Results

- When effort is observable, no moral hazard, and optimal contract provides full insurance
- If unobservable
  1. After good signal, seller exerts effort (contract is asset for her)
  2. After bad signal, seller is left rent to ensure effort, no full insurance or
  3. No effort, when buyer is fully insured unless seller defaults, counterparty risk
  4. Margins improve risk-sharing
  5. If retrading is allowed sellers cumulate contracts to one seller, who benefits from limited liability

"Policy recommendations"

- There is a reason to regulate the amount of derivative contracts hold by financial institutions
- Expensive contracts by well established institutions (high pledgeable income) indicate future risk-taking
- The establishment of Central counterparty to implement margins can be appropriate policy response
- Retrading the hedging contract undermines buyer's incentives to control balance sheet $\rightarrow$ retrading must be regulated

Comments

- Asymmetric preferences between the protection buyer and the seller (commercial and investment bank)
- Buyer (Commercial Bank) has all market power and offers the contract that maximizes its welfare
  - Nash Bargaining?
- Hedging contract can also lead to higher risk-taking by seller, not only lower effort
- Default cost for seller would decrease or even remove moral hazard problem
- If there are many buyers with different projects, individual project or news don't affect effort decision
  - Also retrading can increase risk-sharing between sellers and increase welfare