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# Creditor Conflict and the Efficiency of Corporate Reorganization

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## Our paper

- Studies incentives for secured creditors to force **inefficient** liquidations or sales in bankruptcy.
- Develops a simple model that mirrors characteristics of Ch. 11 and allows us to gauge efficiency of outcomes.
- Estimates model using 721 Moody's bankruptcies from 1989-2011.
- **Key results:**
  - Inefficient sales/liquidations occur in **8%** of cases.
  - Average cost of inefficiency is **0.28%** of reorganization value.

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## Policy debate

*“There has been an explosion in the use of secured credit... trumping any long-term reorganization for the benefit of existing shareholders”*

--Bankruptcy Reform Commissioners Robert Keach and Albert Togut, June 2011

*“The Bankruptcy Code provides few checks on lenders overreaching ... often to the detriment of the estate and the debtor’s other stakeholders.”*

--Authors of the 1978 Bankruptcy Code Kenneth Klee and Richard Levin, 2012

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## Related literature

- Early studies of capital structure and restructuring efficiency:
  - Gilson (1990), Gilson, John, and Lang (1990), Asquith, Gertner, and Scharfstein (1993), James (1996).
- Liquidation values and incentives to renegotiate:
  - Benmelech and Bergman (2008)
- Inefficient liquidations in bankruptcy:
  - Strömberg (2000)
  - Ayotte and Morrison (2009)
- **Our paper:** Combines a structural model with large dataset to estimate incidence and costs of inefficient liquidations.

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## The Model

- Let:
  - $V$  = expected reorganization value at start of case.
  - $L = (1-\delta)V$  is the liquidation value at start of case.
  - $S$  = Size of secured creditor's claim
- We assume secured creditor with claim  $S$  has strong control over decision to liquidate versus reorganize.
- Well known result: Senior (secured) creditors prefer early liquidations because upside from a reorganization is capped at  $S$ , but downside can go to zero.

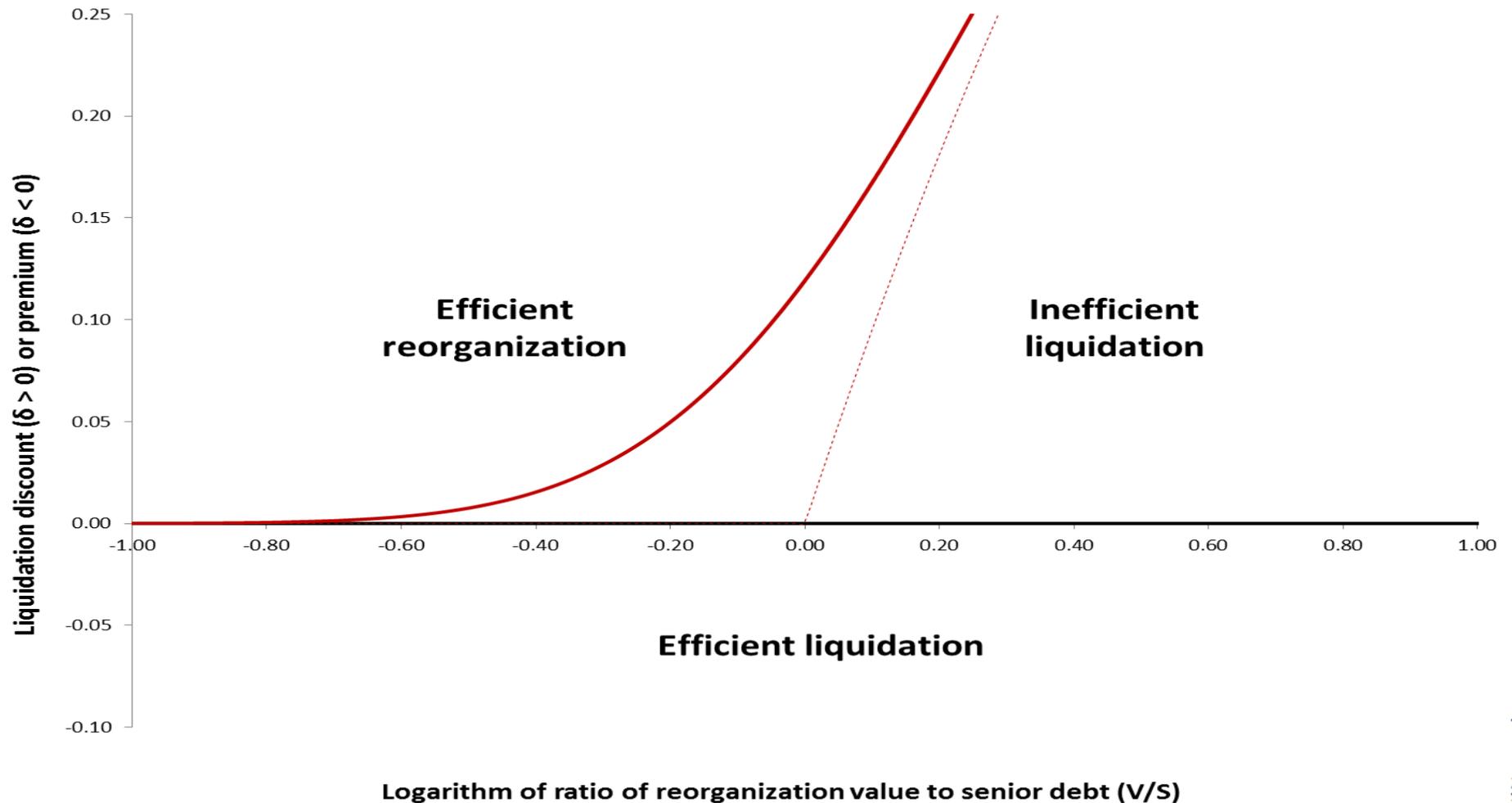
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## The Model

- Three factors can mitigate number of inefficient liquidations:
  1. For  $V$  far below  $S$ , secured creditors can still capture upside from reorganization.
  2. For values of  $L$  that are much lower than  $V$  (high liquidation discounts), it can still pay for secured creditor to make the efficient decision.
  3. For  $V > S$ , junior creditors can litigate, object, or payoff secured creditors to take over process and reorganize.
    - Assume junior creditors must pay transaction cost  $\theta \times S$  to take over process.

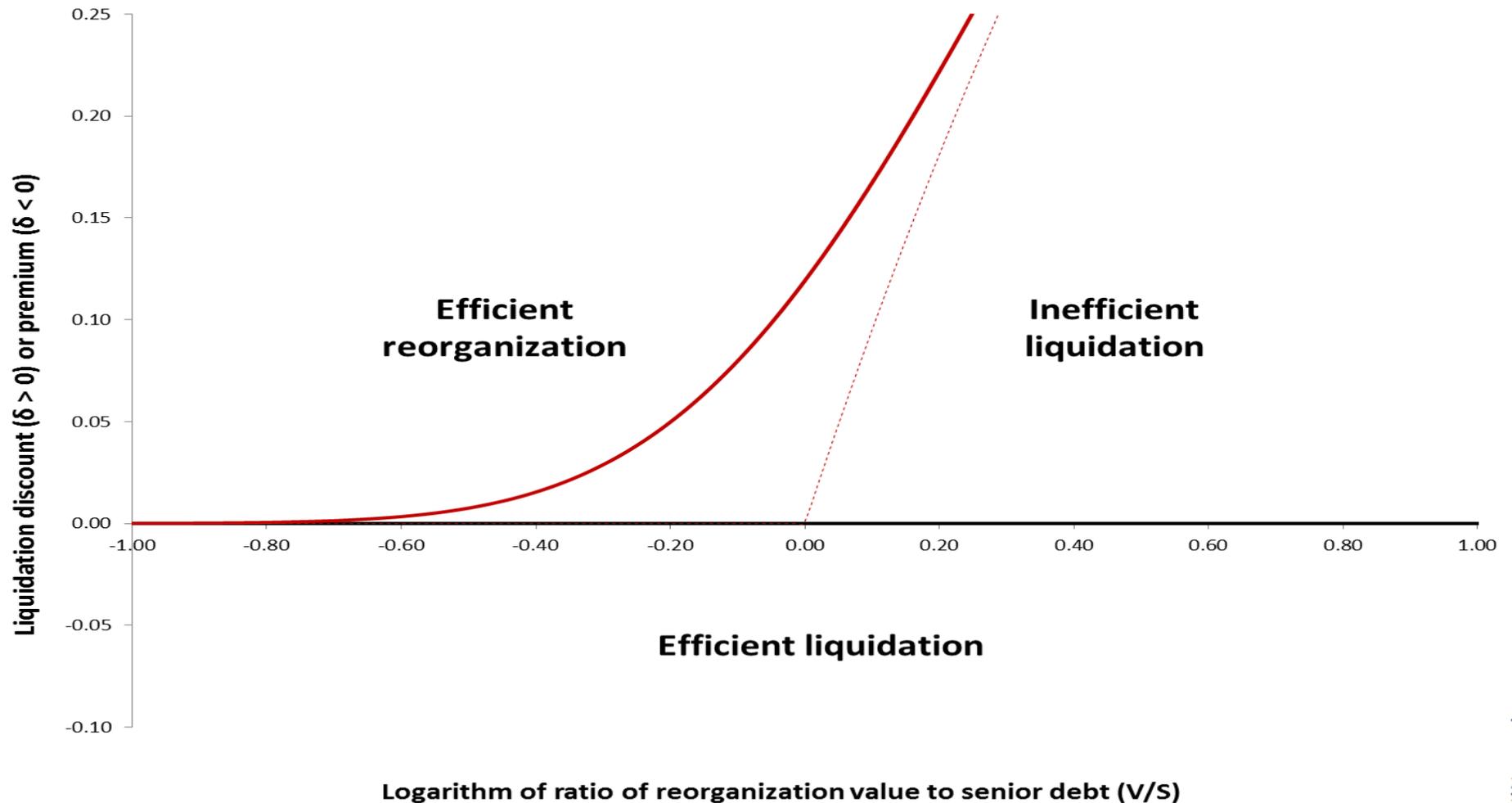
# Simple model: Senior creditors' decision

Senior creditors prefer to liquidate whenever  
 $\text{Min}(L, S) > V - C(V, S, \sigma, T)$



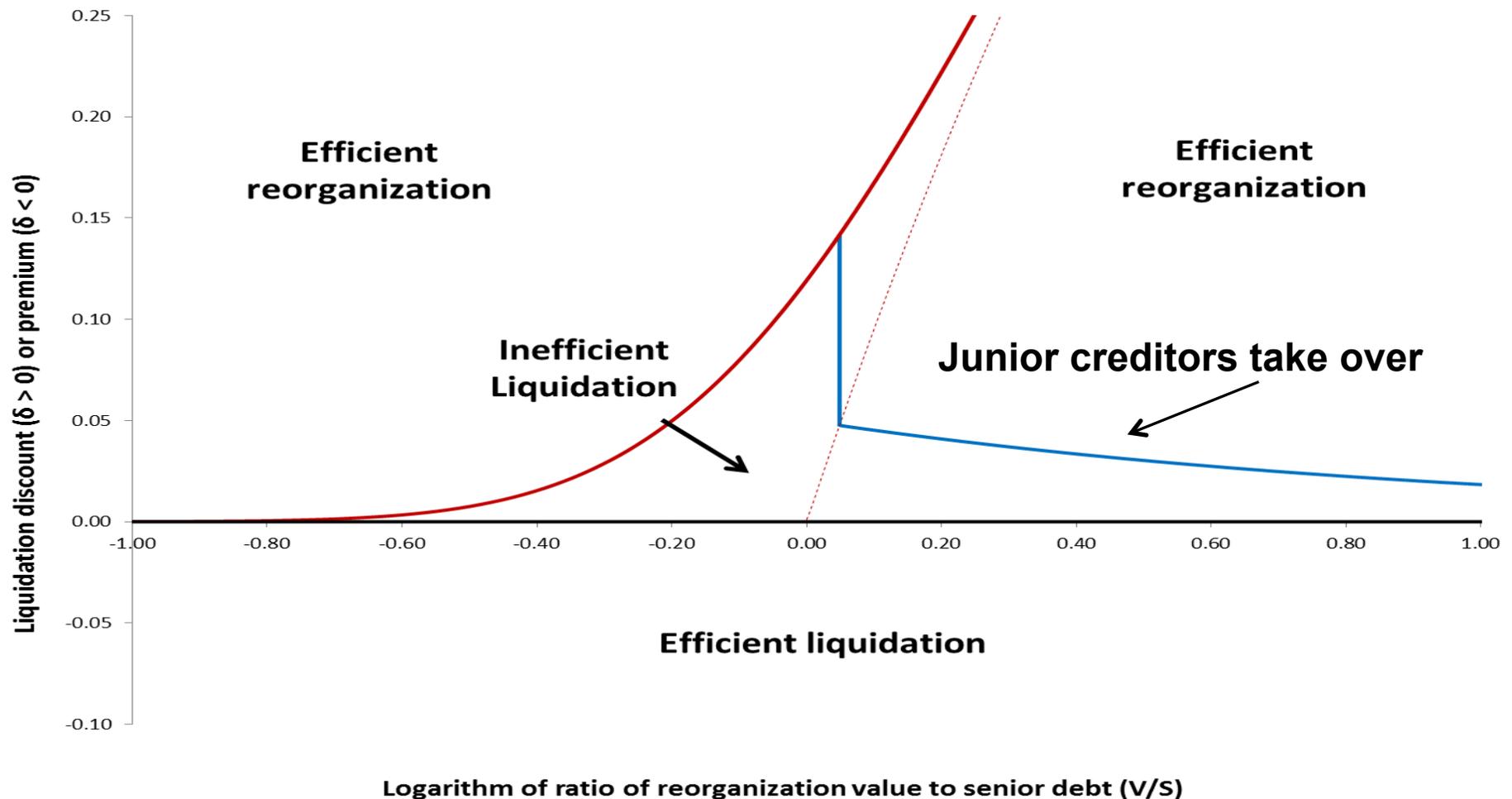
# Simple model: Add junior creditors

Junior creditors prefer to take control of process whenever  $\max(0, L - S) < V - S(1 + \theta)$



# Simple model: Add junior creditors

Junior creditors prefer to take control of process whenever  $\max(0, L - S) < V - S(1 + \theta)$



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## Model estimation

- Use Moody's database to collect information on:
  - Whether a firm is reorganized or sold/liquidated.
  - Realized recovery values from reorganizations and liquidations.
- Use model to estimate expected reorganization values and liquidation values for each of the 721 bankrupt firms.
- Examine reorganization frequencies as a function of degree to which secured creditor is under- or over-secured.

## Model + Data yields rich results (Table 6)

Outcome	Estimate	Std. Err.
Total reorganizations	73%	(2.3%)
- By seniors	41%	(2.5%)
- By juniors	33%	(1.7%)
Total liquidations	27%	(2.3%)
- Efficient	19%	(1.8%)
- Inefficient	8%	(3.2%)
Average liquidation discount		
- All bankrupt firms	11%	(1.7%)
- Reorganizations	16%	(2.8%)
- Efficient liquidations	-8%	(2.5%)
- Inefficient liquidations	4%	(0.4%)
Expected efficiency losses	0.28%	(0.14%)
Transactions cost paid by juniors, $\theta$	7%	(3.0%)

“Saved”  
by juniors

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## Summary

- Use a large sample of Moody's bankruptcies and estimable economic model to measure frequency and costs of inefficient liquidations.
- Results indicate that the frequency of bankruptcies that end in an inefficient liquidation, 8%, and attendant costs, 0.28% of value, are relatively small.
- Drawback: Inferences based on large firms only. Estimation using smaller firms would be interesting area for future research.