

**Discussion of Reindle-Schandlbauer:  
Do bond covenants prevent asset substitution –  
using a novel structural estimation approach**

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# The paper

- Firms close to bankruptcy have an incentive to engage in risk-shifting
- Debt covenants can prevent risk-shifting, thus reducing the cost of debt and creating value for both debt- and shareholders
- Decisions endogenous: financing, covenants, risk-shifting, bankruptcy
- Structural estimation to show
  - Risk-shifting prior to bankruptcy
  - Covenants can prevent risk-shifting
  - They also trigger bankruptcy earlier than else optimal and therefore are not optimal for all firms.

# Quantification

- How valuable is risk-shifting to shareholders?
  - How costly is risk-shifting to debtholders?
  - How valuable are covenants to shareholders / debtholders?
  - How much cheaper is debt with covenants?
  - What are the effects overall – not only on your sample?
- Distinguish incentives and effects more clearly
- Get closer to reality

# The benefits to risk-shifting

- Theory: shareholders want to risk-shift because it benefits them (on cost of the debtholders)
- Model: increase volatility → decrease cash flow growth rate
- Cash flow growth?
  - Few risky investments likely to affect cash flows immediately
  - Can cash flow become negative?
  - Likely to affect residual value of firm
- Decrease?
  - Underinvestment problem: Firms are not able to take on NPV-positive projects
  - Covenants may exacerbate this problem
  - Here assumed away
- Fit with model
  - For firms with covenants: empirically observed growth rate = 3.9%, model estimation -2.2%

# Covenants

- Counterfactual analysis very helpful: what would have been the effects of covenants, to the sample without covenants? (Negative)
- What about the other direction: how much did firms with covenants benefit from covenants?
- How much of that was due to a lower price of debt, how much because of the lack of risk-shifting?

# Covenant type

- Model: cash-flow covenants
  - Cash flow falls below threshold → triggers default
  - Creates quick default after risk-shifting (since it lowers cash-flow growth)
  - Such default is not optimal
- Sample: 89% financing restrictions, 83% investment, 66% dividends
  - Investment restrictions are the closest to model
- Why use the financing and dividend restrictions?
- Why not model investment restrictions instead of cash flow restrictions?
- What do covenants trigger in reality? Default or cash penalty?

# Sample

- Sample: Firms that underwent chapter 7 or 11, 7 previous firm-years
- To quantify overall effects you'll want all firms or at least clarify what are the differences
- 7 years: determines bankruptcy speed ex-ante?

# Conclusion

Structural estimation a great method to analyse bankruptcy-related decisions

I learned a lot from this paper (no expert)

It made me greedy for more!

Remind me to give you my notes with typos