Why is Hedge Fund Activism Procyclical?

Mike Burkart Amil Dasgupta

SSE, CEPR, ECGI & FMG LSE, CEPR & ECGI

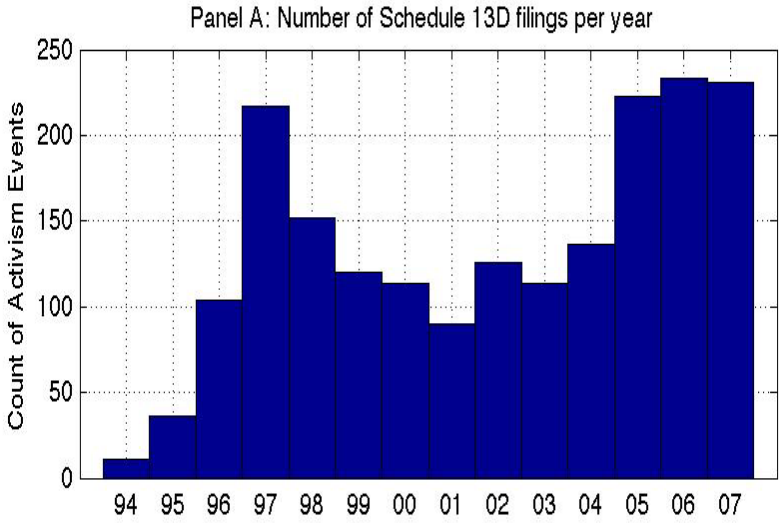
June 2013
EFMA, Reading

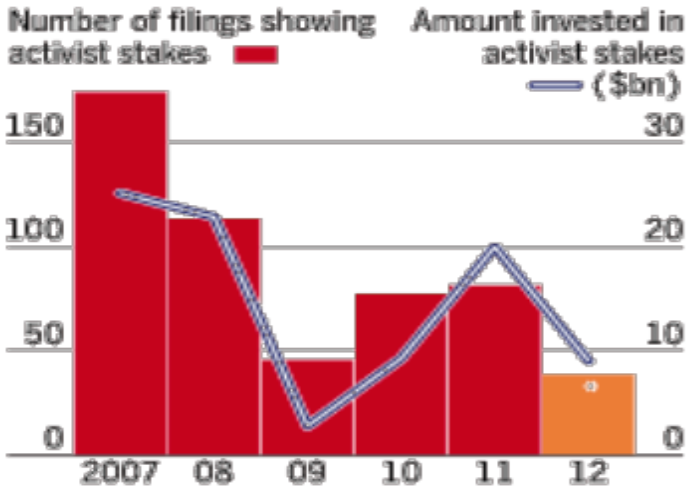
Motivating Phenomena

- Hedge funds have taken the lead in institutional shareholder activism since the mid-1990s.
- Hedge fund activism has produced gains to target firms measured by shareholder value and operating performance.
  - Brav, Jiang, Partnoy and Thomas JF 2008, Clifford JCF 2008, Becht, Franks, Mayers, Rossi RFS 2009, Klein and Zur JF 2009, Boyson and Mooradian RDR 2011.
- Yet, hedge fund activism appears to be a fair-weather phenomenon.
  - In booms, activist HFs launch many campaigns.
  - In busts, activist HFs reduce or cease in their activist efforts.

Some illustrative evidence

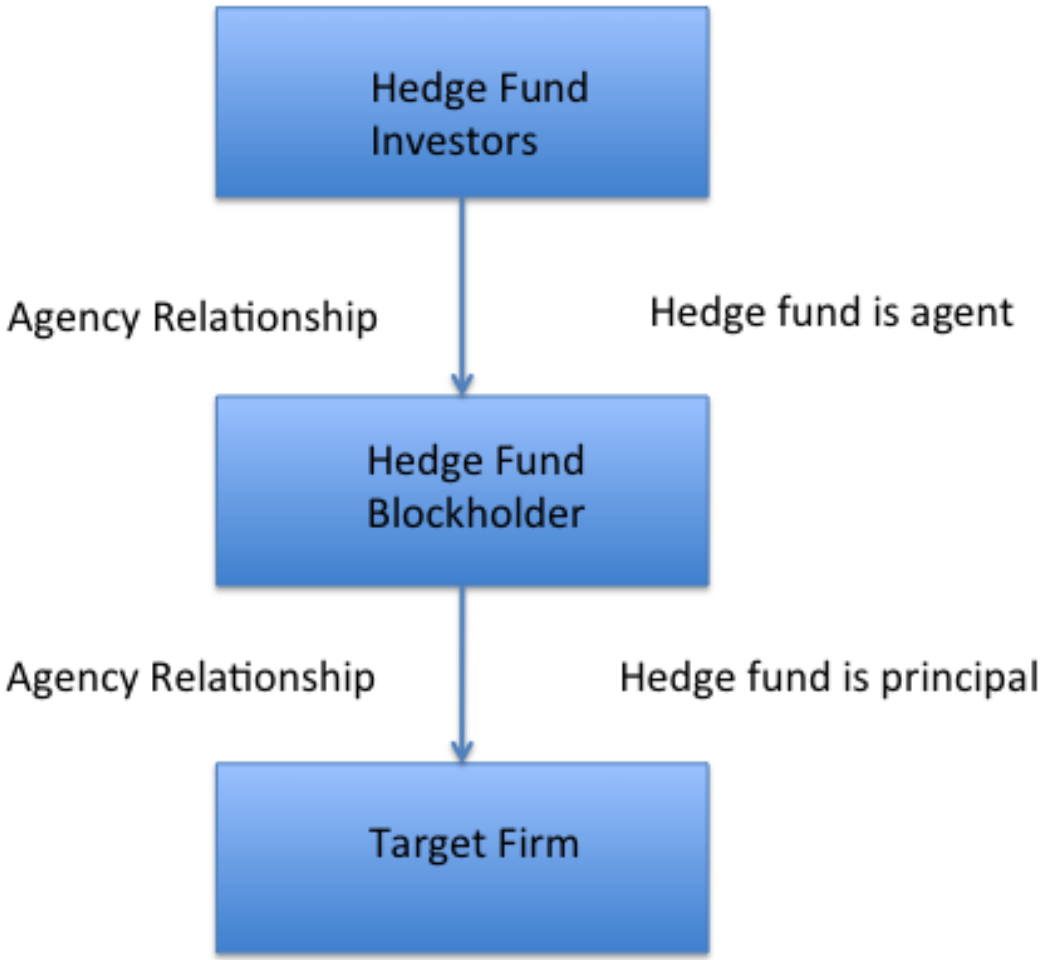
From Alon Brav's webpage (left) and the Financial Times 22 August 2012 (right)





- This paper provides a theoretical foundation for why activism shuts down during busts.
- Our theory emphasizes the dual-layered agency problem at the heart of hedge fund activism.

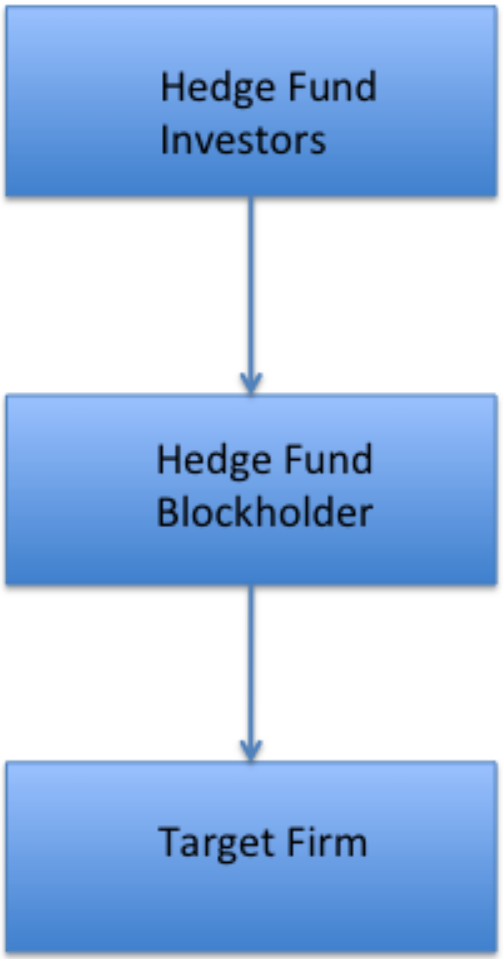
Hedge fund activism: A dual-layered structure



Lower level agency problem

Brav, Jiang,Kim (2010):

HF targets are "cash-cows that may suffer from the agency problem of free cash flow"



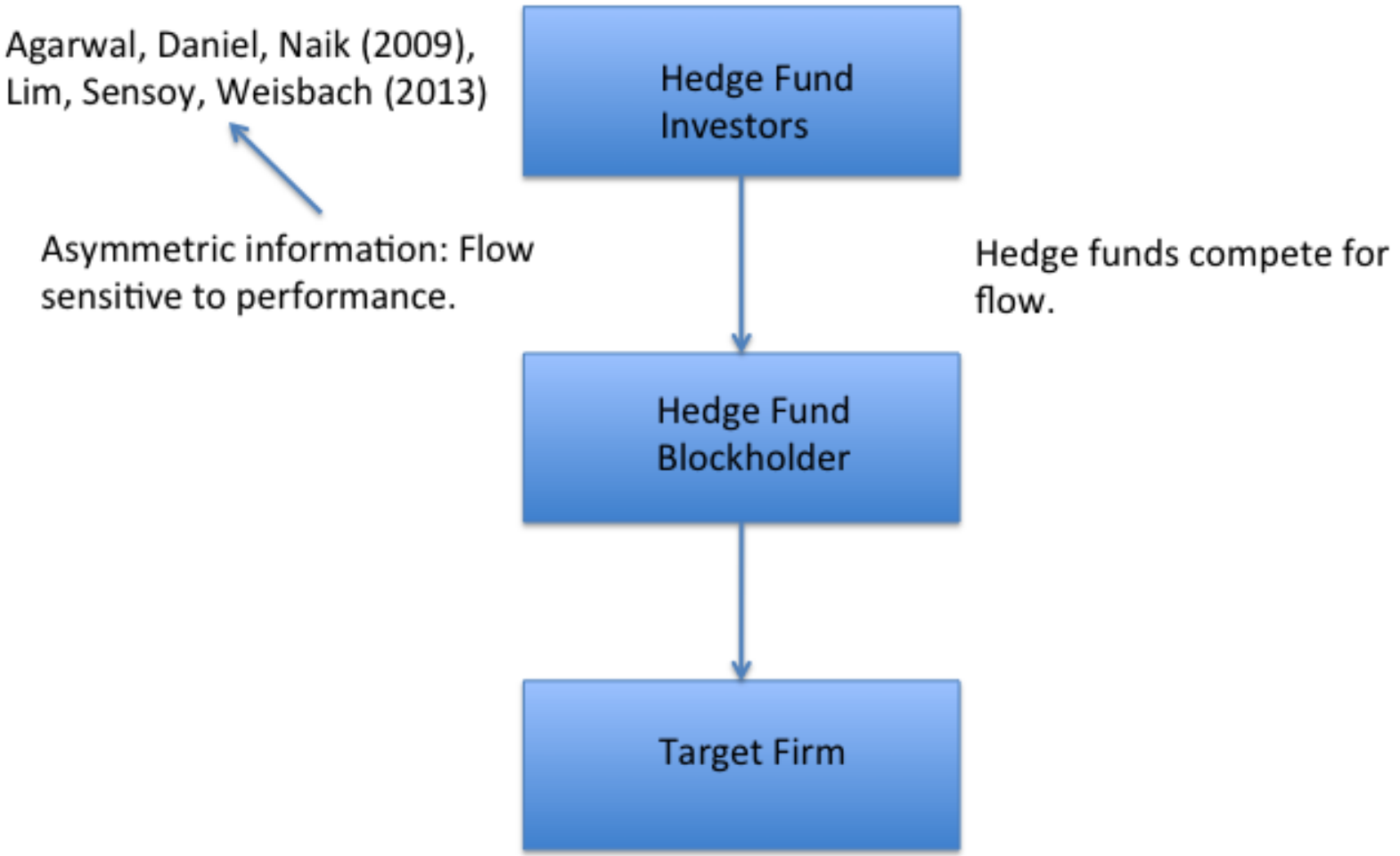
Brav, Jiang,Partnoy, Thomas (2008):

HF "propose strategic, operational, and financial remedies"

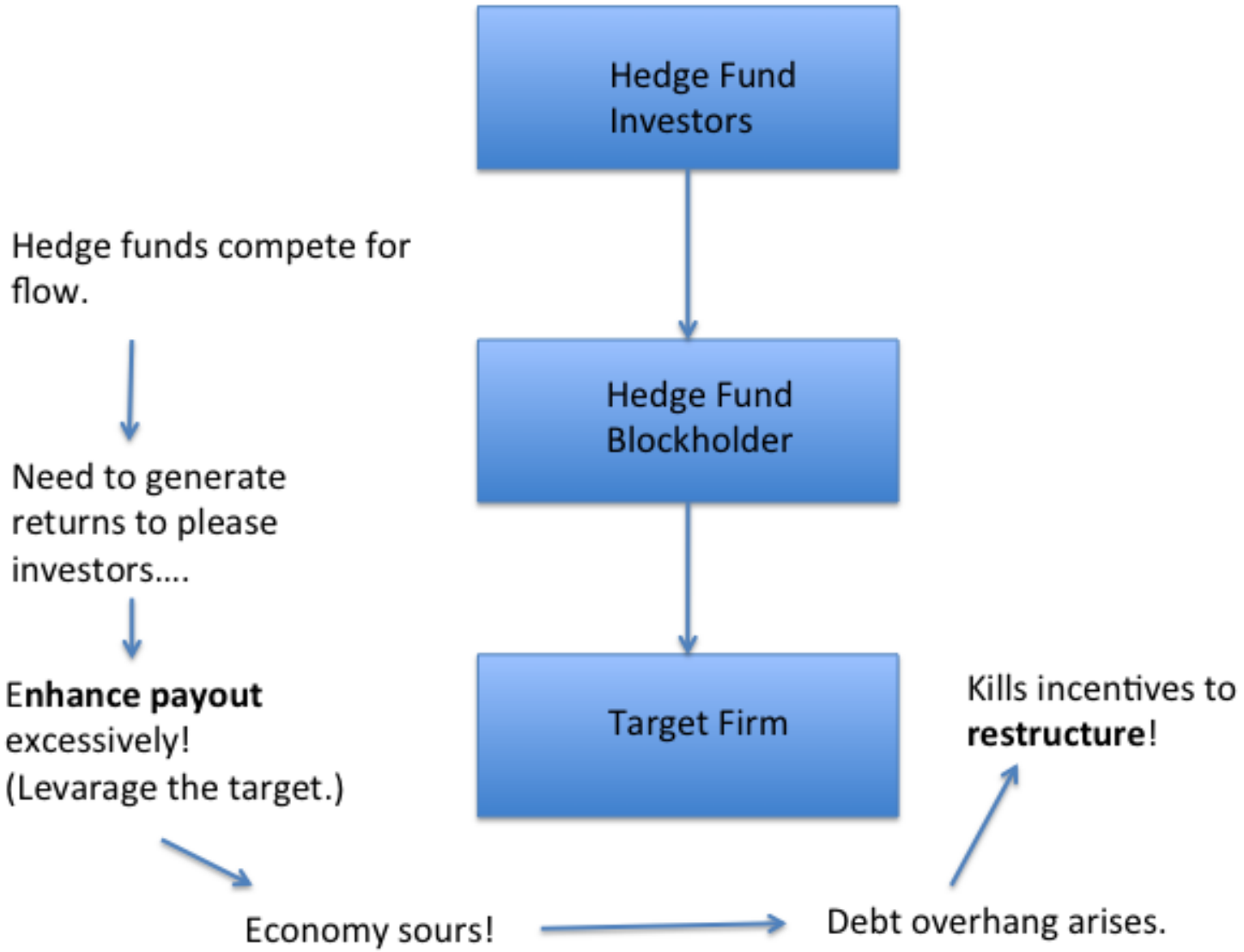
Need to solve free cash flow problem (**enhance payout**)

Need to cure underperformance (**restructure**)

Upper level agency problem



Our story


Hedge Fund Investors
Hedge Fund Blockholder
Target Firm
Hedge funds compete for flow.
Need to generate returns to please investors....
Enhance payout excessively! (Levarage the target.)
Economy sours!
Debt overhang arises.
Kills incentives to restructure!

Debt overhang: Empirical grounding

- Analysis does *not* imply any specific target leverage, but *does* imply that hedge funds increase the net leverage (debt net of cash) of target firms and that debt is defaultable.
- Hedge funds appear to increase the net leverage (debt net of cash) of their target firms.
  1. HF activists target companies with low payout ratios and *increase* payouts and leverage (Brav et al 2008, Klein and Zur 2009, Li and Xu 2010, Boyson and Mooradian 2011).
  2. Targets disproportionately experience *credit downgrades* (Byrd et al 2007, Aslan and Maraachlian 2009, Klein and Zur 2011).
  3. Targets' *debt becomes riskier*: Li and Xu (2010) show bank loans to targets have higher spreads and shorter maturities; Klein and Zur (2011) document negative abnormal bond returns at the announcement of activism.

Private equity funds?

- Model motivated by activist hedge funds, the analysis and results may apply more generally.
- Buyout activity of private equity funds is procyclical.
- Like hedge funds, private equity funds also:
  - Face implicit incentives (future flows stem from current performance) (Chung, Sensoy, Stern, and Weisbach 2012).
  - Use leverage at the level of the target firm.
- Our debt overhang story qualitatively fits the cyclical features of private equity buyout activity as well.

Actors

- Two periods: 1,2.
- Target firms (T), hedge funds (HF), hedge fund investors (IN), competitive deep pocketed creditors (C).
- HF enters period 1 having used IN's capital to acquire a stake in a T.
- HF come in two types $\theta \in \{G, B\}$, $\Pr(\theta = G) = \gamma_\theta$.
- Type G are better activists, can produce higher cash flow from each of two forms of activism:
  1. *Free cash flow mitigation* (period 1): T has excess cash $C_1 > 0$ in period 1– if not identified and paid out by HF – will be wasted.
  2. *Restructuring* (period 2): business enhancements (Brav et al 2008), asset reduction (Clifford 2008) or merger (Greenwood and Schor 2009) of T:
     Two characteristics (1) Requires privately costly effort from HF and (2) Cash flows produced depend on the economic state.

Activism

1. *Free cash flow mitigation* (period 1):
   - HF can at infinitesimal cost monitor ($m \in \{0, 1\}$) T.
   - If $m = 1$ salvage and pay out x_1^θ.
   - $x_1^G \sim F$ on $[0, C_1]$ and $x_1^B = x_1^G - \Delta x_1$ where $\Delta x_1 > 0$.
   - HF can raise period 1 payout (D_1) by leveraging T by L borrowed from C.
2. *Restructuring* (period 2):
   - Aggregate economic state: $s \in \{H, L\}$, with $\Pr(s = H) = \gamma_s$, revealed at the beginning of period 2.
   - Given s, HF can exert effort $e \in \{0, \bar{e}\}$ at private cost e, giving rise to cash flows, $x_2^\theta(e)_s$ with:
     - 2.1 $x_2^\theta(0)_s = 0$ for all θ, s;
     - 2.2 $x_2^G(\bar{e})_H > x_2^G(\bar{e})_L$;
     - 2.3 $x_2^B(\bar{e})_s < \bar{e}$ for all s.

Information, Replacement, Payoffs

- At beginning of period 1 HF learn θ and x_1^B and x_1^G.
- IN only learn the realized value of x_1^B and x_1^G, does not know θ.
- At end of period 1, IN see D_1 but do not directly L. (Can infer in equilibrium.)
- After observing D_1 IN decide to retain or replace HF.
- At the time of the lending decision C does not know x_1^G, x_1^B, but observes L. Belief $\mu_C(L) = \Pr(\theta = G|L)$.
- HF fees: AUM fee, w, paid at the beginning each period in which employed + "carry" $\alpha \max(D_2, 0)$ for $\alpha \in (0, 1)$.

Solving the model

- Look for equilibria in which credit markets cannot *precommit* to lending specific amounts.
- Characterize such equilibria (Lemmas 1, 2, and 3), showing that separating equilibria of this class have the property that $\mu_C(L) = 1$ for $L \in \left[0, PI^G\right]$. ($PI^G$ is equilibrium pledgable income of T under $\theta = G$.)
- But then there is a lower bound on possible payout for separation (Proposition 1): $D_1 > x_1^B + PI^G$.
- There may be a continuum of equilibria. Look for the one with the *minimum* leverage: SEML.
- Characterize when even in SEML debt overhang arises in the low state: Makes procyclicality "inevitable".

Procyclical Activism

Proposition 2
As long as

(i) Δx_1 is large enough, and
(ii) $x_2^G(\bar{e})_H - x_2^G(\bar{e})_L$ is large enough given Δx_1

the SEML involves the good type HF leveraging sufficiently to generate debt overhang in state L.

- Intuition:
  1. Good HF are "chased" by the mimicking threat of bad HF into using up a significant part of T's debt capacity to separate.
  2. Under (i) and (ii) this borrowing is enough to generate overhang in state L.

Interpreting the 13D evidence

- We show: Competition for flow by HF generates debt overhang in poor economic conditions.
- Knowing this, IN will only finance HF if economic prospects are good enough: $\gamma_s \geq \widehat{\gamma}_s$.
- If $\gamma_s < \widehat{\gamma}_s$, no new blocks will be formed, and no new 13D's will be filed.
- If the equity market is a leading predictor of economic conditions, then our model therefore predicts that the number of 13D filings will be higher during market booms than busts.

Economic prospects and leverage

- SEML leverage increasing in γ_s.

Implication 1: When economic prospects are better, HF target firms will be more highly leveraged.

- Intuition: Better prospects for economy $\Rightarrow$ higher debt capacity for T $\Rightarrow$ more borrowing necessary for separation:
- *The Economist* (12/2010): "Activists are toning down their attempts to get companies to take on more debt. Many were burned before, and are reluctant to put their hands back in the fire."
- Axelson, Jenkinson, Stromberg and Weisbach (2013) find that private equity buyout leverage is procyclical.

Resolving an empirical controversy?

- Klein and Zur (2011) argue that hedge fund activism leads to an expropriation of existing bondholders.
- Brav et al (2008) argue against and show announcement returns to target shareholders are *higher* in companies which are previously *un*levered.

Proposition 3: Existing target leverage can reduce shareholder returns from activism even when activism expropriates existing bondholders.

- Intuition:
  1. Since leverage is motivated by competition for flows, it may reduce cash available for existing creditors.
  2. But existing target leverage reduces the (residual) debt capacity $\Rightarrow$ reduces the payout necessary for separation $\Rightarrow$ lowers cash received by target shareholders.

Pooling equilibria?

Proposition 4: There exists no pooling equilibrium.

- Mimicking the good types in the hedge fund/investor market forces bad types to reveal their type in the credit market or vice versa!
- Formal proof requires an iterative argument (see paper).

Conclusions

- Simple benchmark model of HF activism in the presence of competition for flow.
- Explanation for procyclicality of HF activism + reconciliation with documented effect of HF activism on the net T-leverage.
- Some testable implications + Resolution to some ostensibly contradictory empirical evidence.
- Highlights how the agency frictions arising out of the delegation of portfolio management can affect the nature of blockholder monitoring.