HOW DOES HEDGE FUND ACTIVISM RESHAPE CORPORATE INNOVATION?

Discussant: Andrew Ellul "Institutional Investor Activism and Engagement"

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Research Motivation

- Determinants of innovation are important because innovations establish companies' competitive advantages (Porter, 1992) and are important drivers of economic growth (Solow, 1957)
- Main Challenge: "... in the presence of asset specificity, uncertainty, and opportunistic behavior - differences in internal organization may impact innovative behavior..." Wiliamson (1985)
- Novel projects are especially characterized by significant informational asymmetries between researchers and outside evaluators
 - Researchers may manipulate information
- This paper: How, rather than just the extent, hedge fund activism impacts corporate innovation

Main Results

- Hedge fund activism events covering the period 1994-2007
- Data on patents quantity and quality
- Result I: Firms targeted by activists improve innovation efficiency
 - □ Tightening of R&D expenditure while increase in innovation output
- Result II: New evidence on mechanisms through which hedge fund activism reshapes target firms' innovation
 - Improvement mostly driven by firms with diverse patent portfolio
 - Reallocation of innovative resources
 - Redeployment of human capital
 - Change to board-level expertise

Overview of Discussion

- Research motivation
- Main results

- Comment I: The paper's (<u>second</u>) core results take the literature on innovation in a new direction: rather than (just) determinants of innovation, paper informs us about the mechanisms
- Comment II: Role of hedge fund activists vis-à-vis other institutional investors: assortative matching?
- Comment III: How does the individual (activist) hedge fund acquires innovation-specific skills consistent with paper's results?

Comment I: Paper's Contribution

- Blooming literature shows relations between innovation, market and firm characteristics:
 - Competition (Aghion, Bloom, Blundell, Griffith, and Howitt, 2005)
 - Bankruptcy laws (Acharya and Subramanian, 2009)
 - Labor laws (Acharya, Baghai, and Subramanian, 2013, 2014)
 - Corporate venture capital (Chemmanur, Loutskina, and Tian, 2014)
 - Investors' attitudes toward failure (Tian and Wang, 2014)
 - Stock liquidity (Fang, Tian, and Tice, 2014)
 - Firm boundaries (Seru, 2014)
 - Analyst coverage (He and Tian, 2013)
 - Institutional ownership (Aghion, Van Reenen, and Zingales, 2013)
 - Dependence on external finance (Hsu, Tian, and Xu, 2014)
 - Etc.
 - Etc.

Comment I: Paper's Contribution

Question: Is this paper about hedge fund activism and innovation in target firms?

- The paper is much broader than this narrow focus
 - It is less about "who" (or "what") determines innovation and more about the mechanism (actions taken by target firm management, perhaps under pressure from hedge funds) to reshape the innovation process
- This "evidence from the ground" is a new direction, and a useful contribution, in this literature

Comment II: Institutional Investors

- Question: Are the results driven specifically by an activist hedge fund or, more broadly, an institutional investor (with ability to monitor management, address career concerns, size to match up threat, etc.)?
 - This will inform us about the type of market-based governance needed to make firms more innovation-lean

- Aghion, Van Reenen, and Zingales (2013)
- □ Contrary to the view that institutional ownership induces a shortterm focus in managers, their presence boosts innovation (even after accounting for an increase in R&D)
- Risk considerations at the managerial level play an important role in preventing innovation

Comment II: Institutional Investors

- Paper informs us about the change in the behavior of firms after the entry of an activist hedge fund rather than the level of innovation itself, but...
- ...the question remains about the underlying economics of an activist investor vs. other (generic) institutional investors
- Suggestion: Assortative matching based on the stage of the firm's life cycle?
- Are non-hedge fund institutional investors more valuable when the firm is at a stage when it <u>needs to grow (and diversify) its</u> <u>patent portfolio to a strategic point...</u>
- ...while hedge funds more valuable when it needs to pass to commercialization? [Hence a more focused, "ruthless", approach?]

Comment II: Hedge Fund Skills

Question 1: Are the results due to hedge funds' innovationspecific skills or general skills that make firms leaner and more focused?

- Question 2: How does the individual hedge fund learns innovation-specific skills to evaluate the portfolio of patents?
- Hedge fund "type"/culture/approach or "manager effects"?
- Answering these questions will provide important color to the nuanced evidence that the paper presents

Conclusions

- Paper gives us a new dimension about how the innovation process can be reshaped following an outside intervention
- Very well executed and convincing in establishing the core results

- Suggestions for future research:
- Role of hedge fund activists vis-à-vis other institutional investors: is there any assortative matching driven by the stage in which the firm finds itself?
- How does the individual (activist) hedge fund acquires innovation-specific skills consistent with paper's results?