Privacy Equity and Long Run Investment: The Case of Innovation
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Background

- Late eighties-early nineties
  - Concern that extensive restructuring was impacting long run investments
  - “back to the wall” theory suggests that limiting free cash flow (high debt-equity ratio) may discourage investments in R&D, especially basic R&D

- Large amount of research on the topic concluded that
  - Debt-based restructuring was concentrated in rustbelt and low tech sectors, had little impact on R&D
  - Market did not appear to be myopic, that is, R&D investments were rewarded
    - Announcement effects
    - Hall and Hall 1993– future earnings discount for R&D firms was lower, not higher
This paper

- Very interesting re-examination of the question using
  - Different period
  - Better data on innovation?

- Problem – are we observing changes in innovation or changes in patenting practices?
  - Both are interesting but may have slightly different implications
Private buyouts are still rare in technology-intensive firms, but their share of buyouts have doubled since pre-1990s (footnote)
- But compare with 37% hi-tech in Compustat pre-1990 and 55% post-2000
- And Seagate accounts for half the patents?
- That is, no big pharma or biotech, no other big ICT transactions
- Most of the industries are “medium tech”

Interesting to compare these firms to others in the same sector – matched samples?
- Match in this paper is to all patents rather than patents held by US firms in the same sectors
What’s new?

- Use of patents as an innovation proxy to look at question:
  - Patenting behavior appears unchanged (see next slide)
  - # citations per patent rose – is this quality?
  - Generality and originality not affected
  - Most interesting – apparent “focus”
  - Enforcement changes?
Identification

- Firm effects, calendar year dummies, and event year dummies will be exactly collinear – that’s why it didn’t converge
  - The old vintage-year-age problem in a different guise
  - Problem: leaving one out is arbitrary, need year effects due to secular changes in patenting behavior
  - Including a single post-event dummy instead, as they did later in the paper, will give identification, and seems sensible.

Reassignments

- Casual observation suggests that firms are now more careful about filing changes of ownership at the PTO.

- These changes are not in the NBER data, are they in your data? Could be important for this exercise.

- See Serrano’s thesis.
Minor comments

- Possible small numbers problems
  - Did you bias-adjust generality and originality?
- Some tables fail to control sample size across columns, making comparisons difficult
- Including average cite intensity in the NB model is the same as including a class-year fixed effect
- Estimate a patent count equation like that in Table 3?
- Poisson is consistent, but needs robust s.e.s