

Discussion of “Interlocking Directorates, Competition, and Innovation”

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A Quick Summary

- **Horizontal directors**
 - ① **increase firm valuation** by steering innovation **away from competition**, and
 - ② **reduce redundancy**, increasing **innovation quantity and quality**.

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- An insightful analysis of the **interplay between innovation and competition**

- ▶ Simple model with horizontal directors ties innovation and competition outcomes together
- ▶ Interesting combination of data sources on director links and innovation
- ▶ Clever use of mergers as exogenous shocks to director interlocks
- ▶ Empirical results with surprising (to me!) magnitudes
 - ★ 3 percentage points for returns
 - ★ 17%/30% for innovation quantity/quality

Main Driving Forces of the Model

- Firms take costly draws from distribution to find innovation.
 - ▶ Innovation success is probabilistic and depends on distance from other firm.
 - ▶ Each firm cannot control where draws will land relative to other firm.
 - ▶ Only one firm is awarded a patent when the draws are close to each other (innovation duplication).
- **Common director allows firms to coordinate.**
 - ▶ Draws from random distribution are now more focused
 - ▶ Maximize probability of success for **both firms** by locating draws at opposite ends.
 - ▶ Firms now take **fewer draws**, but innovation success is **more frequent**.
- Higher firm profits and innovation output due to **strategic avoidance of innovation competition**

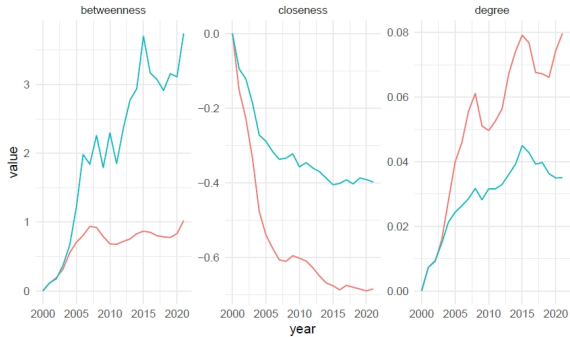
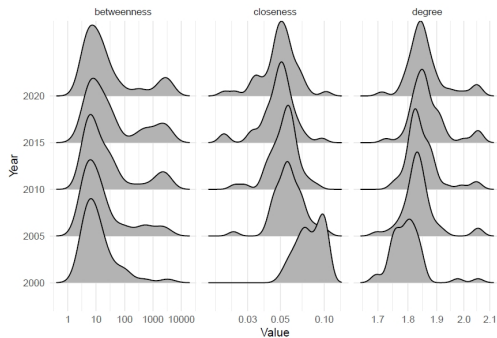
A Few Issues with the Model

- Some **critical assumptions** that make the setup work
 - ▶ Competition is simple as firms only make **R&D intensity decision**.
 - ▶ Post-innovation competition (e.g., pricing) is **fixed and unaffected by director links**.
 - ▶ Firms **do not explicitly choose** innovation location or direction, but common director can limit set of locations.

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- Some **critical assumptions** that make the setup work
 - ▶ Competition is simple as firms only make **R&D intensity decision**.
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 - ▶ Firms **do not explicitly choose** innovation location or direction, but common director can limit set of locations.
- Why is there **no formal proof or proposition** anywhere in the paper?
- What happens when firms have **multiple successful innovations**?
- Why aren't firms allowed to choose innovation location **without the common director**?
- Post-innovation pricing competition would **reverse some of the results**.
 - ▶ Common director would like to induce less competitive pricing between firms.
 - ▶ [Ederer and Pellegrino \(2024\)](#) argue that this would induce firms to locate more closely.
 - ▶ But it's perfectly fine to assume that **director influence on pricing is limited** because of organizational hierarchies ([Antón et al., 2023](#)).

Fascinating Network Analysis of Director Links



Some Empirical Observations

- Mergers provide exogenous variation with a **credible identifying assumption**.
 - ▶ Firms are obviously not randomly chosen for acquisition, but it's highly unlikely that they're chosen with director links in mind.
 - ▶ But maybe with innovation distance in mind? Possible, but unlikely.
 - ▶ Director deaths have similar results and it's hard to argue with those.
 - ▶ This only allows measuring the effects of **severing director links**.
 - ▶ Up-to-date on DiD literature
- How large is the technological proximity effect (3% in Figure 6.1?) compared to **other estimates** in the literature on technological proximity?

More Empirical Observations

- What about R&D **inputs** (e.g., expenditure) rather than **outputs** (e.g., patents and value of patents)?
 - ▶ Theoretical model distinguishes between those as draws and successes.
 - ▶ But presumably difficult to find information on expenditures by CPC codes.
- Can one disentangle the effect of directors on **innovation success** and **patenting success**?
 - ▶ Is the effect the same in more or less crowded innovation areas?
 - ▶ Not all patent markets are winner-take-all.
- Common directors acting as **information conduits** is an interesting interpretation.
 - ▶ Should this be more pronounced for directors who understand innovation (e.g., those with more experience or science background)?
 - ▶ Very similar in style to [Li et al. \(2023\)](#) and [Eldar and Grennan \(2024\)](#) and results are similar too.

Conclusion

- **Creative and insightful paper**

- ▶ A new channel that influences the direction and success of corporate innovation
- ▶ But even more so another piece of evidence on how much director links have grown over time and how important they can be for firm strategy.

- I encourage **everybody** with an interest in innovation or common ownership to read it.



Thank You!

References I

- Antón, Miguel, Florian Ederer, Mireia Giné, and Martin Schmalz**, “Common ownership, competition, and top management incentives,” *Journal of Political Economy*, 2023, 131 (5), 1294–1355.
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- Li, Xuelin, Tong Liu, and Lucian A. Taylor**, “Common Ownership and Innovation Efficiency,” *Journal of Financial Economics*, 2023.