Discussion of "Product Differentiation and Oligopoly"

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An Important Paper

- Significant theoretical and empirical contribution to the macro-IO-finance literature
  - A tractable general equilibrium model with oligopoly, heterogeneous product differentiation, and endogenous entry
  - Empirical estimation exploiting text-based network structure
- Main takeaways
  - Large deadweight loss from oligopolistic behavior (11% of total surplus)
  - Consumer surplus would double with respect to the oligopolistic equilibrium
  - Deadweight loss and profit share have increased dramatically over time
  - Partly driven by rise in startups' proclivity to sell off to incumbents (rather than go public)
- **Disclosure Statement**
  - I am incredibly biased in favor of this paper given my own work on this topic.
  - I encourage more (complementary) work on this topic.

Some Historical Context (Harberger AER 1954)

JOURNAL ARTICLE

Monopoly and Resource Allocation

Arnold C. Harberger

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Before drawing any lessons from this, I should like to spend a little time evaluating the estimate. First let us look at the basic assumption

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"If this estimate [Harberger's] is correct, economists might serve a more useful purpose if they fought fires 🔥🔥🔥 or termites 🐜🐜🐜 instead of monopoly."
–George Stigler, "The Statistics of Monopoly and Merger," Journal of Political Economy, February 1966, p. 34.

Intense Debate

The Statistics of Monopoly and Merger

George J. Stigler

Journal of Political Economy
Vol. 64, No. 1 (Feb., 1956), pp. 33-40 (8 pages)

Published by: The University of Chicago Press

The Burden of Monopoly

David Schwartzman

Journal of Political Economy
Vol. 68, No. 6 (Dec., 1960), pp. 627-630 (4 pages)

Published by: The University of Chicago Press

On Monopoly Welfare Losses

Abram Bergson

The American Economic Review
Vol. 63, No. 5 (Dec., 1973), pp. 853-870 (18 pages)

Published by: American Economic Association

The Social Costs of Monopoly Power

Keith Cowling and Dennis C. Mueller

The Economic Journal
Vol. 88, No. 352 (Dec., 1978), pp. 727-748 (22 pages)

Published by: Oxford University Press on behalf of the Royal Economic Society

Is there any room for improvement?

- Always a treat to discuss a paper that
  - has appendix G, 80 pages, and 26 figures,
  - thanks 5 referees, 20+ people, and "many other conferences and seminars"
  - ... and has won a ton of prizes
- Theory
  - Flat marginal costs?
  - Strategic and physical complements in addition to substitutes?
  - Role of input markets?
- Empirics
  - More validation exercises to justify that firms really compete with each other
  - Confusion about identification or calibration?
  - Empirical analysis of the distribution/evolution of productivity and product market centrality

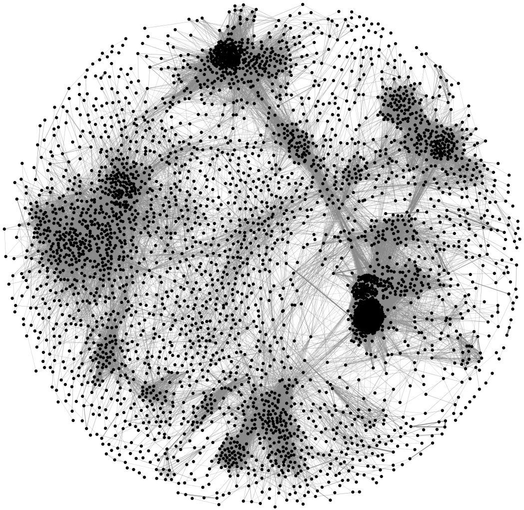
Limitations

- Policy counterfactuals are very abstract
  - How would one go about implementing these counterfactuals?
  - What about implementing stricter antitrust HHI thresholds?
  - Or even breaking up large (superstar) firms?
- Focus on public firms
  - Share of public firms has been shrinking
  - Data on private firms would require census data
- Focus on U.S. firms
  - Importance of foreign firms and import competition has been increasing
  - Foreign firms are only captured to the extent that they are listed in the U.S.
- HP approach is limited by design
  - Multi-product firms
  - Regional and local markets (Benkard et al., 2021)

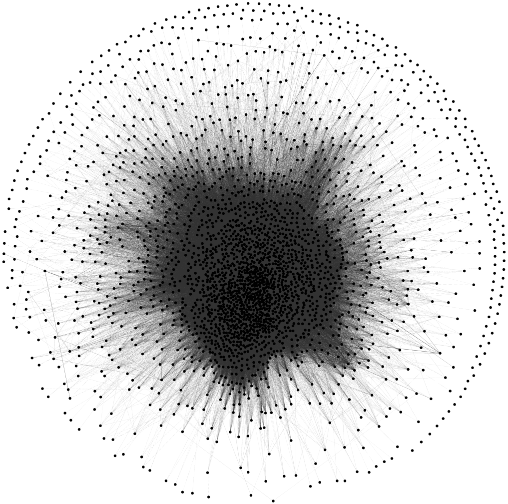
New Directions

- Framework is very flexible and can be used for a variety of questions
  - Anything that can be represented as a network is in principle amenable to this approach
- Entry, exit, and consolidation
  - Startups no longer choose to IPO but instead are acquired
  - Older version contained such an analysis, but where did it go?
- Impact of ownership arrangements
  - Private vs public ownership
- Innovation networks
  - Construct network in patent space in addition to product market space
  - Capture innovation spillovers and technological diffusion
- Labor market and supplier power
  - Oligopoly power may be enhanced by labor market power

A Tale of Two Networks

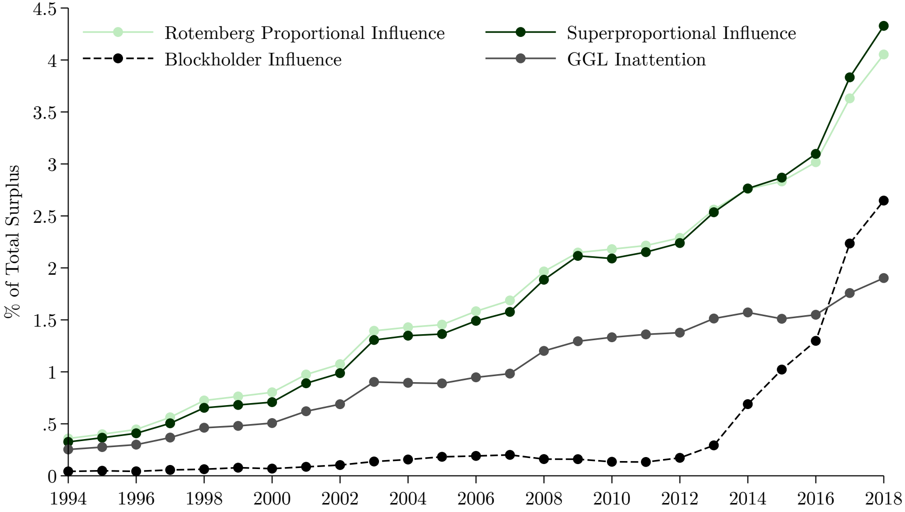


Product Market Similarity



Common Ownership

Deadweight Loss of Corporate Governance & Common Ownership



Conclusion

- What this paper says
  - Analyzing and quantifying the distortions of product market power is feasible even for the entire economy
  - Product market power generates large and increasing distortions under a wide variety of assumptions
  - Concerns about further consolidation and concentration may be warranted
- Improvements and Limitations
  - Antitrust and corporate governance counterfactuals
  - Public U.S. firms
  - Input markets and multi-product firms
- More to come!
  - Approach is sufficiently tractable to be used for a range of different questions

Thank You!

References I

Benkard, C Lanier, Ali Yurukoglu, and Anthony Lee Zhang, "Concentration in product markets," *NBER Working Paper*, 2021.