

CompeteGrok Analysis Report

Query: paper on HHI in IO economics

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Overview of the Herfindahl-Hirschman Index (HHI) in Industrial Organization (IO) Economics

The Herfindahl-Hirschman Index (HHI) is a widely used measure of market concentration in IO economics. It's calculated as the sum of the squares of the market shares of all firms in a market ($HHI = \sum s_i^2$, where s_i is the market share of firm i). Values range from near 0 (perfect competition) to 10,000 (monopoly). It's central to antitrust analysis, merger guidelines, and studies of competition, oligopoly, and market power.

If you're looking for a specific academic paper, it's a bit vague—do you mean a seminal paper introducing HHI, an empirical study using it, or a review in IO context? Below, I'll recommend key papers across categories, drawing from foundational works, empirical applications, and policy discussions. These are influential in IO economics. I've included links where possible (many are available via JSTOR, NBER, or Google Scholar).

Seminal Papers Introducing or Developing HHI

1. **Hirschman, Albert O. (1945). "National Power and the Structure of Foreign Trade."**
 - This book introduces an early version of the index (originally for trade concentration). It's considered the origin of HHI.
 - Key contribution: Formalizes concentration as a tool for economic analysis.
 - Access: Available on Archive.org or academic libraries.
 - Why relevant: Sets the foundation for IO applications in market structure.
2. **Herfindahl, Orris C. (1950). "Concentration in the Steel Industry."** (PhD Dissertation, Columbia University; later published excerpts).
 - Independently develops a similar index for industry concentration in the U.S. steel sector.
 - Key contribution: Applies the index to empirical data, leading to the modern HHI formula.
 - Access: Available through university databases or ProQuest Dissertations.

Influential IO Papers Applying or Critiquing HHI

3. **Stigler, George J. (1964). "A Theory of Oligopoly."** *Journal of Political Economy*, 72(1), 44-61.

- Discusses concentration measures like HHI in the context of oligopolistic behavior and barriers to entry.
 - Key contribution: Links HHI to theories of collusion and market power in IO.
 - Access: JSTOR.
4. **Kwoka, John E. (1985). "The Herfindahl Index in Theory and Practice." *Antitrust Bulletin*, 30(4), 915-947.**
- A detailed analysis of HHI's theoretical underpinnings and practical use in antitrust enforcement.
 - Key contribution: Examines strengths (e.g., sensitivity to firm size) and weaknesses (e.g., ignoring dynamics like entry).
 - Access: Available via HeinOnline or academic journals.
5. **Baker, Jonathan B., and Bresnahan, Timothy F. (1985). "The Gains from Merger or Collusion in Product-Differentiated Industries." *Journal of Industrial Economics*, 33(4), 427-444.**
- Uses HHI in empirical models of mergers and product differentiation.
 - Key contribution: Shows how HHI helps predict post-merger price effects in IO settings.
 - Access: Wiley Online.

Empirical and Policy-Oriented Papers

6. **Kwoka, John E. (2013). "Does Merger Control Work? A Retrospective on U.S. Enforcement Actions and Merger Outcomes." NBER Working Paper No. 19507.**
- Empirical study using HHI to evaluate the effectiveness of U.S. merger policies.
 - Key contribution: Finds that mergers increasing HHI often lead to higher prices, informing IO policy debates.
 - Access: NBER.
7. **Ashenfelter, Orley, Hosken, Daniel, and Weinberg, Matthew (2014). "Did Robert Bork Understate the Competitive Impact of Mergers? Evidence from Consummated Mergers." *Journal of Law and Economics*, 57(S3), S67-S100.**
- Analyzes HHI changes in consummated mergers and their impact on competition.
 - Key contribution: Critiques conservative views on HHI thresholds in IO and antitrust.
 - Access: University of Chicago Press.

8. **Shapiro, Carl (2010).** “The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years.” *Antitrust Law Journal*, 77(1), 49-107.

- Reviews the evolution of HHI in U.S. merger guidelines.
- Key contribution: Explains how HHI thresholds (e.g., post-merger HHI > 2,500 with delta > 200) guide IO analysis.
- Access: ABA Antitrust Library.

Broader Reviews and Textbooks

For a comprehensive introduction, check **Tirole, Jean (1988).** “**The Theory of Industrial Organization**” (MIT Press), Chapter 1, which discusses HHI in the context of market structure and competition models. It’s a standard IO textbook.

If none of these match what you’re looking for (e.g., a specific industry like tech or healthcare, or more recent papers on HHI critiques in the era of big tech), provide more details! You can also search databases like Google Scholar, SSRN, or RePEc with keywords “HHI industrial organization” for thousands of results. If you need PDFs or summaries, let me know.

Privacy: Ephemeral RAG; zero retention. **Disclaimer:** Not legal advice. Models have caveats (e.g. IIA assumption). Verify 2025 data. **LaTeX:** Inline x , display

$$E = mc^2$$