

Unilateral Merger Effects & Economic Models

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- Ah! well a-day! what evil looks
Had I from old and young!
Instead of the cross, the Albatross
About my neck was hung.
- Samuel Taylor Coleridge,
- *The Rime of the Ancient Mariner*

Rise of Unilateral Effects

- By late 1980's Game Theory had replaced Structure-Conduct-Performance paradigm in IO
- Economists had more plausible stories than coordinated effects in many cases
- 1992 Guidelines re-emphasized unilateral effects
 - Satisfied attorneys' demand for simple intuition
 - Satisfied economists' demand for cohesive theory
- Not long before economists began building quantitative merger models

“Structural” or “Behavioral” Models

- *Back End*: Behavioral Model
 - Consumer, firm (& retailer) behavior
 - Equilibrium is result of their interaction
- *Front End*: Parameters “feed” the model
 - Estimation (can be costly, fruitless)
 - Calibration to observed data, like margins
- *Equilibrium*
 - Current equilibrium (observed)
 - Post Merger equilibrium (predicted)

Rise of Structural Merger Models

- Models used to critique market share presumption
 - Markets boundaries are bright lines where none exist
 - Shares are poor proxies for competitive positions
 - → Concentration is poor predictor of unilateral effects
- 1995 IBC-CBC → challenge
 - Product and geographic delineation problems. White pan bread in Chicago
- 1996 L'Oreal-Maybelline → no challenge
 - L'Oreal did not compete with Maybelline despite big shares

Thesis → Antithesis

- Ten years building merger models
 - Focus on methodological innovation
- Dave Scheffman critique
 - “fit accompli”: Does the models fit the facts?
 - Makes cases too easy to bring (false positives)
 - Huge logical leap from retail elasticities to upstream price increases
 - What about intermediate steps?

From Vanderbilt to the FTC

	Academic	Practitioner
Concern	Methodological innovation	How well is methodology applied to case
Outcome	Demonstrate policy tradeoffs	Need an answer
Check & balance	Peer review	Adversarial litigation

Thesis → Antithesis → Synthesis

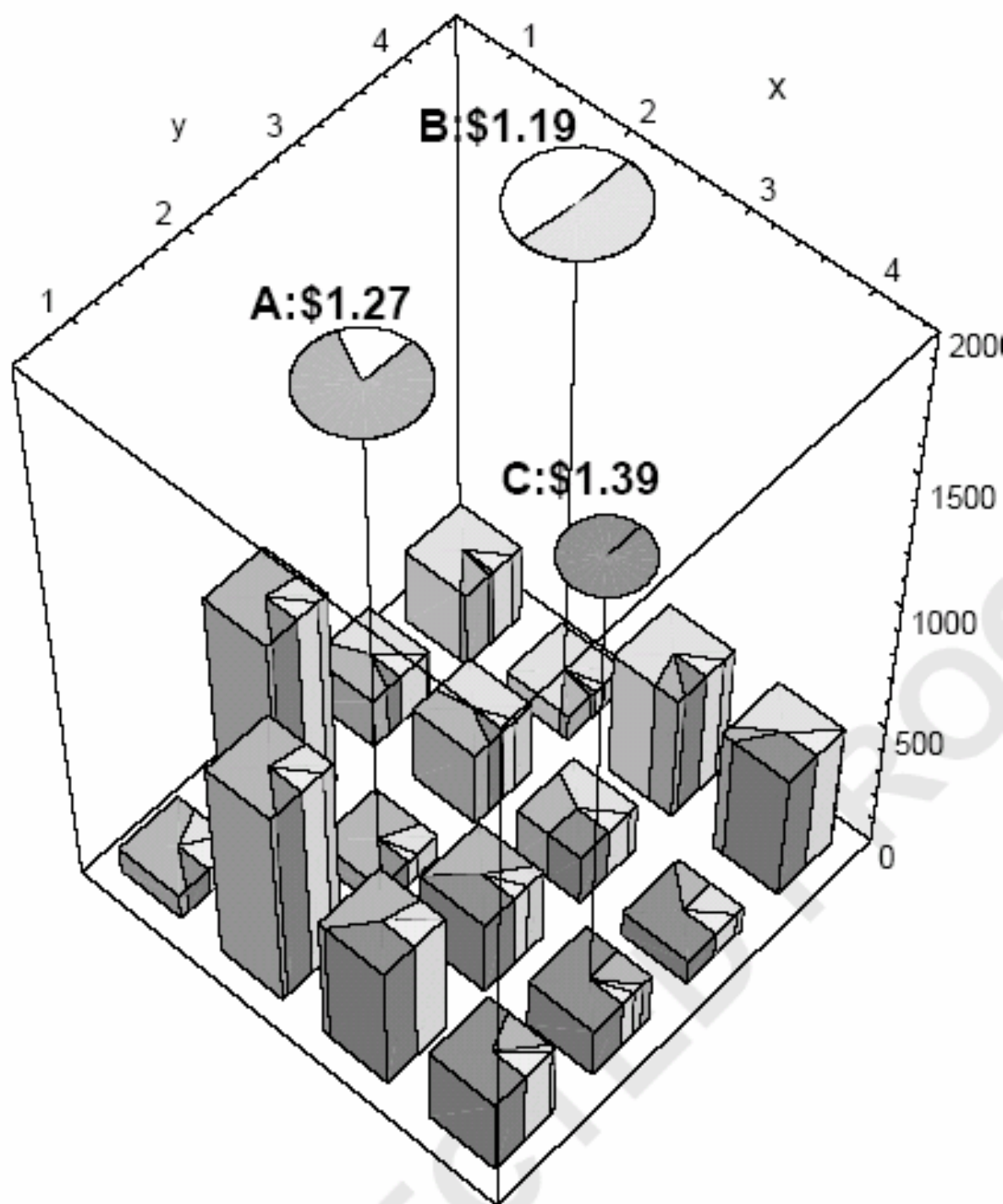
- “A Daubert Discipline for Merger Simulation”
 - Gregory J. Werden, Senior Economic Counsel, U.S. Department of Justice
 - David Scheffman, LECG & Adjunct Professor at Vanderbilt
- If you use models, must fit facts of case
Every assumption should be:
 - supported by evidence, or
 - subject to sensitivity analysis

Structural Models are Only Tools

- At best, can focus investigation by identifying:
 - “What” matters, “why,” and “how much”
 - Offer way to consider efficiencies
- At worst, ignore important industry features
 - Misleading predictions
 - Divert attention from more probative analysis

Example: Parking

- Key parameters
 - cost of walking
 - locations of merging non-merging lots
 - location of offices
 - capacity of lots
- Capacity constraints on merging lots attenuate merger effects.
- Competition very localized



Other Structural Models

- Oral Auctions
 - Merger effect is frequency of 1-2 finish times distance between second and third-lowest costs
- Bargaining
 - Alternatives to agreement determine terms of agreement
 - Example: “Any willing provider” laws
- Bertrand
 - Elasticities critical

Should we use Models?

Three Answers

- YES: Behind every competitive story is a model
 - By making assumptions explicit, one can test model's predictions
- NO: Less Formal analysis is good enough
 - What is the value proposition?
 - What will customers say?
 - What do documents, interviews, and history tell us about what will happen to price?
- SOMETIMES: But only as a complement to, not a substitute for, other evidence

Warnings

- Don't get bogged down in estimation
 - time consuming, often with little payoff
 - With more than a handful of goods, difficult to get good estimates.
 - Lots of practical difficulties
 - Diverts attention from other evidence?
 - Surveys
 - Natural experiments
- Ask your economist if her model can explain the observable data.

A Daubert Discipline for Merger Simulation

- It is possible to ask Daubert-like questions to assess model appropriateness and fit.
 - Does model accurately characterize observable data?
- For assumptions that matter to conclusions:
 - Gather evidence to support; or
 - Choose conservative assumption
- What would happen if we applied this standard to vertical stories?

Current Agenda: Enforcement R&D

- Evidence on consummated mergers
- Which methodologies work best under which conditions?
 - Merger retrospectives
 - Other out-of-sample events