From Theory to Praxis: Quantitative Methods in Merger Control

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Outline

- I. Policy movement to effects-based merger analysis
- How do we determine merger effects?
  - II. Natural experiments
  - III. Model-based inference
    - Bargaining

Historic Opportunity for Economists

- To build on Mario Monti's antitrust accomplishments

What’s Wrong w/Structural Presumptions?

- Market delineation draws bright lines even when there may be none
  - No bright line between “in” vs. “out”
- Market Shares may be poor proxies for competitive positions of firms
- Č Market shares and concentration may be poor predictors of merger effects

What is Effect of Merger?

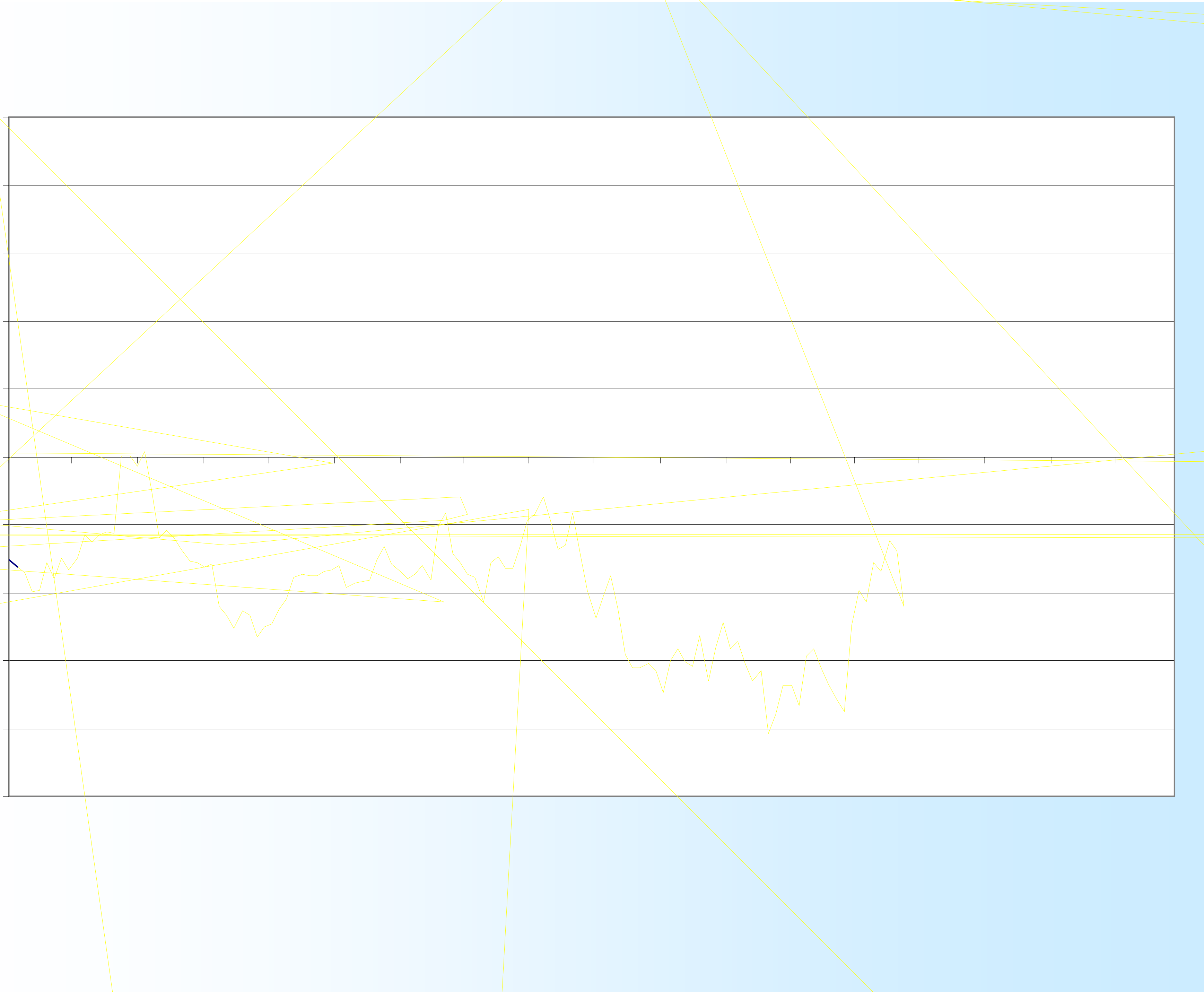
- “Effect” question compares two states of the world (“with” vs. “without” merger)
  - but only one is observed
- Two ways of drawing inference about unobserved state of world
  - Natural experiments
  - Theory-based inference

(Marathon / Ashland Joint Venture)

- Combination of marketing and refining assets of two major refiners in Midwest
- First of recent wave of petroleum mergers
  - January 1998
- Not Challenged by Antitrust Agencies
- Change in concentration from combination of assets *less* than subsequent mergers that were modified by FTC

Merger Retrospective (cont.): Marathon / Ashland Joint Venture

- Examine pricing in a region with a large change in concentration
  - Change in HHI of about 800, to 2260
- Isolated region
  - uses Reformulated Gas
  - Difficulty of arbitrage makes price effect possible
- Prices did ***NOT*** increase relative to other regions using similar type of gasoline



Bargaining Theory

From Oracle-Peoplesoft trial:

"the area [that] is the most indeterminate in all of antitrust economics where you have negotiations between two parties. There is no determinate theory that predicts the outcome."

Question: can economics predict effects of mergers in bargaining markets?

John Nash's "Split the Difference" Theory

- Same indeterminancy confounded John Nash
- Proved any "reasonable" solution would "split the difference"
- Č*The gains from bargaining relative to the alternatives to bargaining, determine the terms of any bargain*
- What happens if a manager offers a $50 sales incentive to salespeople?
  - Makes salespeople more eager to reach agreement, so they reduce price by $25.

Bargaining Natural Experiment

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Bargaining Experiment (cont.)

- When a state adopts an any willing provider in the network, health expenditures increase by about 2%.
  - Mike Vita, “Regulatory restrictions on selective contracting: an empirical analysis of `any-willing-provider’ regulations,” Journal of Health Economics 20 (2001) 955–966