Effects-Based Analysis:
Mergers and Vertical Restraints

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Outline

I. Policy motivation: movement towards “effects-based” analysis

II. How to determine Effects?
   − Natural Experiments
   − Theory-based inference

III. Apply to Mergers and Vertical Practices
Movement towards Effects-Based Analysis of Mergers

- Mario Monti’s antitrust legacy
  - Merger Guidelines; SIEC
  - Best Practices
  - Chief Economist

- Moving away from “Form” towards “Effect”

- How do we determine effects of mergers?
Movement Toward Effects-Based Analysis of Vertical Practices

- EC Article 81 Block Exemption Regulation.
- Movement away from “form” towards “effect”
- How do we determine effects of contracts between manufacturers and retailers (RPM, exclusivity, loyalty discounts, bundling, refusal to deal)?
How to Determine Effects?

• “Effects” question compares two states of world,
  - “with” vs. “without” merger
  - “with” vs. “without” vertical restraint

• But only one is observed

• Two ways of drawing inference
  - Natural experiments
  - Theory-based inference
Natural Experiments

- Control group, e.g., without merger
- Experimental group, e.g., with merger
- Difference between groups is estimate of merger effect.
- Questions for the parties
  - Did you hold everything else constant?
  - How well does experiment mimic effect in question?
Example: Consummated Merger

- **Control Group**: Pre-merger period
- **Experimental Group**: Post-merger period
  - Did price increase?
- **BIG question**: “Compared to what?”
  - Compared to “control” cities hit by the same demand and cost shocks
- **Jargon**: “Differences-in-differences”
  - First difference: pre- vs. post-merger
  - Second difference: target vs. control cities
Marathon/Ashland Joint Venture

- Combination of marketing and refining assets of two major refiners in Midwest
- First of recent wave of oil mergers
  - January 1998
- Not challenged by antitrust agencies
- Change in concentration from combination of assets less than subsequent mergers that were modified by FTC
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
Theory-based Inference

- Posit pro- and anti-competitive theories
- Which one better explains the evidence?
- Questions for the parties
  - How well does theory explain observed competition?
- Example: Merger Simulation
  - Posit model
  - Estimate parameters
  - Simulate Merger Effects
Vertical Restraints: Natural Experiments

Growing body of evidence on vertical
  – Control Group (with restraint)
  – Experimental group (without restraint)

Find that vertical contracts and integration
  – Reduce price
  – Induce demand-increasing services
Representative Experiments

- **Gasoline**: prices 2.7¢/gallon higher in states with vertical divorcement laws
  - Vita and Sacher (2000)

- **Beer**: UK divorcement of “tied” pubs raised price
  - Forced to offer the beer of at least one rival brewer.
Vertical Theory

- Anticompetitive theories
  - Softening horizontal competition.
  - Multilateral opportunism.
  - Dynamic entry/exit/investment effects.

- Pro competitive theories
  - Elimination of double mark-ups
  - Cost savings.
  - Dealer services efficiencies.
What Vertical Theory Tells us

- There is possibility that vertical restraints harm competition
- Harm occurs in same instances where restraints likely to have efficiencies.
  - Search for screens is probably futile.
- The “possibility theorems” do not give us practical ways for distinguishing pro-competitive from anti-competitive restraints.
Lessons

- Theory-based inference about effects of vertical restraints is not likely to tell you very much.
- Take lesson from economists who use natural experiments to determine effects of vertical restraints.
- Bring cases when good natural experiments indicate restraints are anticompetitive.
  - Before and after restraint
  - Compare markets with and without restraint
FAQ’s About Merger Simulation

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Isn’t merger simulation built on unrealistic assumptions?

- Behind every competitive effects analysis is an economic model.
  - Simulation makes the model explicit
  - Forces economists to “put cards on table”
- Every model makes unrealistic assumptions
  - Crucial question is whether model ignores factors that lead to biased predictions
Has merger simulation been tested against real data?

- No methodology has been shown to predict effects of real mergers
  - No coordinated effects theory,
  - No unilateral effects theory,
  - No market concentration theory.

- Model should be judged by how useful it is
  - Does it focus investigation?
  - Does it capture current competition?
Is merger simulation worth the money?

- Demand estimation is often expensive, open ended, yet can yield very little.
  - Often done without simulation, e.g., Kraft
- Merger simulation does NOT require demand estimation.
  - Can be done quickly, with very little information
- Virtue of simulation is focusing investigation on facts and assumptions that matter
Does merger simulation sway decision-makers at agencies?

- Merger simulation is a standard methodological tool
  - No tool is definitive.
  - Used to organize evidence, not to substitute for it.
- First used in 1994 in US v. IBC
  - Expert declaration published in Int’l J. Economics of Bus. with five other examples from real cases.
- Use in recent litigated cases
  - Lagardere; Oracle/Peoplesoft;
Doesn’t simulation always predict a price increase?

- Every anticompetitive theory predicts price increase
  - We have safe harbours for concentration
- Use simulation to organize evidence, focus investigation, benchmark efficiency claims, evaluate remedies.
  - Can compute cost reductions that offset price increase.