Merger Analysis: Levels of Evidence

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Proposed merger of “office supply superstores”

Several types of evidence presented

- Physical characteristics of stores
- Documents suggesting which other stores mattered
- Econometric evidence
Econometric modeling analyzed prices set by Staples

- Investigated whether they were affected by presence of specific rivals

- Model:
  \[ \text{Staples Price} = a + b \text{OD} + c \text{OM} + d \text{X} + e \text{Y} + f \text{Z} \]

- Significant coefficients on OD and OM implied those stores affected Staples’ price and so were competitors

- Presence of stores X, Y, and Z did not matter to pricing

Econometricians for FTC and parties debated time period, estimation techniques, statistical biases, exogeneity, etc.
“Natural Experiment”
Staples Prices are Higher Facing Fewer Superstore Competitors
Three Levels of Evidence

- **Level 1: Direct Evidence**
  - Company documents
  - Customer surveys
  - Price correlation analysis
  - Product characteristics
  - Natural experiments

- **Level 2: Critical Variables**
  - Demand elasticities
  - Critical loss calculation
  - Diversion analysis
Level 3: Econometric Modeling

- Reduced form estimation
- Structural models of equilibrium
- Merger simulation
- Event studies
Using the Evidence Levels

Direct evidence
- Relatively easy to obtain
- Very useful at early stage of agency analysis
- Often more convincing to non-economists

Critical variable analysis
- More challenging to develop
- More capable of “proving” the point to be made
- Can usually be presented effectively in litigation
Econometrics

- Provides high level of statistical “proof”
- Most difficult and costly to undertake
- Generally subject to challenge
- Often difficult to convey and comprehend in litigation
Implications for Merger Analysis

- For internal agency analysis purposes:
  - Start with simple and less costly techniques
  - Advance to others as necessary and where feasible

- For external review and decision purposes:
  - Use multiple types of “proof” that support each other
  - Emphasize approach that is most relevant and most likely convincing in a particular forum
Further Information...

- On natural experiments:

- On Staples:

- On econometrics in Staples:
  Ashenfelter, “Econometric Analysis in Staples,” in *The Antitrust Source*