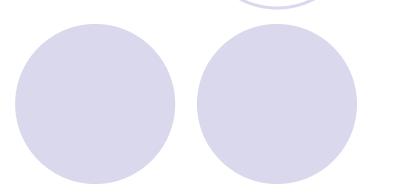
Merger Simulation at the FTC



Views expressed today are the speaker's, not those of the FTC or any FTC Commissioner

Quantitative Prospective Merger Analysis

Merger "Simulation" using has been a part of merger analysis for the last decade

Werden & Froeb proposed merger simulation as an "Alternative to Structural Merger Policy"

The typical simulation exercise posits a particular functional form for demand (e.g., logit, AIDS) and assumes simple "Bertrand" price competition



Time is now ripe (past due?) to assess how well these simulation exercises predict actual price increases

Economists at FTC and DOJ are working on this issue

Peters (2006) simulates effects of 5 consummated airline mergers: (Northwest/Republic; TWA/Ozark; Continental/People's Express; Delta/Western; USAir/Piedmont)

Peters estimates 2 models:

Simple nested logit

"Generalized Extreme Value" (GEV)

Assumes static Bertrand conduct

Compares "predicted" price changes from these models to "actual" (where "actual" is observed % P minus average industrywide % P)

Peter's results (Peters, 2006, Table 3)

Merger	Observed	Logit	GEV
NW/Rep	7.2	7	19.8
TWA/Oz	16	7.2	20.8
Cont/PE	29.4	3.4	6.4
Delta/Wes	11.8	3.3	7.6
US/Pied	20.3	4.5	12.7



Weinberg & Hosken (2008)

Follow-up to Ashenfelter & Hosken (2006)

A&H used D-I-D analysis to examine consummated mergers in 2 industries

Control group is private label (PL)

Why didn't simulation models yield better predictions?

Many possible explanations

For airlines, Peters attempts to decompose difference between observed and predicted prices into 4 categories:

Loss of competition

Observed changes in entry, exit, flight frequency, airport presence

Unobserved changes in demand (e.g., due to change in service quality)

Changes in marginal cost

Loss of competition

Observed demand changes

Unobserved demandside changes

Unobserved Total Supply-side changes

Peters concludes inaccurate prediction may reflect fact that premerger firm conduct not Bertrand – firms may have been coordinating tacitly.

Weinberg & Hosken suggest cost and demand changes *do not* account for prediction error.

Bottom line:

Simulation is helpful, but cannot at this stage be relied upon to tell "the whole story"

Economists must continue to refine technique, taking into account a broader variety of:

Pre-merger conditions (e.g., possibility that competition not Bertrand)

Post-merger conditions, such as repositioning by both merging parties and their rivals

New research by Gandhi, Froeb, Tschantz, & Werden (J.

References

Ashenfelter & Hosken, "The Effect of Mergers on Consumer Prices: Evidence from Five Selected Case Studies," December 2006. Ghandi, Froeb, Tschantz, & Werden, "Post-Merger Product Repositioning," *Journal of Industrial Economics, 2007,* (forthcoming).