Choosing Among Tools for Assessing Unilateral Merger Effects

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Model Based Merger Enforcement

- Models of competition provide strong support for concerns about unilateral anticompetitive effects from mergers.
- Analysis of particular models clarifies the nature and determinants of unilateral effects in specific environments.
- Models permit quantitative, if sometimes crude, assessments of unilateral merger effects.
The Wide Array of Models

- Different models posit differing competitive environments and differing competitive decisions that firms make.
- Unilateral effects can occur with respect to prices, bids, promotions, quantities, capacities, and other decisions.

Merger Simulation

- Merger simulation takes an appropriate model, calibrates it with data, then computes the postmerger outcome.
- Merger simulation can be performed with many different models reflecting different competitive environments.
- Merger simulation requires no more data and little more effort than the application of other tools.
Differentiated Products Price Effects

- Price effects from differentiated products mergers are largely determined by diversion ratios among products combined.
- The relevant market is immaterial.
- The diversion ratio from A to B is the proportion of A’s sales lost from an increase in its price that goes to B.
- After combining A and B through merger, the incentive to raise A’s price is related to the resulting gain on B, and so to the diversion ratio from A to B times the margin earned on B.

Competitive Environment Matters

- The standard tool kit has several unilateral effects models corresponding to different competitive environments.
- Diversion ratios and margins are not always the critical determinants of unilateral effects.
- The relevant market is needed with most models.
- Sometimes, no model in the standard tool kit is a good fit.
What Is the Right Model?

• In cases involving differentiated consumer products, I think the standard model of price competition normally fits well.
• But I also ask whether the model explains premerger prices.
• Until further notice, I assume that this is the right model.

Simple Merger Simulation

• Gaps in data and estimation can be filled by assumptions.
• A simple merger simulation always can be calibrated from diversion ratios and margins for just the merging products.
• What the OFT terms “illustrative price rises” (IPRs) are predictions from the simplest possible merger simulations.
Dependence on Demand Curvature

- The price effects resulting from a merger depend on the curvature of demand for the products combined.
- The two IPR calculation done by the OFT were premised on different curvature assumptions, which mattered a lot.
- Any tool that avoids making an assumption relating to demand curvature cannot actually predict price effects.

Compensating Marginal Cost Reductions

- No demand curvature assumption is made in computing compensating marginal cost reductions (CMCRs).
- CMCRs are the reductions in marginal costs that exactly offset the unilateral price effects of a merger.
- CMCRs can be used in a quantitative analysis or just to identify the key determinants of unilateral effects.
Approximate CMCRs (aCMCRs)

- CMCRs depend on margins and diversion ratios.
- aCMCRs omit all second-order terms in the CMCRs and ignore the impact of differences in product prices.
- For a merger combining A and B, the aCMCR for product A is just B’s margin times the diversion ratio from A to B.
- If A and B have similar prices and the diversion ratios are relatively low, this is a very close approximation.

Pricing Pressure Indexes

- Although not the original motivation, pricing pressure indexes are best seen as a variation on the idea of aCMCRs.
- GUPPI is usually defined as aCMCR times the product price.
- Only this relationship between aCMCR and GUPPI gives concrete meaning to GUPPI calculations.
Which Analytic Tools to Use

- Simplicity has advantages, and among the simplest tools, the aCMCRs have the most straightforward interpretation.
- Simple merger simulation requires more assumptions but not more data, and it yields price increase predictions.
- More complex merger simulation requires more data and effort, but is apt to be more accurate.

Diversion Ratios and Margins

- Diversion ratios can be estimated, approximated, or gleaned in many ways, and all present difficulties.
- Switching is not always due to price changes, and when it is not, it may be uninformative of diversion ratios.
- Marginal cost, and hence the price-cost margin, should be defined differently in different contexts.
- The magnitude of likely output changes is critical in deciding which costs are properly treated as marginal.
Unilateral Effects in Bidding

- Oral, or English, procurement auctions involve a form of price competition but the unilateral effects are different.
- Nothing like diversion ratios determine unilateral effects on winning bids; indeed, there is no postmerger diversion.
- The frequency and magnitude of unilateral effects depend partly on characteristics of nonmerging firms.
- Simulation can be used to predict the price effects of mergers in many auctions formats.

Unilateral Effects in Capacity

- Shutting down capacity could be profitable when merely reducing production is not.
- Dismantling capacity could be profitable when merely shutting it down is not.
- Analysis of just marginal incentive effects is not informative.
- Simple merger simulation can determine whether a merger makes it profitable to shut down or dismantle capacity.
Absence of Marginal Customers

- The propensity of marginal customers to switch normally is critical in an economic analysis of competition.
- The nature of the competitive process normally assures that marginal customers exist.
- But in some circumstances, no customers are on the margin, and the usual insights do not apply.
- In such circumstances, merger effects can be predicted with a one-off model.

Conclusions

Do the best you can with what you have where you are.
Make the best use of the available information at each stage of a merger assessment.

One size does not fit all.
Determine what tool to apply by understanding how competition works and which model fits.