Merger Simulation Disciplined by *Daubert*

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Merger Simulation: Concept

- Merger simulation uses standard tools of economics to predict the unilateral competitive effects of proposed mergers.

- Merger simulation selects an oligopoly model reasonably reflecting the nature of competition in the industry and calibrates the model with prices, shares, and other observable quantities.

Merger Simulation: Application

- Merger simulation is most often applied to branded consumer products.

- Product attributes and marketing strategies are held constant; brands compete just on price.

- Marginal costs are assumed to be constant.

- Retailers generally are assumed to take constant percentage mark-ups.

Merger Simulation: Calibration

- The model is calibrated to predict perfectly the equilibrium "but for" the merger.

- Calibrating a branded products simulation requires prices, shares, and demand elasticities.

- Selecting the prices and shares pose few issues.

- Estimating demand elasticities raises a host of difficult issues.

Merger Simulation: Advantages

- Merger simulation provides quantitative predictions of unilateral price effects.

- Merger simulation makes it easy to account for the effects of synergies on prices.

- Merger simulation can focus an investigation or trial by identifying critical facts or assumptions.

Merger Simulation: Limitations

- Merger simulation requires a functional form assumption regarding demand curves, and predictions are sensitive to this assumption.

- Merger simulation assumes non-price strategies, including product positioning, do not change.

Merger Simulation: Non-Fatal Flaws

- No economic model captures every nuance of the real world, but it need not to be useful.

- Price increase predictions are only rough estimates, but that is better than none at all.

- Merger simulation predicts only near-term effects, but Section 7 focuses such effects.

Merger Simulation: Fatal Flaws

- An improperly calibrated merger simulation cannot predict merger-induced price changes.

- The selected oligopoly model may not reflect important aspects of manufacturer competition, retailing, or manufacturer-retailer contracts.

- The selected oligopoly model may not jibe with the intensity of pre-merger competition, as indicated by price-cost margins.

Discipline from the Rules of Evidence

Before merger simulation can be used at trial, it must pass screens for admissibility of evidence, which should be applied whenever simulation predictions are to be given significant weight.

- Federal Rules of Evidence 702

- *Daubert*, *Joiner*, and *Kumho Tire*

- applications in antitrust cases

Rule 702 (Pt. 1)

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue,

a witness qualified as an expert by knowledge, skill, experience, training, or education,

may testify thereto in the form of an opinion or otherwise, . . .

Rule 702 (Pt. 2)

. . . if

1) the testimony is based upon sufficient facts or data,

2) the testimony is the product of reliable principles and methods, and

3) the witness has applied the principles and methods reliably to the facts of the case.

Principles for Applying Rule 702 to Expert Economic Testimony

Expert economic testimony is admissible if:

1) the witness is an expert in the relevant field of economics;

2) the testimony employs sound methods from the relevant field of economics; and

3) the testimony reliably applies those methods to the facts of the case.

Expert Knowledge: Precedent

- Relevant market testimony has been excluded when the witness lacked specialized training and experience in industrial organization.

- Testimony from a Ph.D. in economics, but "no background in antitrust markets," could be excluded.

  Nelson v. Monroe Regional Medical Center, 925 F.2d 1555 (7th Cir. 1991) (Harold S. Luft).

Expert Knowledge: Argument

- A trial court may exclude merger simulation testimony if the witness lacks significant experience with merger simulation.

- "An expert is someone who knows some of the worst mistakes that can be made in his subject and who manages to avoid them."

  Werner Heisenberg (1969)

Sound Methods: Dictum

"The objective . . . is to ensure the *reliability* and *relevancy* of expert testimony. It is to make certain that an expert . . . employs in the courtroom the same level of *intellectual rigor* that characterizes the practice of an expert in the relevant field."

Kumho Tire Co. v. Carmichael, 526 U.S. 137, 152 (1999)

Sound Methods: Precedent

Economic analyses have been excluded for failure to meet professional standards.

Lantec, Inc. v. Novell, Inc., 306 F.3d 1003 (10th Cir. 2002) (John C. Beyer)

Blue Dane Simmental Corp. v. American Simmental Assn., 178 F.3d 1035 (8th Cir. 1999) (Alan Baquet)

Bailey v. Allgas, Inc., 148 F. Supp. 2d 1222 (N.D. Ala. 2000) (William D. Gunther)

In re Aluminum Phosphide Antitrust Litig., 893 F. Supp. 1497 (D. Kan. 1995) (Richard C. Hoyt)

Sound Methods: Argument

- Merger simulation is *theoretically* sound because it employs standard economic models.

- The *empirical* soundness of merger simulation, i.e., its predictive accuracy, is unknown.

- Prediction accuracy also is unknown for every alternative to merger simulation.

- Expert economic testimony cannot invoke a legal presumption based on market shares.

Fitting the Facts: Dictum

Expert testimony is admissible only if it is "sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute," i.e., only if there is a good "fit" between the testimony and the inquiry.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 591 (1993)

Fitting the Facts: Dictum

A court should not "admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered."

General Electric Co. v. Joiner, 522 U.S. 136, 146 (1997)

Fitting the Facts: Precedent

Testimony has been excluded for ignoring facts.

Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan, 203 F.3d 1028 (8th Cir. 2000) (Gordon C. Rausser)

Johnson Electric N. Am., Inc. v. Mabuchi Motor Am. Corp., 103 F. Supp. 2d 268 (S.D.N.Y. 2000) (Jeffrey A. Dubin)

In re Brand Name Prescription Drugs Antitrust Litigation, 1999-1 Trade Cases (CCH) ¶ 72,446 (N.D. Ill. 1999) (Robert E. Lucas, Jr.)

In re Brand Name Prescription Drugs Antitrust Litigation, 1996 WL 167350 (N.D. Ill. 1996) (Jeffrey M. Perloff)

Fitting the Facts: Precedent

The testimony of Robert Hall was excluded, and a substantial damage award vacated, because his oligopoly model was "not grounded in the economic reality of the" industry.

Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039 (8th Cir. 2000)

Fitting the Facts: Precedent

The testimony of Franklin Fisher was excluded for purposes of determining damages because it contained "too many assumptions and simplifications that are not supported by real-world evidence."

American Booksellers Association, Inc. v. Barnes & Noble, Inc., 135 F. Supp. 2d 1031 (N.D. Cal. 2001)

Fitting the Facts: Argument

- Perfect fit is neither required nor even desirable.

- A model should reflect what the documents imply about the nature of the product and competition.

- A model used to predict merger effects should perfectly predict the "but for" equilibrium.

- Implied price-cost margins should jibe with those measured with accounting data.

Fitting the Facts: Ultimate Test

Every modeling choice should be justified on the grounds that it is:

    1) dictated by economic theory,

    2) supported by industry data,

    3) consistent with stylized facts,

    4) unimportant, or

    5) conservative.