Prediction in Antitrust is Hard (But Some Predictions are Harder than Others)

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“Prediction is Hard, Especially When It’s About the Future”

- Antitrust often requires and agencies to make predictions about how conduct today will influence competition in the future
  - E.g. Section 7 of the Clayton Act requires agencies and courts to engage in predictive analysis
- Agencies and courts’ ability to successfully and accurately do so turns on our understanding of
  - (1) Present competitive dynamics;
  - (2) How the proposed merger might change incentives and perhaps the underlying competitive dynamics; and
  - (3) How the proposed merger might alter firms’ incentives to enter the marketplace

Yogi Berra

Prediction in Antitrust

- Modern antitrust analysis incorporates all kinds of predictive fact-finding:
  - Attempted monopolization and "dangerous probability of success"
  - Recoupment analysis in predatory pricing
  - Traditional merger analysis: effects, entry, efficiencies
  - Failing firm defense
- But courts and agencies nonetheless have generally been reluctant to:
  - Predict a specific path for technological evolution (see, e.g., Genzyme / Novazyme)
  - Trade off static versus dynamic welfare costs and benefits
- How well agencies and courts predict turns upon the quality of inferences that can be generated from the available economic tools

The Antitrust Economics of Prediction

- The good
  - Antitrust economics tools evolved substantially over the past 20 years
  - Shift away from structure to more reliable predictors
  - Data more readily available
  - Focus largely upon “demand-side” tools
- The bad
  - No real progress on the “supply side”
  - Entry analytics about the same as they were 20 or even 30 years ago
  - Efficiencies analysis not well incorporated into models
  - No empirical understanding of any systematic relationship between product market competition and incentives to innovate
- The ugly?
  - Greater agency focus on high-tech markets where we do not have tools

Prediction in “Just” Hard Cases

- Bread and butter merger analysis
- “Actual-Actual Competition”
  - Two merging parties already compete in the market, or have committed to entering the market in the near future
  - Primary focus of analysis is how merger changes competitive incentives for merging firms
- Familiar economic tools and methods available for these cases and spelled out in the 2010 Horizontal Merger Guidelines
  - Diversion ratios, pricing pressure indices, customer testimony, natural experiments, market structure, etc.
- Entry analysis often limited to declaring barriers “low” or “high”
  - Observation: Economic tools for predicting entry lag behind adoption of sharpened tools with respect to firm pricing incentives, merger simulation, and econometric evidence

Prediction in Harder Cases

- "Actual-Potential Competition"
  - One merging party competes in the market while the other is not yet in the market and has not committed to entering the market in the near future
- Predictive analysis is based upon:
  - (1) present competitive dynamics
  - (2) how the merger changes post-merger competitive dynamics between firms already in the market; and importantly,
  - (3) whether one of the parties is likely to enter the relevant market absent the merger and, if so, how the merger changes the competitive dynamics between the incumbent and potential entrant
- Question: What economic analyses and evidence is sufficient to satisfy the burden imposed by this third element and warrant a conclusion about "likely" competitive effects?
  - Role of economic analysis and empirical knowledge in finding the limits of our ability to predict confidently
  - Case-specific evidence

Recent Examples of the FTC's Actual-Potential Competition Cases

- Generic pharmaceutical mergers:
  - Actavis/Warner Chilcott (2013)
    - Actavis was likely to be the first to have the capability to enter the market with a generic version of several of Warner Chilcott's drugs
    - Commission alleged merger would likely lead to higher prices for consumers by allowing Actavis to delay entry of generic products
  - Mylan/Agila (2013)
    - Mylan and Agila are two of a limited number of firms that were developing a generic version of several pharmaceutical injectables
    - Commission alleged likely consumer harm in markets where one of the parties already competed and the other planned to enter
- Polypore/Microporous (2013)
  - Commission viewed Microporous as a uniquely positioned potential entrant to the automotive starter-lighter-ignition separators market prior to the acquisition

U.S. v. Microsoft – A Note on Prediction of "Nascent" Competition

- The case involved past conduct but how that conduct was interpreted depended upon predictions about the future
  - This is a familiar issue in antitrust cases where a plaintiff must establish to some degree a "but for" world where the offending conduct did not take place
  - This is simpler in a cartel case where a plaintiff has to show what the market price would have been absent collusion; in an exclusionary conduct case, the plaintiff has to explain how the market would have evolved but-for the monopolist's conduct
- The *Microsoft* case is especially interesting because the Government's theory of harm was based upon an economic theory that was itself predictive in nature

U.S. v. Microsoft (cont.)

The Government’s theory of harm was that Microsoft employed tying and other exclusionary conduct to maintain its dominant position in the market for operating systems on Intel-compatible PCs against Internet web browsers (Netscape) and other middleware (e.g., Java) because that technology posed a competitive threat to its operating system *in the future*

U.S. v. Microsoft (cont.)

Carlton & Waldman (2002) show:

- How a monopolist of a product in the current period can use tying to preserve its monopoly *in the future*
- A monopolist in one market can employ tying to extend its monopoly into a *newly emerging market*
- How a dominant firm can use tying to remain dominant *in an industry undergoing rapid technological change*

U.S. v. Microsoft (cont.)

- The D.C. Circuit accepted the Government's theory of harm:
  - "The question in this case is not whether Java or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant's continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue."
  - "It would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will—particularly in industries marked by rapid technological advance and frequent paradigm shifts."
  - "The District Court made ample findings that both Navigator and Java showed potential as middleware platform threats."

U.S. v. Microsoft (cont.)

- In a sense, Netscape and Java could be analogized to “potential” competitors.
  - Unlike a true potential competitor – which has not yet made the decision to enter – Netscape and Java have brought products to market
- Unlike merger cases involving potential competitors, the question is not “will the firm be able to enter?” but rather “will the firm’s product become a substitute for the monopolist’s?”
  - The question was whether those products posed a competitive threat to Microsoft in the future, despite not providing an alternative to customers in the present

U.S. v. Microsoft (cont.)

- This is as much a question of technology as it is of economics
  - Economic theory demonstrates it is possible to maintain a monopoly by exclusionary tactics aimed at nascent technology
  - But it is a question of technology as to whether the excluded technology at issue in *Microsoft* had the potential to erode its monopoly position
- Question: What economic analyses and evidence is sufficient to demonstrate whether the potentially excluded product will constrain the price of the monopolist’s product?

Prediction in Really Hard Cases

- Simple “Potential-Potential Competition”
  - Neither of the merging parties are competitors in a market that already exists and neither has committed to entering the market in the near future
- Predictive analysis is based upon
  - (1) present competitive dynamics
  - (2) how the merger changes post-merger competitive dynamics between firms already in the market; and importantly,
  - (3) whether <u>both</u> parties are likely to enter the relevant market absent the merger and, if so, how the merger will influence the competitive dynamics in the market compared to the competition that would have existed without the merger
- Question: What economic analyses and evidence is sufficient to satisfy the burden imposed by this third element and warrant a conclusion about “likely” competitive effects?

Recent Examples of the FTC's Potential-Potential Competition Cases

- Generic pharmaceutical mergers where neither party is in the market but both have drugs in development
  - Mylan/Agila (2013)
    - Commission alleged the merger likely would harm consumers in several pharmaceutical injectable markets where Mylan and Agila both had generic products in the pipeline to compete with a branded
  - Endo Health Solutions/Boca Life Sciences (2014)
    - Commission alleged the merger likely would harm consumers in the market for generic medications used to (1) relieve moderate pain and (2) treat symptoms caused by the flu and the common cold
    - In addition to the branded product already in the market, several third party generic manufacturers were also developing products and some would enter the market before Endo or Boca
- Commission had reliable evidence in the form of documents and empirical evidence about (1) the likelihood the generic drugs would be developed and (2) the competitive dynamics between branded and generic drugs and among generic drugs

Prediction in Unbelievably Hard Cases

- Not-so-simple “Potential-Potential Competition”
  - Neither of the merging parties are in the market, neither have committed to entering the market in the near future, <u>and</u> the market does not exist
- Same question:
  - What set of economic analyses and other types of evidence should be required to justify a finding that a merger between two firms is *likely* to substantially lessen competition in a market which does not now exist and may never exist?
- My answer:
  - Such a finding is beyond the limits of what we can or should expect from antitrust analysis given current tools

FTC v. Nielsen-Arbitron

- Novel theory
  - Potential-Potential competition case in a high-tech industry where the relevant market does not yet exist
- The merging parties
  - Nielsen: TV ratings
  - Arbitron: Radio ratings
- Future market of concern
  - “National syndicated cross-platform audience measurement devices”
- Theories of Harm
  - Unilateral effects
  - Reduce future competition between Nielsen and Arbitron and “less innovation” in the relevant market

FTC v. Nielsen-Arbitron

- Competitive effects analysis in a future market case requires overcoming unique challenges
- More difficult, and less reliable evidence available, to gather conventional economic inputs for merger analysis:
  - Define the relevant market
  - Identify likely buyers and sellers
  - Understand product substitutability
  - Identify set of potential entrants and likely post-merger incentives
- In the absence of these conventional types of evidence or economic analyses, the Commission relied upon inferences from a systematic relationship between market structure and the rate of innovation

FTC v. Nielsen-Arbitron

- Relevant questions are not whether merger analysis should be predictive (it must be!), or fact-intensive (it better be!), but what set of facts, evidence, and economic analyses renders such prediction sufficiently reliable to show likely harm to competition?
- Economic tools do not predict all things with the same level of accuracy
- Challenge Question: Consider the unanswered questions in Nielsen-Arbitron and identify a professional economic methodology that supports a finding of likely harm to competition based upon the available data

FTC v. Nielsen-Arbitron: The Unknowns

- The Majority did not know whether Nielsen and Arbitron each could and would develop a cross-platform product absent the merger
  - Across how many platforms must the product provide audience measurement?
  - Is syndication required for a successful cross-platform product?
  - If syndication is required, can both parties even offer syndication?
  - Does a cross-platform product truly need to be national to be successful?
- Did not know the ultimate attributes of any such product and to what extent they would be substitutable by consumers
  - Would the products offer daily ratings or monthly ratings?
- Did not know how the market will evolve and what other competitors might exists, and whether they might impose competitive constraints

Then Things Really Got Hard: Predicting Innovation in High-Tech Markets

- Predicting competitive effects when the primary theory of harm is reduced innovation presents additional challenges
  - Features of high-tech markets pose well-known challenges
    - Dimensionality of competition, network effects, complementary products, dynamic competition
  - Entry and exit
    - Possibility of rapid technological innovation may mean room for many possible new entrants
    - On the other hand, network effects and lock-in effects from an installed base may mean high entry barriers
- Neither economic theory nor empirical evidence establish systematic relationship between market structure and innovative activity
  - Structural analysis inadequate as applied to innovation
  - Complex relationship, not well-understood

Wrapping Up

- Merger analysis is necessarily predictive
- But it can co-exist with a healthy skepticism concerning the inferences drawn from economic analysis about future competition, innovation, and entry
- Courts and agencies have traditionally demonstrated that skepticism
  - Nielsen-Arbitron a potentially important deviation
- Developing better, empirically-grounded, and user-friendly economic tools for understanding entry and other supply-side activity a challenge for economists and potential focus for 2028 Horizontal Merger Guidelines