

EDITOR'S NOTE:
SCHOOLS OF ANTITRUST—
A PARALLELOGRAM OF FORCES

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Antitrust has a tradition of being categorized by “schools.”¹ In modern times this categorization has often centered on the word Chicago. This Symposium is about what the Chicago School really is, and whether and how adding a prefix “Neo” to the word “Chicago” creates a meaningful new school that helps advance our understanding of antitrust law, economics, and policy.

Most of the articles in this Symposium involve extensive discussions of economics. As the intellectual foundation of antitrust in modern times, economics has an even longer history of characterization by schools. The history of economic thought is threaded through with debate about what role the government should play in allocating scarce resources and distributing valuable commodities.² Earlier schools include the Mercantilists, who advocated government intervention using import tariffs and export subsidies, the Physiocrats, who emphasized the importance of agriculture and called for a policy of laissez-faire, and the Classical School, characterized by markets driven by Adam Smith’s “invisible hands.”³ The economics schools in modern times most prominently feature the debate between the Keynesians and the Chicago School (and their refinements) at both macroeconomic and microeconomic

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¹ See Daniel A. Crane, *A Neo-Chicago Perspective on Antitrust Institutions*, *infra* this issue, 78 ANTITRUST L.J. 43 (2012).

² Hovenkamp considers antitrust as a government response to costs of moving resources in the marketplace. See Herbert Hovenkamp, *Antitrust and the Costs of Movement*, *infra* this issue, 78 ANTITRUST L.J. 67 (2012).

³ For a very brief description of the major schools of economic theory, see *Major Schools of Economic Theory*, FEDERAL RESERVE BANK OF SAN FRANCISCO, <http://www.frbsf.org/publications/education/unfrmd.great/greatschls.html>.

levels.⁴ A more popularized form of this debate was the alternating weekly columns in *Newsweek* written by the two schools' most influential advocates, Paul Samuelson and Milton Friedman, from 1966 to 1981.

As economics started to gain prominence in antitrust policy debates in the 1960s, not surprisingly, antitrust picked up some of the labels used by economists.⁵ However, while the interest in labeling in economics seems to have diminished gradually in recent years, there is continuing enthusiasm in the antitrust legal community for debating labels, and for creating more of them.⁶

So what is so significant about this practice of labeling schools? Perhaps the labeling helps summarize complex theories into easy to understand principles. Perhaps it helps articulate difficult policies into easy to follow guidelines. Or perhaps it simply helps spread an ideology, risking misinterpretation and misapplication in the process.

A potentially useful analogy would be to the parallelogram law for the addition of force vectors. A force vector indicates both a force's direction and its magnitude. The addition of two vector forces is the diagonal of the parallelogram, whose direction and magnitude is affected by those of the two forces. Similarly, at any point on the path of antitrust policy, there are forces represented by different schools pulling the path to different directions. Where the antitrust policy will head is effectively shaped by the directions and strength of these different schools.⁷

Such an analogy implies that even schools with significantly different views that appear to be substitutes for one another are likely to end up as complements. Indeed, criticisms provided by rival schools, if taken seriously, often can help improve and enrich a school's own analytical framework and formulation of arguments. Like a competitive market, the intellectual debate

⁴ Another less formal way of labeling schools is based on whether a school's proponents teach at universities that are located on the coasts or near the Great Lakes, i.e., salt-water economists vs. fresh-water economists.

⁵ Earlier schools (e.g., Chicago and Harvard) tend to be named after the university with which the primary advocates are associated. However, this association has become looser over time.

⁶ Some in the legal community argue that the labeling (or mislabeling) of antitrust schools should stop. See Bruce H. Kobayashi & Timothy J. Muris, *Chicago, Post-Chicago, and Beyond: Time to Let Go of the 20th Century*, *infra* this issue, 78 ANTITRUST L.J. 147 (2012); Joshua D. Wright, *Abandoning Antitrust's Chicago Obsession: The Case for Evidence-Based Antitrust*, *infra* this issue, 78 ANTITRUST L.J. 241 (2012).

⁷ Huffman describes Kovacic's similar but three dimensional analogy to a double helix as "a spiraling of economic thinking, presumably oriented upward, which gathers elements from different ideologies as it climbs." Max Huffman, *Marrying Neo-Chicago with Behavioral Antitrust*, *infra* this issue, 78 ANTITRUST L.J. 105, 111 (2012); see also William E. Kovacic, *The Intellectual DNA of Modern U.S. Competition Law for Dominant Firm Conduct: The Chicago/Harvard Double Helix*, 2007 COLUM. BUS. L. REV. 1.

among schools is, more likely than not, anything but a zero sum game, with antitrust policy becoming more informed, more balanced, and less volatile.⁸

One example in economics involves the theory of kinked demand.⁹ Classical oligopoly theory postulates that firms equate marginal revenue and marginal cost in setting optimal price or output, and prices tend to respond quickly to demand and cost changes in forming a new market equilibrium. The idea that the demand facing an oligopoly may be kinked challenged this fundamental belief as to how this market works because the resulting shape of the marginal revenue curve facing an oligopolistic firm means there is a range of marginal cost in which price remains rigid. The presence of a “kink” at the prevailing price in the demand curve facing a firm was based on the conjecture that firms in an oligopoly market only match price decreases but do not respond to price increases.¹⁰

The Chicago School, led by George Stigler, responded by arguing that the conjecture underlying kinked demand violated the assumption that businesses are rational profit-maximizing decisionmakers, and the model was not predictive.¹¹ Stigler’s empirical study and a number of other subsequent studies on several industries did not find the price rigidity that would arise from a demand kink.¹²

However, the kinked demand debate was not just a pointless digression. Later work has reinterpreted the theory and incorporated the idea into the

⁸ Though some may disagree, today’s antitrust policy is less polarized compared to earlier days. Neither Harvard nor Chicago has a clear upper hand. Speaking of a school literally (i.e., a specific university), perhaps it is Berkeley that has been the most “dominant” in influencing antitrust enforcement in the past two decades, as its professors Carl Shapiro, Joseph Farrell, Howard Shelanski, Richard Gilbert, Daniel Rubinfeld, and Michael Katz served in Chief Economist positions at the Department of Justice Antitrust Division, the Federal Trade Commission, and the Federal Communications Commission. See Press Release, University of California, Obama Calls on Berkeley School of Antitrust (May 28, 2009), available at <http://www.universityofcalifornia.edu/news/article/21263>.

⁹ For a detailed discussion, see Christopher Elmore, Tim Kautz, Anita Mukherjee, Anamaria Tudoran & Betsy (Elizabeth) Walls, *Kinked Expectations: How the Best of Kinked Demand and the Worst of Kinked Demand Challenged Classical Economics* (unpublished manuscript, Stanford Univ., 2006), available at <http://www.stanford.edu/~bwalls/Kinked%20Expectations.pdf>.

¹⁰ Robert L. Hall & Charles J. Hitch, *Price Theory and Business Behavior*, OXFORD ECONOMIC PAPERS (OLD SERIES) No. 2, 12 (1939); Paul M. Sweezy, *Demand Under Conditions of Oligopoly*, 4 J. POL. ECON. 568 (1939). For a model based on quantity conjectures, see DAVID M. KREPS, *A COURSE IN MICROECONOMIC THEORY* 335 (1990).

¹¹ George J. Stigler, *The Kinky Oligopoly Demand and Rigid Prices*, 55 J. POL. ECON. 432 (1947).

¹² *Id.*; see also Walter J. Primeaux, Jr. & Mark R. Bomball, *A Re-examination of the Kinked Oligopoly Demand Curve*, 82 J. POL. ECON. 851 (1974); Walter J. Primeaux, Jr. & Mickey C. Smith, *Pricing Patterns and the Kinky Demand Curve*, 19 J.L. & ECON. 189 (1976); Julian L. Simon, *A Further Test of the Kinky Oligopoly Demand Curve*, 59 AM. ECON. REV. 971 (1969).

more generally accepted game-theoretic framework.¹³ The new formulation no longer contradicts the Chicago School's rationality assumption and efficient market assumption (which nonetheless remain the subject of debate, including in this Symposium). The kinked demand debate resulted in more empirical evidence supporting the classical theory and prompted research in game theory to gain a better understanding of oligopoly pricing. In the end, a challenge, and the ensuing debate, sharpened the focus of economic research and deepened our appreciation of the relevant economic issues.

Articles in this Symposium debate the potential improvements offered by the Neo-Chicago School and its policy implications. A closer look reveals that there is substantial consensus among the major schools on the general principles—that antitrust policy should be based on sound economics and solid empirical evidence. There also seems to be little disagreement on Judge Easterbrook's error-cost framework, whether this is considered as part of Chicago already,¹⁴ or is only formally adopted in Neo-Chicago.¹⁵ Rather, the controversy appears to be with the policy directions advocated or implied by different schools and, when traced back to the roots, with some basic assumptions in economic models these schools embrace: Are consumers generally rational, with sufficient foresight? Are firms always maximizing profit? Should a firm be considered as a single profit-maximizing unit or should the internal incentives be accounted for more explicitly?¹⁶ Is the market generally efficient and self-correcting? Recognizing the gap between assumptions and reality does not necessitate a "correction." One needs to ask some further questions: Is the correction just a second-order issue?¹⁷ Should our views on first order issues be changed because of the discovery of a second-order prob-

¹³ V. Bhaskar, *The Kinked Demand Curve: A Game-Theoretic Approach*, 6 INT'L J. INDUS. ORG. 373 (1988); Eric Maskin & Jean Tirole, *A Theory of Dynamic Oligopoly: Price Competition, Kinked Demand Curves, and Edgeworth Cycles*, 56 ECONOMETRICA 571 (1988); D.K. Osborne, *A Duopoly Price Game*, 41 ECONOMICA (NEW SERIES) 157 (1974).

¹⁴ See Kobayashi & Muris, *supra* note 6.

¹⁵ See David Evans & Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 U. CHI. L. REV. 73, 74–75 (2005).

¹⁶ Sokol, based on a survey of antitrust practitioners, finds that there are various incentives within the firm as an organization and such incentives need to be taken into account in order to improve the effectiveness of cartel enforcement. See D. Daniel Sokol, *Cartels, Corporate Compliance, and What Practitioners Really Think About Enforcement*, *infra* this issue, 78 ANTITRUST L.J. 201 (2012).

¹⁷ Economists often use calculus to describe, for example, how a consumer's welfare or a firm's profit changes when a key factor, such as price, changes. The first-order derivative is often thought to provide a good approximation of the direction and degree of such changes, while the second-order derivative provides "the change of the change," a more nuanced description of such effects.

lem?¹⁸ What constructive and practical solutions can a correction or a revision bring to the table?¹⁹ There is plenty to debate on such issues.

As the world we live in becomes more global each day, the debate among antitrust schools has important implications not only for the enforcement policy directions in the United States, but also for those in other jurisdictions. The articles in this Symposium have covered a number of important U.S. cases, but the theories being debated (or repudiated as some would argue) are also often applied elsewhere in the world. Divergent U.S. and European decisions at times are partially due to different views on some of the issues covered in this Symposium.²⁰ In addition, emerging economies like China seem to follow closely the discourse in the competition jurisdictions with longer tenure.²¹

It is worth stressing that debates among antitrust schools should follow these generally accepted principles: sound economics and solid empirical evidence, as indicated earlier. This way, the parallelogram of antitrust forces will

¹⁸ For example, Huffman postulates that if deviations from rational choice are truly random and on average are approximated by rational choice, then there is no need to rely on behavioral economics. He argues that this is not the case, though: the deviations are “non-random and thus predictable.” See Huffman, *supra* note 7, at 117. But there is also an issue on the magnitude of such deviations, which Huffman seems to believe to be significant enough to warrant policy action.

¹⁹ For example, Page offers an approach to concerted action with “a requirement that rivals communicate in specified ways.” See William H. Page, *A Neo-Chicago Approach to Concerted Action*, *infra* this issue, 78 ANTITRUST L.J. 173, 174 (2012).

²⁰ Two prominent examples are the different views in the United States and in Europe on the 2001 proposed GE/Honeywell merger and on the 2007 *Microsoft* case. See Press Release, U.S. Dep’t of Justice, Statement by Assistant Attorney General Charles A. James on the EU’s Decision Regarding the GE/Honeywell Acquisition (July 3, 2001), available at http://www.justice.gov/atr/public/press_releases/2001/8510.pdf; Press Release, U.S. Dep’t of Justice, Assistant Attorney General for Antitrust, Thomas O. Barnett, Issues Statement on European Microsoft Decision (Sept. 17, 2007), available at http://www.justice.gov/atr/public/press_releases/2007/226070.pdf.

²¹ For example, the 2009 decision by China’s antitrust merger review agency, the Antimonopoly Bureau of the Ministry of Commerce (MOFCOM), to reject Coca Cola’s planned acquisition of Huiyuan Juice was primarily based on a leverage theory. See Ministry of Commerce, The People’s Republic of China, Public Statement on the Decision to Prohibit the Coca Cola Company’s Acquisition of China Huiyuan Group (Mar. 18, 2009) (in Mandarin), available at <http://fldj.mofcom.gov.cn/aarticle/ztxx/200903/20090306108494.html>. MOFCOM’s decision to impose conditions on the GE/Shenhua deal in 2011 arose partly out of a raising rivals’ cost concern. See Ministry of Commerce, The People’s Republic of China, Public Statement on the Decision to Approve with Conditions the Joint Venture Between General Electric (China) Co., Ltd. and China Shenhua Coal to Liquid and Chemical Co., Ltd. (Nov. 10, 2011) (in Mandarin), available at <http://fldj.mofcom.gov.cn/aarticle/ztxx/201111/20111107855595.html>. There is also a debate in an ongoing (and first) vertical price agreement case in China on the per se illegality of Johnson & Johnson Medical (China)’s resale price maintenance clause. See *First Vertical Monopoly Agreement Case in the Nation Starts Trial Today*, LEGAL DAILY (Feb. 4, 2012) (in Mandarin), available at http://www.legaldaily.com.cn/index/content/2012-02/04/content_3333224.htm?node=33768.

yield a policy direction that is more balanced and more stable, and ultimately, more correct. We hope this debate will inform, and elucidate important methodology and policy issues facing antitrust today. Thus, this Symposium.