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The Looming Crisis in Antitrust Economics

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THE LOOMING CRISIS IN ANTITRUST ECONOMICS

Herbert Hovenkamp*

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Contents

INTRODUCTION	1
THE MARGINAL ANTITRUST CASE	3
THE SUPREME COURT AND ECONOMIC SCIENCE	12
APPLE V. PEPPER AND PASSED-ON HARM	18
Why an Overcharge?.....	19
Unwarranted Exceptionalism in Antitrust Damages.....	22
Innovations in the Computation of Passed on Damages.....	25
AMERICAN EXPRESS AND RATIONAL ECONOMICS	27
Balancing Harms and Benefits on Two-Sided Markets.....	28
Market Definition and Extra-Market Effects	29
Assessing Power on Two-Sided Platforms.....	37
Inferring Power from Conduct.....	43
Market Power in Vertical Cases	44
The Meaning and Scope of Free Riding.....	49
Marginal vs. Total Effects.....	50
Competition and “Welcome Acceptance”	54
ATTACKING BIGNESS OR PROTECTING CONSUMERS?	56
Mergers and Consumer Welfare.....	57
Segregating Platform Sales.....	60
CONCLUSION	66

INTRODUCTION

As in so many areas of law and politics in the United States, antitrust’s center is at bay. It is besieged by a right flank that wants to limit antitrust even more than it has been limited over the last quarter

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century. On the left, it faces revisionists who propose significantly greater enforcement.

One thing the two extremes share is denigration of the role of economics in antitrust analysis. On the right, the Supreme Court is increasingly revealing that fundamental economic analysis no longer occupies the central role that it once had. On the left, some proposals, including those by some former Democratic presidential contenders, are economically indefensible and threaten antitrust's boundary limitations to concerns for economic competition.

The antitrust laws speak of the conduct they prohibit in unmistakably economic terms, such as "restraint of trade," "monopoly," or lessening of "competition."¹ They do not embrace any particular economic ideology, such as the Chicago School or institutionalism. Nor do they require the use of any particular economic model, such as perfect competition or oligopoly. This openness gives policy makers a great deal of room, but it is not an invitation to economic nonsense. Antitrust economics should be an analytic and empirical tool for determining how a practice affects competition. This requires an assessment of who is injured by the practice, how, and what is the optimal form of relief. Economics should not be an excuse for picking a winning interest group and then manipulating the doctrine to get to that result. Nor, however, should it be a tool for making other kinds of social policy that is not driven by competitive concerns.

This paper first considers the relationship between sound antitrust economics and the trajectory of antitrust decisions over time. Then it briefly examines the role of economics as a science in antitrust analysis. After that it turns to the Supreme Court's treatment of antitrust economics in its two most recent decisions at this writing.

¹These terms are used in the two substantive sections of the Sherman Act, 15 U.S.C. §§1,2; and §§2, 3 & 7 of the Clayton Act, 15 U.S.C. §§13, 14, 18.

Finally, it looks at the sharply contrasting approaches of some of antitrust's left flank.

The Marginal Antitrust Case

In the 1960s the economics of Supreme Court antitrust decisions was indefensible. The quality of any science in law must always be compared with the contemporaneous quality of that science within the profession. Much of the industrial economics of the period was more interventionist than it is today. For example, structuralism as presented in the writings of such prominent industrial organization economists as Joe Bain made a case for condemning mergers or exclusionary practices that would not be condemned today.² By today's standards, the then dominant structure-conduct-performance paradigm exaggerated the threats posed by large firms and concentrated markets.³

Nevertheless, the position taken in many Supreme Court decisions during that era went far beyond this economics by any

²*E.g.*, JOE S. BAIN, BARRIERS TO NEW COMPETITION: THEIR CHARACTER AND CONSEQUENCES IN MANUFACTURING INDUSTRIES 21-24 (1956) (discussing the value of a condition of entry to a firm); JOE S. BAIN, INDUSTRIAL ORGANIZATION 174 (1959); Joe S. Bain, *Conditions of Entry and the Emergence of Monopoly*, in *Monopoly and Competition and Their Regulation* 215, 219-26 (Edward H. Chamberlin ed., 1954); Joe S. Bain, *Workable Competition in Oligopoly: Theoretical Considerations and Some Empirical Evidence*, 40 AM. ECON. REV. 35, 37-38 (1950).

³See HERBERT HOVENKAMP, THE OPENING OF AMERICAN LAW: NEOCLASSICAL LEGAL THOUGHT, 1870-1970, Ch. 11 (2015); Herbert Hovenkamp, *United States Competition Policy in Crisis: 1890-1955*, 94 MINN. L. REV. 311 (2009). On the role of structure in antitrust analysis today, see HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE §1.7 (6th ed. 2020); on merger law in particular, see Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996 (2018). See also Thomas Kauper, *The Influence of Conservative Economic Analysis on the Development of Antitrust Law* 40, in HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST (Robert Pitofsky, ed., 2008).

reasonable bounds. Notable examples were Supreme Court decisions that used merger law to condemn efficiencies rather than higher prices,⁴ the aggressive position that the Court took on vertical restraints, particularly nonprice restraints⁵ and maximum resale price maintenance,⁶ its application of the per se rule to efficient and economically harmless joint ventures,⁷ and its exaggerated perceptions about the relationship between patents and monopoly.⁸

While there were important political changes as well,⁹ the Chicago School acquired its prominence in antitrust economics because there was so much low hanging fruit.¹⁰ Many economists climbed on board simply because the case law was so incredibly indefensible from almost any economic perspective.¹¹

Since that time, however, antitrust case law has become economically much less aggressive. The Supreme Court has very considerably increased plaintiffs' burdens for pleading antitrust cases¹² and avoiding summary judgment.¹³ It has narrowed private plaintiff antitrust standing,¹⁴ and very seriously limited challenges to

⁴E.g., *Brown Shoe Co. v. United States*, 370 U.S. 2 (1962).

⁵*United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967).

⁶ *Albrecht v. Herald Co.*, 390 U.S. 145 (1968).

⁷*United States v. Topco Assocs.*, 405 U.S. 596 (1972).

⁸ E.g., *Brulotte v. Thys Co.*, 379 U.S. 29 (1964).

⁹In particular, Lyndon Johnson's decision not to run and Richard Nixon's election as president in 1968, had the effect of turning antitrust policy sharply to the right, particularly on issues relating to merger policy and industrial concentration. See Herbert Hovenkamp, *The Neal Report and the Crisis in Antitrust*, 5 COMPETITION POLICY INT'L 217 (April 30, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1348707.

¹⁰See Herbert Hovenkamp & Fiona Scott Morton, *Framing the Chicago School of Antitrust Analysis*, __ PENN. L. REV. __ (2020) (forthcoming), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3481388.

¹¹*Ibid* at __.

¹²*Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007).

¹³*Matsushita Electric Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986).

¹⁴*Associated General Contractors v. California State Council of Carpenters*, 459 U.S. 519 (1983); *Cargill v. Monfort of Colo.*, 479 U.S. 104, 119, 107

predatory pricing.¹⁵ To the extent the courts including the Supreme Court have erred in recent years, it has been in ways that favor defendants rather than plaintiffs. They are certainly much narrower than the antitrust statutes, which speak in very broad terms about the harms they prohibit and grant private actions to anyone who is injured. As a result, the “marginal” antitrust case today is far, far less likely to be an expression of overdeterrence. In fact, today many members of the federal judiciary, including some on the Supreme Court, exhibit a strong anti-enforcement bias.

At the same time, changes in both economic theory and economic methodology have strengthened the case for intervention on economic grounds. Important characteristics of the Chicago School in the 1950s and 1960s were an iconoclastic methodology, severe opposition to economic models that deviated significantly from perfect competition, and its extreme trust that in the long run all markets would work themselves to competition. George Stigler, the most notable Chicago School microeconomist of the period, saw oligopoly as a narrow and short-lived exception to perfect competition¹⁶ and, along with Milton Friedman, repudiated the theory of monopolistic competition as untestable.¹⁷ Within the scientific positivism of the day

S.Ct. 484, 494 (1986). See *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977). On *Illinois Brick*, see discussion *infra*, text at notes ___.

¹⁵*Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993); *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., Inc.*, 549 U.S. 312 (2007).

¹⁶George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44 (1964).

¹⁷GEORGE J. STIGLER, *Monopolistic Competition in Retrospect*, in THE ORGANIZATION OF INDUSTRY 309, 309-21 (1968) (criticizing Edward Chamberlin’s theory of monopolistic competition). See CRAIG FREEDMAN, *The Chicago School of Anti-Monopolistic Competition: Stigler’s Scorched Earth Campaign Against Chamberlin*, in IN SEARCH OF THE TWO-HANDED ECONOMIST 165, 165-342 (2016). On Friedman and monopolistic competition, see Milton Friedman, *The Methodology of Positive Economics* 3, 14-15, in ESSAYS IN POSITIVE ECONOMICS (1953) (mainly claiming that the theory of monopolistic competition is not testable).

that was tantamount to saying that it lay outside the boundaries of science.

For the Chicago School these were important defensive positions. The School had developed in large part as a reaction to perceived situational excesses in the economic policies of the 1930s and the New Deal. Stigler in particular objected to the use of economics to respond to external circumstances such as the Depression. Indeed, he wrote, the strength of economics as a science is that its main focus is not “drawn from immediate, changing events.”¹⁸

Stigler also objected to efforts to make economics more interdisciplinary, suggesting for example, that theories of oligopoly were fundamentally about the sociology of groups.¹⁹ A good example is Stigler’s very influential essay on the economics of information.²⁰ Rather than looking for biological, cultural, psychological, or sociological explanations for the fact that people often act on incomplete or even false information, Stigler found the answer entirely in neoclassical marginal analysis. Information is costly. As a result, a rational maximizing actor will not acquire an infinite amount of it, but rather only to the point that the marginal value of obtaining further information equals the marginal cost of doing so.

A similar example was an article he wrote with Gary Becker about individual taste.²¹ They argued that, contrary to those who observed wide differences in individual taste, for purposes of economic analysis these were relatively unimportant. “One may usefully treat tastes as stable over time and similar among people....”²²

¹⁸George J. Stigler, *The Influence of Events and Policies on Economic Theory*, 50 AM. ECON. REV. 36, 38 (1960).

¹⁹*Id.* at 45.

²⁰George J. Stigler, *The Economics of Information*, 69 J. POL. ECON. 213 (1961).

²¹George J. Stigler and Gary S. Becker, *De Gustibus Non Est Disputandum*, 67 AM. ECON. REV. 76 (1977).

²²*Id.* at 76.

Within their model the function of advertising was not to influence people's tastes, but rather to communicate information about price.²³ While Stigler and Becker did not mention monopolistic competition, they were clearly resisting its attempt to describe market behavior in terms of differential consumer preferences. While the other social sciences might be concerned with differences among individuals, economics was driven by assumptions about their homogeneity. For Stigler, this was important to maintaining the autonomy of economics as a science. He wrote,

autonomy of a science is surely essential to its existence. A discipline which was in intimate and continuous dependence upon the current output of events or other disciplines would simply not be a discipline; it would be a temporary collection of subjects. It could have no specialists-who would be pathetically obsolete in a few years-nor any accumulated theoretical corpus, for its theory would change with each new liaison or external development.²⁴

Further, Stigler argued, the technical apparatus that the classical political economists had developed was the best not only for its own day but also for the present.²⁵ For him, the history of economics was little more than a series of refinements in the theory of perfect competition. What he wrote was wishful thinking even at that time, but much more today:

the concept of perfect competition has defeated its newer rivals in the decisive area: the day-to-day work of the economic theorist. Since the 1930's, when the rival doctrines of imperfect and monopolistic competition were in their heyday, economists have increasingly reverted to the use of the concept of perfect competition as their standard model for analysis. Today the concept of perfect competition is being used more widely by

²³ *Id.* at 84.

²⁴ Stigler, *Influence of Events*, *supra* note __ at 45.

²⁵ GEORGE J. STIGLER, FIVE LECTURES ON ECONOMIC PROBLEMS 35 (1949).

the profession in its theoretical work than at any time in the past. The vitality of the concept is strongly spoken for by this triumph.²⁶

That concept was strongly dedicated to developing a model for an economy that worked by itself, with little or no intervention by the State. Within that model products competed on price and entry was usually regarded as easy unless the state itself imposed barriers.²⁷ As a result, the strong case that members of the Chicago School made for nonintervention rested on the premise that markets would always revert to competition if left alone. To this, the popular models of imperfect competition were idiosyncratic and short-lived annoyances.²⁸

One source of Stigler's hostility toward monopolistic competition theory is that it invited the methods of other disciplines into economic analysis. Monopolistic competition theory was driven by assumptions today seem obvious even from casual observation, but that ran contrary to classical orthodoxy – mainly, product differentiation, differential consumer taste, and behaviorism.²⁹ In the process of defending these ideas, the Chicago School became very iconoclastic and self-referential in its methodology, largely distrusting not only outside economists but also people from other disciplines who did not follow along.³⁰ Ironically, notwithstanding its devotion to Alfred Marshall, Chicago economics ignored or implicitly rejected

²⁶George J. Stigler, *Perfect Competition, Historically Contemplated*, 65 J. POL. ECON. 1, 17 (1957).

²⁷For a good analysis, see Jonathan B. Baker, *Taking the Error out of "Error Cost" Analysis: What's Wrong with Antitrust's Right*, 80 ANTITRUST L.J. 1 (2015). See also Richard J. Gilbert, *The Role of Potential Competition in Industrial Organization*, 3 J. ECON. PERSP. 107 (1989).

²⁸See Melvin W. Reder, *Chicago Economics: Permanence and Change*, 20 J. ECON. LIT. 1 (1982).

²⁹See Jan Horst Keppler, *The Genesis of "Positive Economics" and the Rejection of Monopolistic Competition Theory: A Methodological Debate*, 22 CAMBRIDGE J. ECON. 261, 274 (1998)

³⁰*Id.* at 21.

Marshall's very famous definition of economics as the "ordinary business of life" whose "more important side" was not the study of wealth, but rather "a part of the study of man."³¹

Stigler himself insisted that that a major shortcoming in economics was lack of empirical testing – something he made the subject of his 1964 presidential address to the American Economic Association.³² He shared that view with other notable Chicago School economists such as Ronald Coase³³ and Milton Friedman.³⁴

Nevertheless, testing eventually proved to be the downfall of Chicago School economics. Today the propositions that entry into most markets is easy, that competition is robust at all concentration levels, that oligopoly is fragile, and certainly that imperfect competition plays no or at least only a tiny role in the economy have been undermined by a literature that is both theoretically sound and empirically rich.³⁵

This idea of reversion to a competitive status quo was the driving force behind the "error cost" analysis, developed by the Chicago School in the 1980s. If competition is robust and if oligopoly and other models of imperfect competition are frail and fleeting, then the market itself will correct monopoly and there is no need for the

³¹ALFRED MARSHALL, PRINCIPLES OF ECONOMICS, Book I, Ch. 1, p. 1 (1890):

Political Economy or Economics is a study of man's actions in the ordinary business of life; it inquires how he gets his income and how he uses it. Thus it is on the one side a study of wealth and on the other, a more important side, a part of the study of man.

³²George J. Stigler, *The Economist and the State*, 55 AM. ECON. REV. 1 (1965).

³³Ronald H. Coase, *The Nature of the Firm*, 4 ECONOMICA (n.s.) 386, 386 (1937).

³⁴Milton Friedman, *The Methodology of Positive Economics* 3, 14-15, in ESSAYS IN POSITIVE ECONOMICS (1953).

³⁵See Baker, *supra* note ___ at 11-14. With respect to merger policy, see Hovenkamp & Shapiro, *Horizontal Mergers*, *supra* note ___.

government to intervene.³⁶ As a result, the social cost of a false negative (failure to condemn) is low because the market will correct it. By contrast, false positives tend to interfere with this natural market process of purification. Richard Posner, writing as both defender and critic, argued that, the core members of the Chicago denounced even price-fixing only for “tactical reasons.” In fact, they did not regard it as a serious problem worth enforcement resources. First, the social cost of monopoly in any event was very small.³⁷ Second, cartels were highly unstable and as a result their overall “misallocative effects would be too slight to warrant inevitably costly public proceedings.”³⁸

This error cost analysis, which became conventional in Chicago School antitrust policy, is critically dependent on the assumption that markets work themselves pure. However, if *imperfections* in markets are in fact stable and robust, making competition the more fragile state of affairs, then the error cost analysis is precisely reversed. In that case a false negative will tend to protect whatever market defect was causing a competitive problem. By contrast, a false positive will impose more competition unnecessarily but society is still more likely to benefit unless the error is egregious.

Today these tables have been turned dramatically. Perfect competition has very largely lost its place in economic modeling, except perhaps in highly diffuse markets for commodities. Simple perfect competition models have given away to models that recognize a wide variety of strategic behavior. Further, these new models seem to be doing much better than perfect competition models in the area of testability.³⁹

³⁶See, e.g., Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984), esp. at 2-3, 15 (monopoly is “self-destructive” because it always attracts entry).

³⁷Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 UNIV. PA. L. REV. 925, 932 (1979), citing Arnold Harberger, *Monopoly and Resource Allocation*, 44 AM. ECON. REV. PAPERS & PROC. 77 (1954).

³⁸Posner, *Ibid.*

³⁹See Baker, *supra*, note __ .

One example is the important rise of empirical economic analysis of consumer substitution behavior that is applied in unilateral effects theories of merger harm. The theory is that mergers between two firms that are reasonably adjacent in a differentiated product space will predictably yield a price increase. This occurs because sales that a single firm would have lost in response to a unilateral price increase will be recaptured by the merger partner.

The model of unilateral effects analysis is completely inconsistent with perfect competition, which assumes that the cross-elasticity of demand facing different sellers in the same market is extremely high. If one seller in a market raises price unilaterally, it will immediately lose all its sales. If two sellers in a perfectly competitive market merge and increase their price, they will also lose all of their sales. By contrast, models that account for product differentiation assume that the cross-elasticities of demand between pairs of firms actually vary significantly and that these differences can be empirically measured. As a result, it becomes possible to use the distance among firms in product space to evaluate the price impact of a merger.⁴⁰

Empirical testing requires data about the rates of substitution between pairs of firms in response to one firm's price change. Here, the widespread availability of digitized transaction evidence makes this measurement much easier than it had been previously, certainly at Stigler's time.⁴¹ Today the theory of unilateral effects is robust, testable, and accounts for a significant percentage of government

⁴⁰On unilateral effects analysis of mergers, see HOVENKAMP, FEDERAL ANTITRUST POLICY, *supra* note ____, §12.3d.

⁴¹ On the use of scanner data or other recorded information from digitized transactions in merger analysis, see FTC, *Commentary on the Horizontal Merger Guidelines* (March 2006), available at 2006 WL 6870502; Carl Shapiro, *Mergers with differentiated Products*, Address to the Department of Justice, Nov. 9, 1995, available at 1995 WL 678629 (describing use of scanner data in several merger cases);

merger challenges.⁴² It seems clear that imperfect competition models are durable, testable, and unlikely to go away.

The Supreme Court and Economic Science

Disputed scientific issues present courts with questions of fact-something that has been clear for nearly two centuries.⁴³ The Federal Rules of Evidence couch their treatment of expert testimony in this way,⁴⁴ requiring the testimony to be based on “sufficient facts or data.” In its *Daubert* decision the Supreme Court gave as important considerations for evaluating scientific testimony whether it can be tested or falsified, and whether a proffered theory has a known or potential rate of error.⁴⁵ The leading treatise on scientific evidence emphasizes the same thing.⁴⁶

To be sure, under the Federal Rules judges perform a gatekeeping function in determining the admissibility of proffered scientific evidence. But the courts have also made clear that this function is limited to questions about the expert’s methodology, not

⁴²See Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L.J. 49 (2010). Particularly on testability, see Jonathan B. Baker, *Why Did the Antitrust Agencies Embrace Unilateral Effects?*, 12 GEO. MASON L. REV. 31, 34-36 (2003); Andrew R. Dick, *Merger Policy Twenty-Five Years Later: Unilateral Effects Move to the Forefront*, 27 FALL ANTITRUST 25 (2012). For examples of the use of empirical evidence in unilateral effects merger cases, see *FTC v. Sysco Corp.*, 113 F.Supp.3d 1 (D.D.C. 2015); *United States v. H&R Block, Inc.*, 833 F.Supp.2d 36 (D.D.C. 2011).

⁴³See Louis E. Reiki, *The Doe-Ray Correspondence: A Pioneer Collaboration in the Jurisprudence of Mental Disease*, 63 YALE L.J. 183, 188, 191-192 (1953) (speaking of mental condition and criminal law fact finding in the work of Justice Charles Doe prior to the Civil War). See, e.g., *FTC v. National Urological Group, Inc.*, 645 F.Supp.2d 1167, 1190 (N.D. Ga. 2008).

⁴⁴Federal Rule of Evidence 702 (admissibility of expert testimony depends on whether it “will help the trier of fact to understand the evidence”).

⁴⁵*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593 (1993); *accord Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).

⁴⁶DAVID L. FAIGMAN, *et al.*, MODERN SCIENTIFIC EVIDENCE §1.16 (2019).

his or her ultimate conclusion.⁴⁷ It was certainly never intended to permit federal judges to turn scientific issues into questions of law.⁴⁸ Indeed, the very concept of “admissibility” applies only to issues of fact.

In this regard economics is no different from any other science. Testability of its hypotheses and models has been one of economics’ most important functions since the 1950s,⁴⁹ leading to an empirical renaissance in industrial economics in the 1980s and after.⁵⁰ Today, empirical economics and econometrics makes up a significant part of litigation concerning expert testimony.⁵¹ Antitrust litigation in particular makes liberal use of both economic theory and economic evidence.⁵² The debate over how antitrust should use economics has many facets, and the extent to which any particular proposition of economics is testable can be subject to dispute.⁵³ Nevertheless today no one seriously doubts the proposition that economic evidence is concerned with questions of fact that are subject to the usual *Daubert*

⁴⁷ E.g., *Kopplin v. Wisconsin Central Limited*, 914 F.3d 1099, 1103-1104 (7th Cir. 2019) (“focus is on the expert’s methodology, not his ultimate conclusions”)

⁴⁸ Nevertheless, some fact conclusions end up becoming legal precedents. See Allison Orr Larsen, *Factual Precedents*, 162 UNIV. PA. L. REV. 59 (2013).

⁴⁹ E.g., Friedman, *The Methodology of Positive Economics*, *supra* note __, 3, 14-15.

⁵⁰ Timothy F. Bresnahan & Richard Schmalensee, *The Empirical Renaissance in Industrial Economics: An Overview*, 35 J. INDUS. ECON. 371 (1987)

⁵¹ See Jeff Todd, *Realistic Assumptions in Economic Models*, 47 HOFSTRA L. REV. 231 (2018).

⁵² See Malcolm B. Coate & Jeffrey H. Fischer, *Daubert, Science, and Modern Game Theory: Implications for Merger Analysis*, 20 SUP. CT. ECON. REV. 125 (2012).

⁵³ See, e.g., Sam Peltzman, *Ronald Coase and the Methodology of Economics*, 54 J. L. & Econ. S15 (2011); Donald N. McCloskey, *The Loss Function Has Been Misplaced: the Rhetoric of Significance Tests*, 75 AM. ECON. REV. PAPERS & PROCED. 201 (1985) (arguing that economists are too easy on themselves on questions of testability).

considerations for admissibility that have become conventional for scientific testimony.⁵⁴

In its *Amex* decision the Supreme Court's five justice drew two scientific conclusions as a matter of law. First was that market power can be established in a vertical case only indirectly, by reference to a relevant market. Second was that, as a matter of law, a two-sided platform cannot compete with a more traditional market but only with other two sided platforms.⁵⁵ While pure questions of statutory interpretation present questions of law,⁵⁶ neither of these realistically purported to interpret the language of the Sherman Act. Indeed, the Sherman Act makes no reference whatsoever to relevant markets or how market power is to be measured.

Further, within the discipline of economics neither of these questions is particularly controversial, but the Supreme Court reached the wrong answer on both. On the first, as discussed below, economics has made significant strides in the last two decades in measuring market power directly from observed transactional behavior. When the data are available those methodologies are superior to the traditional approach of defining a relevant market. Further, in digital platforms such as the one involved in the *AmEx* case the data are available because all the transactions produce digitized records.⁵⁷

⁵⁴A few recent examples of the application of *Daubert* to economic evidence in antitrust cases include *In re Wholesale Grocery Products Antitrust Litig.*, 946 F.3d 995 (8th Cir. 2019); *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254 (3d Cir. 2012); *In re Nexium (Esomeprazole) Antitrust Litig.*, 842 F.3d 34 (1st Cir. 2016); *In re Hydrogen Peroxide Antitrust Litigation*, 552 F.3d 3005 (3d Cir. 2008). For more comprehensive discussion, see 2 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶309 (5th ed. 2021).

⁵⁵*Ohio v. Am. Express Co.*, 138 S. Ct. 2274 (2018). See discussion *infra*, text at notes ___.

⁵⁶*E.g.*, *United States v. Washington*, 971 f.3d 856 (9th Cir. 2020); *Stephens ex rel. R.E. v. Astrue*, 565 F.3d 131, 137 (4th Cir. 2009) (“quintessential question of law”).

⁵⁷See discussion *infra*, text at notes ___.

What would be the proper way to assess market power in antitrust litigation involving vertical practices? The answer is the same criteria that guides federal court assessment of scientific questions generally. The issue would have to be placed in dispute, economists or other experts would be consulted, and their testimony would be evaluated through an examination of the relevant community's technical literature. The issue would go to the fact finder, although the fact finder in an equitable challenge such as *AmEx* was the judge.

The second question that the Supreme Court resolved as a matter of law was that two-sided platforms compete only with other two-sided platforms.⁵⁸ The question was not briefed, and the Court appeared not to understand what competition in the antitrust sense means. The relevant question for antitrust analysis is whether one firm's output exerts sufficient pressure on another firm's output to hold that firm's prices reasonably close to its costs. That is, competition is what limits the market power of a rival firm.

To illustrate, Uber is a ride hailing platform operating on a two-sided market. In computing fares it must weigh a number of considerations. One is the traditional one of "participation balancing" on a two-sided market.⁵⁹ That is, Uber needs to balance out its own drivers and its own passengers, producing fares that maximize its profits as between them by providing both sufficient drivers and sufficient riders. At the same time, however, Uber must also set its fares sufficiently low so as to compete with both Lyft, its two-sided platform rival, as well as traditional taxicabs. Customers, after all, are free to choose from any one of the three, as well as other options. So, for example, if Uber lowers its fares it will switch more passengers away from both its two-sided and traditional taxicab rivals, but it will also lose drivers who can earn more elsewhere, and these drivers could go to Lyft, to traditional taxi services or somewhere else.

⁵⁸*Amex*, 138 S.Ct. at 2287 ("Only other two-sided platforms can compete with a two-sided platform for transactions.")

⁵⁹Erik Hovenkamp, *Platform Antitrust*, 44 J. CORP. L. 713 (2019).

So should traditional taxicabs be placed in the same relevant market with Uber and Lyft? The answer to that question is not a foregone conclusion. For example, it is possible that the traditional taxicab companies have higher costs and as a result are not effective competitors against Uber and Lyft when prices are close to the competitive level. In that case Uber and Lyft would not be significantly constrained by the traditional taxicabs. We would express that conclusion by saying that the taxicabs are not in the same relevant market. On the other hand, a likely conclusion is that since Uber and traditional cabs use essentially the same technologies, they do compete. To be sure, there are some differences. One is that Uber's rates and access are set by a platform app while the taxicab's rates are determined by a commission and customers obtain access by more traditional means. It is possible that this process produces significant cost differentials in one way or the other, but this would be a question for the fact finder and, very likely, expert testimony.

The Court's conclusion that two-sided platforms compete only with other two-sided platforms also exaggerates the market power of two-sided platforms to the extent that it fails to identify the correct range of competitors. For example, assuming that Carvana is the only two-sided platform seller of used cars, a Court would be forced to conclude that it is a monopolist. However, if one looks at the full range of consumer used car sales, Carvana's market share as of late 2020 was less than 1%.⁶⁰ Thus, for example, it is likely that 99 out of 100 used 2017 Toyota Corollas were sold through traditional dealers, while one was sold by Carvana. That makes Carvana's monopoly status ludicrous.

The question whether two-sided markets and more traditional markets "compete" for antitrust purposes should be addressed in the

⁶⁰See Louis Stevens, *Carvana: A Compelling Narrative With One Major Issue, Seeking Alpha* (Sep. 21, 2020), available at <https://seekingalpha.com/article/4375563-carvana-compelling-narrative-one-major-issue> (noting 2019 sales of 177,000 vehicles out of 40,000,000 used car total).

same way that the Court considers other economic questions. Here the Court's error was dicta. The anti-steering rule at issue applied only as between payments with competing cards, and not to customers who might pay by cash or check. As a result, all of the relevant competing entities were two-sided platforms, and the Court's statement to the effect that a two-sided market competes only with other two-sided markets was unnecessary to the decision.

However, not all dicta are alike. When the Supreme Court makes a categorical statement as a matter of law, the lower courts tend to follow it, whether or not it is dicta. That has already happened in one lower court case involving a merger. The court held that a merger between Sabre, a two-sided airline reservation platform, and a firm processing airline reservations in a more traditional way could not be horizontal because two sided platforms and more traditional platforms do not compete with each other as a matter of law.⁶¹

So why did the *AmEx* decision turn these important factual issues into questions of law? A cynical answer would be that it was result oriented -- that the model that the scientific community was increasingly coming to apply did not produce the result that the Court's majority wanted to hear. That could explain the conclusion requiring a relevant market definition in a vertical case, but not the conclusion that two-sided platforms compete only with each other. Another explanation, which fares no better, is that the Court majority wanted to take some economic questions out of the fact-finding process altogether by treating them as questions of law. But that still does not answer why, and why these particular questions. Both are technical, and both fall well within the range of economic inquiry in antitrust cases.

⁶¹United States v. Sabre Corp., ___ F.Supp.3d ___, 2020 WL 1855433 (D.Del. Apr. 7, 2020), vacated on other grds., 2020 WL 4915824 (3d Cir. July 20, 2020). The order was vacated after the parties voluntarily abandoned the transaction.

APPLE V. PEPPER AND PASSED-ON HARM

In *Apple, Inc. vs. Pepper* both the majority opinion and the dissent were detached from the economic issue that has dominated indirect purchaser antitrust jurisprudence in the United States for forty years – namely, how should the law reflect that injuries from a cartel or monopoly overcharge are passed down through the distribution chain from one purchaser to the next, although in varying degrees.⁶² The questions that the Supreme Court confronted in *Illinois Brick Co. v. Illinois*⁶³ more than forty years earlier had to do with difficulties in estimating passed on damages, and the impact of alternative rules on deterrence of antitrust violations.

Since that time we have made important advances in the measurement of indirect purchaser damages, many of which do not require the stage-by-stage computation of pass-on at all.⁶⁴ Several American states⁶⁵ as well as the EU and its member states have embraced methodologies for addressing the problem. Right now the state of EU policy on the question is far more advanced than that of the United States.⁶⁶ The EU has approached the problem as an empirical one of efficient and reasonably accurate damages

⁶²*Apple, Inc. v. Pepper*, 139 S. Ct. 1514 (2019).

⁶³*Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977). The Court held that its decision followed logically from *Hanover Shoe v. United Shoe Mach. Corp.*, 392 U.S. 481 (1968), which had held that a defendant in an antitrust case could not reduce its liability by showing that the plaintiffs had not absorbed the entire overcharge but rather passed it down to its own purchasers. On the economics and law of *Illinois Brick*, see 2A PHILLIP E. AREEDA, HERBERT HOVENKAMP, ROGER D. BLAIR & CHRISTINE PIETTE DURRANCE, *ANTITRUST LAW* ¶346 (5th ed. 2021).

⁶⁴See Herbert Hovenkamp, *Apple v. Pepper: Rationalizing Antitrust's Indirect Purchaser Rule*, 120 COL. L. REV. FORUM (2020).

⁶⁵On state antitrust indirect purchaser rules, see 14 HERBERT HOVENKAMP, *ANTITRUST LAW* ¶2412d (4th ed. 2019).

⁶⁶See *Guidelines for National Courts on How to Estimate the Share of Overcharge which was Passed on to the Indirect Purchaser*, 2019 O.J. (C 267), available at https://ec.europa.eu/competition/antitrust/actionsdamages/quantification_en.html.

measurement. It has largely been able to avoid the ideological baggage that has weighed down indirect purchaser jurisprudence in the United States.

By contrast, the Supreme Court's suggestion in *Illinois Brick* that limiting damages to direct purchasers would improve deterrence has never been validated and must be counted as dubious. It seems more doubtful today than it was when the Supreme Court stated it in 1977.⁶⁷ Overall, the economic case for the indirect purchaser rule is significantly weaker today than it was at that time. One feature of the Supreme Court's indirect purchaser rule is that it turns into a question of law what is rightfully a question of factual economic analysis. A troublesome thing about *Apple v. Pepper* is not that the court was incorrect in its interpretation of economic developments subsequent to *Illinois Brick*, but that it did not engage them at all. For all intents and purposes, *Apple v. Pepper* broke the link between the indirect purchaser rule and the economics of passed on damages.

Why an Overcharge?

One technical problem with the law of purchaser damages actions under *Illinois Brick*, is the unquestioned assumption that damages should be measured at each stage by an overcharge and not by the lost profits that result from reduced sales. The very notion of

⁶⁷See Barak D. Richman & Christopher R. Murray, *Rebuilding Illinois Brick: A Functionalist Approach to the Indirect Purchaser Rule*, 81 S. CAL. L. REV. 69, 93-94 (2007) (indirect purchaser rule strongly leads to underdeterrence); Andrew S. Gehring, *The Power of the Purchaser: The Effect of Indirect Purchaser Damages Suits on Deterring Antitrust Violations*, 5 NYU J. L. & LIBERTY 208 (2010) (inconclusive). By contrast, the Government argued in an amicus brief in *Apple v. Pepper* that permitting indirect purchaser suits leads to duplicative recoveries. *Brief for the United States as Amicus Curiae Supporting Petitioner, Apple Inc. v. Pepper* (2019) (No. 17-204) ("even if some or all of that overcharge had been passed on to consumers, allowing consumers to sue as well would create an evident prospect of duplicative recovery."). See also the REPORT AND RECOMMENDATIONS OF THE ANTITRUST MODERNIZATION COMMISSION 271 (2007) (warning of duplicative recoveries if indirect purchaser actions were permitted).

“passing on” suggests that the measure must be based on the overcharge. The statute does not compel this result. Section 4 of the Clayton Act merely authorizes recovery for “injury ... sustained” by the violation and gives a damages action to “any person.” Further, it states no methodology for measurement.⁶⁸ For intermediaries in the distribution chain – that is, for purchasers other than the final consumer -- lost output is almost always a more accurate measure of injury and generally does not require apportioning among the parties.⁶⁹

When a cartel or monopolist increases a product’s price it also reduces output.⁷⁰ Just as the price increase, that output reduction is passed on through the distribution chain. All downstream firms are affected by both the loss in volume and perhaps by a reduced margin, or markup, on their sales of the cartelized good. In most situations, the output reduction is a surer thing than the margin reduction. Further, in most cases measuring the passed on output reduction is easier than measuring the passed on overcharge because it remains more uniform as it passes through the distribution chain.

Suppose a distribution chain contains four stages: a manufacturer, distributors, dealers, and consumers. If a manufacturing cartel covering the entire market increases price, the distributor and the dealer will each pass on something between zero and more than 100% of that overcharge depending on markup policies and the amount of competition they face. The phrase “more than 100%” is apt. If a firm uses a standard markup formula it may actually increase its margin as a result of the cartel. For example, suppose a grocer routinely adds 30% to the wholesale price of canned vegetables. That is a realistic assumption. Indeed, Apple in the *Apple vs Pepper* case routinely

⁶⁸15 U.S.C. §15.

⁶⁹Hovenkamp, *Apple vs. Pepper*, *supra* note ____.

⁷⁰See HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE §1.2a (6th ed. 2020), or any text in basic microeconomics or price theory.

added 30% to the price of the apps that it sells.⁷¹ If the wholesale price is competitive at \$2.00 the grocer will add 60 cents. However, if the wholesale price is secretly cartelized to \$2.50 it will add 75 cents. Far from “absorbing” part of the overcharge, this retailer actually obtains higher margins under the cartel and thus passes on more than 100% of the overcharge. How much it actually passes on is an empirical question readily subject to expert testimony, but it will vary from one situation to another.

By contrast, if this same cartel reduces output from a competitive level of 100 units to 80 units, the aggregate distributors’ sales will go from 100 units to 80 units, as will the retailers’, all the way down to the final consumer. To be sure, the availability of substitutes and variable proportions can complicate this result. For example, the grocer might respond to reduced sales volume of canned beans by allocating more shelf space to peas or carrots. An overcharge measure will not reflect these substitutions because it looks only to the bean purchases. Likewise, if a cartel of bicycle manufacturers reduces the number of bicycles by 20% from the previous competitive level, their aggregate distributors would resell 20% fewer bicycles, as would the retailers below them. However, these firms might make up some of their losses by selling more scooters or roller skates.⁷² A lost profits measure will consider how the dealer’s behavior overall changed its profits, accounting for both lost margin and lost sales.

In principle, there is no reason to think that output losses downstream are more difficult to measure than margin losses. Further, in a wide variety of situations intermediaries are able to pass on close to 100% of the price increase, but they will nearly always suffer as a

⁷¹See Louise Matsakis, *The Supreme Court Will Decide if Apple’s App Store is a Monopoly*, SUP. CT. PREVIEW 298 (2018-2019) (noting the App Store’s 30% commission).

⁷²Other intermediaries might substitute in more complex ways. For example, in response to a steel cartel, automakers might use fewer steel parts and more plastic or aluminum parts. However, overcharge damages measurement will be affected in the same way.

result of the output reduction. For nearly all intermediaries, injury is best measured not by an overcharge but rather by lost profits – that is, the money that they would have made on the unmade sales. This measure of harm is common in all antitrust cases alleging exclusionary practices.⁷³ It is also common in a wide range of nonantitrust statutory and common law claims that involve injured business plaintiffs.⁷⁴

Lost profits are usually measured by the reduction in sales multiplied by the net margin on the unmade sales. That measure accounts for both changes in the markup and the quantity. This number would then have to be adjusted for changes in expenses, plus perhaps an offset for product substitution.⁷⁵ In practice experts often rely on “before-and-after” or “yardstick” models, which compare the situation in the violation market to some other market setting.⁷⁶ The Restatement of Torts calls for similar measures for business injuries.⁷⁷

Unwarranted Exceptionalism in Antitrust Damages

When it comes to losses by business plaintiffs, *Illinois Brick* is a piece of obsolete legal exceptionalism that came out of a period when many judges and scholars believed that antitrust was overdeterrent and that courts needed to apply the brakes to broad damage claims. That is hardly the case anymore today. Indeed, in the particular case of price fixing the law is significantly underdeterrent.⁷⁸ Thanks to four decades

⁷³See 2A PHILLIP E. AREEDA, HERBERT HOVENKAMP, ROGER D. BLAIR & CHRISTINE PIETTE DURRANCE, ANTITRUST LAW ¶397 (4th ed. 2014).

⁷⁴*E.g.*, *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923 (2016) (lost profits for patent infringement); *Broan Mfg. v. Assoc. Dist. Inc.*, 923 F.2d 1232, 1235-1236 (6th Cir. 1991) (trademark infringement); *Ashland Mgm't, Inc. v. Janien*, 82 N.Y.2d 395, 624 N.E.2d 1007 (1993) (breach of contract); *Trenholm v. Ratcliff*, 646 S.W.2d 927 (Tex. 1983) (fraud).

⁷⁵See 2A AREEDA, HOVENKAMP, BLAIR & DURRANCE *id.*, ¶397.

⁷⁶See discussion *infra*, text at notes __.

⁷⁷*E.g.*, Rest. (2d) Torts §549 (lost profit damages for fraudulent misrepresentation); §774A (lost profit damages for tortious interference with contract); §821C (public nuisance); §937 (conversion).

⁷⁸*E.g.*, see OECD, *Cartel Sanctions Against Individuals* (2003); Peter G. Bryant & E. Woodrow Eckard, *Price Fixing: The Probability of Getting Caught*, 73 REV. ECON. & STAT. 531 (1991); John M. Connor & Robert H.

of litigating under state antitrust law and a large economic literature, it seems clear that it is time for the law of damages to treat plaintiffs in antitrust cases in the same way it treats injured parties in the more general run of business cases. While measuring lost profits in all these cases present complexities, they are no greater in antitrust cases than for other types of injuries.

Antitrust policy needs to be less categorical and more empirical about assessing passed-on injury from monopolistic or cartel conduct. Depending on the types of evidence that are available and given a wide variety of market facts, the optimal methodology will vary from case to case, as the EU Guidelines on indirect purchaser damages recognize.⁷⁹ In most cases except those involving final consumers, lost profits estimates will be superior to overcharge estimates because they reflect the impact of the violation on *both* margins and volumes. By contrast, the overcharge reflects only the impact on margins.

Perversely and incorrectly, reduced volume tends to reduce an intermediary's damages if it is measured only by the overcharge. It can recover the overcharge only on the purchases actually made, which are fewer at the cartel or monopoly price. For example, suppose that two different cartels produce price overcharges of \$1.00 per unit in a market that produced 100 units at the competitive price. One cartel yields an output reduction of 30 units while the other yields an output reduction of 40 units. By every economic measure, the second cartel causes greater harm to the economy and to the affected dealer, but that dealer will collect fewer damages because these will be limited to the overcharge on 60 (100 – 40) units rather than 70 (100-30) units.

By contrast, lost profit damages capture what is almost universally regarded as an element of injury in nearly all other business injury cases – namely, that the intermediary suffers reduced volume and thus earns profits on a smaller number of sales. The dealer in the

Lande, *Cartels as Rational Business Strategy: Crime Pays*, 34 CARDOZO L. REV. 427, 435-42 (2012).

⁷⁹EU Guidelines, *supra* note ____.

above example would collect lost profit damages that reflect the output reduction multiplied by the lost margin on each lost sale. This reflects the true injury caused by the cartel.

The one exception to the preference for damages based on lost profits is the final consumer who does not resell the product at all. For her, the overcharge is the best measure. There are other, more limited exceptions where the overcharge is the appropriate measure. One is where the price fixed good is a pure fixed cost to the purchasing business. In general, fixed costs cannot be passed on because they do not show up in marginal costs.⁸⁰ For example, a farmer who pays a monopoly price for farmland as a result of a cartel will not be able to add anything to the price of the corn that she grows on it.

For most antitrust exclusionary practices and the very large variety of damages cases involving torts, IP infringement, or other harmful activity we assess damages by permitting experts to provide models addressed to lost profits and evidence supporting them. Then judges evaluate the models for technical sufficiency and fit under the *Daubert* standards applied under the Federal Rules of Evidence.⁸¹

⁸⁰See Robert G. Harris & Lawrence A. Sullivan, *Passing on the Monopoly Overcharge: A Comprehensive Policy Analysis*, 128 UNIV. PA. L. REV. 269, 280-283 (1979).

⁸¹*E.g.* ZF Meritor, LLC v. Eaton Corp., 696 F.3d 254, 291-292 (3d Cir. 2012) (antitrust case; accepting expert's testimony on liability, but applying *Daubert* to reject damages testimony); LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51 (Fed. Cir. 2012) (*Daubert* required that patentee's damages be limited to patented feature rather than market value of entire device); Lightlab Imaging, Inc. v. Axsun Tech., Inc. 469 Mass. 181 (2014) (rejecting expert's lost profits damages report under *Daubert* as too speculative); System Dev. Integration, LLC v. Computer Sciences Corp., 886 F.Supp.2d 873 (N.D. Ill. 2012) (similar, breach of contract and fiduciary duty). On these standards, see *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

After that, the evidence can go to the fact finder. The same thing applies to indirect purchaser claims under state antitrust law.⁸²

Innovations in the Computation of Passed on Damages

As litigation subsequent to *Illinois Brick* has established in state antitrust cases, even when the overcharge measure is superior, the overcharge need not be computed at each stage of pass on.⁸³ *Illinois Brick* itself assumed that it did and did not even discuss alternative methodologies. Two years later William M. Landes and Richard A. Posner institutionalized that view in an article defending the decision.⁸⁴

The most common methodologies for estimating damages under both overcharge and lost profit theories are “before and after” and “yardstick.”⁸⁵ In a “before and after” lost profits model, the expert typically uses regression analysis to examine profits prior to a violation, after its end, or both, discounting for other factors and estimating what the profits would have been during the violation period.⁸⁶ In a “yardstick” model the expert compares profits in the violation market with profits of a similarly situated firm in a

⁸² *E.g.*, *Howe v. Microsoft Corp.*, 656 N.W.2d 285 (Ia. 2003) (noting the relevance of *Daubert* evidentiary rules to indirect purchaser antitrust claim); *In re South Dakota Microsoft Antitrust Litig.*, 657 N.W.2d 668 (S.D. 2003) (similar); *In re Processed Egg products Antitrust Litig.*, 312 F.R.D. 124 (E.D. Pa. 2015) (rejecting expert’s indirect purchaser damages model under *Daubert*); *In re Flonase Antitrust Litig.*, 284 F.R.D. 207 (E.D. Pa. 2012) (approving expert’s methodology for assessing indirect purchasers damages under *Daubert* challenge).

⁸³ See Hovenkamp, *Apple v. Pepper*, *supra* note __.

⁸⁴ William M. Landes & Richard A. Posner, *Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws? An Economic Analysis of the Rule of Illinois Brick*, 46 U. Chi. L. Rev. 602 (1979).

⁸⁵ See 2A AREEDA, HOVENKAMP, BLAIR & DURRANCE, ANTITRUST LAW, *supra* note __, ¶395b (before-and-after and yardstick measures in overcharge antitrust cases cases); ¶397e,f (before-and-after and yardstick measures in lost profit exclusionary practice cases).

⁸⁶ See 2A AREEDA, HOVENKAMP, BLAIR & DURRANCE, ANTITRUST LAW, *supra*, ¶397e.

comparable market.⁸⁷ Neither method is necessary, however, if there are adequate data. For example, if the size of the output reduction and margins are known, estimation of lost profits is relatively straight forward.⁸⁸

Overcharge methodologies are similar except that the expert estimates the overcharge rather than lost profits. Once again, neither the before-and-after nor the yardstick methodologies for computing damages require that pass-on be computed at each stage.⁸⁹ Rather, one can estimate damages directly by comparing prices at the violation level and the plaintiffs' level in the two markets. For example, one might compare with the cartel market a different market assumed to be competitive, and then observe the differences in dealer prices in those two markets. We would then have an estimate of the amount of overcharge passed on to consumers without the need to estimate how much of the overcharge was absorbed by distributors or other intermediaries.⁹⁰ Experts sometimes term this the "bottom across" model, rather than the "top down" model that attempts to compute pass on at each stage.⁹¹

In *Apple vs. Pepper*, neither the majority nor the dissent engaged any of these issues. Indeed, both opinions appear to have abandoned the idea that *Illinois Brick* had anything to do with passed on damages. For the majority, the only thing that mattered was that the plaintiffs purchased directly from the alleged violator. If one were to select a single buyer for damages, however, it would be more

⁸⁷*Id.*, ¶397f.

⁸⁸For an example, see *Formax, Inc. v. Alkar-Rapidpak-MP Equip., Inc.*, 2014 WL 3057116 (E.D.Wi. July 7, 2018) (estimating lost profit damages based on lost sales plus effect on margins); See ROBERT L. DUNN, RECOVERY OF DAMAGES FOR LOST PROFITS (2d ed. 2005); Charles J. Goetz & Robert E. Scott, *Measuring Sellers' Damages: the Lost-Profits Puzzle*, 31 STAN. L. REV. 323 (1979).

⁸⁹For an explanation, see Hovenkamp, *Apple v. Pepper*, *supra* note ____.

⁹⁰*Ibid.*

⁹¹*E.g.*, *In re Cardizem CD Antitrust Litig.*, 200 F.R.D. 326, 344 (E.D. Mich. 2001) (describing the two models).

sensible to select the consumers, or the *last* purchasers in line, because they in most cases absorb the brunt of an overcharge and they are the only purchasers who are not in a position to pass anything on. Only for them is the overcharge a presumptively correct measure of damages. The *Apple* majority was correct to sustain the action in that case, but that was a result of the pure happenstance that the alleged violator sold directly to the plaintiffs.

By contrast, the dissenters resurrected a doctrine of proximate cause that had died with the marginalist revolution in economics, early in the twentieth century.⁹² Finally, neither the majority nor the dissenters ever mentioned deterrence, which is rightfully central to any economics-based theory of antitrust enforcement. In sum, the *Apple v. Pepper* indirect purchaser rule both ignored the deterrence question and seemed indifferent to who is actually injured by a cartel or monopoly overcharge.

AMERICAN EXPRESS AND RATIONAL ECONOMICS

The Supreme Court's *American Express* decision⁹³ ignored fundamentals and embraced a series of economically incoherent principles in the guise of applying antitrust economics. The majority 1) neglected the kind of transactional analysis that has become a hallmark of the economic approach to law; 2) put production complements into the same "relevant market"; 3) held that a relevant market must be defined in a vertical restraints case, even if the economic evidence supported a finding of market power based on more direct and generally more accurate measures; 4) completely misunderstood the economics of free riding, which in the context of vertical restraints is a Chicago School invention; in this case, the defendant's policies clearly made free riding impossible; and 5) lost

⁹²See HERBERT HOVENKAMP, *THE OPENING OF AMERICAN LAW: NEOCLASSICAL LEGAL THOUGHT, 1870-1970*, Ch. 6 (Oxford, 2015).

⁹³*Ohio v. Am. Express Co.*, 138 S. Ct. 2274 (2018).

sight of the fact that coherent economic analysis of any antitrust issue requires assessment of marginal rather than total effects.

Balancing Harms and Benefits on Two-Sided Markets

The Supreme Court majority's analysis of two-sided platforms got off on the wrong track when it assumed that harms on one side, in the form of increased merchant prices, would be offset by benefits on the other, cardholder side.⁹⁴ For some platform-related queries this is true. For example, measuring a platform's costs or revenues requires looking at both sides. Over-the-air television or computer search engines that are free to users are not engaged in predatory pricing. They obtain their revenues from advertisers, which are the other side of the platform. Assessing a predation claim based on below cost pricing requires looking at both sides.

But this harm/benefit balance does not occur in every situation. Had the Court performed the kind of transactional analysis that Ronald Coase urged and that has become a hallmark of law and economics, it would have seen that the assumption of harms to merchants and offsetting benefits to cardholders did not apply in this case. In *The Nature of the Firm*, for example, Coase would identify a firm's boundaries by looking at each transaction that the firm made, as opposed to activities it conducted inside the firm and for which no market transaction was necessary.⁹⁵ If the Court had examined each relevant transaction in *AmEx*, it would have seen that the anti-steering rules harmed both sides.⁹⁶

To illustrate, suppose that a \$1000 purchase incurred a 3% (\$30) merchant fee on the AmEx card, but a 2% (\$20) fee on a competing card such as Visa. This difference creates \$10 worth of bargaining room in which both parties can make a profit. That is, the merchant's willingness-to-pay might be greater than the customer's

⁹⁴ *AmEx*, 138 S.Ct. at 2287-2288.

⁹⁵ Ronald H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386 (1937).

⁹⁶ See Erik Hovenkamp, *Platform Antitrust*, 44 *J. CORP. L.* 713 (2019).

willingness-to-accept.⁹⁷ For example, the merchant might offer the customer a \$5 discount for using the cheaper card. If the incremental perks from using an AmEx card rather than a different card were worth less than \$5 to the customer it would accept that deal, and both parties would be better off. The merchant would pay a lower transaction fee and a customer who accepted the offer would be getting a discount that was worth more to her than any extra benefit the AmEx card might offer. By contrast, if she valued the AmEx perks by more than \$5, she would not accept the offer.⁹⁸

However, the anti-steering rule prevented this transaction from occurring. Far from harming one side while benefitting the other, the anti-steering rule harmed *both* the merchant and the cardholder who was willing to make the deal. It also harmed Visa, the card issuer who was unable to make the transaction even though its price was lower and it would have been the customer's first choice in an unrestrained market. It did benefit AmEx – but these were not network benefits that needed to be assessed against losses elsewhere on the same platform. They were simply the benefits that accrued from being able to charge a price that was higher than the added value of any provided customer services without losing a sale.⁹⁹ This number had nothing to do with the existence of a two-sided platform.

Market Definition and Extra-Market Effects

The *AmEx* Court also held that both sides of a platform needed to be placed into the same “relevant market.”¹⁰⁰ That conclusion violated one of the most cardinal principles of economics since the time of Alfred Marshall or even Augustin Cournot – namely, that

⁹⁷*E.g.*, Robert Cooter, *The Cost of Coase*, 11 J. LEG. STUD. 1, 4 (1982).

⁹⁸*See* Herbert Hovenkamp, *Platforms and the Rule of Reason: the American Express Case*, 2019 COL. BUS. L. REV. 35 (2018).

⁹⁹ That is, looking at the previous example, the fact that the customer would prefer the offer of a \$5 discount meant that she valued use of the AmEx card by less than \$5, while AmEx's excess merchant fee over the Visa card was \$10.

¹⁰⁰*AmEx*, 138 S.Ct. at 2287.

markets consist of close substitutes that can steal sales from one another, such that competition forces them to move toward the same price.¹⁰¹

The Court's discussion indicates that it was confusing the question of market definition with that of harm. Clearly one cannot identify harm from higher merchant fees without considering what is happening on the other side to card holders. Beginning with the proposition that market definition determines the "area of effective competition," it concluded that the "commercial realities" required it to group both merchants and card holders into the same market. "...[C]ourts must include both sides of the platform—merchants and cardholders—when defining the credit-card market."¹⁰² A few sentences later the majority suggested that two-sided platforms are best understood as supplying a single product, "transactions."¹⁰³ It then added that in order to have a market one would have to have both merchants and cardholders.¹⁰⁴ But that just another way of saying that the market requires both buyers and sellers – something that is true of every market.

All markets consist of transactions, which require both buyers and sellers. Further, when we define them transactions are what we

¹⁰¹ E.g., ALFRED MARSHALL, PRINCIPLES OF ECONOMICS 384 (1890) [Book Five, Ch. 1] ("The more nearly perfect a market is, the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market"; and *id.* at 385: "(the market is "the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly." Marshall was translating AUGUSTIN A. COURNOT, RESEARCHES INTO THE MATHEMATICAL PRINCIPLES OF THE THEORY OF WEALTH, ch. 14 (1838).

¹⁰² *Amex*, 138 S.Ct. at 2286

¹⁰³ *Ibid.*

¹⁰⁴ *Id.* at 2287:

A credit-card company that processed transactions for merchants, but that had no cardholders willing to use its card, could not compete with *Amex*. See *ibid.* Only a company that had both cardholders and merchants willing to use its network could sell transactions and compete in the credit-card market.

always measure. That is, it is not the merchants themselves who define the market but rather their trading, measured typically by either the number of units sold or their value. The Court was confusing the question of harm with the question of market definition. What we want to know is whether offsetting benefits that accrued to card holders should be included in our calculation of harm. But that is not a question of market definition. It is one of how harm should be assessed.

In this case the higher merchants' fees clearly showed harm to merchants. Otherwise they would have no motive to steer. At that point the issue was whether this harm was justified by greater consumer benefits – not a market definition question at all. In this case, of course, the answer was that there were no greater consumer benefits; affected consumers were also harmed.¹⁰⁵ But that is a different issue.

A “market” defines the group of firms that can profit from collusion,¹⁰⁶ the scope of sales that give meaning to the term “monopolist,”¹⁰⁷ the range of goods and services that people regard as good substitutes for one another; the range of producers that a firm regards as its competitors for the purposes of deciding whether or not to enter, how much to produce, or what price to charge.¹⁰⁸ For

¹⁰⁵ See discussion *supra*, text at notes __.

¹⁰⁶ See, e.g., Malcolm B. Coate & Jeffrey H. Fischer, *A Practical Guide to the Hypothetical Monopolist Test for Market Definition*, 4 J. COMPETITION L. & ECON. 1031 (2008).

¹⁰⁷ *Id.*, and see, e.g., U.S. DOJ and FTC, Horizontal Merger Guidelines §4.1.1 (2010), available at <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010> (using “hypothetical monopolist” test for market definition).

¹⁰⁸ Justice Breyer's dissent found the majority's new approach to market definition completely unjustified:

Missing from the majority's analysis is any explanation as to *why*, given the purposes that market definition serves in antitrust law, the fact that a credit-card firm can be said to operate a “two-

example, the Merger Guidelines used by the antitrust Agencies define markets by identifying the range of goods that are close substitutes.¹⁰⁹

Conceptually, the idea of a relevant market comes from partial equilibrium analysis in microeconomics, a tool that dates to the time of Alfred Marshall to evaluate market changes that affect the producers of similar goods in a common and observable way.¹¹⁰ Defining a market in this fashion involves a working assumption that output and pricing of the goods inside the market have no effect on goods outside the market.

Empirically of course this is not true. Even well defined markets have porous boundaries. The goods inside are affected by imperfect substitutes outside, as well as by complements.¹¹¹ Antitrust

sided transaction platform” means that its merchant-related and shopper-related services should be combined into a single market.

AmEx, 138 S. Ct. at 2297-2298 (Breyer, J., dissenting).

¹⁰⁹HORIZONTAL MERGER GUIDELINES, *supra* note __, §4 (“Market definition focuses solely on demand substitution factors, i.e., on customers’ ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service.”)

¹¹⁰On the development in Alfred Marshall, *see* HERBERT HOVENKAMP, THE OPENING OF AMERICAN LAW, 1870-1970: NEOCLASSICAL LEGAL THOUGHT 31-33 (2015).

¹¹¹Marshall himself understood this. *See* ALFRED MARSHALL, PRINCIPLES OF ECONOMICS xiv ([1890], 8th ed. 1949), defending the idea that economic analysis should examine a part of the market consisting of a single “commodity” over a restricted time period, assuming that changes within the observed market had no effect on things outside:

The forces to be dealt with are however so numerous, that it is best to take a few at a time; and to work out a number of partial solutions as auxiliaries to our main study. Thus we begin by isolating the primary relations of supply, demand and price in regard to a particular commodity. We reduce to inaction all other forces by the phrase “other things being equal”: we do not suppose that they are inert, but for the time we ignore their activity. This scientific device is a great deal older than science: it is the method by which,

writers as well as economists have always recognized this, and in a number of ways. Nevertheless, by grouping close substitutes in this way and constructing a wall between these and more distant products, courts have been able to draw important conclusions about the existence of market power. As a result, this method of assessing power has become all but conventional in antitrust analysis, although recently tools have been developed that are more accurate and that make market definition approaches unnecessary in many circumstances.¹¹² Unfortunately, the Court also ruled out the use of these tools.

The Supreme Court was legitimately concerned with one relatively common problem: when transactions or other events outside the defined market have a measurable impact on transactions inside the market, they must be accounted for. Over the years antitrust litigation has confronted several approaches to the question of so-called “extramarket” effects. One of the most theoretical and least appealing is the theory of “second best,” which relies on general equilibrium analysis to consider the impact that a practice might have on entities or events outside of the relevant market.¹¹³ For example, under second best theory the data might show a welfare improvement in a defined market, but there might be significant “out of market” effects that serve to make things worse off as a whole. The consensus today is that the general theory of second best has little application to antitrust analysis, despite some heroic attempts to make it so.¹¹⁴

consciously or unconsciously, sensible men have dealt from time immemorial with every difficult problem of ordinary life.

On the antitrust relevant market as a tool of partial equilibrium analysis, see Gregory Werden, *The Relevant Market: Possible and Productive*, ANTITRUST L.J. ONLINE (2014). On the fundamentals, see R. K. MANDAL, MICROECONOMIC THEORY 312-314 (2007).

¹¹²See discussion *infra*, text at notes __.

¹¹³See, e.g., Peter J. Hammer, *Antitrust Beyond Competition: Market Failures, Total Welfare, and the Challenge of Intramarket Second-Best Tradeoffs*, 98 MICH. L. REV. 849 (2000).

¹¹⁴For one attempt, see Richard S. Markovits, *Second-Best theory and the Standard Analysis of Monopoly rent Seeking: A Generalizable Critique*, A

Another prominent use of partial equilibrium analysis is Oliver Williamson's well known welfare tradeoff model, which assumed a single market in which the welfare effects of reduced competition and increased efficiency would be felt.¹¹⁵ In using it, Williamson acknowledged:

Our partial equilibrium analysis suffers from a defect common to all partial equilibrium constructions. By isolating one sector from the rest of the economy it fails to examine interactions between sectors.¹¹⁶

Judicial examination of out of market effects in merger analysis has also occurred. For example, a merger of multimarket firms might reduce competition in one market but increase it in another.¹¹⁷ One legal limitation is that §7 of the Clayton Act prohibits mergers that injure competition "in any line of commerce" and in any "section of the country."¹¹⁸ Those statements do not appear to permit trading

"*Sociological*" Account, and some Illustrative Stories, 78 IOWA L. REV. 327 (1993).

¹¹⁵Oliver E. Williamson, *Economies as an Antitrust Defense: the Welfare Tradeoffs*, 58 AM. ECON. REV. 18 (1968). Williamson expanded on the use of partial equilibrium analysis in antitrust and its assumptions in Oliver E. Williamson, *Economies as an Antitrust Defense Revisited*, 125 UNIV. PA. L. REV. 699 (1978).

¹¹⁶Williamson, *Economies*, *supra*, 58 AM. ECON. REV. at 23.

¹¹⁷*E.g.*, United States v. Philadelphia Natl. Bank, 374 U.S. 321, 370 (1963) (merger presumably harmed competition in market dominated by small banks and smaller loans, but would have improved competition in market for larger loans). See also United States v. Bethlehem Steel Corp., 168 F. Supp. 576, 618 (S.D.N.Y. 1958) (anticompetitive consequences in one region could not be offset against lower prices and reduced freight charges in another region). See Daniel A. Crane, *Balancing Effects Across Markets*, 80 ANTITRUST L.J. 397 (2015).

¹¹⁸15 U.S.C. § 18 (condemning mergers where "where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly").

harms in one market against gains in a different market.¹¹⁹ If a merger injures competition “in any line of commerce,” then under the statute it literally does not matter if it also produces benefits somewhere else. The 2010 Merger Guidelines take this position by requiring a showing that a merger “is not likely to be anticompetitive in any relevant market.”¹²⁰

Yet another example of extramarket effects is the theory of monopoly “leveraging,” or the idea that a firm can use its power in one market to obtain an advantage in a second market.¹²¹ The theory had a life of several decades, although it was not frequently accepted by courts. The Supreme Court’s decision in *Spectrum Sports* very likely put an end to it as a theory of action by requiring that there be a dangerous probability of success of monopoly in the second market. That effectively turned leveraging into part of the law of attempt to monopolize.¹²² However, *Spectrum Sports* did not dispose of the basic economic theory that a firm could use its power in one market to obtain advantages or even to monopolize a second market.¹²³ For example, while subsequent decisions such as *Microsoft* never spoke of leveraging, the theory of action was that a firm used power in one market (the Windows operating system) in order to injure competition in a different but complementary market (browsers).¹²⁴

¹¹⁹See 4A PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶972 (4th ed. 2016).

¹²⁰Antitrust Division, Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines §10 (2010), available at <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010>.

¹²¹See, e.g., *United States v. Griffith*, 334 U.S. 100, 107 (1948) (accepting the theory); *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 275 (2d Cir. 1979) (accepting the theory but finding it inapplicable); *Virgin Atlantic Airways, Ltd. V. British Airways PLC*, 257 F.3d 256 (2d Cir. 2001) (lengthy discussion but rejecting it on the facts of this case); *Intergraph corp. v. Intel Corp.*, 195 F.3d 1346 (Fed. Cir. 1999) (largely rejecting the theory).

¹²²*Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447 (1993); see also *Fineman v. Armstrong World Indus., Inc.*, 980 F.2d 171 (3d Cir. 1992).

¹²³See 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶652 (4th ed. 2015).

¹²⁴*United States v. Microsoft Corp.*, 253 F.3d 34 (D.C.Cir. 2001), cert. denied, 534 U.S. 952 (2001). The district court did speak of leveraging power from the operating system market to the browser market. *United States v. Microsoft Corp.*, 87 F.Supp.2d 30, 46 (D.D.C. 2000).

A related and quite frequent use of effects outside a primary market is the law of tying arrangements. The tying and tied products in tying cases are usually complements, such as salt-injecting machines and salt, printers and ink cartridges, cameras and film, or computer operating systems and browsers or other applications. The theory is typically that a firm has significant market power in a primary market, and then uses tying to distort competition in the second, or complementary, market. In such cases we do not define a single market for the tying and tied products, which would be nonsensical. Rather, courts are asked to determine whether the defendant's power in one market is sufficient to cause anticompetitive distortions in the second market, with monopoly being the most extreme one, and then whether it has actually done so.¹²⁵ For example, a firm with a dominant share in a computer operating system market might be able to tie an internet browser and thereby foreclose, or exclude, rivals in the browser market.¹²⁶

Analytically related to tying is vertical mergers, which unite firms that stand in a supplier/buyer relationship, such as a manufacturer and one of its parts suppliers¹²⁷ or an internet or cable services provider and a digital programmer.¹²⁸ In general, condemnation requires a showing that the merger tends to exclude rivals in the secondary market or else increase their costs. As with tying, we do not define a single market for both the upstream and downstream good and it would not be enlightening to do so.

In sum, antitrust has been dealing with effects that occur outside the boundaries of a defined relevant market for a long time. It is hardly news that offsetting pressures from a complementary good might affect the strength of an inference of market power. For

¹²⁵See 9 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶¶1709, 1729 (4th ed. 2018).

¹²⁶United States v. Microsoft Corp., 253 F.3d 34, 65–67 (D.C.Cir.), cert. denied, 534 U.S. 952 (2001) (noting that Microsoft's tie of its Windows OS and Internet Explorer browser virtually ousted rival browser Netscape from the market).

¹²⁷E.g., Fruehauf Corp. v. FTC 603 F.2d 345 (2d Cir. 1979).

¹²⁸E.g., United States v. AT&T, 916 F.3d 1029 (D.C. Cir. 2019).

example, the high price of fuel might limit the market power of automobile makers, or high compensation for Uber drivers might limit ridership.

But defining a relevant market for “automobiles/gasoline” or for “drivers/passengers” will not contribute one whit to our understanding of the situation, and will only serve to throw us off track. Defining the market the way the Court did in *AmEx* simply made the market power analysis incoherent. It promises to expose the judicial system to thousands of dollars in wasted resources dealing with such questions as whether Uber drivers and Uber passengers, or physicians and patients, or search engine users and advertisers, are in the same relevant market. Further, it does this in perverse ways that contributes nothing of value, and undermines rather than strengthens the analysis of power. For example, if we began with a group of Uber drivers in St. Paul, the knowledge that there are 1000 additional drivers in nearby Minneapolis would serve to weaken the inference of their power. By contrast, the knowledge that there were 1000 additional passengers in Minneapolis would serve to strengthen it. Putting all in the same market would require us to treat these two groups in the same way, even though their effects on power are precisely the opposite. This is worse than useless.

But the main point is that if one looks at the impact of the anti-steering rule there were no losses on the merchant side to be traded against gains on the cardholder side. There were only losses on both sides.¹²⁹

Assessing Power on Two-Sided Platforms

How should power be assessed for antitrust purposes in markets for two-side platforms such as *AmEx*? The inquiry needs to be manageable even though it can be quite technical. Further, the existence of different effects on the two sides of a digital platform,

¹²⁹ See discussion *supra*, text at notes __.

including feedback effects, complicates the assessment.¹³⁰ We have always tolerated a significant amount of inaccuracy in market definition methodologies. Insistence on precision can become a costly rule of nonliability to the extent it produces too many false negatives. Traditional methodologies that require determination of a relevant market, as the Supreme Court required in this case,¹³¹ are predictably inaccurate. Further, in differentiated markets they always serve to understate market power.¹³²

Traditional methods of estimating power on the basis of market share of a defined relevant market are termed “indirect.” As courts use them they rely on an intuitive link between market share and market power. In fact, measuring power from share requires additional information about the elasticity of demand of the market in which the firm sells, plus the elasticity of supply of competing or fringe firms.¹³³ Because most litigation traditionally did not produce these numbers and judges rarely discuss them in any technical way, our inferences of power from market share alone are necessarily crude.

Both elasticity numbers are relevant, however, and cannot be ignored. Further, many decisions do in fact discuss them, although by using different terminology. For example, when a court doubts that a market is well defined because there seem to be good user substitutes from outside the proposed market, it is talking about the market’s elasticity of demand. This was an issue in the *Whole Foods* merger case, where the court struggled mightily with the question whether there was a well-defined market for “premium natural and organic supermarkets” (PNOS), or whether more traditional grocers should

¹³⁰See Jens-Uwe Franck & Martin Peitz, Market Definition and Market Power in the Platform Economy §3.6 (CERRE, 2019), available at https://www.cerre.eu/sites/cerre/files/2019_cerre_market_definition_market_power_platform_economy.pdf.

¹³¹ See discussion *infra*, text at notes ___.

¹³² See David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 YALE J. REG. 325, 359-360 (2003).

¹³³ William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 944-945 (1981).

also be included.¹³⁴ To the extent customers were sensitive to price and substituted back and forth between PNOS and traditional markets in response to price changes, the justification for defining such a market is weaker. That is tantamount to saying that a market defined as PNOS has a relatively high market elasticity of demand.

When a court discusses low barriers to entry or mobility, it is speaking about elasticity of supply. For example, in *Rebel Oil* the Ninth Circuit concluded that self-service cash-only gasoline was not an appropriate relevant market for evaluating a predatory pricing claim. While customer might have strong preferences for self-service vs. full-service gas, suppliers could readily switch between the two.¹³⁵ That conclusion is tantamount to saying that the defined market faces a relatively high elasticity of supply.

Traditional market definition approaches in product differentiated markets are always wrong. Putting differentiated products into separate markets exaggerates power because it treats the two goods as if they do not compete with each other at all. By contrast, putting them into the same market treats them as if they were perfect competitors. For example, the “Cellophane fallacy,” named after a monopolization case involving that product, occurs when the Court places highly differentiated products into the same market and then simply computes market share by adding up their output on the

¹³⁴FTC v. Whole Foods Market, Inc., 548 f.3d 1028, 1037 (D.C. Cir. 2008) (concluding that the narrower market was factually justified). Similar situations include Little Rock Cardiology Clinic PA v. Baptist Health, 591 F.3d 591 (8th Cir. 2009) (relevant market for medical delivery could not be limited to patients who had private insurance); United States v. Oracle Corp., 331 F.Supp.2d 1098 (N.D.Cal. 2004) (disagreeing with government that relevant market should be limited to “high function” financial management software).

¹³⁵*E.g.*, *Rebel Oil co., Inc. v. Atlantic Richfield Co.*, 51 F.3d 1421 (9th Cir. 1995) (low entry barriers into alleged market for self-serve gasoline undermined antitrust claim); *Tops Markets, Inc. v. Quality Markets, Inc.*, 142 F.3d 90 (2d Cir. 1998) (low entry barriers precluded claim that defendant monopolized market for grocery store sites).

premise that these diverse goods are perfect competitors.¹³⁶ On the other hand, putting two products such as cellophane and wax paper into separate markets treats them as if they do not compete at all – a conclusion that is equally wrong. For many goods cellophane and wax paper may be viable alternative wrapping materials. Market definition approaches to the assessment of market power are necessarily binary, which means that a particular group of sales must be counted as either inside or outside of the relevant market, but not something in between. By contrast, demand responses to changes in costs or prices can be observed and metered as finely as the data permit. As a result, if the data are available they give a much more accurate assessment of a firm's market power.

Not all platforms are differentiated to the same degree. For example, many people may regard Uber and Lyft as closely similar to one another, making price competition particularly important. People can download apps for both companies at no charge, and readily compare prices before settling on a driver.¹³⁷ While some users may have preferences, for the most part they appear to operate as close competitors in those towns where both are available.

Clearly there is no basis, however, for putting drivers and riders into the same “market.” It adds nothing to the analysis. Uber's share could be measured either by ridership or revenue, and these numbers could be compared with other market candidates, including Lyft and perhaps traditional cab drivers. For some purposes, particularly those involving restraints on drivers, the number of drivers might also be used. For example, if Uber should impose exclusive dealing on its drivers by forbidding them from driving for Lyft or a traditional taxicab company, the challenged restraint would be in the market for drivers and the questions would properly focus on Uber's ability to

¹³⁶See *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956), criticized in 2B PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶534 (4th ed. 2014).

¹³⁷See <https://www.ridester.com/uber-vs-lyft/> (comparing prices and features of Uber and Lyft).

limit the opportunities of competitors to acquire sufficient drivers. The number and availability of riders could certainly be relevant. For example, the scarcity of riders might make an exclusive agreement more damaging to a rival, while an ample supply of riders would make it less so. But placing riders and drivers into the same “relevant market” would not be a sensible way to address this question. Indeed, it would make coherent analysis of the problem impossible.

By contrast to market share measures, “direct” measures of market power need not require definition of a relevant market at all.¹³⁸ In addition to their other advantages, two things point in favor of more direct measurement when the market in question is a two-sided platform. One is that the markets are nearly all digital and as a result they preserve fairly complete records of transactions. This means that there are typically useful data about prices, quantities, and shifts in response to changes. One of the most serious limitations on the use of direct measurement of power is inadequacy of data. Second, the markets are differentiated, some significantly so. This tends to make market share methodologies unreliable, giving more direct measures a comparative advantage.

Nevertheless, direct measurement poses its own difficulties. First, marginal cost on one side is unlikely to be the correct baseline for identifying power.¹³⁹ A methodology that draws inferences from price cost margins on one side without considering the other side will generate false positives or false negatives, depending on the circumstances.

Other approaches are more promising. For example, the ability of a platform to increase its price without changing the terms on the other side is an indicator of power, as the plaintiff showed in *Amex*. It indicated that the Amex faced a low of elasticity of demand vis-à-vis its merchants. Indeed, the anti-switching rule was itself a cost to

¹³⁸Louis Kaplow, *Why (Ever) Define Markets*, 124 HARV. L. REV. 437 (2010).

¹³⁹ See Evans, *Antitrust Economics*, *supra* note __.

merchants to the extent that it limited their ability to avoid AmEx's high transaction fee. Further, it could not be understood as an exercise in participation balancing because the rule injured both merchants and card holders.¹⁴⁰ In all events, it is essential that observations of price changes not be limited to a single side of the market.¹⁴¹

Effects on the other side of the platform must be addressed no matter what the methodology for assessing power. In the *AmEx* case, direct measures indicated that AmEx had significant power.¹⁴² First, as the government showed, AmEx was able to increase its price repeatedly without losing sales. That fact alone is insufficient. A price increase on one side may reflect a consumer benefit or cost increase on the other side. So we must also consider whether the merchant price increases were matched by increased perks or other costs of serving customers. If merchant price increases were not accompanied by changes on the cardholder side of the market, this suggests that AmEx was seeking out its profit maximizing price by raising prices until too many merchants defected.¹⁴³

Even with the anti-steering rule in place, Amex would not have infinite power to increase merchant fees. Although under an anti-steering rule AmEx customers would be indifferent to higher merchant fees, merchants would not be. At some point the merchants' costs to carry the AmEx card would become so high that the merchants themselves would drop it, foregoing whatever prestige or convenience value the card offered.

Merchant fees are not in and of themselves an indicator of market power. They are simply the price that the card issuer needs to charge to make its card profitable. Further, a higher merchant fee than

¹⁴⁰See discussion *supra*, text at notes __.

¹⁴¹Michael Katz & Jonathan Sallet, *Multisided Platforms and Antitrust Enforcement*, 127 YALE L.J. 2142 (2018).

¹⁴²See Michael Katz and Jonathan Sallet, *Multisided Platforms and Antitrust Enforcement*, 127 YALE L. J. 2142 (2018).

¹⁴³See Franck & Peitz, *Market Definition*, *supra* note __, §3.6.1, p. 63.

other cards charge is not necessarily an exercise of market power either, because it may simply reflect higher payouts on the other side in the form of card holder benefits. But the antisteering rule is different: it prevented a switch away from the high priced card even when that switch was profitable to both the merchant and the customer.¹⁴⁴ That rule cannot be justified as creating an offsetting benefit and thus must be counted as an exercise in market power.¹⁴⁵

Inferring Power from Conduct

Power can often be inferred from the conduct itself. A good example of this is naked price fixing. We can infer power from conduct in cases of naked price fixing because market power is an essential ingredient in making price fixing profitable. Given its significant risks, firms would not do it unless they believed that they could profit from it. To be sure, the firms might be mistaken, believing that they had power when in fact they did not. But setting that aside, the existence of naked price fixing indicates power. Indeed, we generally define a naked restraint as one that depends on market power for its success.¹⁴⁶ We need not be too concerned about those cases in which the putative cartel overestimates its power because in the case of naked collusion overdeterrence is not much of a problem.

The anti-steering rule made it impossible for a merchant to steer people to a less costly card with respect to those transactions where a card holder would be inclined to accept the invitation to steer. In a competitive market the effect of the rule would be that the merchant would drop that card. But the merchants who carried *AmEx* felt that they needed the AmEx card notwithstanding its higher costs. How much they needed it presents a question of degree, but the fact

¹⁴⁴See discussion *supra*, text at notes ____.

¹⁴⁵See Dennis W. Carlton & Ralph A. Winter, *Vertical Most-Favored-Nation Restraints and Credit Card No Surcharge Rules*, 61 J. L. & ECON. 215 (2018).

¹⁴⁶See 11 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶1906 (4th ed. 2018).

that AmEx repeatedly increased merchant prices without significant defections indicates power.

Under steering, cardholders and customers could negotiate to their joint maximizing position. Consumers who placed a small value on AmEx's benefits could use a cheaper card. For their part, merchants could bargain by discounting the price, or offering collateral services, such as free delivery, to reflect the merchant costs of a particular payment form. The important thing is that everything would be discounted into the purchase price. One important principle is that payment systems should be "neutral" and transparent, permitting the parties to negotiate to a mutually beneficial maximum.¹⁴⁷ In the process of injuring its own card holders, AmEX's anti-steering rule also excluded rival card platforms that were ready to offer better terms.

Market Power in Vertical Cases

The *AmEx* Court held – without citing any economic evidence or literature – that a relevant market must be established in a vertical case even if alternative methods of estimating power were available.

¹⁴⁷See Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645, 649 (2006):

Neutrality in payment systems. The choice of an interchange fee paid by the merchant's bank, the acquirer, to the cardholder's bank, the issuer, is irrelevant if the following conditions are jointly satisfied: First, issuers and acquirers pass through the corresponding charge (or benefit) to the cardholder and the merchant. Second, the merchant can charge two different prices for goods or services depending on whether the consumer pays by cash or by card; in other words, the payment system does not impose a no-surcharge rule as a condition for the merchant to be affiliated with the system. Third, the merchant and the consumer incur no transaction cost associated with a dual price system.

As Rochet and Tirole observe, in a properly functioning market merchants and customers would move to a wealth-maximizing equilibrium. But the minimum conditions are that the parties are free to bargain (i.e., there is no prohibition on steering) and that they have adequate information about the gains that would be available from trading. *Id.* at 649.

The Court's complete statement on this issue, including both analysis and conclusion, is contained in this footnote:

The plaintiffs argue that we need not define the relevant market in this case because they have offered actual evidence of adverse effects on competition-- namely, increased merchant fees. We disagree. The cases that the plaintiffs cite for this proposition evaluated whether horizontal restraints had an adverse effect on competition Given that horizontal restraints involve agreements between competitors not to compete in some way, this Court concluded that it did not need precisely define the relevant market to conclude that these agreements were anticompetitive But vertical restraints are different. Vertical restraints often pose no risk to competition unless the entity imposing them has market power, which cannot be evaluated unless the Court first defines the relevant market.¹⁴⁸

In his dissent, Justice Breyer was clearly flummoxed – as if the majority did not understand that defining a relevant market and direct measurement are *alternative* mechanisms for assessing market power.¹⁴⁹

Over the last several decades the usefulness and robustness of “direct” and more econometric measures of power that do not depend on a market definition have become much more practical and

¹⁴⁸*AmEx*, 138 S. Ct. at 2285 n.7.

¹⁴⁹*Id.* at 2297 (Breyer, J., dissenting) (“One critical point that the majority's argument ignores is that proof of actual adverse effects on competition *is, a fortiori*, proof of market power.”).

prominent.¹⁵⁰ They are widely used to evaluate horizontal mergers threatening anticompetitive unilateral effects.¹⁵¹

Direct measures of firm responses to changes in demand or cost require transaction information, so one limitation on their use is the availability of data. But in the *AmEx* case all of the relevant credit card transactions were digitized. Obtaining the data should not pose a significant problem. That is likely the case on nearly all digital platforms. In any event, direct measures of power are very likely superior to inferences drawn from market share, particularly where the products in question are differentiated, as they were in *AmEx*.¹⁵²

Fortunately, there are ways to limit the damage resulting from the Court's requirement of a market definition in a vertical case. Direct methodologies can usually be translated into a conclusion about market boundaries. After all, a market is a grouping of sales for which the firm(s) that control them could sustainably exact a non-cost-justified price increase above the competitive level. Delineating a relevant market is one way of producing an answer to this question, although indirectly from inferences about market share. However, more direct measures can answer the same question as well, through such devices as estimating the residual elasticity of demand that faces the firm. A "residual" elasticity is an estimate of the demand facing

¹⁵⁰See discussion *supra*, text at notes __; and the methodologies described in 2B PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, ANTITRUST LAW ¶¶515-521 (4th ed. 2014); Louis Kaplow, *Why (Ever) Define Markets*, 124 Harv. L. Rev. 437 (2010) (discussing relative strengths and methodologies).

¹⁵¹Joseph Farrell and Carl Shapiro, *Antitrust Evaluation of Horizontal Merger: An Economic Alternative to Market Definition*, 10 B.E. J. THEORETICAL ECON. 1 (2010). See also PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶913a (4th ed. 2017) (discussing case law and other literature).

¹⁵²See discussion *supra*, text at notes __.

an individual firm after the demand for all of its competitors' goods has been excluded.¹⁵³

In that case, however, direct measure not only assesses the firm's power, but can also define the boundary of a relevant market. For example, if price change and response data show that a firm has enough power to charge a monopoly price for product Alpha, we can express that conclusion directly by saying that the maker of Alpha has a certain amount of power because the residual elasticity of demand it faces is relatively low. However, then we can also say that product Alpha constitutes a relevant market if the difference between cost and price is sufficiently large.

Economic experts assessing unilateral effects merger cases do a version of this, which courts have come to recognize, even though they generally go through the formality of requiring a market definition as well. On the one hand, the methodologies that are used to assess the price effects of a particular merger in a product differentiated market do not require a market definition. On the other hand, once this methodology is used to predict a price increase of the necessary magnitude, we can say that the grouping of sales in question constitutes a relevant market.

Although the economist need not reach this additional conclusion about the boundaries of a relevant market in order to predict the price effects of the merger, she may have to do it in order to satisfy the *legal* requirement that the price increase occur in some "line of commerce" and "section of the country," as §7 of the Clayton Act

¹⁵³AREEDA & HOVENKAMP, *supra* note __ at ¶521; Kaplow, *Why (Ever)*, *supra* note __; MICHAEL D. WHINSTON, LECTURES ON ANTITRUST ECONOMICS 100-14 (2006); Jonathan B. Baker & Timothy F. Bresnahan, *Empirical Methods of Identifying and Measuring Market Power*, 61 ANTITRUST L.J. 3 (1992); Jonathan B. Baker & Timothy F. Bresnahan, *Estimating the Residual Demand Curve Facing a Single Firm*, 6 INT'L J. INDUS. ORG. 283 (1988) . For good historical perspective, see Gregory J. Werden, *The History of Antitrust Market Delineation*, 76 MARQUETTE L. REV. 123 (1992).

requires.¹⁵⁴ In its *Brown Shoe* decision the Supreme Court equated “line of commerce” with a product market and “section of the country” with a geographic market.¹⁵⁵ Another way of stating this proposition is that a conclusion about market power based on an econometric measure such as residual elasticity becomes evidence of the proposition that the grouping of sales whose residual elasticity is low is a relevant market.

The court in *United States v. H & R Block*, a merger challenge, was particularly candid about this approach:

“As a matter of applied economics, evaluation of unilateral effects does not require a market definition in the traditional sense at all.”¹⁵⁶ This is so because unilateral effects analysis focuses on measuring a firm's market power directly by “estimating the change in residual demand facing the post-merger firm. ‘Residual demand’ refers to the demand for a firm's goods after the output of all other competing firms has been taken into account.” If market power itself can be directly measured or estimated reliably, then in theory market definition is superfluous, at least as a matter of economics, because “[i]dentifying a market and computing market shares provide an indirect means for measuring market power.”...¹⁵⁷ As a legal matter, however, a market definition may be required by Section 7 of the Clayton Act. *See Brown Shoe*, 370

¹⁵⁴15 U.S.C. § 18 (condemning a merger “where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.”).

¹⁵⁵*Brown Shoe Co. v. United States*, 370 U.S. 294, 324 (1962). *See* Herbert Hovenkamp and Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2015 (2018).

¹⁵⁶Quoting 4 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 913a, at 66 (4th ed. 2016)

¹⁵⁷Quoting 2B *Id.* ¶ 532a at 242–43; and ¶ 521c.

U.S. at 324 (“[D]etermination of the relevant market is a necessary predicate to a finding of a violation of the Clayton Act because the threatened monopoly must be one which will substantially lessen competition ‘within the area of effective competition.’ Substantiality can be determined only in terms of the market affected. The ‘area of effective competition’ must be determined by reference to a product market (the ‘line of commerce’) and a geographic market (the ‘section of the country’); see also *Heinz*, 246 F.3d at 719 n. 17 (“Courts interpret ‘line of commerce’ [in the language of the Clayton Act] as synonymous with the relevant product market.”). The Court is not aware of any modern Section 7 case in which the court dispensed with the requirement to define a relevant product market....¹⁵⁸

Thus in a vertical case, as in a merger case, a court could consider direct evidence of market power, which was strong in *AmEx*, but express that conclusion in terms of a relevant market.

The Meaning and Scope of Free Riding

The *AmEx* majority also misunderstood how free riding works. It suggested that rival card issuers might be taking a free ride on AmEx’s business model, which relied on high merchant fees with high offsetting rewards to customers.¹⁵⁹ The Court apparently believed that a Visa card holder could free ride on AmEx’s benefits simply by acquiring a Visa card and keeping it in his pocket. In fact, however, one can obtain the *AmEx* rewards only by actually using the AmEx card, and the amount of the award is tied to the amount of the AmEx card transaction.¹⁶⁰

¹⁵⁸United States v. H & R Block, Inc., 833 F.Supp.2d 36, 84-85 n. 35 (D.D.C. 2011) (internal citations omitted).

¹⁵⁹*AmEx*, 138 S.Ct. at 2290.

¹⁶⁰*Cf. Chicago Professional Sports Ltd. Partnership v. NBA*, 95 F.3d 593, 675 (7th Cir. 1996) (when payments are made in proportion to how services are delivered the “ride is not free”).

Justice Breyer's dissent noted the error: "plainly investments tied to card use ... are not subject to free-riding...."¹⁶¹ For example, free riding occurs when one dealer is able to profit from a second dealer's promotional services because these services cannot be directly priced into the purchase of the product.¹⁶² It plainly has no application in a case such as *AmEx*, where card user benefits were specifically tied to actual purchases with the AmEx card. A card holder who wants the additional travel miles that American Express promises cannot obtain them simply by owning an AmEx card; she must actually use the card to purchase the airline ticket.

The economics of free riding has been used to champion relaxation of antitrust rules respecting vertical restraints such as resale price maintenance, and with good results. But an essential ingredient in those situations is an investment whose returns can readily be commandeered by someone else. The classic example is point-of-sale retailer services that must be provided prior to sale and can be priced only through the product. That enables a competitor to steal the sale by inducing customers to obtain the services from the full service dealer, but then to purchase the product at a lower price from the free rider.¹⁶³ Resale price maintenance can address this problem by requiring both dealers to charge the same minimum price. As a result, the customer has no incentive to switch. When the benefits can be obtained only through purchase of the product, however, there is no opportunity for free riding.

Marginal vs. Total Effects

Competition occurs at the margin. Marginalism is the late nineteenth and early twentieth century's most important contribution

¹⁶¹*AmEx*, 138 S.Ct. 2304 (Breyer, J., dissenting).

¹⁶²See HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE §11.3 (6th ed. 2020).

¹⁶³See Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J. L. & ECON. 86 (1960).

to economic analysis.¹⁶⁴ Measuring effects at the margin means that one cannot simply look at totals or averages. Rather, the question is how much a particular act changes a particular outcome. Speaking about the importance of marginal analysis in law, Frank Easterbrook observed that “The Court’s efforts to influence future conduct are doomed unless it appreciates how incentives work.... [P]eople look at marginal rather than average effects.”¹⁶⁵ Marginalism in economics is not one of those things that divides conservatives and moderates. It has become fundamental to economic analysis of all kinds. Marginalism in economics enables modern price theory and industrial organization, cost-benefit analysis, and economic analysis of social cost and externalities.

Antitrust’s rule of reason is in fact a stylized variation of cost-benefit analysis, with the important qualifier that the fact finder must determine not merely whether a practice reduces welfare, but whether it does so by limiting competition. In a rule of reason antitrust case such as *NCAA*, for example, the court must determine whether the competitive harm from a particular rule, such as limiting teams to four nationally televised games per year, is justified by some offsetting

¹⁶⁴For a history, focusing on the United States, see HERBERT HOVENKAMP, *OPENING OF AMERICAN LAW*, *supra* note ___, Chs. 1 & 2.

¹⁶⁵Frank H. Easterbrook, *The Court and the Economic System*, 98 HARV. L. REV. 4, 13 (1984) (criticizing courts that “see only the gross effects—averages rather than the margins on which people are trading”). See also *id.* at 33:

The Court’s efforts to influence future conduct are doomed unless it appreciates how incentives work.... [P]eople look at marginal rather than average effects. They substitute among opportunities until they receive approximately the same reward from each of their activities (whether buying or doing). They buy or do a little more of one thing and a little less of something else until it is not worthwhile to make further changes. At that point the marginal gains of each activity are approximately the same. Change the returns of the margin and people alter their behavior; change the returns somewhere inside the margin and people are unlikely to alter their behavior in the desired way—if at all.

benefit. Because of limitations in our fact finding ability we try to do this without “balancing,”¹⁶⁶ but we do so by examining *incremental* harms and benefits. For example, the important antitrust question in the *NCAA* case is not whether the NCAA as an institution is so competitively harmful that it must be dissolved. That might be the question in a per se challenge to a cartel. Neither can we say, however, that because the NCAA is a good thing its rule limiting the output of televised games is just fine. One must gauge the marginal effects of the challenged rule against any marginal benefits offered for it.

The *AmEx* majority lost sight of the fact that effects at the margin are what counts. This would involve, first, assessing the marginal harms to competition caused by the anti-steering rule; and then looking for offsetting benefits from that rule that might serve to justify it. What marginalist analysis does not do is look at the entire enterprise or business model, proclaim it a good thing, and be finished.

The *AmEx* majority wrote:

Amex’s higher merchant fees are based on a careful study of how much additional value its cardholders offer merchantsOn the other side of the market, Amex uses its higher merchant fees to offer its cardholders a more robust rewards program, which is necessary to maintain cardholder loyalty and encourage the level of spending that makes Amex valuable to merchantsThat Amex allocates prices between merchants and cardholders differently from Visa and MasterCard is simply not evidence that it wields market power to achieve anticompetitive ends.¹⁶⁷

However, the challenge in this case was not to AmEx’s overall business model, which we can presume offered cardholders in the aggregate overall value in excess of overall costs. For example, in the *NCAA* case, the challenge was not to the legitimacy of the NCAA or

¹⁶⁶See 7 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶1507 (4th ed. 2018).

¹⁶⁷*AmEx*, 138 S. Ct. 2274, 2288 (2018) (citations omitted).

its business model, which no one was challenging. Rather, it was to the effect of a limitation on each member team's televised games.¹⁶⁸

By the same token, the question in *AmEx* was not whether AmEx's business model requiring higher fees in exchange for larger cardholder benefits was anticompetitive. Rather, it was whether the anti-steering rule produced *incremental* harms to competition that were greater than incremental benefits. The people affected by steering would be those *marginal* customers who would have accepted a steering offer had it been made, as well as those merchants who would have profited by incentivizing a customer to switch to a lower price card.

The Second Circuit had also confused the question of total versus marginal effects:

[b]ecause the NDPs¹⁶⁹ affect competition for cardholders as well as merchants, the Plaintiffs' initial burden was to show that the NDPs made *all* Amex consumers on both sides of the platform—*i.e.*, both merchants and cardholders—worse off overall.¹⁷⁰

But “all customers” is clearly wrong. As with many restraints, many customers were not affected at all. For example, the restraint on game televising in the *NCAA* case did not affect those who did not watch televised games at all. Rules imposing resale price maintenance affect only discounters that would otherwise charge a lower price. Standard setting and other boycott rules affect only producers at risk of violating a standard.¹⁷¹ The marginal cardholders in the *AmEx* case were those who would have switched in response to a steering offer because they valued the switch by more than the foregone AmEx

¹⁶⁸*NCAA v. Board of Regents*, 468 U.S. 85 (1984). See 7 AREEDA & HOVENKAMP, ANTITRUST LAW, *supra* note __, ¶¶1502–1504, 1511.

¹⁶⁹The Second Circuit used the term “nondiscriminatory provisions,” or NDPs to describe AmEx's policies “barring merchants from (1) offering customers any discounts or nonmonetary incentives to use credit cards less costly for merchants to accept, (2) expressing preferences for any card, or (3) disclosing information about the costs of different cards to merchants who accept them.” *AmEx.*, 838 F.3d 179, 184 (2d Cir. 2016).

¹⁷⁰*Id.* at 205 (*italics in original*).

¹⁷¹See 13 PHILLIP E AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶2231 (4th ed. 2019).

perks.

When the government is seeking an injunction against a practice rather than complete destruction of the defendant's business method, then the issue is limited to the competitive effect of that particular rule. Here, the affected customers were those that would have switched to a less costly card but for the anti-steering rule. The value that they placed on the defendant's perks was less than the incremental price to merchants of using the AmEx card.¹⁷²

As the district court observed, other AmEx cardholders would decline the merchant's offer to switch, because for them the value of the perks were at least as high as the merchant's acceptance fee, or at least as high as that portion of the fee that the merchant offered them for switching.¹⁷³ Of course, these cardholders were unaffected by the anti-steering rule. Cardholders whose behavior was actually changed by the rule were worse off, thus creating lost value on both sides of the platform.

A fact finding that the Supreme Court did not disturb was that merchants passed on AmEx's higher fees through higher product prices across the board. Because merchants could not price discriminate between customers who used an AmEx card and those that used a cheaper card, these higher prices affected even people who did not use the AmEx card at all.¹⁷⁴ While this fact finding is certainly troubling, it was not necessary to condemn the anti-steering rule and was thus something of a red herring. The question was whether consumer effects "at the margin" were harmful, and for this the place to look is those consumers who were affected by it.

Competition and "Welcome Acceptance"

One of the most fundamental principles of economics is that market participants are rational actors, which means that they

¹⁷²See discussion *supra*, text at notes __.

¹⁷³*United States v. American Express Co.*, 88 F. Supp. 3d 143, 220 (E.D.N.Y. 2015).

¹⁷⁴*United States v. Am. Express Co.*, 88 F.Supp.3d 143, 208 (E.D.N.Y. 2015), *rev'd on other grounds*, 838 F.3d 179 (2d Cir. 2016), *aff'd sub nom. Ohio v. Am. Express Co.*, 138 S. Ct. 2274 (2018) ("inflated merchant discount rates are passed on to all customers—Amex cardholders and non-cardholders alike—in the form of higher retail prices"); *id.* at 215-218.

maximize within the array of choices that they are presented.¹⁷⁵ Given appropriate information they will make decisions that maximize their own value. In defending the anti-steering rule, the Court concluded that for a dealer to offer a customer a discount for purchasing with an alternative card “undermines the cardholder’s expectation of ‘welcome acceptance’—the promise of a frictionless transaction.”¹⁷⁶ “A lack of welcome acceptance at one merchant makes a cardholder less likely to use Amex at all other merchants.”¹⁷⁷ The Court described this lack of welcome acceptance as an “externality” that “endangers the viability of the entire Am[E]x network....”¹⁷⁸

It would be hard to come up with a more anti-market rationale than this one. Informing a customer about a cheaper alternative is neither an externality nor an affront to consumer rationality. It is in fact fundamental to the workings of competitive markets. To be sure, telling a consumer about to buy a name brand that the house brand is cheaper might hinder the consumer’s “welcome acceptance” of the name brand. That is the way competition works.

The “welcome acceptance” argument is impossible to harmonize with the premise that consumers make choices in a way that maximizes their own welfare. “Welcome acceptance” in this case apparently meant that the buyer should be prevented from even knowing that a cheaper alternative was available. The Second Circuit had decided that permitting consumers to make informed choices about options was generally desirable but that “welcome acceptance” could be a viable defense on a credit card platform because loss of a sale via steering could have a negative impact on both sides.¹⁷⁹

Certainly, loss of “welcome acceptance” on one product could undermine a firm’s business model by impairing earnings elsewhere.

¹⁷⁵See, e.g., WILLIAM J. BAUMOL & ALAN S. BLINDER, MICROECONOMICS: PRINCIPLES & POLICY 85-98 (12th ed. 2012).

¹⁷⁶*AmEx*, 138 S. Ct. at 2289 (citing 88 F. Supp. 3d at 156).

¹⁷⁷*Ibid.*

¹⁷⁸*Ibid.*

¹⁷⁹See 838 F.3d at 191: “Although merchants across various industries regularly try to “steer” their customers toward certain purchasing decisions via strategic product placement, discounts, and other deals, steering within the credit-card industry can be harmful insofar as it interferes with a network’s ability to balance its two-sided net price.”

For example, a consumer induced to buy an electric automobile after a dealer's comparisons of gasoline and electric vehicles might certainly have an impact on the market for gasoline. The Court seemed to think that interfering with a consumer choice in a primary good was a bad thing if it had an impact on some secondary good. By contrast, the district court took the only economically rational view of the situation: "[a]llowing merchants to actively participate in their customers' point-of-sale decisions would remove the artificial barrier that now segregates merchant demand from the price of network services"¹⁸⁰

* * * * *

Do *Apple* and *AmEx* signal a new direction among the majority of the Supreme Court, in which fidelity to fundamental economics is no longer important? It may be too early to say, but these two opinions are not very encouraging. The Supreme Court in the 1960s was rightfully accused of torturing the economics to any degree necessary to achieve a preconceived result. Today it seems to be doing a version of the same thing.¹⁸¹

ATTACKING BIGNESS OR PROTECTING CONSUMERS?

Antitrust policy's leftward tail also suffers from deficiencies in economic reasoning, although very different ones. In their favor, they do a better job than the right does of acknowledging that the United States is experiencing a monopoly problem, reflected in unreasonably high price-cost margins,¹⁸² a declining share of labor participation, and higher concentration.¹⁸³ However, some of the proposed solutions are

¹⁸⁰*AmEx*, 88 F. Supp. 3d at 220–21.

¹⁸¹See Herbert Hovenkamp and Fiona M. Scott Morton, *Framing the Chicago School of Antitrust Analysis*, __ UNIV. PENN. L. REV. __ (2020), currently available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3481388.

¹⁸²For a good survey see Carl Shapiro, *Antitrust in a Time of Populism*, 61 Int'l J. Indus. Org. 714 (2018). See also David Autor et al., *The Fall of the Labor Share and the Rise of Superstar Firms* 47 tbl.2 (Nat'l Bureau of Econ. Research, Working Paper No. 23,396, 2017), <https://economics.mit.edu/files/12979>.

¹⁸³See, e.g., Nancy L. Rose, *Concerns About Concentration* (Aspen Institute, 2019), available at <https://economicstrategygroup.org/wp->

policy misfires, likely to make the problem worse rather than better. These result from lack of careful economic analysis.

The principal goal of antitrust policy under the consumer welfare principle is to facilitate markets that produce maximum output consistent with sustainable competition. The proposals addressed here cannot be understood as attempts to achieve that goal. Rather they are pursuing something else – perhaps size for its own sake, or perhaps a kind of tort theory of harm to rivals. In any event, they are not defensible as part of antitrust policy.

Mergers and Consumer Welfare

Senators Amy Klobuchar, Kirsten Gillibrand, and Cory Booker are co-sponsors of merger legislation¹⁸⁴ that is focused far too much on increased concentration or absolute size for their own sake, and too little on the threat of consumer harm.¹⁸⁵ Indeed, one portion of the bill would pursue mergers of very large firms simply because they are large, regardless of concentration or predicted impact on prices, and even if the firms are not competitors.¹⁸⁶

[content/uploads/2019/12/Maintaining-the-Strength-of-American-Capitalism-Concerns-About-Concentration.pdf](https://www.bridgewater.com/content/uploads/2019/12/Maintaining-the-Strength-of-American-Capitalism-Concerns-About-Concentration.pdf) (summarizing economic data and conclusions). See also Bridgewater Assocs., *Peak Profit Margins? A U.S. Perspective* (Feb. 7, 2019), available at <https://www.bridgewater.com/research-library/daily-observations/peak-profit-margins-a-us-perspective/peak-profit-margins-a-us-perspective.pdf>.

¹⁸⁴*Consolidation Prevention and Competition Promotion Act of 2019*, S. 307, 116th Cong. (2017), available at <https://www.congress.gov/bill/116th-congress/senate-bill/307/text>. The Bill is co-sponsored by Senators Edward J. Markey, Richard Blumenthal, Cory Booker, and Kirsten Gillibrand

¹⁸⁵For a fuller analysis of the bill, See Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L. J. 1996 (2018).

¹⁸⁶*Consolidation Prevention Act, supra, note ___*:

§3. Unlawful Acquisitions

In a case brought by the United States, the Federal Trade Commission, or a State attorney general, a court shall determine that

Such a bill needs a coherent theory of economic harm, or else explicit recognition that it is giving up on an economic approach to merger law altogether. On the one hand, the link between concentration and high margins is provable. The link between absolute size and prices is not proven. An economic basis for pursuing conglomerate mergers or other mergers between noncompetitors may exist, but it is not articulated in this Bill. One strong possibility, which needs to be taken more seriously, is large digital platform acquisitions of small firms, many of which are noncompetitors. These are not singled out in this bill.¹⁸⁷

the effect of an acquisition described in this section may be materially to lessen competition or create a monopoly or a monopsony if—...

“(B) (i) as a result of such acquisition, the acquiring person would hold an aggregate total amount of the voting securities and assets of the acquired person in excess of \$5,000,000,000 (as adjusted and published for each fiscal year beginning after September 30, 2020, in the same manner as provided in section 8(a)(5) to reflect the percentage change in the gross national product for such fiscal year compared to the gross national product for the year ending September 30, 2019); or

“(ii) (I) the person acquiring or the person being acquired has assets, net annual sales, or a market capitalization greater than \$100,000,000,000 (as so adjusted and published); and

“(II) as a result of such acquisition, the acquiring person would hold an aggregate total amount of the voting securities and assets of the acquired person in excess of \$50,000,000 (as so adjusted and published)....

Id. at 2023.

¹⁸⁷On these acquisitions, see Hovenkamp, *Antitrust and Platform Monopoly*, *supra* note ___ at ___. Another possibility is “portfolio theory,” accepted in one case by the European Commission but not in the United States. See Case No. Comp/M.2220, General Electric/Honeywell (July 3, 2001) [hereinafter GE/Honeywell], at http://europa.eu.int/comm/competition/mergers/cases/decisions/m2220_en.pdf. See Gotz Drauz, *Unbundling GE/Honeywell: The Assessment of*

Many of the conglomerate merger cases that have actually been litigated involved firms making complementary products. Such mergers can definitely create advantages over rivals. Just as vertical mergers, they eliminate the need for market transactions and much of the coordination that use of the market entails. For example, they can enable purchasers to buy a completed product or a full line.

What a new statute should require, however, is some theory that serves to explain when such mergers can result in reduced output and higher prices. Indeed, the approach taken in the recently released Vertical Merger Guidelines¹⁸⁸ could be extended to at least some types of conglomerate mergers. No theory of competitive harm is offered in the proposed bill, however, other than the fact that firms are becoming too large. The first and most obvious consequence of mergers of complements is better coordination and reduced costs, and thus benefits to consumers. As in the case of vertical mergers, condemnation should be the exception rather than the rule, although exceptional cases certainly exist.

Such mergers were occasionally condemned in the 1960s, but largely on indefensible economic theories. In *FTC v. Procter & Gamble Co.*,¹⁸⁹ the Supreme Court condemned a merger between a maker of household cleansers and a maker of household bleach

Conglomerate Mergers Under EC Competition Law, 25 *FORDHAM INT'L L. J.* 885 (2002). For a less favorable assessment, see Eric S. Hochstadt, *The Brown Shoe of European Union Competition Law*, 24 *CARDOZO L. REV.* 287 (2002). Another possibility is some variation of the “potential competition” doctrines, which do not reach all conglomerates but only those that eliminate the opportunities for potential competition. In any event, those theories have not been applied in the United States for decades. See V PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶¶1121-1135 (4th ed. 2017) (assessing the “perceived potential entrant” doctrine and the “actual potential entrant” doctrine).

¹⁸⁸U.S. Dept. of Justice and FTC, Vertical Merger Guidelines (June 30, 2020), available at https://www.ftc.gov/system/files/documents/reports/us-department-justice-federal-trade-commission-vertical-merger-guidelines/vertical_merger_guidelines_6-30-20.pdf.

¹⁸⁹386 U.S. 568 (1967).

(Clorox). The defendants raised efficiencies as a defense. In this case the merger enabled the firm to market and advertise a full line of household cleaning and laundry products, and also created economies of scale in advertising and purchasing.¹⁹⁰ Speaking for the majority, Justice Douglas did not reject the factual basis for these claims. Rather, he held that “possible economies cannot be used as a defense to illegality.”¹⁹¹ The Court did not really condemn the merger because it created these efficiencies, but held that if the merger appeared anticompetitive on other grounds, in this case the elimination of potential competition, then efficiency could not be raised as a defense.

In *Allis-Chalmers Mfg. Co. v. White Consolidated Industries, Inc.*,¹⁹² another merger of complements, the Third Circuit went further. It condemned the merger of a firm that made steel rolling mills and a firm that made the electric wiring installations for such mills. A complete installation required one mill plus one wiring harness, so the two were perfect complements. The court offered the theory that the merger would create “the only company capable of designing, producing and installing a complete metal rolling mill,” and this “would raise higher the already significant barriers to the entry of others.”¹⁹³ That analysis effectively made competitors the beneficiaries and consumers the victims of merger policy.

Segregating Platform Sales

A proposal endorsed by Senator Elizabeth Warren during her presidential campaign was focused less on mergers and more on dominant firms – in particular, the large digital platforms. She proposed that large internet sellers such as Amazon be prevented from selling both their own products and those of competing sellers on the

¹⁹⁰See Justice Harlan’s concurring opinion, *id.* at 599-601.

¹⁹¹*Id.* at 580.

¹⁹²414 F.2d 506 (3d Cir. 1969).

¹⁹³*Id.* at 517-518. The *GE-Honeywell* decision, *supra* note ___, in the EU was somewhat similar.

same platform.¹⁹⁴ More thought should have been given to the impact of such a policy on competition or consumers or – for that matter – even to identifying who is injured when a firm such as Amazon sells both its own house brands and the brands of rivals in close comparison on the same site.

Many of the brands that compete with Amazon's own brands are sold by large firms, and often at margins that are significantly higher than Amazon's margins. For example, Amazon sells its own AmazonBasics batteries in competition with brands that include Delco, Duracell, Energizer, and Rayovac. It sells AmazonBasics toasters in competition with Black & Decker, Hamilton Beach, and KitchenAid (owned by Whirlpool). It sells AmazonBasics plastic storage containers in competition with brands that include Rubbermaid, Glad, and Anchor Hocking. AmazonBasics office supplies sell in competition with 3M Corp., whose competing products include Scotch Tape and Post-It notes.

Forcibly separating Amazon's brands from the offerings of these companies will almost certainly reduce downward pricing pressure on these national name brands, resulting in higher prices for consumers. Few small firms will be benefitted. Most of the benefits will accrue to companies like 3M (the largest maker of office supplies in the United States); Berkshire Hathaway (who owns Duracell); Black & Decker (America's largest manufacturer of small appliances and power tools); or Samsonite (the world's largest luggage manufacturer, which competes with AmazonBasics luggage).

At the same time, under the Warren proposal Amazon could sell AmazonBasics or its other store brands only on a separate website. If it chose to do so, there would of course be less competitive pressure on their prices as well. As a result, prices on both the third party

¹⁹⁴See Elizabeth Warren, *It's Time to Break up Amazon, Google, and Facebook* (March 8, 2019), available at <https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c>.

website and the Amazon products website would rise. Of course, each platform would be smaller to the extent that it did not carry the products on the other platform.

I doubt very much that Senator Warren is consciously pursuing a policy of enriching Berkshire-Hathaway, 3M, or Black & Decker at the expense of consumers. More likely, I suspect, her advisors were so fixated on the rhetoric of bigness that they never sat down to figure out who was getting harmed or benefitted by this proposal.

To be sure, some small sellers would fare better if Amazon's website did not offer their goods in competition with Amazon brands. Senator Warren's proposal includes as an example, a laptop computer stand sold on Amazon by Rain Design, a relatively small firm, at a price that hovers between \$40 and \$43.¹⁹⁵ Amazon has its own, somewhat different rival stand at about half that price, \$19.99.¹⁹⁶ Several other companies offer similar stands on Amazon, most of them cheaper than the Rain Design stand. A search for "adjustable laptop stand" reveals more than twenty similar although distinguishable products ranging in price from roughly \$19 to roughly \$45. Rain Design is near the top of that range and the Amazon product near the bottom. While the products perform the same general function, they are differentiated, which means that different customers might value one over the other.

Several things are wrong with this proposal. First, there is no evidence indicating whether the most likely competitors of Amazon's

¹⁹⁵See Spencer Soper, *Got a Hot Seller on Amazon? Prepare for E-Tailer to Make One Too* (Apr. 20, 2016), available at <https://www.bloomberg.com/news/articles/2016-04-20/got-a-hot-seller-on-amazon-prepare-for-e-tailer-to-make-one-too>.

¹⁹⁶See https://smile.amazon.com/Rain-Design-mStand-Laptop-Patented/dp/B000OOYECC/ref=sr_1_1?keywords=rain+design+laptop+stand&qid=1577046924&sr=8-1 (Rain Design stand); and https://smile.amazon.com/AmazonBasics-DSN-01750-SL-Laptop-Stand-Silver/dp/B00WRDS0AU/ref=sr_1_11?keywords=rain+design+laptop+stand&qid=1577047065&sr=8-11 (AmazonBasics stand).

store brands are small firms like Rain Design, or much larger firms such as 3M, Berkshire-Hathaway, or Samsonite. There does not appear to be a good study of the issue. However, basic economics suggests that Amazon will introduce its own house brands in areas that offer promising opportunities for entry and profit. These would be markets characterized by a large sales volume and high margins in relation to the entry investment. The promise of high volume and a high markup on existing products are common inducements to entry. Further, the market for household batteries or consumer luggage is undoubtedly many times larger than the market for laptop stands.

Second, no claim is made that the AmazonBasics' laptop stand infringes a utility patent, a design patent, or any other intellectual property right owned by Rain Design.¹⁹⁷ Before we can declare as "unfair" one firm's design of a lower cost (or lower margin) product we must have some criterion of fairness.¹⁹⁸ In this case, protecting consumers from high prices does not appear to be one of them, but protecting a seller's high margins from rivals willing to sell a non-infringing product for less apparently is.

Suppose we forced Amazon to discontinue sales of either the Rain Design stand or the AmazonBasics stand. Amazon would almost certainly dump Rain Design. The principal impact would be that Rain Design could no longer sell its stand on the Amazon website. No one seems to have thought about that. Indeed, it replays an error that

¹⁹⁷The Amazon entry for the Rain Design stand indicates that it is patented but does not claim infringement against Amazon. However, Rain Design has sued another firm for trademark, trade dress, copyright, and patent infringement of a product identified as a laptop stand. *See Rain Design, Inc. v. Spinido, Inc.*, 2018 WL 4904894 (N.D. Cal. Oct. 9, 2018) (dismissing complaint on jurisdictional grounds). For more details, see Memorandum of Points and Authorities in Support of Motion for Default Judgment, *Rain Design, Inc. v. Spinido, Inc.*, 2018 WL 7138290 (N.D. Cal. Sep. 6, 2018).

¹⁹⁸ *Cf.* the well known Supreme Court decision in *Fashion Originators Guild of America v. FTC*, 312 U.S. 457 (1941) (condemning effort by fashion manufacturers to create their own intellectual property system and enforce it via store boycotts).

antitrust well wishers have committed time and time again. In an effort to protect small businesses, the courts fashioned harsh rules condemning such practices as exclusive dealing¹⁹⁹ or maximum resale price maintenance²⁰⁰ where no injury to competition was in sight. The effect of these antitrust rules was to make dealing with independent small firms so costly that the larger businesses opted instead not to deal with them at all. The result was to make life even more difficult for the small businesses that the courts intended to protect.

Amazon's practice of selling both its own products and those of rivals in close juxtaposition almost certainly benefits consumers by permitting close price comparisons. When Amazon introduces a product such as AmazonBasics alkaline batteries in competition with Duracell, prices will go down. There is no evidence to suggest that the practice is so prone to abuse or so likely to harm consumers in other ways that it should be categorically condemned. Rather it is an act of partial vertical integration similar to other practices that the antitrust laws have confronted in the past. One close analogy is dual distribution, which occurs when a firm sells through both independent franchisees and its wholly owned stores.²⁰¹ Such practices nearly always increase output, benefitting consumers and typically even independent competing firms.

An important lesson from the history of antitrust enforcement is that one must always consider how a firm will respond to an antitrust

¹⁹⁹See *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 316 (1949) (condemning exclusive dealing under an aggressive standard over Justice Douglas' objection that it would force refiners to build their own gasoline stations and cease dealing with independents). See Herbert Hovenkamp, *The Law of Vertical Integration and the Business Firm: 1880-1960*, 95 IOWA L. REV. 863, 884 (2010).

²⁰⁰*Albrecht v. The Herald Co.*, 390 U.S. 145 (1968) (condemning newspaper's limits on prices charged by delivery agents). See Hovenkamp, *Law of Vertical Integration*, *supra* note ___ at 907 ("Albrecht virtually guaranteed that large numbers of manufacturers would simply stop using independent dealer networks and switch to ownership vertical integration").

²⁰¹See HOVENKAMP, FEDERAL ANTITRUST POLICY, *supra* note ___, §11.6e.

decree. For example, telling a firm such as Amazon that it may no longer sell its own AmazonBasics toaster on its website in competition with toasters made by Cuisinart, Black & Decker, or Sunbeam requires Amazon to choose among several options: (1) it might produce a second website, offering its own products on one and products sold by third party vendors on the other; (2) it might exit from the market for its own brands and sell only the brands of other firms; (3) it might do just the opposite, terminating its sales arrangements with third-party firms and selling only its house brands. Amazon would take the most profitable course. Option (1) would benefit the outside sellers because they would no longer have to compete with Amazon on the same website. Option (2) would also clearly benefit the outside sellers because they would not have to compete with Amazon at all. Option (3) would harm the outside sellers because they could no longer sell on any Amazon website. *None* of these options benefits consumers. Output is likely to go down and prices up under all of them, for each reduces the amount of competition between Amazon and outside vendors.

Antitrust under the consumer welfare standard would find all of these options, if forced by a court decree, unacceptable. Under a different standard, such as protecting third party businesses, different outcomes would affect them in different ways. Here, it is important to keep in mind that most of these businesses are not small, although they are smaller than Amazon. Second, we would not know how small business would be affected unless we could predict which of these options Amazon would choose.²⁰² That is very a likely a problem in predicting Amazon's profit-maximizing option or options. For that, economics would be essential no matter what our underlying goal.

Finally, while no good case can be made for structural separation of inside and outside sales, agreements that involve third party vendors are still subject to §1 of the Sherman Act and, in some

²⁰²For a discussion of various options, see Patrick F. Todd, *Digital Platforms and the Leverage Problem*, 98 Neb. L. Rev. 586 (2019).

cases, §§3 and 7 of the Clayton Act. Here the antitrust laws can exercise essential control, and practices such as exclusive dealing, loyalty discounts, or MFNs are remediable, as are anticompetitive acquisitions. The result in nearly all cases finding an antitrust violation would be an injunction. These solutions are less dramatic but likely to be much more effective.²⁰³

CONCLUSION

To circle back to the main point, when used correctly and without excessive ideology, economics is a powerful, neutral tool for assessing injuries to competition and identifying appropriate fixes. Indeed, that is the first and best use of antitrust economics. It does not always require difficult mathematics or highly technical analysis, but sometimes just informed common sense about how markets work and who is affected by policy changes. Both of the sides described above have ignored the first rule of rational antitrust policy: figure out who is getting hurt, and how. Fundamental to this inquiry is proper segregation of questions of fact from questions of law or policy. The latter is too often just ideology by another name.

Neither the majority nor the dissenting opinions in *Apple vs. Pepper* paid much attention to the factual question of who is harmed as an injury is passed along from a cartel or monopolist to its successive purchasers. The majority in *AmEx* seemed so taken with two-sided markets, the latest shiny object among market theories, that it abandoned careful market analysis in order to assess harms and benefits. The progressive proposals for mergers and platform separation do no better. Proposals like the one calling for the separation of platforms and third party markets seem calculated to harm precisely the people they are intended to benefit.

²⁰³Another possibility is restructuring Amazon's decision making so as to make it collaborative among stakeholders and thus reachable under §1 of the Sherman Act. For such a proposal, see Hovenkamp, *Antitrust and Platform Monopoly*, 130 *Yale L.J.* at ____ (2021) (forthcoming), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3639142.