

RECLAIMING A ROLE FOR INTENT EVIDENCE IN MONOPOLIZATION ANALYSIS*

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INTRODUCTION

At first blush, intent evidence seems to have little relevance in contemporary monopolization or general antitrust analysis.¹ Most courts and commentators have dismissed it as having little or no probative value.² Judge Frank Easterbrook, for example, declared in

1. There are a few distinct intent issues that should not be confused. One is whether specific intent is an essential element of monopolization cases. In the context of criminal antitrust violations, specific intent is an indispensable element. *See* *United States v. United States Gypsum Co.*, 438 U.S. 422, 435 (1978) (maintaining that “a defendant’s state of mind or intent is an element of a criminal antitrust offense which must be established by evidence and inferences drawn therefrom and cannot be taken from the trier of fact through reliance on a legal presumption of wrongful intent from proof of an effect on prices”). Specific intent requires proof that the action was “undertaken with knowledge of its probable consequences.” *Id.* at 444.

In civil antitrust cases, however, specific intent is not a required element (although it is required for attempted monopolization). *See id.* at 436 n.13 (“Our analysis [requiring intent] focuses solely on the elements of a criminal offense under the antitrust laws, and leaves unchanged the general rule that a civil violation can be established by proof of either an unlawful purpose or an anticompetitive effect.”); *see also* *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 432 (2d Cir. 1945) (contending that “[t]o read [section 2 of the Sherman Act] as demanding any ‘specific’ intent, makes nonsense of it, for no monopolist monopolizes unconscious of what he is doing”); STEPHEN F. ROSS, *PRINCIPLES OF ANTITRUST LAW* 99-100 (1993) (distinguishing attempted monopolization, which requires proof of specific intent, and monopolization, which does not).

This Article does not address specific intent, and my proposal should not be misconstrued to *require* proof of specific intent in non-criminal monopolization cases. Rather, my focus is on the role or probative value of intent evidence in monopolization cases.

For an argument that specific intent should be a *required* element of the monopolization offense and that the evidence of such specific intent must be objective, *see generally* Ronald A. Cass & Keith N. Hylton, *Antitrust Intent*, 74 S. CAL. L. REV. 657 (2001).

2. *See, e.g.*, *Cal. Dental Ass’n v. FTC*, 224 F.3d 942, 948 (9th Cir. 2000) (describing most intent evidence as being of “no value” and referring to analyses of intent as being a “relatively fruitless inquiry” in antitrust rule of reason cases); *see also, e.g.*, *FTC v. Freeman Hosp.*, 69 F.3d 260, 270 n.14 (8th Cir. 1995) (rejecting

A.A. Poultry Farms v. Rose Acre Farms,³ that “[i]ntent does not help to separate competition from attempted monopolization,”⁴ and derisively remarked that “[t]raipsing through the warehouses of business in search of misleading evidence both increases the costs of litigation and reduces the accuracy of decisions.”⁵ A leading antitrust treatise is similarly dismissive, stating that “bad intent is easily proven but seldom serves to distinguish situations where the defendant’s conduct deserves condemnation from those in which it should be left alone.”⁶

Yet, careful examination of a few key modern monopolization cases shows that courts, in fact, do sometimes consider intent evidence. In *United States v. Microsoft Corp.*,⁷ perhaps the most important monopolization case of the last few decades, the opinions of both the D.C. Circuit and the district court are replete with references to Microsoft’s anticompetitive intent.⁸ They pointed to numerous

summarily opinion and intent evidence).

3. 881 F.2d 1396 (7th Cir. 1989).

4. *Id.* at 1402.

5. *See id.* (also contending that “[a]lthough reference to intent in principle could help disambiguate bits of economic evidence in rare cases . . . the evidence offered to prove intent will be even more ambiguous than the economic data it seeks to illuminate”).

6. 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 601, at 5 (2d ed. 2002); *see also* Herbert Hovenkamp, *The Monopolization Offense*, 61 OHIO ST. L.J. 1035, 1039 (2000) [hereinafter Hovenkamp, *Monopolization Offense*] (arguing that intent is not helpful in analyzing monopolization because “the ‘intent’ to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively”); Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, 74 N.C. L. REV. 219, 258 (1995) (observing that both the Chicago and post-Chicago schools “relegate the issue of anticompetitive intent to a minor role in antitrust doctrine”).

Only a handful of commentators have expressed contrary views. *See* Thomas L. Greaney, *Chicago’s Procrustean Bed: Applying Antitrust Law in Health Care*, 71 ANTITRUST L.J. 857, 877-79 (2004) (critiquing several courts’ summary rejection of opinion and intent evidence without evaluation of their probative value); Lawrence A. Sullivan, *Monopolization: Corporate Strategy, the IBM Cases, and the Transformation of the Law*, 60 TEX. L. REV. 587, 632-33 (1982) (remarking that “[a]ntitrust law would profit were [intent evidence] returned to its historical role”); Spencer Weber Waller, *The Language of Law and the Language of Business*, 52 CASE W. RES. L. REV. 283, 315 (2001) (noting, with disapproval, the devaluation of intent evidence in antitrust analysis).

7. 253 F.3d 34 (D.C. Cir. 2001).

8. *See id.* at 76 (stating that “Microsoft documents . . . indicate that Microsoft’s ultimate objective was to thwart Java’s threat to Microsoft’s monopoly in the market for operating systems”); *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, ¶ 72 (D.D.C. 1999) (noting Microsoft’s fear that “[Netscape] Navigator’s enthusiastic reception could embolden Netscape to develop Navigator into an alternative platform for applications development”); *id.* at ¶¶ 166-169 (explaining Microsoft’s plan to bind Internet Explorer tightly to the Windows operating system, “maximize the usage of Internet Explorer at Netscape’s expense,” and “get consumers to use Internet Explorer instead of Navigator”); *id.* at ¶ 212 (addressing Microsoft’s attempt at “establishing control over the boot process . . . to ensure preferential positioning for MSN and Internet Explorer”); *see also* *United States v. Microsoft Corp.*, 87 F.

internal corporate documents, senior executive statements, and other evidence of Microsoft's intentions to destroy Netscape as a competitor and to deceive another potential competitor, in order to prevent a possible future threat to its Windows operating system monopoly.⁹ Similarly, in *LePage's Inc. v. 3M*,¹⁰ a 2003 case in which the United States Court of Appeals for the Third Circuit found exclusionary conduct, the court referred often to the defendant's intent to use bundled rebates and exclusive dealing contracts to exclude a competitor.¹¹

Two Supreme Court cases, *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*¹² and *Eastman Kodak Co. v. Image Technical Services*,¹³ similarly drew on intent evidence in their analyses of dominant firm conduct under section 2 of the Sherman Act.¹⁴ Like *Microsoft*, neither of these two decisions can be explained fully by a pure economic analysis based solely on theory and empirical data. They confirm, then, that intent evidence continues to play an important role in at least some monopolization cases, despite rhetoric to the contrary.

This article hopes to bring the issue of intent evidence to the forefront and to reclaim a role for it in monopolization analysis. Intent evidence became devalued, beginning in the late 1970s, with the emergence of the Chicago school and its accompanying emphasis

Supp. 2d 30, 39 (D.D.C. 2000) (describing a campaign conducted by Microsoft on three fronts, in which Microsoft (1) linked Internet Explorer to Windows "to ensure the prominent (and ultimately permanent) presence of Internet Explorer on every Windows user's PC system, and to increase the costs attendant to installing and using Navigator on any PCs running Windows;" (2) "imposed stringent limitations on the freedom of OEMs [original equipment manufacturers or computer manufacturers] to reconfigure or modify Windows 95 and Windows 98 in ways that might enable OEMs to generate usage for Navigator in spite of the contractual and technological devices that Microsoft had employed to bind Internet Explorer to Windows;" and (3) "used incentives and threats to induce especially important OEMs to design their distributional, promotional and technical efforts to favor Internet Explorer to the exclusion of Navigator"); *id.* at 43 (stating that Microsoft "employed an array of tactics designed to maximize the difficulty with which applications written in Java could be ported from Windows to other platforms and *vice versa*").

9. See *supra* note 8.

10. 324 F.3d 141 (3d Cir. 2003).

11. See *id.* at 158 (referring to plaintiff's powerful evidence that 3M's rebates to retailers "were designed to induce them" to refuse to deal with the plaintiff); see also *id.* at 163 (concluding that the jury had sufficient evidence to determine that "3M intended to force LePage's from the market," then curtail its own sales of low-priced tape in order to increase sales of its premium Scotch-brand tapes, and referring to 3M executives' boasting that large retailers "had no choice but to adhere to 3M's demands").

12. 472 U.S. 585 (1985).

13. 504 U.S. 451 (1992).

14. 15 U.S.C. § 2 (2000) (prohibiting monopolization, attempted monopolization, and conspiracy to monopolize); see *infra* Part IV.B (analyzing the reliance on objective intent evidence in *Aspen Skiing* and *Eastman Kodak*).

on a strict economic approach to antitrust law.¹⁵ I argue that, even assuming a commitment to a pure efficiency criterion in monopolization cases,¹⁶ intent evidence remains (or should remain) very relevant because it informs economic analysis and can add to its functionality.

To establish monopolization, a defendant must be shown to have substantial market power in a defined market and to have used “exclusionary” (or “predatory”) conduct to gain or preserve that power.¹⁷ As to what constitutes exclusionary or predatory conduct, however, there is little consensus,¹⁸ although both the Chicago and post-Chicago schools appear to require a showing, not only of exclusion of rivals, but also of anticompetitive effects.¹⁹

Under orthodox Chicago theory, an effects analysis requires proof that the conduct has limited or very likely will limit output.²⁰ Under this empirical test, intent evidence would largely be irrelevant. But,

15. See *infra* Part I.B (detailing the theoretical framework of the Chicago school).

16. Not all commentators agree that a pure efficiency standard should be applied in antitrust cases. See generally Eleanor M. Fox, *The Modernization of Antitrust: A New Equilibrium*, 66 CORNELL L. REV. 1140 (1981) (arguing for a broader standard for antitrust enforcement); Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L.J. 65 (1982) (challenging the allocative efficiency interpretation of the Sherman Act); Lawrence A. Sullivan, *Economics and More Humanistic Disciplines: What Are the Sources of Wisdom of Antitrust?*, 125 U. PA. L. REV. 1214 (1977) (describing the variety of social values properly involved in antitrust analysis).

17. See *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

18. Areeda and Hovenkamp define exclusionary conduct as acts that (1) are reasonably capable of creating, enlarging, or prolonging monopoly power by impairing the opportunities of rivals; and (2) that either (2a) do not benefit consumers at all, or (2b) are unnecessary for the particular consumer benefits that the acts produce, or (2c) produce harms disproportionate to the resulting benefits.

3 AREEDA & HOVENKAMP, *supra* note 6, at ¶ 651a; see also RICHARD A. POSNER, *ANTITRUST LAW 194-95* (2d ed. 2001) (proposing that conduct be defined as exclusionary if the defendant has monopoly power and the practice is likely to exclude “an equally or more efficient competitor”).

19. See, e.g., Timothy J. Muris, *The FTC and the Law of Monopolization*, 67 ANTITRUST L.J. 693, 694 (2000) (contending that “[r]ecent Supreme Court pronouncements have confirmed that no matter how bad a firm’s conduct is, or how injurious to rivals, there can be no Section 2 violation without injury to competition”); see also *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001) (stating that “to be condemned as exclusionary, a monopolist’s act must have an ‘anticompetitive effect’”). Some cases, however, have seemingly presumed anticompetitive effect, from the absence of any legitimate business justifications. See *Eastman Kodak*, 504 U.S. at 482-86 (stating that Kodak’s liability rested on whether Kodak could provide valid business reasons for its actions); *Aspen Skiing*, 472 U.S. at 585 (arguing that “[i]f a firm has been attempting to exclude rivals on some basis other than efficiency,” it is fair to characterize its behavior as predatory (quoting BORK, *infra* note 20, at 160)).

20. See ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* 90-160 (1978) (discussing the neoclassical efficiency model’s assumption that only practices that artificially restrict output are economically inefficient).

as even staunch Chicagoans concede, output data is usually either unavailable or practically impossible to obtain or process, which makes the superficially simple Chicago tests unworkable except in the simplest markets.²¹

Post-Chicago economic theories, while more realistic, involve complicated models and are surprisingly indeterminate in their application.²² Theories of market imperfections, “raising rivals costs” (RRC), game theory and so forth essentially hypothesize anticompetitive harm when conditions specified in the models are present.²³ But they do not *negate* neutral or efficient explanations for the dominant firm’s behavior under those conditions. Nor do the theories produce determinate results when the factual situation deviates even slightly from the models’ assumptions. Thus, a post-Chicago effects analysis based solely on economic data is often unsatisfactory.

A pure effects analysis is even more deficient in new economy (or high technology) markets, where reduced *innovation* competition, not higher prices and less output, is the primary antitrust concern.²⁴ Predicting prospective harm to innovation is difficult because it requires showing, in markets where many innovations fail, that better alternatives would have been introduced but for the incumbent’s exclusionary conduct. The difficulty is compounded where “network effects” are present, that is, where a product becomes increasingly valuable to users as the user base enlarges, without much regard to the intrinsic qualities of the product.²⁵ In these situations, as I will illustrate with *Microsoft*, predicting effects is a mighty speculative exercise—one that cannot be performed with mere economic tools.²⁶

While a current proposal, the “sacrifice” test, might indeed take all guesswork out of the determination of exclusionary conduct, the test suffers from a fundamental flaw. It treats sacrifice of short term profits as a *necessary*, though insufficient, condition for finding exclusionary conduct, when not all exclusionary conduct requires sacrifice of short-term profits.²⁷ Using the recent *Verizon*

21. See *infra* note 152 and accompanying text (describing limitations of Chicago school tests).

22. See *infra* Parts I.B.2, II (analyzing post-Chicago school theories).

23. See *infra* Part I.B.2.a (defining game theory); *infra* Part I.B.2.b (discussing raising rivals’ costs).

24. See *infra* Part II.B (analyzing the problems inherent in evaluations of economic effects in high technology markets).

25. See *infra* Part II.B.1 (discussing the theory of network effects).

26. See *infra* Part II.B.2.

27. See *infra* Part II.C.

*Communications Inc. v. Trinko, LLP*²⁸ case as illustration, I therefore argue that the test, although determinate, should not be applied formalistically as a bright-line test.

Where the effects, based solely on empirical data and theory, are neutral or inconclusive, there is, of course, the option of taking no antitrust action.²⁹ Those who favor this laissez-faire approach generally argue that any attempt to proscribe conduct not demonstrably inefficient could result in judicial error, which would then deter dominant firm innovation. But there is neither empirical nor strong theoretic proof that monopolies, relative to competitive conditions, are more conducive to innovation. There is also little evidence that consistently resolving ambiguities in favor of dominant firms would not *reduce* net industry innovation, rather than enhance it, by deterring fringe firm innovation more than it would encourage dominant firm innovation. Furthermore, protecting the competitive process is important in its own right: as long as a rival is allowed to compete against a dominant firm without interference, competitive possibilities (however slim) remain.

To the extent that inaction may not be the best monopolization policy whenever effects, based on economic data and theory, are ambiguous, I argue for an alternative approach—that of looking to intent evidence for further guidance and as a proxy for effect. Intent evidence is useful since no one is likely to know better the probable effects of a practice than the firm engaging in it.

The main objections to the use of intent evidence are that procompetitive intent and anticompetitive intent are supposedly impossible to distinguish, that intent evidence is too subjective and unreliable, that juries are prone to misconstrue employees' poor choice of sports and war metaphors for corporate anticompetitive intent, and that the presence or absence of intent evidence depends mostly on defendant's legal sophistication.³⁰ These problems are all overstated.³¹

Discriminating between anticompetitive and procompetitive intent, though difficult at times, is possible. Factfinders in our judicial system are institutionally adept at determining who did what and why. If a corporate document (or testimony) demonstrates that the dominant firm wanted to cut costs through use of an ambiguous

28. 540 U.S. 398 (2004).

29. See *infra* Part III.A (criticizing the non-interventionist approach).

30. See *infra* Part IV.

31. See *infra* Part IV (refuting criticism of the use of intent evidence in monopolization analyses).

strategy, for example, the intent would not be improper even if a rival is eliminated as a result. If, on the other hand, the evidence shows that the dominant firm wanted to prevent another firm from competing on the merits through its strategy, the intent would be improper. While the evidence may be unclear at times, courts are not strangers to the task of making fine factual distinctions.

Intent evidence can be either objective or subjective. Where it is objective, as in *Aspen Skiing* and *Eastman Kodak*, and partially in *Microsoft*, three modern monopolization cases where intent was a key factor, intent evidence is, of course, no more and no less reliable than other types of evidence.³² As for subjective intent, the argument that subjective statements are inherently suspect because corporate executives making them may not mean what they say³³ (but juries do not realize that) is perhaps the least persuasive of all objections. Whether a particular statement truly reflected the dominant firm's intentions or was merely a lone executive's loose talk is precisely the type of assessment that factfinders are competent to make. There is nothing to indicate that juries are more naïve and susceptible to error in discerning intent in antitrust than in other cases. As long as the subjective statements carry certain indicia of credibility, they can be helpful in interpreting the objective steps taken by a dominant firm, even when the objective steps themselves are ambiguous.

Another related argument against the use of intent evidence—that it has little value because it favors sophisticated firms³⁴—also has little merit. While it is true that sophisticated firms are less likely to generate paper trails documenting bad intent, it is unclear why intent evidence should be ignored if it is otherwise reliable, simply because the system is imperfect.

This Article proceeds as follows: Part I addresses exclusionary conduct by explaining and critiquing the traditional, the Chicago, and the post-Chicago school paradigms on monopolization. I argue that intent evidence already plays an important, albeit unacknowledged, role in post-Chicago analysis, especially in the application of game theory and raising rivals' costs. Part II presents the argument that a pure economic effects analysis is inadequate in

32. See *infra* Part IV.B (discussing the three cases as relying on objective intent evidence).

33. See POSNER, *supra* note 18, at 214-15 ("Especially misleading is the invertebrate tendencies of sale executives to brag to their superiors about their competitive prowess, often using metaphors of coercion that are compelling evidence of predatory intent to the naïve.").

34. See *id.* at 214 (noting that a firm employing executives sophisticated in antitrust matters is less likely to leave a paper trail revealing its intent).

most markets, particularly in network effects markets where innovation competition is important. The sacrifice test, though determinate, is flawed to the extent that evidence of sacrifice is deemed *necessary*, though not sufficient, for a finding of exclusionary conduct. Part III makes the case that an antitrust policy of non-intervention, except where the effects are demonstrably inefficient, is not the answer, and that the better approach is to turn to intent evidence as an additional analytical tool. Part IV addresses and refutes the main objections to the use of intent evidence. This article concludes that monopolization analysis will be better served by recognizing the probative value of intent evidence, as some cases have done despite Chicago (and post-Chicago) disapproval.

I. EXCLUSIONARY CONDUCT IN MONOPOLIZATION CASES

A. *The Traditional Monopolization Paradigm*

On its face, section 2 of the Sherman Act could be applied to condemn a dominant firm that simply gained or retained its dominance in the market through inventing a better mousetrap. The statute provides merely that “[e]very person who shall monopolize” any segment of interstate commerce is guilty of a felony,³⁵ but does not define the term “monopolize.”³⁶ The Supreme Court has suggested from the start, however, that section 2 would not be interpreted to ban a “monopoly in the concrete”³⁷—there must be a

35. 15 U.S.C. § 2 (2000) (condemning “[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with another person to monopolize any part of the trade or commerce among the several States, or with foreign nations”).

36. It is clear, however, from legislative debates that Congress intended to ban only those monopolies involving “the use of means which made it impossible for other persons to engage in fair competition,” not those that are derived from “superior skill and intelligence.” 21 CONG. REC. 3151, at 3152 (1890).

37. See *Standard Oil of N.J. v. United States*, 221 U.S. 1, 62 (1911); see also *Am. Tobacco Co. v. United States*, 328 U.S. 781, 785 (1946) (affirming the jury instruction that it is not monopolization merely because “one may own or control . . . all the business of a particular commodity.”); *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430-32 (2d Cir. 1945) (stating that acquiring monopoly power through superior skills or “business acumen” would not be unlawful).

In the 1940s and 1950s, there was some support among antitrust academics for a no-fault standard for section 2. See, e.g., Edward Levi, *The Antitrust Laws and Monopoly*, 14 U. CHI. L. REV. 153, 183 (1947) (suggesting “a new interpretation of the Sherman Act” that “can give the act strength *against monopolies as such*” (emphasis added)); Eugene Rostow, *The Sherman Act: A Positive Instrument of Progress*, 14 U. CHI. L. REV. 567, 577 (1947) (envisioning section 2 of the Sherman Act as a tool to deconcentrate American industries).

bad act in the dominant firm's acquisition or protection of its monopoly.³⁸

Courts and commentators have since struggled with defining what conduct is considered exclusionary or predatory, the now-favored terms for bad conduct.³⁹ Earlier monopolization cases apparently did not require proof of anticompetitive effect,⁴⁰ especially not as the term is narrowly defined in economic efficiency terms to mean reduced output and higher prices.⁴¹ Judge Learned Hand, in his famous opinion in *United States v. Aluminum Co. of America* (Alcoa),⁴² suggested that it was sufficient to show that the dominant firm had substantial market power in the relevant market and that, in acquiring or protecting that power, it foreclosed its rivals from competing on the merits.⁴³ A year later, the Supreme Court endorsed Alcoa in *American Tobacco Co. v. United States*.⁴⁴

38. Probably the most widely quoted definition of monopolization is that it "has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

39. See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001) (noting that "[w]hether any particular act of a monopolist is exclusionary, rather than merely a form of vigorous competition, can be difficult to discern"); Kenneth L. Glazer & Brian R. Henry, *Coercive vs. Incentivizing Conduct: A Way Out of the Section 2 Impasse?*, 18 ANTITRUST 45 (2003) ("It is difficult to discern any clear and consistent standards from [monopolization] cases."):

40. See, e.g., *Lorain Journal Co. v. United States*, 342 U.S. 143, 153 (1951) (finding that proof of success of the monopolization attempt was unnecessary to sustain a section 2 violation); *Am. Tobacco Co.*, 328 U.S. at 810 (stating that "[n]either proof of exertion of the power to exclude nor proof of actual exclusion of existing or potential competitors is essential to sustain a charge of monopolization under the Sherman Act"); see also Jonathan B. Baker, *Promoting Innovation Competition Through the Aspen/Kodak Rule*, 7 GEO. MASON L. REV. 495, 507 (1999) (noting that "[e]arlier Supreme Court decisions under Sherman Act [section] 2 do not require proof of lowered output, raised prices or other harm to competition, and the black letter elements of the monopolization offense are limited to a 'bad act' and monopoly power").

41. See Frank H. Easterbrook, *When Is It Worthwhile to Use Courts to Search for Exclusionary Conduct?*, 2003 COLUM. BUS. L. REV. 345, 346 (describing anticompetitive harm as "the allocative loss that comes about when firms raise price over long run marginal cost, and thus deprive consumers of goods for which they are willing to pay more than the costs of production"); Muris, *supra* note 19, at 697 (describing anticompetitive effects as "the ability to raise price and restrict output").

42. 148 F.2d 416 (2d Cir. 1945). Although Alcoa was a Circuit Court decision, it has almost the stature of a Supreme Court case because the Supreme Court, lacking a quorum of six qualified judges, had certified the case to the Second Circuit to hear it as a special statutory court pursuant to the authority of 15 U.S.C. § 29 (1944).

43. See *id.* at 429-31 (suggesting an inclination to find a monopolization offence once monopoly power is shown, unless that power had been "thrust upon" it or was attributable solely to technological superiority or natural monopoly conditions).

44. 328 U.S. at 811-12. The Court's historic approach was influenced by the traditional Harvard School of industrial organization that was dominant before the mid 1970s, and which took a dim view of monopolists. The Harvard theory postulated that operation at optimal economies of scale rarely required firms to be

Over time, courts classified potential exclusionary conduct into discrete categories, each with its own operational test, instead of analyzing all such conduct under a unitary standard.⁴⁵ In the classic case of exclusion by refusal to deal, *Lorain Journal v. United States*,⁴⁶ the Supreme Court again did not appear to require proof of anticompetitive effect. In that case, the sole newspaper in town refused to accept advertisements from businesses that also wished to advertise on WEOL, the town's new and only radio station.⁴⁷ Observing that Lorain Journal's "purpose and intent"⁴⁸ was "to destroy the broadcasting company"⁴⁹ by cutting off its advertising revenues, the Court held that the newspaper's "attempt to regain its monopoly . . . by forcing advertisers to boycott a competing radio station violated Section 2."⁵⁰ In its opinion, the Court did not discuss whether other advertising alternatives existed (which would constrain Lorain Journal's power to raise prices) or whether and how overall advertising output was affected, thus suggesting that anticompetitive effect was not an essential element of exclusionary conduct, or was simply assumed.⁵¹

very large, that dominant firms are capable of imposing substantial entry barriers, and that firms tend to function uncompetitively even at rather low industry concentration levels. See generally JOE S. BAIN, BARRIERS TO NEW COMPETITION: THEIR CHARACTER AND CONSEQUENCES IN MANUFACTURING INDUSTRIES 1-42 (1956); Joe S. Bain, *Economies of Scale, Concentration, and the Condition of Entry in Twenty Manufacturing Industries*, 44 AM. ECON. REV. 15 (1954); see also *Alcoa*, 148 F.2d at 427 (warning that "[m]any people believe that unchallenged economic power deadens initiative, discourages thrift and depresses energy").

45. See ANDREW I. GAVIL ET AL., ANTITRUST LAW IN PERSPECTIVE: CASES, CONCEPTS AND PROBLEMS IN COMPETITION POLICY 665-66 (2002). In addition to unilateral refusals to deal and predatory pricing, which are discussed *infra* Part I.B.2.a, other main types of exclusionary conduct include "exclusive dealing," and "tying" or "bundling." See POSNER, *supra* note 18, at 193-244. Exclusive dealing refers to agreements between a dominant firm and its supplier or customer that prevent the supplier or customer from doing business with the dominant firm's rivals. *Id.* at 229-32. Tying arrangements describe situations where firms with dominance in one market refuse to sell that (tying) product to buyers unless those buyers also buy a second (tied) product from them. *Id.* at 197-207. Closely related to tying is bundling, which is the sale of more than one product as a package. *Id.* at 234-36. Exclusive dealing and tying arrangements can satisfy the exclusionary conduct element of section 2 of the Sherman Act, and they can also be challenged under section 1 of the Sherman Act or section 3 of the Clayton Act, 15 U.S.C. §§ 1, 14 (2000). For a current case alleging monopolization through exclusive dealing and bundling, see *LePage's Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003).

46. 342 U.S. 143 (1951).

47. *Id.* at 148.

48. *Id.* at 149.

49. *Id.*

50. *Id.* at 152.

51. In fact, the Court even said that "it was not necessary to show that success rewarded" the Journal's actions to establish a section 2 violation. *Id.* at 153. Although *Lorain Journal* is probably the least controversial of the earlier monopolization cases, a few commentators have recently questioned whether the

In predatory pricing, another main category of exclusionary conduct, anticompetitive effect also did not seem to be required. Predatory pricing⁵² refers to the practice of dominant firms drastically cutting prices to expel a smaller competitor and then charging supracompetitive prices once the competitor is driven out.⁵³ The practice was traditionally seen as anticompetitive because consumers would be worse off in the long-run: temporary low prices would be followed by monopoly pricing once the predator's rival is expelled or relegated to the sidelines.⁵⁴ Courts tended, in the earlier years, to rely on intent to determine if the pricing strategy in question was competitive or predatory.⁵⁵ In the 1950s and 1960s, the doctrine was sometimes misapplied to prohibit legitimate price cuts from efficient firms that did not have monopoly power.⁵⁶

In these early years, except in the sliver of antitrust law where the per se rule applies,⁵⁷ motive and intent were the hallmarks of all antitrust cases.⁵⁸ In fact, until the Supreme Court handed down

newspaper's refusal to deal was truly anticompetitive. *See generally* John E. Lopatka & Andrew N. Kleit, *The Mystery of Lorain Journal and the Quest for Foreclosure in Antitrust*, 73 TEX. L. REV. 1255 (1995).

52. Predatory pricing can be challenged under both section 2 of the Sherman Act and section 2(a) of the Robinson-Patman Act, 15 U.S.C. § 21(a) (2000), which prohibits certain forms of price discrimination. Although the legal standards for the two sections are not identical, predatory pricing claims brought under the Robinson Patman Act are usually litigated, analyzed, and decided as though they were brought under section 2 of the Sherman Act. *See* A.A. Poultry Farms v. Rose Acre Farms, 881 F.2d 1396, 1399-1400 (7th Cir. 1989) ("Because this case was litigated as if the complaint had named [section] 2 of the Sherman Act . . . we start with the question whether the plaintiffs succeed under the Sherman Act's standard.").

53. *See* Terry Calvani & James M. Lynch, *Predatory Pricing Under the Robinson-Patman and Sherman Acts: An Introduction*, 51 ANTITRUST L.J. 375, 376 (1982).

54. *Id.*

55. *See, e.g.*, Utah Pie Co. v. Cont'l Baking Co., 386 U.S. 685 (1967).

56. *See id.* The misuse of predatory pricing doctrine led to skepticism about the courts' ability to distinguish predatory pricing from competitive pricing, and to the eventual conclusion that intent should be irrelevant in predation claims. *See* *Rose Acre Farms*, 881 F.2d at 1401-03 (holding that "intent is not a basis of liability . . . in a predatory pricing claim under the Sherman Act"); *Morgan v. Ponder*, 892 F.2d 1355, 1359 (8th Cir. 1989) ("This court has realized the futility in attempting to discern predatory conduct solely through evidence of a defendant's 'predatory intent.'"); *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 231-32 (1st Cir. 1983) (holding that intent is irrelevant in predatory pricing cases).

57. Per se illegality means that the conduct is conclusively presumed to be illegal, without regard to actual effects or to possible justifications in a particular case. The per se rule, today, is applied only to a very narrow range of conduct, such as horizontal price fixing. *See* *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 19-20 (1979) (limiting the application of the per se rule to practices "that would always or almost always tend to restrict competition and decrease output").

58. *See, e.g.*, *United States v. Griffith*, 334 U.S. 100, 106-07 (1948) (finding that power to exclude competitors, "coupled with the purpose or intent to exercise that power" would be sufficient to find a monopolization violation); *Am. Tobacco Co. v. United States*, 328 U.S. 781, 809-14 (1946) (stating that the possession of the power to exclude others, combined with the "intent and purpose" to exercise that power,

*Matsushita Electronics Industrial Co. v. Zenith Radio Corp.*⁵⁹ in 1986, summary judgment was infrequently granted in antitrust litigation precisely because intent evidence played a key role (and intent typically cannot be evaluated in summary procedures).⁶⁰

The emphasis on intent evidence in pre-1980 monopolization cases is evident from the frequent use of the words “purpose or intent”⁶¹ and “willful” (which suggests intent).⁶² The Supreme Court spoke of the defendant’s “intent and purpose” to improperly maintain its dominance in the oil industry in *Standard Oil Co. v. United States*⁶³ in 1911. In *American Tobacco* in 1946⁶⁴ and in *United States v. Griffith* in 1948, the Court said that the power to exclude competitors, “coupled with the purpose or intent to exercise that power,” was sufficient to find a monopolization violation.⁶⁵ In probably the most quoted formulation of monopolization, the Court in *United States v. Grinnell*⁶⁶ used the term “willful,”⁶⁷ which connotes intent. In predatory pricing cases in particular, intent evidence used to play a key role.⁶⁸

was sufficient to find monopolization); *Standard Oil Co. v. United States*, 221 U.S. 1, 75-77 (1911) (speaking of the defendant’s “purpose and intent” to maintain dominance in the oil industry “with the purpose of excluding others”); see also Hovenkamp, *Monopolization Offense*, *supra* note 6, at 1037-38 (noting, and criticizing, the historical role of intent in monopolization cases); Sullivan, *supra* note 6, at 587, 633 (stating, with approval, that in the earlier monopolization cases, “the courts placed as much emphasis on intent as on conduct; the offense was *willful* acquisition and maintenance of power”).

59. 475 U.S. 574 (1986).

60. See *Poller v. Columbia Broad. Sys.*, 368 U.S. 464, 473 (1962) (holding that: “summary procedures should be used sparingly in complex antitrust litigation where motive and intent play leading roles, the proof is largely in the hands of the alleged conspirators, and hostile witnesses thicken the plot. It is only when the witnesses are present and subject to cross-examination that their credibility and the weight to be given their testimony can be appraised”). But see Stephen Calkins, *Summary Judgment, Motions to Dismiss, and Other Examples of Equilibrating Tendencies in the Antitrust System*, 74 GEO. L.J. 1065, 1104, 1119-23 (citing data to conclude that, contrary to conventional wisdom and the suggestion of *Poller*, summary judgment was frequently granted in antitrust cases even prior to *Matsushita*).

61. See, e.g., *Griffith*, 334 U.S. at 106; *Am. Tobacco*, 328 U.S. at 809; *Standard Oil*, 221 U.S. at 75.

62. See *United States v. Grinnell*, 384 U.S. 563, 570-71 (1966) (stating that the elements of the offense of monopolization are the possession of monopoly power and the willful acquisition of that power).

63. 221 U.S. at 75.

64. 328 U.S. at 809.

65. 334 U.S. at 107.

66. 384 U.S. at 563.

67. *Id.* at 570-71.

68. See, e.g., *Utah Pie Co. v. Cont’l Baking Co.*, 386 U.S. 685, 697, 698 n.12 (1967) (listing predatory price discrimination cases that emphasized predatory intent); see also 3 AREEDA & HOVENKAMP, *supra* note 6, at ¶ 738 (discussing the use of intent evidence in older predatory pricing cases).

While intent evidence was not determinative of liability, older cases relied upon it to help “interpret facts and to predict consequences,”⁶⁹ and to distinguish between dominant firm conduct that was merely competitive (perhaps aggressively so) and conduct that was truly exclusionary.⁷⁰ The evidence was valued because facts and effects in complex antitrust cases are often ambiguous, and the line between exclusionary conduct and aggressive competition is hard to discern.⁷¹ Knowing *why* a dominant firm implemented an alleged exclusionary practice or what it wanted to accomplish aided in the assessment.⁷² The role of intent evidence became marginalized, however, when the Chicago school of antitrust analysis, which stresses a strict economic approach, emerged in the late 1970s and early 1980s.⁷³

B. The Chicago and Post-Chicago Schools’ Monopolization Paradigms

1. Differences and similarities between the two schools

The Chicago school rose to prominence presenting economic theories that dramatically changed antitrust policy.⁷⁴ On

69. See *Chi. Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918).

70. See, e.g., Sullivan, *supra* note 16, at 1229 (describing traditional antitrust law as “speak[ing] in terms of intent” and describing predation as “trying to inhibit others in ways independent of the predator’s own ability to perform effectively in the market”).

71. See *Chi. Bd. of Trade*, 246 U.S. at 238 (stating intent is important “not because a good intention will save an otherwise objectionable regulation or the reverse; but because knowledge of intent may help the court to interpret facts and to predict consequences.”).

72. Intent has different meanings. It can mean specific intent, which is acting with the purpose of causing the probable consequences of one’s actions, or general intent, which is the mere knowledge that such consequences will follow. See *United States v. United States Gypsum Co.*, 438 U.S. 422, 445 (1978) (explaining that the traditional definition of intent in criminal law distinguishes between consciously desiring a result and knowing a result will occur). It may also mean purpose or motive. As used in this Article, “intent” means defendant’s state of mind, or its motive (the desire/need that caused the dominant firm to act as it did) and/or its purpose (why the firm acted as it did and what it hoped to accomplish).

Knowing defendant’s intent may clarify otherwise ambiguous facts and effects. For example, if the dominant firm entered into restrictive exclusive arrangements with its suppliers because it wanted to improve its efficiency and sales (a procompetitive effect), we can infer that effect, even if the effect itself may be unclear. Conversely, if the restrictive practice was implemented simply to prevent its competitor from effective competition, by increasing the competitor’s costs and not by improving its own product (an anticompetitive effect), then that was likely the effect of the practice, for we assume that firms know best the economic realities of their market. See *infra* Part III.B (arguing that intent evidence is a helpful analytical tool).

73. See Waller, *supra* note 6, at 315 (“In the wake of the Chicago school onslaught, intent evidence in all areas of antitrust analysis has been devalued, and with it any interest in how business decision makers form their policies.”).

74. The Chicago school assumes that economic efficiency is the exclusive goal of antitrust law, and that neoclassical price theory is the best tool for measuring efficiency. See, e.g., Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L.

monopolization, Chicago scholars advocate a very permissive policy which tolerates almost all dominant firm conduct that excludes rivals, unless the conduct is shown to restrict output and cannot be justified as an attempt to better serve consumers.⁷⁵ This minimalist approach is due, in part, to the Chicago school's generally favorable view of monopolies and to its belief that the social cost of monopoly is slight.⁷⁶

The Chicago narrative of dominant firms tells the story of success won through hard competition, superior efficiencies and intelligence, and economies of scale.⁷⁷ It views all firms as profit maximizers⁷⁸ and almost all business practices, including seemingly dubious ones, as probably no more than novel efficient strategies⁷⁹ that courts and others simply do not understand.⁸⁰ And it argues that

REV. 213, 226 (1985) (describing the basic tenets of orthodox Chicago school antitrust policy). Since only practices that artificially restrict output are allocatively inefficient under price theory, it follows that, under Chicago theory, antitrust law should prohibit only those practices. See BORK, *supra* note 20, at 90-160 (articulating basic Chicago precepts). For extended expositions of the Chicago approach to antitrust, see generally Frank H. Easterbrook, *Workable Antitrust Policy*, 84 MICH. L. REV. 1696 (1986), POSNER, *supra* note 18, and Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 928 (1979) [hereinafter Posner, *Chicago School*].

75. See Eleanor M. Fox, *What is Harm to Competition? Exclusionary Practices and Anticompetitive Effect*, 70 ANTITRUST L.J. 371, 378 (2002) (describing the Chicago rule as one of: "non-intervention unless market conduct was provably inefficient, and 'inefficient' was to be given the following narrowest possible meaning: the conduct must confer market power that would be used to limit output of the product or service, and the conduct must not be justified as an attempt to serve the market").

76. See POSNER, *supra* note 18, at 17 n.12 (citing, but disputing, studies showing that the social costs of monopoly are minimal). Though a prominent Chicago school scholar and jurist, Posner disagrees with these studies. He believes that monopolies not based on efficiencies do carry significant social costs, but that there are very few such monopolies and that exclusionary conduct is, indeed, rare. *Id.* at 16-22.

77. See, e.g., BORK, *supra* note 20, at 178, 193-96 (expressing the theory that dominant firms that attained their size through internal growth had presumably succeeded through superior efficiencies or economies of scale).

78. *Id.* at 120; Posner, *Chicago School*, *supra* note 74, at 928, 931.

79. According to the Chicago school, there are only two avenues toward profit maximization: capturing more sales at the competitive price, or exercising monopoly power to limit output and raise prices above the competitive level. The strategies of all businesses, being rational profit maximizers, must therefore be seen as steps either toward efficiency (i.e., more sales) or toward monopoly. Because rational businesses know that monopoly is extremely difficult to attain or maintain, so the argument goes, most business conduct must be seen as strategies to enhance efficiency. See *Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 221 (D.C. Cir. 1986) (noting that if the agreement among Atlas Van Lines and its affiliates was not aimed towards creating a monopoly, it must have been designed to create more efficiency, as no third explanation existed).

80. See, e.g., Frank H. Easterbrook, *Does Antitrust Have a Competitive Advantage?*, 23 HARV. J.L. & PUB. POL'Y 5, 8 (2000) ("People are quick to condemn what they do not understand. Hasty or uninformed judgments may condemn novel practices just because of their novelty.").

constraining dominant firms' freedom to use so-called exclusionary business strategies deters efficiency, coddles inefficient competitors, and hurts consumers.⁸¹

In the Chicago model, markets are robust and contestable⁸² and will therefore "undercut successful monopolists and deter putative ones without the help of judges."⁸³ Further, economies of scale are substantial, and competitive markets require very few firms.⁸⁴ Accordingly, there is little to fear from dominant firms, even in concentrated markets. The Chicago model also assumes few, if any, non-government imposed barriers to entry;⁸⁵ therefore, it posits that even a monopolized market (which rarely occurs) will correct itself through new entry, or expanded production by existing market participants, without any antitrust intervention.⁸⁶

In contrast to their abiding faith in markets, Chicago school adherents have little confidence in the competence of the courts.⁸⁷ They contend that judges and juries often fail to appreciate the novelty of many beneficial business practices and, therefore, wrongly condemn them as anticompetitive.⁸⁸ Chicagoans also tend to view the costs of false positives (mistakenly barring a benign practice) as high

81. See BORK, *supra* note 20, at 137 (arguing that the results of exclusionary business practices are not only acceptable, they are desirable); David J. Teece & Mary Coleman, *The Meaning of Monopoly: Antitrust Analysis in High-Technology Industries*, 43 ANTITRUST BULL. 801, 843 (1998) (arguing for a non-intervention antitrust policy "absent unambiguous anticompetitive conduct" because antitrust action "might produce severe disincentive effects throughout the economy"). See generally Easterbrook, *supra* note 41, at 346 (arguing that, because of the benefits of aggressive competition and the difficulty of predicting when competition will become exclusionary, courts should be wary of finding antitrust violations).

82. For a succinct summary of the Chicago school's antitrust precepts, see Hovenkamp, *supra* note 74, at 226-33.

83. Frank H. Easterbrook, *Allocating Antitrust Decisionmaking Tasks*, 76 GEO. L.J. 305, 307 (1987); see also Hovenkamp, *supra* note 74, at 227 ("Monopoly, when it exists, tends to be self-correcting").

84. See BORK, *supra* note 20, at 179-91 (arguing that, even in an oligopoly, the dangers concomitant to monopoly are not present); John S. McGee, *Efficiency and Economies of Size*, in INDUSTRIAL CONCENTRATION: THE NEW LEARNING 55, 93 (Harvey J. Goldschmid et al. eds., 1974) (noting that, even in a new market with only two firms, competition will exist because the only way for either firm to profit is to offer the best terms).

85. See BORK, *supra* note 20, at 310-29 (contending that natural barriers to entry, as opposed to government imposed ones, do not prevent capital from flowing to profitable markets).

86. See Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2 (1984) (stating that such self correction is preferable to intervention by antitrust courts, which may foreclose practices that are potentially beneficial in the long run).

87. See, e.g., Easterbrook, *supra* note 41, at 349 (discussing his skepticism of judicial and administrative ability to "second-guess markets").

88. See, e.g., Easterbrook, *supra* note 80, at 8 (arguing that courts are an inappropriate forum to solve antitrust problems because courts must make decisions quickly even though it can take decades to fully understand the implications of a business practice).

and far worse than the costs of false negatives (mistakenly permitting an anticompetitive practice).⁸⁹

Given these assumptions and theories, Chicagoans are, unsurprisingly, highly skeptical of claims of exclusionary conduct.⁹⁰ The Chicago school postulates that business practices alleged to be exclusionary are more likely to be efficient practices that have been misunderstood.⁹¹ They could, for instance, be practices that prevent freeriding or save on transaction costs.⁹² Or they could simply reflect lawful profit maximization being taken by a monopolist.⁹³ Mistaking efficiency-neutral or competitive behavior for exclusionary conduct would, so Chicago theorists continue, chill competition and deter innovation.⁹⁴ Thus, Chicagoans believe that plaintiffs in monopolization cases must prove that a monopolist's alleged exclusionary conduct is economically inefficient,⁹⁵ and not merely

89. See Easterbrook, *supra* note 86, at 2 ("If the court errs by condemning a beneficial practice, the benefits may be lost for good. . . . If the court errs by permitting a deleterious practice, though, the welfare loss decreases over time. Monopoly is self-destructive. Monopoly prices eventually attract entry."); see also *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986) (remarking that mistaken conclusions about the anticompetitiveness of business conduct "are especially costly, because they chill the very conduct the antitrust laws are designed to protect"); *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398 (2004) (citing *Matsushita* language with approval).

90. See Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 *Nw. U. L. REV.* 281, 290 (1956) ("The economic teaching gives little support to the idea that the abuses create or extend monopoly."). Director and Levi are often credited with first articulating the basic principles of the Chicago school of antitrust analysis. See also BORK, *supra* note 20, at 309 (expressing the orthodox Chicago view that exclusion of competitors—without buying them or paying them off—is virtually impossible unless the monopolist is more efficient); Muris, *supra* note 19, at 693 (suggesting that exclusionary conduct happens only "[i]n rare circumstances"); POSNER, *supra* note 18, at 194 (stating that "documented cases of genuinely exclusionary practices are rare," but acknowledging that "they do exist").

91. See BORK, *supra* note 20, at 137 (asserting that antitrust law cannot distinguish exclusionary conduct from efficient conduct); Posner, *Chicago School*, *supra* note 74, at 926-33 (arguing that tying arrangements, resale price maintenance, and pricing below cost are not effective methods to monopolize).

92. See Posner, *Chicago School*, *supra* note 74, at 926-33 (citing Chicago studies and commenting on the specifics of Chicago theory and assumptions).

93. See Richard A. Posner, *Exclusionary Practices and the Antitrust Laws*, 41 *U. CHI. L. REV.* 506, 508 (1974) ("One of the achievements of the Chicago School has been to show that some practices thought to be exclusionary practices . . . really should be considered as monopoly profit maximization other than by collusion or exclusion").

94. See generally Easterbrook, *supra* note 41, at 346 (arguing that such results clearly harm consumers). Chicago school theorists typically see monopolies, even when they exist, as imposing very low social costs. See POSNER, *supra* note 18, at 17 n.12 (noting, but disagreeing with, a series of studies estimating that monopoly only costs society one-hundredth of a percent of the Gross National Product).

95. See John E. Lopatka & William H. Page, *Monopolization, Innovation, and Consumer Welfare*, 69 *GEO. WASH. L. REV.* 367, 388 (2001) (stating that "the plaintiff in a monopolization case ordinarily must come forward with evidence of actual consumer harm"). The Chicagoans define "consumer welfare" as the allocation of resources toward uses that are most valued by consumers, as measured by their

that it excluded a competitor from competing on the merits in order to gain or preserve its own dominance. Intent evidence is seen as having little or no value; it is “even more ambiguous than the economic data it seeks to illuminate.”⁹⁶

Much of the appeal of the Chicago school’s approach to antitrust is its clarity and simplicity.⁹⁷ But, ironically, these attractive attributes are also its weaknesses, for real world markets are usually messier than the models on which the Chicago theories are based.⁹⁸ Beginning in the 1980s, a group of economists and antitrust academics, dissatisfied with the over-simplicity of Chicago theories, began developing a new body of economic studies and literature.⁹⁹

willingness to pay. BORK, *supra* note 20, at 90-91. So defined, it is almost synonymous with “allocative efficiency,” which describes the market equilibrium that is reached when prices are set in a way that causes resources to flow to the uses that maximize output and wealth. Consequently, the Chicago school often uses the terms “consumer welfare” and “economic efficiency” interchangeably, and consumer harm would then mean inefficiency, or output reduction. See Joseph F. Brodley, *The Economic Goals of Antitrust: Efficiency, Consumer Welfare, and Technological Progress*, 62 N.Y.U. L. REV. 1020, 1032 (1987) (“The term consumer welfare is the most abused term in modern antitrust analysis. Sometimes consumer welfare is used as a synonym for economic efficiency. . . . Sometimes the term is used to refer to a particular consumer interest but without defining exactly what that might be.”); see also Wesley J. Liebeler, *What Are the Alternatives to Chicago?*, 1987 DUKE L.J. 879, 880 (stating that “consumer welfare standards . . . require us to ask in each case whether the challenged conduct creates or increases the ability to restrict output. If it does not, there is no antitrust violation.”).

96. *A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc.*, 881 F.2d 1396, 1402 (7th Cir. 1989); see also *supra* notes 2-6 and accompanying text (giving examples of courts’ and commentators’ dismissive treatment of intent evidence in modern antitrust law).

97. Even those most critical of the Chicago school acknowledge the clarity of its vision. See, e.g., Lawrence A. Sullivan, *Antitrust, Microeconomics, and Politics: Reflections on Some Recent Relationships*, 68 CAL. L. REV. 1, 9 (1980) (crediting Chicago’s success to its proponents’ ability to present a clear theory to judges and policymakers).

98. For example, the Chicago theory of market robustness is premised on various simple assumptions, such as few entry barriers and good information, but those assumptions are not usually correct in real markets. If markets are not as robust as Chicagoans assume, then strategic exclusionary behavior is more plausible. See, e.g., Jonathan B. Baker, *Recent Developments in Economics that Challenge Chicago School Views*, 58 ANTITRUST L.J. 645, 647-54 (1989) (discussing more complex economic developments that question Chicago school economics within the efficiency paradigm); Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals’ Costs to Achieve Power Over Price*, 96 YALE L.J. 209, 235-62 (1986) (illustrating how competitors may exclude their rivals by foreclosing supply or inducing collusion). For other critiques of Chicago theory, see generally Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985), Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards and Microsoft*, 7 GEO. MASON L. REV. 617 (1999), and Lawrence A. Sullivan, *Post-Chicago Economics: Economists, Lawyers, Judges, and Enforcement in a Less Determinate Theoretical World*, 63 ANTITRUST L.J. 669 (1995).

99. Post-Chicago economics is based on complex models that take into account market imperfections and strategic behavior, unlike Chicago economics, which is based on perfect competition and monopoly models. Under post-Chicago models, exclusionary and other anticompetitive conduct can be rational. See generally Baker, *supra* note 98 (presenting post-Chicago theories). For symposia scholarship on post-

Their scholarship, now known as the post-Chicago school, called into question many assumptions underlying Chicagoan theories and, hence, undermined their validity.¹⁰⁰

To oversimplify, post-Chicago economic studies show that market imperfections, such as information gaps, sunk costs, and network effects (or network externalities)¹⁰¹ are more pervasive than the Chicago model assumes.¹⁰² They theorize that dominant firms can strategically take advantage of the imperfections in order to create or enhance their market power.¹⁰³ In other words, real world markets are less robust and less contestable than Chicagoans imagine. Hence, strategic conduct—conduct that is profit maximizing due to its effect on competitors and not to its own efficiency¹⁰⁴—is quite plausible,¹⁰⁵ and business conduct considered efficient or benign under Chicago theory may, in fact, be exclusionary.¹⁰⁶

On the surface at least, despite their different perspectives on markets, judicial competence, and dominant firm behavior, the two

Chicago thought, see Symposium, *Post-Chicago Economics*, 63 ANTITRUST L.J. 445 (1995) and Symposium, *Post-Chicago Economics*, 65 CHI.-KENT L. REV. 1 (1989).

100. See, e.g., Jacobs, *supra* note 6, at 240-50 (discussing the post-Chicago challenge to Chicago theories).

101. See *infra* Part II.B (defining and discussing network effects).

102. See, e.g., Baker, *supra* note 98, at 651-52 (describing sunk costs and their effect on competition conditions); Kaplow, *supra* note 98, at 536-37 (“Markets do not always function in accordance with the textbook model of perfect competition, and the economic analysis of any situation must be adjusted accordingly. In fact, the whole of antitrust concerns the study of imperfect markets.”); David M. Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253, 256, 276-77 (1982) (showing that firms have imperfect information about markets, their competitors, and their options).

103. See, e.g., Janusz A. Ordover & Garth Saloner, *Predation, Monopolization, and Antitrust*, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 537, 538 (Richard Schmalensee & Robert D. Willig eds., 1989) (“Theoretical models studied here provide a guarded support for the proposition that strategic choices made by dominant firms are not invariably consistent with the objective of welfare-maximization and that some constraints on firm behavior may, in fact, increase welfare.”).

104. For a discussion of some exclusionary strategies, see MICHAEL PORTER, *COMPETITIVE ADVANTAGE* 210-12 (1985).

105. See Krattenmaker & Salop, *supra* note 98, at 213-14 (rejecting the Chicagoan view that exclusion claims are “chimerical” and explaining that, under certain conditions, dominant firms gain or protect their monopoly by entering into exclusionary contracts that raise the costs of their competitors’ inputs).

106. Oliver E. Williamson has written quite extensively on strategic behavior that the Chicago school considers benign or efficient. See, e.g., Oliver E. Williamson, *Antitrust Enforcement: Where It’s Been, Where It’s Going*, 27 ST. LOUIS U. L.J. 289, 314 (1983) (discussing a firm’s incentive to engage in predation and other strategic conduct issues); Oliver E. Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519, 536-37 (1983) (showing that some nonstandard contracting practices should not be assumed efficient); Oliver E. Williamson, *Predatory Pricing: A Strategic and Welfare Analysis*, 87 YALE L.J. 284, 286 (1977) (presenting a strategic analysis of predatory pricing).

schools have much in common. Both are committed to efficiency as the exclusive goal of antitrust law,¹⁰⁷ and both agree that only acts with anticompetitive effects should be considered exclusionary.¹⁰⁸ And, post-Chicagoans seemingly share the Chicago view that intent evidence should largely be irrelevant in antitrust analysis.¹⁰⁹ However, I argue below that intent actually complements post-Chicago analysis and makes it more accessible.

2. *Post-Chicago analysis and intent evidence*

As earlier mentioned, intent evidence has almost no place in the Chicago mode of antitrust analysis.¹¹⁰ Given Chicagoans' insistence that antitrust law should be or "has become . . . a branch of economics,"¹¹¹ and the lack of any economic methodology for evaluating intent, this treatment of intent is unsurprising. According to Judge Frank Easterbrook of the Seventh Circuit, a staunch Chicagoan, "[i]ntent does not help to separate competition from attempted monopolization and invites juries to penalize hard competition."¹¹² And he suggests that "[s]tripping intent away brings the real economic questions to the fore at the same time as it streamlines antitrust litigation."¹¹³

While post-Chicagoans may not be as skeptical of exclusionary claims or of judicial competence, they evidently share the Chicago view that only economics matters in antitrust.¹¹⁴ Therefore, any suggestion that intent evidence plays, or should play, an important role in post-Chicago analysis of monopolization may initially seem incongruous. Yet, a closer examination reveals that such a suggestion

107. See Baker, *supra* note 98, at 646 (discussing Chicagoans' and post-Chicagoans' common ground); Jacobs, *supra* note 6, at 222-24 (noting that Chicagoans and post-Chicagoans agree on many fundamental antitrust principles but disagree as to how the market truly works and how to best enforce antitrust laws).

108. See, e.g., John E. Lopatka, *Exclusion Now and in the Future: Examining Chicago School Orthodoxy*, 17 *Miss. C.L. Rev.* 27, 33 (1997) (asserting that most Chicagoans and post-Chicagoans share the view that "only those instances that have anticompetitive effects" are exclusionary).

109. See Jacobs, *supra* note 6, at 258 (observing that "both schools relegate the issue of anticompetitive intent to a minor role in antitrust doctrine"); Waller, *supra* note 6, at 304-10, 334 (suggesting that even post-Chicago discourse is limited to economics and pleading for the inclusion of business theory in antitrust analysis). At the very least, no post-Chicago scholar has taken the issue of intent evidence to the forefront to discuss its relevance or importance.

110. See *supra* notes 2-6 and accompanying text.

111. Easterbrook, *supra* note 83, at 305.

112. *A.A. Poultry Farms v. Rose Acre Farms*, 881 F.2d 1396, 1402 (7th Cir. 1989); see also *supra* notes 2-6 and accompanying text (collecting commentary that argues against the use of intent evidence in antitrust cases).

113. *Rose Acre Farms*, 881 F.2d at 1402.

114. See *supra* notes 107-09 and accompanying text (explaining that both schools focus on anticompetitive effects in their analyses).

may not be out of place. Although it may be unacknowledged, intent evidence is actually important to effectual post-Chicago analysis, as the following discussion of two main post-Chicago theories—game theory and “raising rivals’ costs”—illustrates.

a. Game theory and predatory pricing

In recent years, post-Chicagoans have applied game theory and other theoretic models in an attempt to resuscitate the traditional view of predatory pricing as an effective exclusionary tool¹¹⁵—a view that the Chicago school had earlier demolished.¹¹⁶ Orthodox Chicago theory holds that predatory pricing is irrational and, therefore, virtually never happens.¹¹⁷ Under the Chicago model, predatory pricing is doomed to fail because the predator has to take staggering losses at the outset and must recoup its losses once the victim is eliminated.¹¹⁸ However, the predator will generally not

115. See, e.g., JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* 361-88 (1988) (demonstrating, under game theory, that predatory pricing could be rational and that, even if prices are set above average costs, it has the potential of excluding equally efficient competitors); see also Janusz A. Ordover, *Predatory Pricing*, in *THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW* 77, 79 (Peter Newman ed., 1998) (describing predatory pricing, in broad terms, as forgoing competitive profits in order to limit future competition either by forcing a rival’s exit or by excluding a potential rival); Patrick Bolton et al., *Predatory Pricing: Strategic Theory and Legal Policy*, 88 *GEO L.J.* 2239, 2241 (2000) (highlighting the possibility of predatory pricing as an instrument of abuse); Aaron Edlin, *Stopping Above-Cost Predatory Pricing*, 111 *YALE L.J.* 941, 955 (2004) (arguing that above-cost pricing can be anticompetitive when incumbent monopolists have significant cost and non-cost advantages); Alvin Klevorick, *The Current State of the Law and Economics of Predatory Pricing*, 83 *AM. ECON. REV. PAPERS & PROC.* 162, 165-66 (1993) (urging the judiciary to incorporate new market-organization models into the law on predatory pricing and to articulate a test “in the context of situations where one believes predation may be rational for the predator”).

116. See *infra* notes 117-20 and accompanying text (explaining why Chicagoans reject predatory pricing as a plausible tool for exclusion).

117. The Chicago school literature on predatory pricing is greatly influenced by the work of John McGee, who wrote in 1958 that predatory pricing was not rational behavior because it was cheaper to monopolize by buying, rather than underselling, a competitor. See John S. McGee, *Predatory Price Cutting: The Standard Oil (NJ) Case*, 1 *J.L. & ECON.* 137, 143 (1958) (arguing that Standard Oil dominated the market by buying out competitors at or above market prices); see also BORK, *supra* note 20, at 144-54 (arguing that predatory pricing is generally implausible); Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 *U. CHI. L. REV.* 263, 268 (1981) (concluding that courts need not take predation seriously because every possible predatory strategy, though superficially plausible, is unrealistic because of the risks faced by the predator and the responses available to rivals). Posner, however, disagrees with this orthodox view. He views predatory pricing as “more likely to be genuinely exclusionary than tying,” and he recognizes that predatory pricing in one market to deter entry in other markets can be a profitable strategy. POSNER, *supra* note 18, at 207-10. He also acknowledges that, under limited conditions, it may be an effective strategy for a monopolist to price below cost to gain a reputation for predation, so as to deter entry from potential rivals. *Id.* at 211-13.

118. See *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 589-90

succeed at recoupment because, once it attempts to raise prices after the victim is forced out, the victim will return or new entrants will enter the market, pushing prices back to the competitive level.¹¹⁹ Chicagoans argue that because predatory pricing practices are implausible, they are “rarely tried, and even more rarely successful.”¹²⁰

Reflecting this view, Phillip Areeda and Donald Turner proposed a bright-line, cost-based, benchmark.¹²¹ Under this test, sales below average variable costs would be considered predatory, but sales above that cost level would not.¹²² Other scholars, even more skeptical of predatory pricing claims, insist on additional proof that the alleged predator has a high probability of recouping its losses.¹²³ In 1993, the cost/recoupment camp scored a decisive victory when the Supreme Court adopted its strict test in the famous *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.* case.¹²⁴ Quite recently, in *United States v. AMR Corp.*,¹²⁵ the Department of Justice lost the first predatory pricing case it had brought in many years because it was unable to satisfy *Brooke Group* and show that American Airlines had set price below cost in its successful effort to drive out low-cost airlines at its Dallas-Fort Worth hub.¹²⁶

Post-Chicago literature has raised serious questions about the *Brooke Group* premise that predatory pricing is implausible.¹²⁷ In

(1986) (asserting that a predatory scheme can only be successful if the predator is able to maintain monopoly power long enough to recoup its losses and gain additional profits); *see also* *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 226-27 (1993) (reiterating that predatory pricing schemes rarely occur because they do not tend to be successful).

119. *See Brooke Group*, 509 U.S. at 225-26 (discussing the difficulty of recoupment); *Matsushita*, 475 U.S. at 589-90 (explaining that recoupment is very difficult because of “quick entry by new competitors”).

120. *Matsushita*, 475 U.S. at 589.

121. Phillip Areeda & Donald F. Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697, 697 (1975).

122. Areeda and Turner actually thought that short-run marginal cost was the better measurement but, because computing marginal cost is extremely difficult, they proposed average variable cost as a surrogate. *Id.* at 716-18.

123. *See, e.g.*, Paul L. Joskow & Alvin K. Klevorick, *A Framework for Analyzing Predatory Pricing*, 89 YALE L.J. 213, 217 (1979) (introducing various approaches and schools of thought for understanding the rules and standards involved in predatory pricing cases).

124. 509 U.S. 209, 222-25 (1993) (requiring plaintiffs in predatory pricing cases to show that a competitor set prices below an “appropriate measure” of costs and had a “dangerous probability” of recouping its losses when predation ended).

125. 335 F.3d 1109 (10th Cir. 2003). For an excellent critique of *AMR*, *see generally* Edlin, *supra* note 115, at 983-87.

126. *AMR*, 335 F.3d at 1120-21. In fact, no plaintiff has won a single predatory pricing case since *Brooke Group*. *See* Edlin, *supra* note 115, at 941 (noting that the 1993 *AMR* decision was a success for the Chicago school of thought but actually a sad day for consumers, well-functioning markets, and antitrust law).

127. *See, e.g.*, Paul Milgrom & John Roberts, *New Theories of Predatory Pricing*, in *INDUSTRIAL STRUCTURE IN THE NEW INDUSTRIAL ECONOMICS* 112-37 (Giacomo Bonanno

particular, some commentators have applied game theory¹²⁸ to explain why Chicago principles on price predation are not always correct—i.e., price predation is sometimes rational and, therefore, not necessarily rare.¹²⁹ Game theory refers to strategic behavior in small groups of mutually dependent competitors.¹³⁰ It explains that a player, seeking to maximize her utility, will decide on her move based on her perception of other players' reaction to her move, and the other players' reaction is in turn based on their perception of the first player's probable reaction.¹³¹

Applying it to predatory pricing, game theory suggests that predatory pricing is a plausible and effective strategy if a dominant

& Dario Brandolini eds., 1990) (examining new theories of predatory pricing that show the practice can be an effective exclusionary device); Bolton et al., *supra* note 115, at 2241 (observing that modern economic theories and recent empirical case studies have revealed that predatory pricing can be a successful, rational, and fully accepted business strategy, though courts continue to adhere to older and more outdated theories). It should be noted that Posner, unlike most Chicagoans, does not subscribe to the view that predatory pricing is implausible. In the new edition of his classic book, *ANTITRUST LAW*, Posner acknowledges that recent scholarship has shown that predatory pricing may be more plausible in some circumstances than current case law recognizes. See POSNER, *supra* note 18, at 207-23 (describing a few situations where predatory pricing can be effective).

128. For general literature on game theory and antitrust law, see Dennis W. Carlton et al., *Communication Among Competitors: Game Theory and Antitrust*, 5 GEO. MASON L. REV. 422, 425 (1997) (describing the use of game theory to analyze how communication may affect market outcomes); John Cirace, *A Game Theoretic Analysis of Contribution and Claim Reduction in Antitrust Treble Damage Suits*, 55 ST. JOHN'S L. REV. 42, 44-45 (1980) (analyzing, under game theory, incentive resulting from antitrust defendants' right of contribution); Joseph Kattan & William R. Vigdor, *Game Theory and the Analysis of Collusion in Conspiracy and Merger Cases*, 5 GEO. MASON L. REV. 441, 453 (1997) (arguing that conduct that increases the "likelihood of an anticompetitive outcome is also fully consistent with vigorous competition"); Bruce H. Kobayashi, *Game Theory and Antitrust: A Post-Mortem*, 5 GEO. MASON L. REV. 411, 411 (1997) (suggesting that game theory will continue to have minimal impact on the application of antitrust law); Willard K. Tom, *Game Theory in the Everyday Life of the Antitrust Practitioner*, 5 GEO. MASON L. REV. 457, 458-64 (1997) (analyzing oligopolistic coordination and mergers under game theory).

129. See, e.g., DOUGLAS G. BAIRD ET AL., *GAME THEORY AND THE LAW* 180-86 (1994) (analyzing the interplay between reputation, predation, and cooperation with respect to market entrants and incumbents and the rationality behind this type of economic model); Bolton et al., *supra* note 115, at 2248 (suggesting that predatory pricing is especially significant in rapidly growing high-tech industries that involve innovation and intellectual property); Milgrom & Roberts, *supra* note 127, at 112-37 (arguing, based on new competition policy literature and economic theory, that predatory pricing is a logical exclusionary device); Ordovery & Saloner, *supra* note 103, at 538 (noting that predatory strategies are in fact used, and that limitations on such strategies could prove welfare-maximizing).

130. See, e.g., Kattan & Vigdor, *supra* note 128, at 444-51 (describing game theory as an attempt to understand an oligopolistic market structure wherein firms behave noncooperatively but are nonetheless tied because they influence one another's conduct and the overall market outcome).

131. For a clear introduction to game theory, see BAIRD ET AL., *supra* note 129, at 165-78, which explains the basic game theory principles in the context of indefinitely repeated games, tacit collusion, and folk theorems.

firm creates a reputation for irrationality by its price responses against a few select rivals, causing other rivals to refrain from aggressive competition for fear of becoming the next victim.¹³² Game theoretic studies show that, under some circumstances, the dominant firm can exclude (or deter) equally efficient rivals from the market by setting prices that are *above* average variable costs.¹³³ Of course, for the theory to apply, the specified conditions must be present. The predator has to take pricing strategies that are seemingly irrational to reasonable rivals; the potential rivals have to believe that the predator is acting irrationally, and they have to be deterred from entering the market, which then allows the predator to rather cheaply maintain its monopoly position through a reputation for predation.¹³⁴

The practical problems involved in an application of this theory to predatory pricing claims are quite obvious.¹³⁵ It is hard to see how a game theoretic analysis can be applied in any case just by factoring in structural conditions, without taking into consideration evidence of the alleged predator's intent. Furthermore, while game theory may show, for example, an above-cost strategy to be possibly anticompetitive, it cannot refute alternative and efficient explanations for the pricing decisions.¹³⁶ And it is hard to draw any conclusions as to which explanation is the more likely one without some examination of the defendant's (and its competitors') purpose and intent. So, in reality, the post-Chicago school has to embrace intent evidence if it is to advance game theory beyond the realm of theory to practice. At the very least, an intent inquiry would be a very helpful way to choose between competing alternative stories.

132. See Baker, *supra* note 98, at 649 ("When a firm predaes against a few rivals, it can create a reputation for irrationality. Other rivals who have not experienced predatory competition will now reasonably fear that if they compete strongly against the crazy firm, it will turn and predate against them. So they back off.")

133. See, e.g., TIROLE, *supra* note 115, at 361-88 (discussing the Milgrom-Roberts model that demonstrates that predatory pricing can be effective both above and below the cost line because such pricing schemes can influence a victim's reaction by affecting the victim's views on the predator's future profitability).

134. See *id.* at 368-80 (demonstrating, through economic analysis of limit pricing and its relevance to predation, the process by which firms can successfully employ predatory pricing schemes to dominate a market).

135. Perhaps as a result of these practical problems, post-Chicago theories of predatory pricing have had little, if any, influence on the courts. See Bolton et al., *supra* note 115, at 2271-74.

136. See Edward A. Snyder & Thomas E. Kauper, *Misuse of the Antitrust Laws: The Competitor Plaintiff*, 90 MICH. L. REV. 551, 589 (1991) (observing that business practices found competitively harmful under price theory could be equally likely, *ex ante*, to have pro-competitive effects such as efficiency advantages).

b. Theory of raising rivals' costs and exclusionary conduct

“Raising rivals’ costs” (RRC),¹³⁷ probably one of the most influential post-Chicago theories on exclusionary conduct, raises many nuances that are well-served by considering intent. The theory, pioneered by Professors Thomas Krattenmaker and Steven Salop, postulates that, under specific conditions, firms can create or maintain dominance by engaging in strategies that raise their competitors’ costs.¹³⁸ That can be accomplished through tying arrangements, exclusive dealing, unilateral refusals to deal, or other practices historically deemed exclusionary but which the Chicago school usually considers harmless.¹³⁹ In essence, RRC rebuts the Chicago argument that exclusionary conduct is virtually non-existent or very rare, by providing plausible anticompetitive explanations for the conduct.¹⁴⁰

Without delving into the specifics,¹⁴¹ Chicagoans mainly believe that exclusive dealing and tying are rarely exclusionary because the

137. See generally Hovenkamp, *supra* note 74, at 274-80 (summarizing and discussing earlier scholarship on RRC).

138. Krattenmaker & Salop, *supra* note 98, at 213-14 (writing that “in carefully defined circumstances, certain firms can attain monopoly power by making arrangements with their suppliers that place their competitors at a cost disadvantage”).

139. See *id.* at 228, 230-49 (explaining that exclusive dealing, tying, and refusals to deal involve “exclusionary rights” and that dealing in exclusionary rights can raise rivals’ costs).

The traditional objections to tying (firms with dominance in one market agreeing to sell only to buyers who buy a second product from them) are that it prevents competition on the merits in the second market and allows a monopolist in the first market to leverage its power in that market to gain dominance in a second market. See, e.g., *Fortner Enters., Inc. v. United States Steel Corp.*, 394 U.S. 495, 508 (1969) (stating that “the seller can use his power over the tying product to win customers that would otherwise have constituted a market available to competing producers of the tied product.”); *N. Pac. Ry. v. United States*, 356 U.S. 1, 6 (1958) (stating that tying agreements are anticompetitive in that they deny competitors free access to the tied market solely because of defendant’s market power in the tying market, and not because of higher quality or lower prices in the defendant’s tied product); *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 611 (1953) (stating “the essence of illegality in tying agreements is the wielding of monopoly leverage; a seller exploits his dominant position in one market to expand his empire into the next.”). Exclusive dealing was seen as potentially anticompetitive because it foreclosed a dominant firm’s rivals from competing for the business of the dominant firm’s customers (or for supplies from the firm’s suppliers). An early case involving exclusive dealing claims is *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293 (1949).

140. See Krattenmaker & Salop, *supra* note 98, at 230-48 (identifying four distinct methods by which a predator can raise rivals’ costs and thereby achieve anticompetitive effects—two through direct foreclosure and two through tacit or express collusion).

141. There is a large body of Chicago literature criticizing the traditional analysis of different forms of alleged exclusionary conduct, and I will not detail the critique here. For full treatment of these criticisms, see generally BORK, *supra* note 20, Easterbrook, *supra* note 86, and POSNER, *supra* note 18.

dominant firm's competitors are free to compete for the arrangements.¹⁴² Furthermore, according to the Chicago school, the arrangements are not effective methods to monopolize and, therefore, are most likely efficient practices, or dominant firms would not have entered into them in the first place.¹⁴³ A similar logic underlies the Chicago argument that unilateral refusals are highly unlikely to be exclusionary. Firms with whom dominant firms have refused to deal, assuming they are efficient, should be able to find other sources of input and, therefore, the refusals are harmless.¹⁴⁴ Furthermore, there are probably efficiency reasons for the dominant firm's refusal to deal, because no rational firm would refuse to deal with another unless it were inefficient to do so.¹⁴⁵

The theory of RRC posits that a strategy of raising a competitor's costs *can* be an effective means for dominant firms to exercise monopoly power under certain conditions.¹⁴⁶ For example, a dominant firm's exclusive dealings with its suppliers may mean that its competitors will have to buy costlier and/or inferior inputs. This, in turn, limits the competitors' ability to compete effectively and thus allows dominant firms to exercise monopoly power over price.¹⁴⁷

142. For Chicago literature challenging the traditional theories underlying the tying doctrine, see BORK, *supra* note 20, at 372-74, 380-81 (discrediting the traditional theory of tying arrangements); Kaplow, *supra* note 98, at 517-20; Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 19 (1957); POSNER, *supra* note 18, at 197-207 (contending that tying arrangements are rarely exclusionary).

143. The usual justifications offered for tying arrangements are increased efficiency in marketing and in distributing the tied product; quality control; price-discrimination; and inducing innovation by increasing the dominant firm's return. See Warren S. Grimes, *Antitrust Tie-In Analysis After Kodak: Understanding the Role of Market Imperfections*, 62 ANTITRUST L.J. 263, 284-92 (1994) (offering procompetitive explanations for tying arrangements and noting that the increased efficiency that may result from bundled marketing of complementary products is undisputed).

144. See, e.g., Hovenkamp, *Monopolization Offense*, *supra* note 6, at 1044 (arguing that prohibiting unilateral refusals to deal by dominant firms create perverse incentives—the dominant firm's rivals “have no incentive to find or develop alternative sources” of supply).

145. See Krattenmaker & Salop, *supra* note 98, at 219 (summarizing Chicago criticism of exclusionary claims).

146. *Id.* at 223-24, 242-49 (explaining when raising rivals' costs may allow a firm to gain power over price and when it may not).

147. *Id.* at 234. Literature on this thesis is extensive. For a partial listing, see Herbert Hovenkamp, *Antitrust Policy, Restricted Distribution, and the Market for Exclusionary Rights*, 71 MINN. L. REV. 1293, 1293 n.2 (1987).

Other post-Chicago theories have also been used to rebut the Chicago argument that exclusive dealing and tying are rarely exclusionary. See, e.g., Joseph F. Brodley & Ching-to Ma, *Contract Penalties, Monopolizing Strategies, and Antitrust Policy*, 45 STAN. L. REV. 1161, 1163 (1993) (applying game theory to argue that, contrary to Chicago thinking, long-term exclusive dealings can lead to “reduced output, diminished return to innovation and new entry, and enhanced profit for the monopolist” in certain circumstances); Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 837 (1990) (arguing that market imperfections can make tying a

Similarly, tying can be an effective RRC strategy where scale economies are large in the tied market.¹⁴⁸ To illustrate, if the dominant firm in the tying market can, through tying, foreclose a large percentage of a tied market which has large economies of scale, the per unit cost of production for its competitors in the tied market may rise substantially (because they will be operating below optimal scale).¹⁴⁹ This would then give the dominant firm room to raise prices in the tied market.¹⁵⁰

RRC essentially adds an important dimension to the identification of exclusionary conduct by presenting a hypothesis of anticompetitive harm. It shows that, under the conditions in the model, the dominant firm's exclusionary action might be anticompetitive. But RRC does not disprove possible efficiency explanations for the conduct, which often exist in exclusive dealings, tying arrangements, and other vertical relationships. Knowing the dominant firm's purpose would help the fact-finder determine the applicability of RRC in a given case. Thus, RRC benefits from the consideration of intent.

For example, if the dominant firm appears to have engaged in a strategy in order to raise its rivals' costs (and not to improve its own product or efficiency), then the RRC model is probably applicable. However, if corporate statements or documents show that the strategy was intended to help the dominant firm compete more effectively in the marketplace, the anticompetitive outcome hypothesized by RRC may not be correct (even if the strategy did raise its rival's costs), because the dominant firm's purpose suggests that the practice may have substantial pro-competitive effects. Thus, intent is probative in the application of RRC.

To conclude, without suggesting that post-Chicago models are any less economic or rigorous than their Chicago counterpart, post-

profitable anticompetitive strategy).

148. See Whinston, *supra* note 147, at 838 (showing that where scale economies in a tied market are large relative to total market output, an entrant to that market must attain sufficient scale to survive, and that tying by the dominant firm can make that impossible). In every market, there is an optimal economy of scale, which is the level of output at which the average cost of production is lowest. To operate efficiently, a firm obviously has to produce at or close to that optimal level.

149. *Id.* at 838-40; see also Krattenmaker & Salop, *supra* note 98, at 215-19, 234-48 (explaining how ties can raise costs).

150. For other post-Chicago theories on tying, see generally DENNIS W. CARLTON & MICHAEL WALDMAN, THE STRATEGIC USE OF TYING TO PRESERVE AND CREATE MONOPOLY POWER IN EVOLVING INDUSTRIES (Nat'l Bureau of Econ. Research, Working Paper No. 6831, 1998), which shows, through its model, that anticompetitive tying could occur where network effects are present and where the complementary (tied) good might become a substitute to the primary good in the future), available at <http://www.nber.org/papers/w6831>.

Chicago analysis would benefit greatly from the consideration of intent. Given the complexities and many nuances of post-Chicago theories, intent evidence would complement expert testimony offered on these theories, making their practical application more feasible.

II. THE INADEQUACY OF PURE ECONOMIC EFFECTS ANALYSIS

Defining exclusionary conduct based solely on empirical data and economic theory would be workable (assuming one is committed to a pure efficiency criterion to begin with) only if these tools can reliably demonstrate which alleged exclusionary practices are inefficient and which are not. The reality is that they usually cannot.¹⁵¹ Even an unadulterated output test preferred by the Chicago school is determinate and valuable only if we have good data on overall output and can quantify the output decline caused by the alleged exclusionary conduct, taking care to segregate and exclude any changes caused by external factors. As even committed Chicagoans acknowledge, such data is generally unavailable or is too costly to obtain and process, which limits the usefulness of these “simple” tests.¹⁵² Furthermore, most Chicagoans concede that their elegant models have serious limitations in application to complicated new economy (or high technology) markets.¹⁵³

As the following discussion shows, post-Chicago models, while more realistic, are very complicated and relatively indeterminate. Their indeterminacy is further enhanced in new economy markets—where reduced innovation is the feared anticompetitive effect—because harm to innovation is typically hard to predict, especially in markets where substantial “network effects”¹⁵⁴ are present.

Finally, even the much discussed “sacrifice test,” which could provide a determinate outcome, is unsatisfactory because exclusionary conduct does not necessarily entail sacrifice of profits.¹⁵⁵

151. See Jacobs, *supra* note 6, at 258 (discussing the indeterminacy of both the Chicago and post-Chicago theories of antitrust analysis).

152. See Lopatka, *supra* note 108, at 33 (“Simple tests—for instance, whether output declined because of a challenged restriction—are unlikely to be useful for lack of data. At least, the costs of obtaining, processing, and interpreting the data necessary for conclusive determination of a practice’s effects are apt to be high.”).

153. See POSNER, *supra* note 18, at 250 (noting the problem of network effects and related issues of path dependence in new economy markets, which make those markets resistant to substitutes even if the substitutes are superior).

154. See *infra* Part II.B (detailing the difficulties in using economic tools to predict effects on innovative markets characterized by network effects and demonstrating these difficulties through the *Microsoft* case).

155. See *infra* Part II.C.

And, if “sacrifice” is not treated as a necessary condition for monopolization conduct, as I believe it should not, then the test would not really be determinate.

A. *The Indeterminacy of Post-Chicago Effects Analysis Even in Traditional Markets*

Ironically, post-Chicago scholarship, which seeks to improve the functionality of economic analysis, actually highlights the fact that economic theory and reasoning provide merely an illusion of certainty. Post-Chicago models essentially lay out sets of rather easily identifiable conditions, the presence of which would imply potential anticompetitive effects.¹⁵⁶ In effect, the models present reasonable hypotheses of anticompetitive harm, under specific sets of assumptions. But post-Chicago economic analysis is far from determinate, and empirical work is insufficiently developed to answer critical questions bearing on antitrust liability.¹⁵⁷

Some of that ambiguity has already been raised in the earlier discussion of game theory and RRC.¹⁵⁸ In game theory, in particular, minor variations in assumptions about small group dynamics and the settings in which the dominant firm acts can change the results.¹⁵⁹ But even application of everyday post-Chicago concepts, such as market imperfections in traditional markets, can yield ambiguous effects, as the 1992 *Eastman Kodak*¹⁶⁰ case illustrates.

Generally considered the primary (and first) post-Chicago triumph before the Supreme Court, the case involves a claim that Kodak, a non-dominant copier manufacturer which also controlled the market for replacement parts for its machines, excluded its competitors in the repair service market by cutting off their access to replacement parts.¹⁶¹ In affirming that summary judgment should not have been granted for Kodak, the Supreme Court rejected Kodak’s economic argument that, without dominance in the primary (equipment) market, it could not possibly exercise power to raise prices in the aftermarket (parts and service).¹⁶² Kodak’s theory was that buyers will factor into their equipment buying decision high aftermarket

156. See *supra* Part I.B.2.

157. See Timothy J. Brennan, *Do Easy Cases Make Bad Law? Antitrust Innovations or Missed Opportunities in United States v. Microsoft*, 69 GEO. WASH. L. REV. 1042, 1090-93 (2001).

158. See *supra* Part I.B.2.

159. See Brennan, *supra* note 157, at 1054-56.

160. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).

161. See *id.* at 455.

162. See *id.* at 477-78 (concluding that Kodak failed to show that respondents’ inference of market power was unreasonable as a matter of law).

prices and, therefore, a competitive primary market will constrain Kodak's ability to wield power in the aftermarkets, regardless of its market shares in those markets.¹⁶³

Relying on post-Chicago thinking on market imperfections such as information gaps, customer "lock-in," and switching costs,¹⁶⁴ Kodak's competitors in the service market (the independent service organizations or ISOs) argued that Kodak's exclusion of them from the service market, through tying and/or unilateral refusals to deal, could be anticompetitive despite Kodak's lack of monopoly power in the equipment market.¹⁶⁵ In agreeing with the ISOs,¹⁶⁶ the Supreme Court is widely assumed to have adopted post-Chicago perspectives.¹⁶⁷

If this interpretation of *Eastman Kodak* is correct,¹⁶⁸ the case highlights the indeterminacy of post-Chicago analysis. Essentially, post-Chicago theory hypothesized that, where lock-in, high switching costs, and customers' lack of information about life-cycle costs are present, tying and refusals to deal by a firm without dominance in the primary market may, nonetheless, be anticompetitive. But these conditions are not uncommon in normal economic life: consumers often suffer from some information gaps, as Justice Scalia pointed out in dissent,¹⁶⁹ and some lock-in and switching costs are inevitably present whenever one purchases a single-brand primary product.¹⁷⁰ It would be a reach to contend that every act by a brand manufacturer of durable goods to control its distinctive parts necessarily results in

163. See *id.* at 465-66 (arguing that competition exists in the equipment market and that Kodak therefore cannot exercise market power in the parts market).

164. See *id.* at 472-73 (summarizing Kodak's restrictive sales policy and its effects).

165. See *id.* at 464-65 (providing actual evidence of Kodak's market power in the parts market).

166. *Id.* at 473-77 (accepting the ISOs' argument that information gaps and switching costs could allow Kodak to raise prices in the aftermarkets even though it had no market power in the primary market). For a critique of the decision, see Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak*, 63 ANTITRUST L.J. 483, 485 (1995), who argues that long-term consumer injury from monopolized aftermarkets will likely be rare, particularly if equipment markets remain competitive.

167. See *Eastman Kodak*, 504 U.S. at 473 n.19, 476 n.22 (citing with approval three articles written by Professor Steven Salop, a leading post-Chicago scholar).

168. See Eleanor M. Fox, *Eastman Kodak Company v. Image Technical Services, Inc.—Information Failure as Soul or Hook?*, 62 ANTITRUST L.J. 759, 760 (1994) (disagreeing with the interpretation that post-Chicago economics explained the Supreme Court decision and asserting, instead, that the case reflected the Court's concern with "the right of well-performing firms, valued by customers, not to be cut out of markets by a firm with power").

169. See *Eastman Kodak*, 504 U.S. at 496 (Scalia, J., dissenting) (noting that gaps in the availability and quality of consumer information pervade real-world markets).

170. See *id.* at 496-97 (agreeing with the majority's point that consumers will tolerate some level of service price increases before changing equipment brands, but contending that this tolerance is commonplace in smoothly functioning, competitive markets and is of no concern to antitrust laws).

efficiency loss. The effects are simply not always knowable. In the end, the Court seemed to have assumed anticompetitive effect from the absence of “valid business reasons.”¹⁷¹

Examining “valid business reasons” means, in essence, looking to Kodak’s intent and purpose for the practice. Kodak had asserted that it ceased supplying parts to the ISOs to protect its own good will, which could be hurt by the ISOs’ poor repair service.¹⁷² Another reason Kodak offered was that it had to control its inventory costs.¹⁷³ Post-Chicago theories of market imperfections cannot possibly help with an evaluation of these proffered justifications. Ultimately, the question of whether a jury could consider the reasons pretextual depends on the relative plausibility of both sides’ competing stories, which, the Court correctly held, cannot be decided in a summary procedure.¹⁷⁴ Therefore, if *Eastman Kodak* is correctly viewed as a post-Chicago victory, it illustrates both the indeterminacy of the post-Chicago approach and the Court’s reliance on intent evidence.

B. The Difficulty of Predicting and Evaluating Economic Effects on Innovation Competition, Particularly in “Network Effects” Markets

1. Theory of network effects and why economic tools cannot predict effects on innovation

The inadequacy of a pure economic effects analysis becomes more apparent in cases involving exclusionary conduct in new economy markets, that is, high-technology markets where innovation is particularly important. Because firms in these markets usually compete through innovation, the anticompetitive effect of exclusion is not so much restricted output or higher prices (as in more traditional markets), but less innovation competition.

Predictions of future harm are difficult enough in any market, but having to forecast harm to innovation presents an even greater challenge. It would require showing “first, a counterfactual inference that innovators would have invented new products but for the predatory conduct and, second, that those products would have been

171. See *id.* at 483 (stating that “liability turns, then, on whether ‘valid business reasons’ can explain Kodak’s actions”); see also Baker, *supra* note 40, at 502 (asserting that, in *Eastman Kodak*, “the Court did not consider effect on competition in determining whether the monopolization offense could be found. Harm to competition was effectively inferred . . . from the absence of a valid and sufficient business justification”).

172. *Eastman Kodak*, 504 U.S. at 461.

173. *Id.*

174. See *id.* at 477-79 (holding that there were triable issues of fact concerning Kodak’s proffered justifications).

better or cheaper.”¹⁷⁵ It is obviously hard to know with any degree of certainty whether the existing products/services (put out by the dominant incumbent) are the best possible ones, or whether superior alternatives are technologically feasible but not introduced because of the incumbent’s market dominance and exclusionary conduct. If plaintiffs were required to prove anticompetitive effect in these markets relying only on economic tools, virtually no monopolization case would ever be made out against a defendant.

The difficulty of predicting innovation harm is compounded where “network effects” are present.¹⁷⁶ The economic theory of network effects describes situations where, the more people use a good or service, the more valuable that good or service is to the consumer.¹⁷⁷ Probably the best modern example of a product that benefits from substantial network effects is Microsoft’s operating system,¹⁷⁸ Windows. The more consumers use Windows, the more software applications are written for it, which attracts even more users, and so on.¹⁷⁹ This positive feedback is based not so much on the intrinsic quality of the product (beyond a certain point), but on the value to the consumer of having more users in the network.¹⁸⁰

The theory suggests that network effects tend to “tip” the market to generate a winner-take-all.¹⁸¹ Consumers then become locked to this

175. Lopatka & Page, *supra* note 95, at 371; *see also* Andrew Chin, *Analyzing Mergers in Innovation Markets*, 38 JURIMETRICS J. 119, 124 (1998) (setting out the current approach to innovation market analysis and suggesting that predictions about the harm to innovation may hinge on a firm’s research and development budget, if it can be identified).

176. *See generally* Stephen F. Ross, *Network Economic Effects and the Limits of GTE Sylvania’s Efficiency Analysis*, 68 ANTITRUST L.J. 945 (2001) (discussing the limits of efficiency analysis in markets with network effects).

177. *See* Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 424 (1985) (providing, as an example, a telephone and explaining that the utility of a phone depends on the number of other houses and businesses that have become part of the telephone network). *See generally* Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 488-500 (1998) (viewing the concept of network effects as falling on a continuum that can be divided into what the authors describe as actual networks, virtual networks, and simple positive feedback phenomena).

178. An operating system is computer software that “performs many functions, including . . . controlling peripherals such as printers and keyboards.” *United States v. Microsoft Corp.*, 253 F.3d 34, 53 (D.C. Cir. 2001). Operating systems also “function as platforms for software applications” by exposing “application programming interfaces,” or APIs. *Id.*

179. *See United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, at ¶ 39 (D.D.C. 1999) (stating that Windows enjoys positive network effects because its large installed base encourages independent software vendors (ISVs) to write applications for Windows, making it more attractive to consumers).

180. *See* Ross, *supra* note 176, at 950-51.

181. *See* CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY* 175-76 (1999) (explaining that when multiple firms compete in a market where there is strong positive feedback—meaning “the strong

product or standard, and later superior substitutes face substantial difficulty overcoming the network effects and displacing the first inferior product/standard.¹⁸² In other words, where there are substantial network effects, markets are far from robust and incumbents are hard to dislodge, even without any exclusionary conduct.¹⁸³ It is also relatively easy, given the natural benefits of network effects, for incumbents to use tying and other predatory techniques to preserve their dominance.¹⁸⁴

The anticompetitive potential of network effects does not mean, however, that they are necessarily harmful to competition. Having one standard or system emerge as the winner often has efficiency advantages.¹⁸⁵ Therefore, where network effects are present, it may be unclear whether a dominant firm's business strategy, which has succeeded in excluding other firms, has anticompetitive effects, or efficiency effects, or perhaps both.¹⁸⁶

Furthermore, in markets with network effects, the dominant firm's conduct may result in the ousting of the fringe or potential rival before its nascent product is fully developed.¹⁸⁷ In that case, the

get stronger and the weak get weaker"—the market tends to "tip" in favor of one player).

182. It does not mean, of course, that inferior entrenched products can never be displaced. See generally Muris, *supra* note 19, at 720-21 (citing several examples in which a superior product quickly replaced an inferior one, despite the latter's large market share). If an innovation is sufficiently superior, particularly with respect to features that consumers value, then even sizable network effects can be overcome. *Id.* Probably the best examples are CDs' displacement of record albums, and DVDs' displacement of videotapes. See *id.* at 721 (citing, as additional examples, the car's displacement of the buggy and the ballpoint pen's displacement of the fountain pen). However, where the product benefiting from network effects has little intrinsic value to consumers other than as part of a network, e.g. computer operating systems, the network effects advantage can be immense. There are probably products between these two extremes where a vastly superior substitute may prevail over an inferior incumbent but a moderately superior product may not.

183. Some commentators are profoundly skeptical of the network effects theory. See, e.g., Muris, *supra* note 19, at 718-22 (opining that real-world institutions prevent strong network effects from dominating).

184. See Lemley & McGowan, *supra* note 177, at 506. Network effects also facilitate high barriers to entry, barring even potentially efficient firms from entering the market. See Salop & Romaine, *supra* note 98, at 620 (suggesting that markets with large network effects may lead to monopolies and citing Microsoft as an example).

185. See Joseph Farrell & Garth Saloner, *Standardization, Compatibility and Innovation*, 16 RAND J. ECON. 70, 70-71 (1985) (discussing both the benefits of standardization and the anticompetitive harm of being "trapped" into an obsolete standard by network effects). See generally William E. Cohen, *Competition and Foreclosure in the Context of Installed Base and Compatibility Effects*, 64 ANTITRUST L.J. 535 (1996) (analyzing how the economic effects of "installed base" and compatibility shape competition in the marketplace).

186. See Ross, *supra* note 176, at 946 (stating that, where network effects exist, "economic tools" cannot determine whether consumer benefits from a challenged practice outweigh its anticompetitive harms).

187. See *infra* Part II.B.2 (discussing Microsoft's exclusionary practices against

harmful effect is merely anticipated, and proof of prospective harm is very speculative when the chances of success for competing products in these markets are slim, even without dominant firm exclusionary conduct.¹⁸⁸ In these tough situations, giving substantial weight to the players' purpose and intent makes good sense because businesses are assumed to know the market in which they operate. *Microsoft* provides an excellent illustration.

2. *United States v. Microsoft Corp.*¹⁸⁹

Microsoft had, and still has, a monopoly in the intel-compatible PC operating systems (OS) market through its product, Windows.¹⁹⁰ The OS market exhibits substantial network effects: as the number of Windows users increases, more application programs are written for it, which attracts more users, leading to even more applications and other products developed for it, and so on.¹⁹¹

The network effects phenomenon means that Microsoft's Windows monopoly is unlikely to be dislodged by another OS product or a functional substitute, even a superior one.¹⁹² To attract users, any new OS system must support at least all the popular software applications, but few software developers are willing to write applications for a system that does not have a large "installed base," i.e., users.¹⁹³

Netscape and Java, which posed a potential threat to its Windows monopoly).

188. See *infra* notes 218-33 (noting that, while Microsoft clearly perceived Netscape and Java to be a threat to its Windows monopoly, it is unclear whether the two technologies actually would have succeeded in eroding the applications barrier to entry).

189. 353 F.3d 34 (D.C. Cir. 2001). A lot has been written about *Microsoft*, focusing primarily on economic issues, such as whether bringing the case benefited or hurt competition in the computer industry, and whether antitrust litigation is the appropriate way to handle market power in new economy markets. See generally DAVID S. EVANS ET AL., DID MICROSOFT HARM CONSUMERS? TWO OPPOSING VIEWS (2000) (analyzing the antitrust case against Microsoft and the arguments of both the Department of Justice and the software giant from an economic perspective); STANLEY LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY (1999) (examining the case against Microsoft and concluding that, in high-tech markets, consumers benefit from serial monopolies); Ronald Cass & Keith Hylton, *Preserving Competition: Economic Analysis, Legal Standards, and Microsoft*, 8 GEO. MASON L. REV. 1, 1 (1999) (discussing, and disagreeing, with the economic arguments made in the case against Microsoft).

190. See *Microsoft*, 253 F.3d at 51-58 (upholding the district court's finding of Microsoft's monopoly power in the Intel-compatible PC operating systems market).

191. *Id.* at 55; *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, ¶¶ 30, 36-39 (D.D.C. 1999).

192. See *Microsoft*, 84 F. Supp. 2d at ¶¶ 40-43 (stating that a competing PC operating system would need a "large and varied enough base of compatible applications to reassure consumers that their interests in variety, choice, and currency would be met to more-or-less the same extent as if they chose Windows").

193. See *id.* at ¶ 41 (noting also that the cost of supporting software applications is very large, and thus adds to the challenges a new OS system faces in having enough applications written for its system to compete with Windows).

Without software applications for the system, a large installed base is unlikely to develop.¹⁹⁴ Network effects, in essence, create an applications barrier to entry to the OS market, leaving the Windows monopoly unchallenged.¹⁹⁵ This monopoly could be more easily toppled, however, if consumers could use their desired software applications and share their files with other users, regardless of which operating system is on their computers, that is, if the applications barrier can be overcome.¹⁹⁶

The government's main claim against Microsoft was that Microsoft perceived a threat to its Windows monopoly, not from any competing OS product, but from potential "middleware platforms."¹⁹⁷ Middleware platforms are software that could, if and when they are fully developed, "expose" sufficient "application programming interfaces," or APIs, to allow applications to be written for the middleware, without reliance on a particular OS's APIs.¹⁹⁸ If and when development reaches that stage, and if enough consumers use the middleware platform, software developers would likely write applications for the middleware.¹⁹⁹ Consumers who have the middleware platform would then be free to choose their OS without regard to the availability of software applications written for the OS.²⁰⁰ The successful development of a middleware platform that is popular with consumers, therefore, has the potential to eliminate or minimize Windows' network effects advantage.²⁰¹

Microsoft apparently believed that Netscape's Navigator, then the dominant browser, was close to becoming a middleware platform.²⁰²

194. See *Microsoft*, 253 F.3d at 60; *Microsoft*, 84 F. Supp. 2d at ¶¶ 40-43 (pointing out the circular nature of this process, in that consumers want an OS with a large number of applications, but software developers are hesitant to write applications for a system that does not have a large "installed base").

195. See *Microsoft*, 253 F.3d at 55 (maintaining that this circular process ensures that applications will continue to be written primarily for Windows and that consumers will continue to prefer Windows over competitor systems); *Microsoft*, 84 F. Supp. 2d at ¶¶ 30, 36-39.

196. See *Microsoft*, 253 F.3d at 60 (suggesting that, without the applications barrier, a consumer could select an OS based solely upon its quality and price, and the market for operating systems would be competitive); *Microsoft*, 84 F. Supp. 2d at ¶¶ 29, 68 (noting that a middleware platform has the potential to weaken the applications barrier).

197. See *Microsoft*, 84 F. Supp. 2d at ¶¶ 68-77 (discussing various middleware platforms such as Netscape Navigator and Java).

198. For a detailed description of middleware platforms, see *Microsoft*, 253 F.3d at 53 and *Microsoft*, 84 F. Supp. 2d at ¶¶ 28-29, 68-77.

199. See *Microsoft*, 84 F. Supp. 2d at ¶ 77 (noting that the middleware technologies were far from being in a position to overcome the applications barrier to entry).

200. *Id.* at ¶¶ 28-29, 68.

201. *Id.* at ¶¶ 68-77.

202. See *id.* at ¶¶ 68-72 (explaining Navigator's three key qualities that give it the potential to weaken the applications barrier: first, as a browser, it can achieve

It feared that if Navigator remained the dominant browser in a fast growing market of internet users and also successfully developed its middleware platform capabilities (i.e., exposed sufficient APIs to support full-featured applications), software developers would begin to write applications for the browser.²⁰³ Computer users who have the Navigator browser would then have access to their favorite software applications, no matter which OS system might be on their computers.²⁰⁴ This would result in the loosening of Microsoft's grip on its windows OS monopoly.

In an effort to protect that monopoly, Microsoft developed its own browser, the Internet Explorer (IE), and bundled it with Windows.²⁰⁵ Then, through various devices, including restrictive exclusive contracts with computer manufacturers (also know as original equipment manufacturers or OEMs), internet service providers, and others, Microsoft foreclosed Netscape from the main avenues of distribution for its browser.²⁰⁶

Microsoft perceived another middleware threat—from Sun Microsystems, which had developed a new “Java” language.²⁰⁷ Upon successful development, Java's cross-platform technologies could also serve as a middleware platform.²⁰⁸ Assuming that enough users have Java on their computers (which was then very likely since Netscape had agreed to include a copy of it with Navigator),²⁰⁹ applications developers would write for Java, which would then minimize the applications barrier to entry and erode Microsoft's Windows OS monopoly.²¹⁰ To prevent that potential outcome, Microsoft licensed Java from Sun Microsystems under an agreement to ostensibly promote Java, then modified it to make it run *only* on Windows,²¹¹ and either induced Java developers to work on Microsoft's version of Java,

widespread use; second, Navigator can serve as a platform for other software; and third, Navigator has been ported to over fifteen different operating systems).

203. *Id.*

204. *Id.*

205. *See id.* at ¶¶ 133-35.

206. *See* United States v. Microsoft Corp., 253 F.3d 34, 60-62, 70-72 (D.C. Cir. 2001) (pointing out that license restrictions imposed by Microsoft on OEMs effectively deterred them from pre-installing browsers other than Internet Explorer); *Microsoft*, 84 F. Supp. 2d at ¶¶ 136-237, 242-306, 311-56 (discussing Microsoft's exclusionary strategies).

207. *See Microsoft*, 84 F. Supp. 2d at ¶¶ 68, 73-77 (describing the Java technology).

208. *See id.* at ¶ 74 (noting that Java would enable applications written in its language to run on multiple platforms with minimal porting).

209. *Id.* at ¶ 76.

210. *Id.* at ¶¶ 74, 77.

211. *See Microsoft*, 253 F.3d at 74 (setting out the four steps that Microsoft took to prevent Java from developing into a cross-platform threat); *Microsoft*, 84 F. Supp. 2d at ¶¶ 386-90.

or deceived them into believing that the Windows version was Sun-compliant and that their development was for a cross-platform.²¹²

Although the Court of Appeals for the D.C. Circuit, sitting en banc, famously rebuked District Court Judge Thomas Penfield Jackson for his extrajudicial comments on Microsoft,²¹³ remanded the tying claim for a rule of reason analysis,²¹⁴ and vacated the divestiture remedy,²¹⁵ it actually upheld most of the government's claims, including claims that Microsoft's exclusive dealing arrangements with OEMs and internet service providers, and its inducement and deception of Java developers, were exclusionary and violated section 2.²¹⁶ However, a closer examination of the facts of the case shows that this result cannot be adequately explained by a pure economic effects analysis.²¹⁷

While Microsoft's behavior clearly left Netscape with inefficient access to consumers and prevented fair competition on the merits between the two browsers, the *effect* of its behavior, in the strict economic sense, is not as obvious. What is certain is simply that Microsoft's IE has replaced the Navigator as the dominant browser, and that Microsoft Windows continues to enjoy a monopoly in the OS market.²¹⁸ However, the theory that Microsoft's conduct has anticompetitive effect in the strict economic sense requires proof of more than that: it has to be demonstrated that, left alone, Netscape would most likely have successfully developed Navigator's middleware platform capabilities, that software writers would write applications for it, and that a competing OS program (or new hybrid products) would emerge and enter the market, thereby diminishing Microsoft's

212. See *Microsoft*, 253 F.3d at 76-77 (citing internal Microsoft documents, such as e-mails, that confirmed that Microsoft intended to deceive Java developers); *Microsoft*, 84 F. Supp. 2d at ¶¶ 395-406.

213. See *Microsoft*, 253 F.3d at 107-11 (setting forth the code of conduct for judges and concluding that Judge Jackson violated the judicial code of conduct by his extrajudicial comments to reporters).

214. See *id.* at 89-95 (rejecting the district court finding that Microsoft's bundling of IE with Windows was per se illegal).

215. *Id.* at 46-47. The Court of Appeals for the D.C. Circuit vacated the divestiture remedy largely on procedural grounds. *Id.* at 97-107.

216. *Id.* at 51-78. The court of appeals did, however, reverse Judge Jackson's holding that Microsoft attempted to monopolize the browser market on grounds of insufficient evidence showing that browsers constituted a relevant market or that entry into that "market" was difficult. *Id.* at 80-84. It also reversed the holding that Microsoft's modification of Sun's Java program to make it Windows-compatible only was an antitrust violation, but affirmed that inducing Java developers to use Microsoft's proprietary version of Java, rather than Sun's cross-platform version, was anticompetitive. *Id.* at 77-78.

217. See Brennan, *supra* note 157, at 1047-50 (asserting that the economic theory of the case was inconsistent with the evidence).

218. See *Microsoft*, 253 F.3d at 54 (stating that Windows accounts for a greater than ninety-five percent share of the market).

Windows OS monopoly. Unsurprisingly, no such evidence was introduced in the case.

Similarly, it was far from clear that Java would have successfully developed into a viable threat to Windows, absent Microsoft's actions.²¹⁹ To pose such a threat, Java would have to expose sufficient APIs to allow full-featured applications, such as word processing, to be written for it without reliance on the APIs of Windows.²²⁰ At the time Microsoft sabotaged Sun's Java efforts, Java (together with Navigator) exposed less than 1,000 APIs, in contrast to the 10,000 that are exposed in Windows.²²¹

The case, therefore, cannot be fully explained under a pure economics test. Due to network effects, the chances of success for a competing product are slim, even without dominant firm exclusionary conduct.²²² Thus, proving that the exclusionary conduct likely prevented new innovation in the market is very speculative. And, no economic tool can really help in that exercise. It is instructive that both the D.C. Circuit and the district court referred countless times to Microsoft's intent to eliminate Navigator and to cripple Java for the purpose of eliminating potential threats to its Windows monopoly, effectively using intent to support a finding of effect.²²³

In short, in difficult cases like *Microsoft*, where an effects analysis would require speculating about the impact of conduct on future innovation, the court has shown a willingness to consider evidence of intent. Given that a pure economic analysis is unworkable in these types of cases, the consideration of intent can hardly be said to undermine the "certainty" of economic analysis.

C. *The Sacrifice Test*

The "sacrifice" test, a much discussed proposal for defining exclusionary conduct, is indeed determinate when it is formally

219. See *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 44 (D.D.C. 2000) (concluding that "the evidence does not prove that [Java and Navigator] would have succeeded absent Microsoft's actions"); *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, ¶ 77 (D.D.C. 1999) (finding that the "middleware technologies have a long way to go before they might imperil the applications barrier to entry").

220. See *Microsoft*, 84 F. Supp. 2d at ¶ 77 (comparing the combined APIs of Navigator and Java with Windows and determining that Windows exposed more than ten times the number of APIs as Navigator and Java).

221. *Id.*

222. See *supra* notes 190-201 and accompanying text (using Microsoft to illustrate the impact of network effects on competition).

223. The Court of Appeals for the D.C. Circuit was careful to state that it was considering evidence of intent "only to the extent it helps us understand the likely effect of the monopolist's conduct." *Microsoft*, 253 F.3d at 59.

applied as a bright-line test, but the appropriateness of such an approach is highly questionable.²²⁴ First developed by Janusz Ordovery, Robert Willig, and William Baumol,²²⁵ the test was intended to extend the *Brooke Group* predatory pricing paradigm to *all* exclusionary conduct. In determining whether conduct is predatory, it asks whether the dominant firm's practice would be "considered profit maximizing except for the expectation that . . . actual rivals will be driven from the market, or the entry of potential rivals blocked or delayed, so that the predator will gain or retain a market share sufficient to command monopoly profits . . ." ²²⁶ Stated differently, the question is whether the dominant firm's challenged conduct entails short term sacrifice of profits.

Under the test, the presence of sacrifice is considered necessary, but not sufficient, evidence of exclusionary conduct.²²⁷ The theory is that behavior not involving sacrifice of short-term profits might be rational business practices²²⁸ and, therefore, should be permitted. Conversely, a rational firm is generally expected to reject practices that are unprofitable in the short-run, unless it expects an increase in market power as a result of such practice, which would then allow it

224. See Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253, 255 (2003) (contending that the sacrifice test makes little sense because not all practices that involve sacrifice of profits are anticompetitive, and not all anticompetitive conduct requires sacrifice).

225. See generally Janusz A. Ordovery & Robert D. Willig, *An Economic Definition of Predation: Pricing and Production Innovation*, 91 YALE L.J. 8 (1981).

226. *Neumann v. Reinforced Earth Co.*, 786 F.2d 424, 427 (D.C. Cir. 1986); *accord* *Advanced Health-Care Servs., Inc. v. Radford Cmty. Hosp.*, 910 F.2d 139, 148 (4th Cir. 1990) (stating that a defendant monopolizes if it makes a "short-term sacrifice" in order to further "exclusive, anticompetitive objectives"); see also William J. Baumol, *Predation and the Logic of the Average Variable Cost Test*, 39 J.L. & ECON. 49, 65 (1996) (suggesting that average avoidable cost rather than marginal cost is a better measure for determining predatory conduct); Janusz A. Ordovery et al., *Nonprice Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products*, in ANITRUST AND REGULATION 115-30 (F. Fisher ed., 1985) (contending that incentives exist to engage in anticompetitive behavior and applying the test to such nonprice anticompetitive conduct); Janusz A. Ordovery et al., *Predator Systems Rivalry: A Reply*, 83 COLUM. L. REV. 1150, 1150-52 (1983) (arguing that the test applies to situations where a company introduces a new product system that proves to be incompatible with competitors' products); Janusz A. Ordovery & Robert D. Willig, *Access and Bundling in High-Technology Markets*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANITRUST IN THE DIGITAL MARKETPLACE 103-28 (Jeffrey A. Eisenach & Thomas M. Lenard eds., 1999) [hereinafter, Ordovery & Willig, *Access and Bundling*] (offering a three-pronged test for evaluating the competitive effects of certain business practices and for determining whether such practices constitute exclusionary conduct); Ordovery & Willig, *supra* note 225, at 9-10 (explaining how a company exhibits predatory tendencies if its otherwise unprofitable business practices are profitable only due to the resulting exit of competitors).

227. See Ordovery & Willig, *supra* note 225, at 9-10.

228. See *id.*

to recoup its losses.²²⁹ Thus, evidence of sacrifice creates a presumption of exclusionary conduct.

While many (including the federal enforcement agencies under the current administration) have recently embraced the sacrifice test,²³⁰ others have questioned its appropriateness as a standard for determining non-price exclusionary conduct.²³¹ Indeed, Professors Ordoover and Willig, two economists widely credited for first developing and advocating the sacrifice test, now argue against treating sacrifice as a necessary element of exclusionary conduct.²³²

The primary objection to viewing sacrifice as a *necessary* condition is that dominant firms can engage in exclusionary conduct even without sacrifice of any short term profits.²³³ The recent *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*²³⁴ case is a good example of why the absence of sacrifice should not be dispositive.²³⁵ *Trinko* involved a local telephone company's (Verizon) alleged failure to give its competitor, AT&T, satisfactory access to its local telephone network, as required under the Telecommunications Act of 1996.²³⁶ The crux of plaintiffs' Sherman Act section 2 complaint, brought by AT&T's customers, was that Verizon provided

229. *See id.*

230. Supporters include the federal antitrust agencies under the current administration. Brief for the United States and the Federal Trade Commission as Amici Curiae Supporting Petitioner at 15-20, *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) (No. 02-682) [hereinafter, Brief for the United States] (urging the Court to find the challenged conduct exclusionary "only if it would not make economic sense").

231. *See, e.g.*, Elhauge, *supra* note 224, at 268-72 (criticizing the sacrifice test because anticompetitive conduct may not require sacrifice, and conduct involving sacrifice may not necessarily be anticompetitive); Andrew I. Gavil, *Dominant Firm Distribution: Striking A Better Balance*, 72 ANTITRUST L.J. 3, 55-58 (2004) (critiquing the sacrifice test).

232. In an amicus brief filed on behalf of the plaintiffs in *Trinko*, Ordoover and Willig argued that the Court should not apply the sacrifice test. *See* Brief of Amici Curiae Economics Professors in Support of Respondent at 7-10, *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) (No. 02-682) [hereinafter Brief of Economics Professors] (asserting that sacrifice of profits should not be treated as a necessary requirement in the context of the case).

233. *See* Elhauge, *supra* note 224, at 255 (arguing that "undesirable conduct that excludes rivals normally requires no sacrifice of short-run profits"); Gavil, *supra* note 231. Professor Gavil has also criticized the test for shifting the burden of production from the defendant to the plaintiff. The plaintiff is required, under the test, to prove the presence of sacrifice as part of its prima facie case when, instead, the burden of production should be on the defendant to show absence of sacrifice as an affirmative defense. *Id.*

234. 540 U.S. 398 (2004).

235. The dismissal of the case may well be a good *policy* because of the FCC's pervasive and effective regulatory oversight over the challenged conduct, which probably made antitrust intervention a bit redundant. *See id.* at 413.

236. *Id.*

poor interconnection service to AT&T in order to diminish AT&T's competitiveness in the local telephone market.²³⁷

In an amicus brief filed with the Supreme Court in support of Verizon, federal antitrust enforcement agencies essentially argued that unless Verizon is alleged to have given up short term profits in anticipation of subsequently receiving long run monopoly profits, its conduct could not be considered exclusionary, and the complaint should have been dismissed for failure to state a claim.²³⁸ The Court ultimately held in favor of defendant and affirmed dismissal of plaintiff's section 2 case. The opinion spoke approvingly of the sacrifice test and came very close to stating that sacrifice is a prerequisite for finding exclusionary conduct.²³⁹

The inappropriateness of treating sacrifice as a necessary element of exclusionary conduct seems obvious in *Trinko*. No matter how much Verizon's actions may disadvantage its competitors and their customers, they would never entail sacrifice of short-term profits because Verizon stands to profit more if it can serve more customers directly at retail than it can by charging AT&T what is essentially a wholesale price for interconnection.²⁴⁰ Yet, it is clear that the conduct, assuming the truth of the allegations, hindered competition. After all, Congress mandated access specifically to facilitate competition in the local telephone market, since no competitor can compete effectively with the local network owner without such access.²⁴¹

If the absence of sacrifice is dispositive—i.e., no liability unless short-run sacrifice of profits is shown—then the test is indeed determinate. But if sacrifice is *not* treated as a necessary condition for exclusion, as it should not, given the flaws of such an approach, then the test is really *not* determinative on the issue of exclusion.

237. *Id.* at 403.

238. See Brief for the United States, *supra* note 230, at 28 (“The complaint makes no allegations whatsoever relating to price, profitability, or the costs of complying with 1996 Act access requirements. It thus nowhere suggests that petitioner’s failure to comply . . . would make no economic sense apart from the tendency to impair competition.”).

239. See *Trinko*, 540 U.S. at 410 (stating that, unlike *Aspen Skiing*, a precedent on which plaintiff relied, this case did not involve a course of conduct which “suggested a willingness to forsake short-term profits to achieve an anticompetitive end”).

240. See *id.* at 410-11 (highlighting why the sacrifice of short-term profits was not at issue in this case, thereby justifying its dismissal).

241. See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (2003) (requiring local telephone companies to provide facilities access to new entrants to the local telephone market); see also *Trinko*, 540 U.S. at 401 (describing the purpose of the Telecommunications Act); Brief of Economic Professors, *supra* note 232, at 10-11, 21-22 (asserting that Congress passed the Telecommunications Act to ensure competition through access to facilities and to enhance public welfare).

III. MAKING A CASE FOR THE USE OF INTENT EVIDENCE

A. *Non-Intervention, Whenever Effects Are Neutral or Inconclusive, Is Not the Answer*

When a monopolist excludes a competitor through means other than competition on the merits, and the economic effect is either neutral or inconclusive, there are two basic policy choices: do nothing, or turn to non-economic evidence to aid in the analysis. Under the first approach, only those dominant firm practices that are demonstrably anticompetitive would be prohibited while all other behavior would be left alone.²⁴² If this non-intervention bias is adopted, monopolization in new economy markets would be virtually impossible to establish, as discussed in the preceding section.²⁴³ Under the second approach, we would resort to non-economic tools to determine effect. Given the limitations of empirical data and economic theory, the second alternative seems to be the wiser course of action lest we under-identify truly exclusionary conduct and, hence, under-deter it.²⁴⁴

Those who favor a libertarian approach mainly argue that the alternative might result in mistaken judicial proscription of neutral or efficient practices, which might deter dominant firm innovation.²⁴⁵ This argument implicitly assumes that exclusionary conduct is rare and, therefore, the probability of false positives is high. Post-

242. See Easterbrook, *supra* note 74, at 1712 (“Until data permit a sound judgment that a certain type of practice is harmful, the courts should say that the plaintiffs have not carried their burden.”).

243. See *supra* Part II.B (discussing the indeterminacy of economic effects analysis in high technology markets).

244. Furthermore, as even Chicagoans seem to concede, adopting a policy of non-intervention, except where the alleged exclusionary conduct is demonstrably anticompetitive, is inconsistent with antitrust tradition. See John Lopatka & William Page, *Microsoft, Monopolization, and Network Externalities: Some Uses and Abuses of Economic Theory in Antitrust Decisionmaking*, 40 ANTITRUST BULL. 317, 317 (1995) (noting that, because “antitrust represents an uneasy compromise between laissez faire and interventionist visions of public policy,” an appropriate degree of government intervention is necessary). The legislative history of the Sherman Act demonstrates that Congress intended to pursue various objectives, not just efficiency, when it passed the Act. See, e.g., Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051, 1052 (1979) (arguing that ignoring non-economic concerns would be “unresponsive to the will of Congress and out of touch with the rough political consensus” on antitrust enforcement).

245. See, e.g., Teece & Coleman, *supra* note 81, at 843-44 (arguing against antitrust intervention “absent unambiguous anticompetitive conduct” because such intervention “might produce severe disincentive effects throughout the entire economy”); Ordoover & Willig, *Access and Bundling*, *supra* note 226, at 103-04 (contending that antitrust should be applied “only to the most certain and compelling threats to competition” because of the “repressing effects of long investigations”).

Chicagoan scholarship, however, has raised serious questions about these assumptions.²⁴⁶

A dominant firm bias might also be justifiable from an economic perspective if monopolies (relative to competitive markets) are conducive to innovation and also impose few social costs. In that case, erring on the side of allowing exclusionary conduct would inflict minimal loss on society. In contrast, disallowing harmless monopolistic practices that happen to exclude rivals might deter innovation on the part of monopolists.

There is, however, neither empirical nor clear theoretical support for the hypothesis that monopolistic conditions, relative to competition, encourage more innovation. It is true that Joseph Schumpeter once famously made that hypothesis, reasoning that monopolies are better able to appropriate the value of their innovations and, hence, have greater incentives to innovate.²⁴⁷ Others have similarly contended that the desire for monopoly profits drives innovation.²⁴⁸ If this is true, then a hyper-cautious monopolization policy might be warranted from a dynamic efficiency perspective, so as not to discourage innovation.

Recent economic scholarship has, however, called into question Schumpeter's thesis. In particular, the work of noted economist Kenneth Arrow suggests that *competition*, not monopoly, provides the greater impetus for innovation.²⁴⁹ This view holds that monopolists,

246. See *supra* Parts I.B.1 and I.B.2.a-b (discussing post-Chicago models, including game theory, and RRC).

247. See JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 106 (3d ed. 1950). For discussion of Schumpeterian theory, see generally WILLIAM L. BALDWIN & JOHN T. SCOTT, MARKET STRUCTURE AND TECHNOLOGICAL CHANGE 1-4 (1987), summarizing Schumpeter's contribution to the study of the process of innovation, and Richard J. Gilbert & Steven C. Sunshine, *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets*, 63 ANTITRUST L.J. 569, 574-76 (1995), discussing Schumpeter's theory that a monopoly is better positioned to innovate.

248. See *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko*, 504 U.S. 398, 407 (2004) ("The opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth."); Teece & Coleman, *supra* note 81, at 809-24 (arguing that the enticement of monopoly profits drives innovation and that antitrust enforcement against high technology companies should be avoided because it would be a disincentive to innovation); John E. Lopatka, *United States v. IBM: A Monument to Arrogance*, 68 ANTITRUST L.J. 145, 156 (2000) (observing that "periods of 'monopoly' profits drive innovation, and it is the innovative process, more so than lower prices, that best serves consumers").

249. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *ESSAYS IN THE THEORY OF RISK-BEARING* 157 (Julius Margolis ed., 1971) (arguing that more incentive to invent exists under competitive conditions than for a monopoly); see also F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 660 (3d ed. 1990) (concluding that very high market concentrations are "apt to retard progress by restricting the number of independent sources of initiative and by dampening firms' incentive to gain market position

already extracting maximum profits from their dominance in the market, have less to gain from innovation.²⁵⁰ Firms without dominance, in contrast, have higher expected profits from innovation and, therefore, more incentive to innovate.²⁵¹ Furthermore, firms in competitive markets may feel compelled to innovate simply to stay competitive.²⁵² If competition, more than the quest for monopoly profits, is the engine that drives innovation,²⁵³ then a permissive monopolization policy might actually result in a net *loss* in innovation. Monopolists, facing minimal risk of antitrust sanction, may step up their exclusionary activities, which would discourage innovation from smaller firms.

In short, economic theory does not clearly show that market concentration increases innovation, or that consistently resolving ambiguities in favor of dominant firms would enhance (rather than reduce) net industry innovation.²⁵⁴ Also, very little or no empirical data exists to support the argument that prohibiting exclusionary conduct with inconclusive efficiency effects would over-deter innovation. In fact, a commentator has persuasively argued the reverse: that in winner-take-all markets (as when network effects are important), a policy preventing dominant firm exclusion of fringe firms should *increase* net innovation, by encouraging fringe firm innovation while not deterring too much dominant firm innovation

through accelerated R&D"); F.M. Scherer, *Antitrust, Efficiency and Progress, in REVITALIZING ANTITRUST IN ITS SECOND CENTURY* 148 (Harry First et al. eds., 1991) (noting that monopolies often generate inefficiencies because monopolistic enterprises do not tend to be a source of innovation and progress).

250. See POSNER, *supra* note 18, at 18-19 (suggesting that a monopoly may have less incentive to innovate because it "has already appropriated the portion of consumer surplus").

251. See *id.*

252. See *id.* at 20.

253. See Marina Lao, *Unilateral Refusals to Sell or License Intellectual Property and the Antitrust Duty to Deal*, 9 CORNELL J.L. & PUB. POL'Y 193, 215-18 (1999) (citing studies suggesting that much of the impetus for innovation comes from competition).

254. See Baker, *supra* note 40, at 512 ("As a matter of economic theory, it is impossible to say for certain whether enforcement of the antitrust prohibition against monopolization, which might restrict the conduct of a dominant firm, will on balance enhance or reduce aggregate industry innovation in general."); Susan DeSanti & William Cohen, *Competition to Innovate: Strategies for Proper Antitrust Assessments, in EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY* 320 (Dreyfuss et al. eds., 2001) (asserting that there is "no unambiguous economic theory or empirical showing to support a general proposition that increased market concentration leads to reduced innovation activity," but acknowledging that "a specific merger between R&D competitors might remove powerful incentives for R&D rivalry"); POSNER, *supra* note 18, at 20 (concluding that there is no "clear theoretic prediction concerning the relation between market structure and innovation," and that empirical data provides no answer either to the question whether "monopoly retards or advances innovation").

efforts.²⁵⁵ Dominant firms are unlikely to be discouraged by some antitrust constraints in these markets because of the size of the potential winner-take-all prize.²⁵⁶

Finally, a non-intervention policy is unwise because competition itself and the competitive *process* are worth protecting, even where static efficiency models do not clearly show anticompetitive harm.²⁵⁷ The existence of even a fringe rival provides at least some hope of potential real competition in the market. Therefore, where efficiency effects are inconclusive but the dominant firm has engaged in strategies that prevented its rivals from innovating or competing effectively on the merits, it is counter-intuitive, even from an economic perspective, to give the dominant firm the benefit of the doubt. Allowing a rival, no matter how insignificant, to survive and compete against the monopolist at least helps preserve competitive possibilities in the market.

Some critics may contend that this argument violates the maxim that antitrust laws protect competition, not competitors.²⁵⁸ But it is questionable whether this “protect competition, not competitors” mantra is truly apt in new economy markets, *i.e.*, industries where technology is frequently changing and technological improvements can revolutionize the nature of the good or service. Without competitors, it is hard to know whether a dominant firm’s product is the best that technology can produce, or whether improved (or better, but different) products are feasible but have not been introduced because of the incumbent’s dominance and exclusion of rivals. Thus, protecting competition may be inseparable from protecting competitors in these markets.

To use Microsoft again as illustration, it is difficult to assess whether Windows provides the best functionality for interfacing with computer hardware and software, or whether other technologically superior alternatives are capable of being developed, if no competitor is given a fair opportunity to develop its technologies once it is

255. See Baker, *supra* note 40, at 511-15 (analyzing innovation incentives for monopolies and fringe firms).

256. See *id.* at 514-15.

257. See Fox, *supra* note 16, at 1169 (seeing “competition as process” as a justification for antitrust law); see also Ross, *supra* note 176, at 947 (proposing that, where dominant firm conduct excludes competitors by means that frustrate consumers’ ability to choose and network effects render efficiency consequences ambiguous, “courts should employ a ‘Jacksonian’ value of equal economic opportunity to proscribe the conduct and give others a meaningful chance to compete with the dominant firm”).

258. See *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977); *Brown Shoe Co., Inc. v. United States*, 370 U.S. 294, 320 (1962).

identified by Microsoft as a threat. Without a competitor, we cannot know what is possible; protecting competition, then, necessarily involves protecting the competitor whose innovation is still in its nascent stage.

Therefore, because there is little doubt that Microsoft intentionally interfered with the competition process, it makes good sense to protect Netscape from Microsoft's behavior because that behavior prevented events from unfolding that might (or might not) lead to more innovation, but we would not know unless firms in Netscape's position are protected. To wait for definitive evidence of anticompetitive harm to become available before taking any action will mean that antitrust intervention will rarely occur in time to make any difference.²⁵⁹

B. Intent Evidence as a Helpful, Additional, Analytical Tool

Until the late 1970s, as Justice Stevens said in dissent in *Business Electronics Corp. v. Sharp Electronics Corp.*,²⁶⁰ it was assumed that "in antitrust, as in many areas of the law, motivation matters and factfinders are able to distinguish bad from good intent."²⁶¹ Historically, courts considered a dominant firm's purpose and intent valuable evidence because it tends to illuminate the effect of its act.²⁶²

The devaluation of intent evidence began with the rise to prominence of the Chicago school.²⁶³ Under its influence, antitrust law became more of an economic science that insists on quantifiable data, supported by economic theory, for proof of anticompetitiveness.²⁶⁴ Perhaps because there is no empirical method

259. Also, from a non-economic perspective, it seems fair to resolve any ambiguities about effect against the dominant firm that interfered with the competitive process. It is consistent with the concept of corporate responsibility to impose greater responsibilities on those with greater power. To the extent that the dominant firm's strategy was designed to exclude (and did exclude) its rival, and predicting what might have happened otherwise is very difficult, it is reasonable to infer the bad effect from the defendant's intent and shift the burden to the dominant firm to show efficiency justification. It is important to remember, in the midst of scholarly debate over various economic models, that antitrust law is not just an exercise in abstract economic theory and equations; it is also a system for litigants to resolve disputes and to obtain justice.

260. 485 U.S. 717 (1988).

261. *Id.* at 754 (Stevens, J., dissenting).

262. See *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 19-20 (1979) (stating that a defendant's purpose for a restraint "tends to show [its] effect").

263. See Waller, *supra* note 6, at 315 (lamenting the devaluation of intent evidence under Chicago influence).

264. See, e.g., Easterbrook, *supra* note 41, at 346 (defining the goal of antitrust in starkly economic terms: to prevent "the allocative loss that comes about when firms raise price over long run marginal cost, and thus deprive consumers of goods for which they are willing to pay more than the cost of production").

for evaluating intent, and economists have little or no experience in this area, intent evidence is now routinely dismissed as having little value.²⁶⁵ This is unfortunate because intent evidence can provide helpful clues as to effects, for who would know better the likely effects of its conduct than the firm responsible for it.

For instance, if Microsoft bundled its IE browser with its Windows OS for the purpose of crushing Netscape so that its browser could not pose a future threat to Windows, we can reasonably assume the bundling had an anticompetitive effect, even if that conclusion is far from clear based on economic data alone. That is because Microsoft (or any dominant firm, for that matter) should be presumed to know the market in which it operates. If Microsoft believed that Navigator's middleware platform capabilities were close to being fully developed, that enough applications would thereafter be written for it, and that attractive alternatives to Windows would emerge to erode that monopoly unless Microsoft took action to eliminate Netscape, we would assume that Microsoft's expectations are correct, even though proof of those eventual effects is otherwise uncertain. It would be different, of course, if Microsoft's intent in bundling was to give consumers added convenience or an improved product.

The value of intent evidence is also apparent in the application of post-Chicago theories.²⁶⁶ On the surface, post-Chicago analysis seems to be no more than a theoretic economic alternative to the Chicago school, but it differs in that its application sometimes requires some reference to intent.²⁶⁷ As earlier discussed, to apply game theory to a

265. See *supra* notes 2-6 and accompanying text (demonstrating the rejection of intent evidence by many courts and commentators).

266. In fact, a current proposal from Professor Jonathan Baker for easing the identification of exclusionary conduct implicitly gives considerable weight to intent evidence. Professor Baker, an economist and former director of the Federal Trade Commission's Bureau of Competition under the Clinton administration, argues for a presumption of anticompetitive harm when dominant firms disrupt a cooperative or complementary relationship with a rival, unless the dominant firm has a legitimate business justification. See Baker, *supra* note 40, at 496 ("[A] firm with monopoly power violates Sherman Act [section] 2 if it excludes rivals from the monopolized market by restricting a complementary or collaborative relationship without an adequate business justification."). He also contends that two notable Supreme Court cases implicitly applied his proposed rule. See *id.* at 502-03 (asserting that the Courts in *Eastman Kodak* and *Aspen Skiing* presumed harm to competition from the absence of a legitimate business justification). Though Baker's proposal does not discuss intent, whether or not a defendant has a legitimate business justification necessarily turns on the purpose of the challenged practice. Hence, it is fair to say that Baker's presumption proposal effectively assigns an important role for intent evidence in monopolization analysis, at least in situations where his rule applies. Timothy Muris, an antitrust academic and former Chair of the Federal Trade Commission, however, disagrees with Baker's interpretation of case precedent and with his proposed rule. See Muris, *supra* note 19, at 703.

267. See *supra* Part I.B.2.

predatory pricing claim, for example, it helps to understand the purpose behind the dominant firm's responses to a rival's entry and, perhaps, the rival's motivations for its responses.

In fact, the many nuances that post-Chicago strategic analysis raises would be well served by considering intent. Post-Chicago models merely show that, under various specified conditions, certain practices might be anticompetitive, but they cannot disprove possible efficient explanations. Intent evidence would complement post-Chicago theories and make their application more practical.

Intent evidence is also key to the affirmative defense of procompetitive justification, which is available to defendants in all non per se antitrust cases.²⁶⁸ Essentially, defendants are allowed to offer legitimate business reasons for what would otherwise be considered anticompetitive conduct. Demonstrating the reason for one's behavior is, of course, equivalent to explaining one's underlying purpose and intent.

Interestingly, those generally opposed to the use of intent evidence to establish monopolization are not averse to probing intent to *benefit* the defendant.²⁶⁹ In fact, they argue that an innovation justification should be evaluated *ex ante*, rather than *ex post*, and that the defendant's "pre-innovation intentions" must be examined.²⁷⁰ Assume that a dominant firm's redesigned product is inferior to the original and also resulted in the exclusion of its rivals. In that event, a *prima facie* case of monopolization may be made out (through tying/bundling, for example). However, if the dominant firm shows that it intended to create an improved product but that the effort

268. See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 483 (1992) (reviewing Kodak's proffered business justifications); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 608 (1985) (discussing defendant's inability to persuade the jury that its conduct was competitively justified). It is not entirely clear whether the Court in these two cases treated business justification as an affirmative defense or whether the lack of justification went toward establishing a *prima facie* case. See also *United States v. Microsoft Corp.*, 253 F.3d 34, 59 (D.C. Cir. 2001) ("[I]f a plaintiff successfully establishes a *prima facie* case under [section] 2 by demonstrating anticompetitive effect, then the monopolist may proffer a 'procompetitive justification' for its conduct.").

269. Compare *e.g.*, Hovenkamp, *Monopolization Offense*, *supra* note 6, at 1039 (stating that "the 'intent' to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively"), *with id.* at 1046 (noting, "The real question is what the innovator had in mind. If [the innovator's] intent was to develop a superior gun, but this required a unique needle, then [the innovator] should not be penalized [under Sherman Act section 2] because its new gun/needle combination ended up working no better (or only a little better) than the old combination did").

270. See *id.* (stating that, if "the redesigned product is not an improvement, then it becomes proper to probe the defendant's pre-innovation intentions: did it really set out to build a better product, or did it redesign only in order to exclude a rival?").

simply failed, it is argued that the dominant firm's conduct should not be considered exclusionary.²⁷¹

I do not disagree with this view. To the extent that innovation is a lawful justification in monopolization analysis, it seems fair to focus on whether the monopolist intended an innovative or efficient result with its alleged exclusionary conduct, rather than on whether the effort succeeded. But I find it inconsistent for critics to dismiss the value of intent evidence when it might tip the scale in favor of finding exclusionary conduct while touting its importance in exonerating the defendant.

Today, commentators often deem intent inquiries insufficiently rigorous for antitrust—a legal discipline that is now intertwined with economics.²⁷² But we have seen that pure economic analysis is, by no means, “scientific.”²⁷³ Given the inadequacy of economic theory and data, it is unrealistic to base an effects analysis solely on such evidence. Intent evidence can be a helpful additional tool, provided that it is both reliable and manageable.

IV. OVERCOMING THE OBJECTIONS: INTENT EVIDENCE CAN BE RELIABLE AND MANAGEABLE

Scholarly opinion overwhelmingly disfavors the use of intent evidence for a variety of reasons.²⁷⁴ It is said that the intent to act predatorily overlaps with the intent to act competitively;²⁷⁵ that intent inquiries are subjective and indeterminate;²⁷⁶ that juries may

271. *See id.* (arguing that courts should not automatically equate a failed innovation with an anticompetitive one, due to the risks inherent in any innovation); *see also id.* (maintaining also that any innovation resulting in “significant actual improvement” cannot be challenged, regardless of intent).

272. *See* Jacobs, *supra* note 6, at 220-40 (documenting the rise to prominence of the Chicago school of economic analysis and its influence on antitrust jurisprudence); *see also* POSNER, *supra* note 18, at 9-32 (contending that economic theory provides the only logical basis for antitrust law).

273. *See, e.g.,* Pitofsky, *supra* note 244, at 1065 (positing that “antitrust enforcement along economic lines . . . incorporates large doses of hunch, faith, and intuition”).

274. *See, e.g.,* Brodley & Ma, *supra* note 147, at 1201 (observing that “intent evidence is generally inferior to objective evidence because competitive and anticompetitive motivations are often indistinguishable”); Hovenkamp, *Monopolization Offense*, *supra* note 6, at 1039 (asserting that “the ‘intent’ to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively”); POSNER, *supra* note 18, at 214-15 (stating the reasons for his distrust of intent evidence).

275. *See, e.g.,* Easterbrook, *supra* note 41, at 345 (observing that “competitive and exclusionary conduct look alike”); Hovenkamp, *Monopolization Offense*, *supra* note 6, at 1039 (“Indeed, in most circumstances involving monopoly, the ‘intent’ to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively.”).

276. *See* POSNER, *supra* note 18, at 214 (“Any doctrine that relies upon proof of intent is going to be applied erratically at best.”).

misconstrue employees' "macho" language for corporate anticompetitive intent;²⁷⁷ and that the presence or absence of intent evidence is often merely "a function of luck and of the defendant's legal sophistication."²⁷⁸ Below, I demonstrate that these perceived problems are mostly overstated.

A. *Distinguishing Intent to Exclude Rivals Anticompetitively From Intent to Become Dominant Competitively*

One main objection to intent inquiries is the alleged difficulty of distinguishing between the intent to compete aggressively and the intent to exclude competition anticompetitively.²⁷⁹ Judge Frank Easterbrook encapsulated this line of opposition when he said that "[f]irms want (intend) to grow; they love to crush their rivals; indeed, these desires are the wellsprings of rivalry and the source of enormous benefit for consumers . . . the same elements of greed appear whether the entrepreneur wants to please customers or stifle rivals."²⁸⁰ The gist of this argument is that every firm wishes to prevail over its competition, and that it is difficult to tell if it seeks to do by fulfilling customers' needs or by eliminating its competitors through exclusionary strategies.

Success in either scenario—striving to dominate the market by self improvement (procompetitive) or by stifling one's rivals (anticompetitive)—would likely produce the same result: the elimination of competitors, or their relegation to the market fringes. That means the intent to exclude rivals anticompetitively cannot and should not be inferred from the *result* of exclusion. It does not mean, however, that the two intents are indistinguishable. We simply have to focus, not on the fact of exclusion itself, but on *why* the dominant firm chose a particular ambiguous strategy, so that we can understand its probable effects.

Take, for example, a dominant firm's bundling of two products, *x* and *y* (when it dominates the market in *x* but not in *y*). If corporate

277. See *id.* at 214-15 ("Especially misleading is the inveterate tendency of sales executives to brag to their superiors about their competitive prowess, often using metaphors of coercion that are compelling evidence of predatory intent to the naïve.").

278. See *id.* at 214 (contending that executives familiar with antitrust issues will not document any improper intent, while less knowledgeable executives might create evidence of such intent by using "a clumsy choice of words to describe innocent behavior").

279. See *supra* note 275 and accompanying text (noting that many antitrust scholars do not believe that the two intents can be distinguished).

280. Frank H. Easterbrook, *Monopolization: Past, Present, and Future*, 61 ANTITRUST L.J. 99, 102-03 (1992).

executives said, in planning the move, “We have to integrate *y* with *x* because *y* cannot stand on its own against the competition,” we would know that the firm bundled the two products in order to prevent competition on the merits in the *y* market. Thus, its intent is anticompetitive. If, on the other hand, corporate executives discussed how integration might enhance the demand for *x* by adding value to the product, for example, the intent would be procompetitive since the firm undertook its ambiguous strategy (bundling) in order to provide a better product.

As another example, assume that a dominant firm entered into exclusive dealings with the major suppliers of an important input, which substantially increased its small rival’s costs.²⁸¹ In that event, it would be helpful to know why the dominant firm entered those exclusive arrangements, so that we can draw inferences regarding their effects. Suppose discovery reveals a document setting forth a plan to use exclusive arrangements to raise rivals’ costs and an accompanying projection of how much the firm can raise prices after the rival is sidelined. In that case, we can reasonably infer that the dominant firm intended to exclude its rival anticompetitively. If, however, documents show that the dominant firm adopted its exclusive dealing strategy in hopes of improving its own distribution efficiency, the firm’s intent would be proper even if its competitors are left in the dust as a result. In the latter scenario, the exclusion of its rivals is merely a by-product of competition on the merits.

Of course, not all situations will be crystal clear, and some intent evidence may be hard to interpret. Even then, it is well within the institutional competence of courts and juries to make the fine factual distinctions that are required.²⁸² Factfinders in our judicial system are routinely called upon to determine questions of who did what, and why, sometimes in murky situations. In fact, liability or legality under numerous areas of American law (such as contract, tort, and criminal) often turns on intent, and juries are trusted in all these cases to ponder the evidence and to distinguish between good and bad intent.²⁸³ There is no reason to believe that juries are capable of making these distinctions in all types of cases *except* antitrust. Thus,

281. See *supra* Part I.B.2.b (discussing raising rivals’ costs and exclusionary conduct).

282. See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 467 (1992) (“This Court has preferred to resolve antitrust claims on a case-by-case basis, focusing on the ‘particular facts disclosed by the record.’”).

283. See *generally* *Morrisette v. United States*, 342 U.S. 246, 274 (1952) (“Where intent of the accused is an ingredient of the crime charged, its existence is a question of fact which must be submitted to the jury.”).

the argument that intent evidence has little or no value because “the ‘intent’ to create a monopoly anticompetitively cannot be distinguished from the intent to do so competitively” is vastly overstated.

B. Objective Intent

Another common objection to intent evidence focuses on its subjectivity and supposed unreliability.²⁸⁴ Some evidence of intent, inferred from concrete acts taken by the defendant, for example, is in fact quite objective. As to this type of intent evidence, the unreliability critique is inapplicable.

Consider, for example, two modern monopolization cases where intent (though not explicitly stressed) was a key factor: *Aspen Skiing*²⁸⁵ and *Eastman Kodak*.²⁸⁶ In both cases, liability under section 2 of the Sherman Act effectively turned on whether the defendant was able to show legitimate business justifications for its conduct.²⁸⁷ Whether a dominant firm’s conduct is justified requires knowing its purpose and intent; and, in both cases, evidence of that purpose and intent was objective in nature.

Aspen Skiing involved claims that Aspen Skiing Co. (Ski Co.), after becoming dominant in the Aspen downhill ski market through acquisition of a competitor,²⁸⁸ terminated a popular multi-day all-Aspen ticket that it had, for years, jointly offered with another competitor, Highlands.²⁸⁹ The joint ticket allowed skiers to ski on all four Aspen mountains, three of which were owned by Ski Co. and the fourth by Highlands.²⁹⁰ In upholding a jury verdict for the plaintiff, the Supreme Court stressed that the defendant had no “normal

284. See *infra* Part IV.C (addressing the critique that intent evidence is unreliable because juries are likely to misinterpret ambiguous language of corporate executives).

285. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

286. *Eastman Kodak*, 504 U.S. at 451.

287. See *id.* at 482-86 (affirming denial of summary judgment for defendant in a section 2 claim where there was a triable issue of fact concerning defendant’s reasons for its actions); *Aspen Skiing*, 472 U.S. at 605 (condemning the exclusion of competitors “on [any] basis other than efficiency” (quoting BORK, *supra* note 20, at 138)).

288. *Aspen Skiing*, 472 U.S. at 588-90 (noting that defendant owned and operated three of the four major skiing facilities in Aspen).

289. See *id.* at 592 (observing that Ski Co. offered to continue to participate in the all-Aspen ticket, but only if Highlands accepted a fixed percentage of the revenue considerably lower than the average percentage Highlands had generated in the immediately preceding years).

290. See *id.* at 608 (stating that “Ski Co. did not persuade the jury that its conduct was justified by any normal business purpose . . . [t]hat conclusion is strongly supported by Ski Co.’s failure to offer any efficiency justification whatever.”).

business purpose” or “efficiency justification” for terminating the attractive all-Aspen ticket.²⁹¹ In other words, Ski Co.’s refusal to deal could violate section 2 of the Sherman Act if it excluded Highlands on a non-efficiency basis, and without a legitimate business justification.

The Court then considered the defendant’s proffered business justifications but found them to be pretextual.²⁹² Ski Co. claimed to have terminated the joint ticket because the system for monitoring usage and allocating revenues was unreliable,²⁹³ and because Highlands’ alleged inferior facilities might mar defendant’s reputation.²⁹⁴ The evidence, however, showed that the all-Aspen ticket had been offered for years and was very popular with skiers.²⁹⁵ Ski Co. had no prior complaints about either the quality of Highlands’ services or the system for determining usage and allocating revenues.²⁹⁶

The evidence also showed that Ski Co. participated, and continued to participate, in offering the same type of joint multi-area tickets in other ski resorts where it operated but was not dominant.²⁹⁷ All this tended to show that the alleged flaws with the revenue division system and the supposed poor quality of plaintiff’s services were *not* the true reasons for Ski Co.’s actions.²⁹⁸ Given the objective nature of this intent evidence, it is hard to argue that it is, in any way, less reliable than any other type of evidence.

Another example of objective intent evidence can be found in *Eastman Kodak*,²⁹⁹ which was earlier discussed in another context.³⁰⁰ On a monopolization claim brought against Kodak by its competitors

291. *See id.* at 601-05 (reasoning that the “right to refuse to deal” applies only to the extent that its exercise does not create or maintain a monopoly and asserting that any exclusion not based on efficiency constitutes such an improper exercise).

292. *Id.* at 608.

293. *Id.* at 590, 608-09 (describing the methods used to monitor usage).

294. *Id.* at 609-10.

295. *See id.* at 589-90, 592 (noting that all-Aspen tickets outsold passes featuring only Ski Co. facilities after 1967 and became twice as popular by the 1977-1978 season).

296. *Id.* at 609-10.

297. *Id.* at 610.

298. *See id.* at 610-11 (stating that Ski Co.’s refusal to sell daily tickets to Highlands or to accept Highlands-issued coupons in exchange for Ski Co. tickets, where “accepting the coupons would have entailed no cost to Ski Co. itself, would have provided it with immediate benefits, and would have satisfied potential customers,” demonstrated a motivation to forego “short-run benefits and consumer goodwill [for] a perceived long-run impact on its smaller rival”).

299. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).

300. *See supra* notes 161-83 and accompanying text (discussing *Eastman Kodak* in the context of arguing that post-Chicago effects analysis can be quite indeterminate).

in the copier service market (ISOs),³⁰¹ the Supreme Court said that liability depends on “whether ‘valid business reasons’ can explain Kodak’s actions.”³⁰² Kodak claimed to have expelled ISOs from the service market to protect its own good will, by assuring a high level of repair service for owners of its equipment.³⁰³ The ISOs, however, presented evidence to show that they had provided low-priced, quality service for years and were preferred by some Kodak equipment owners,³⁰⁴ thus suggesting that concern for its good will might not have been the true reason for Kodak’s exclusionary behavior.³⁰⁵

Another reason Kodak offered for cutting off the ISOs’ supply of parts was that it needed to control inventory costs.³⁰⁶ The Court referred to evidence showing that Kodak not only refused to sell parts to the ISOs but also blocked the ISOs’ other avenues of access to Kodak parts, even though those alternate supply sources had no effect whatsoever on Kodak’s inventory costs.³⁰⁷ This suggested that the inventory cost control justification for Kodak’s refusal to deal might also have been pretextual.³⁰⁸

Intent evidence played an important role in *Microsoft* as well, and part of that evidence was objective, as will be discussed below. The government argued that Microsoft’s exclusion of Netscape’s browser and Sun’s Java likely prevented the growth of middleware that would have undermined Microsoft’s Windows monopoly.³⁰⁹ One alleged exclusionary practice was Microsoft’s prohibiting computer manufacturers (OEMs) from altering the computer desktop appearance and initial boot sequence, which was necessary for the pre-installation of Navigator.³¹⁰ The license restrictions effectively

301. See *Eastman Kodak*, 504 U.S. at 459 (alleging that Kodak sought to monopolize the sale of service of Kodak copiers through selling replacement parts only to those using Kodak repair services or repairing the copiers themselves). The plaintiffs also brought a Sherman Act section 1 claim alleging illegal tying arrangements. *Id.*

302. *Id.* at 483 (quoting *Aspen Skiing*, 472 U.S. at 605).

303. See *id.* at 483-84 (noting Kodak’s claim that it wanted to avoid blame for equipment malfunctions due to alleged substandard ISO repair service).

304. *Id.* at 483.

305. See *id.* at 484 (doubting the veracity of Kodak’s proffered justification where Kodak permitted self-service repairs, and customers who repaired their own equipment should be as likely as customers using ISO services to blame Kodak equipment for breakdowns caused by “(their own) inferior service”).

306. *Id.*

307. See *id.* at 484-85.

308. See *id.* at 485-86 (holding Kodak’s “inventory costs” justification insufficient to entitle Kodak to summary judgment as a matter of law).

309. See *supra* Part II.B.2.

310. *United States v. Microsoft Corp.*, 253 F.3d 34, 60-61 (D.C. Cir. 2001).

meant that no Windows-based computer would carry the Navigator browser.³¹¹

Microsoft sought to partially justify the OEM license restrictions on its need to protect Windows' "stability" and "consistency."³¹² The evidence showed, however, that changes to the desktop appearance and boot sequence did not alter computer code and did not disrupt Windows, leading the court to conclude that the proffered reasons were not credible.³¹³ The district court also noted that Microsoft had earlier attempted (unsuccessfully) to dissuade Netscape from continuing its efforts to develop Navigator's middleware platform capabilities.³¹⁴ All of this suggests that Microsoft imposed its license restrictions on the OEMs to undermine the success of Netscape's browser, in order to protect its Windows monopoly,³¹⁵ and not to protect the quality of Windows.

The district court noted, too, that Microsoft spent over \$100 million in developing its IE browser, paid vast sums of money, and sacrificed millions more in profits to crush Navigator,³¹⁶ although "it never intended to derive appreciable revenue" from its browser.³¹⁷ Microsoft even postponed the release of Windows 98 until development of IE was ready, even though the delay cost Microsoft the lucrative back-to-school and holiday selling seasons.³¹⁸ From this cumulative evidence, the court concluded that Microsoft's purpose was to neutralize "a threat to the applications barrier to entry."³¹⁹ Where the intent evidence is objective, the unreliability critique has no real application.

311. *Id.* at 60-62 (affirming the finding that pre-installation of multiple browsers increases an OEM's support costs and reasoning that by prohibiting OEMs from deleting visible means of access to Internet Explorer, Microsoft's own pre-installed browser, Microsoft effectively precluded OEMs from installing rival browsers such as Navigator).

312. *Id.* at 63-64.

313. *See id.*

314. *See United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 39 (D.D.C. 2000) (observing that, after Netscape rejected the offer, Microsoft sought to maximize Internet Explorer's usage share of the market by pressuring OEMs to distribute and promote only Internet Explorer); *United States v. Microsoft Corp.*, 84 F. Supp. 2d at ¶¶ 79-92 (D.D.C. 1999) (detailing the Microsoft-Netscape negotiations); *see also id.* at ¶¶ 93-132 (surveying the experiences of other computer industry firms in dealing with Microsoft over the development of certain software products).

315. *See Microsoft*, 87 F. Supp. 2d at 39-40 (finding Microsoft's asserted justification for bundling Internet Explorer with Windows 95 inconsistent with the evidence and thus viewing its actions as "part of a larger campaign to quash innovation that threatened its monopoly position").

316. *See Microsoft*, 84 F. Supp. 2d at ¶ 139.

317. *Microsoft*, 87 F. Supp. 2d at 42.

318. *See Microsoft*, 84 F. Supp. 2d at ¶¶ 167-68.

319. *Microsoft*, 87 F. Supp. 2d at 42.

C. *Subjective Intent and Risk of Adjudicatory Error*

More controversial are the purely subjective statements made by dominant firm employees. One objection to the use of such statements relates to the perceived difficulty of assigning corporate intent.³²⁰ Critics fear that random comments of (or documents authored by) employees who do not truly speak for the corporation might be mistakenly attributed to the corporation as expressions of its intent.³²¹ Another persistent objection is that business people are prone to use sports and war metaphors when speaking of the competition, such as vowing to “cut off [the rival’s] air supply,”³²² which might mislead juries to infer anticompetitive intent even if none exists.³²³

The difficulties involved in attributing intent to a corporation are greatly overstated. It should be entirely safe to attribute to the corporation, as an expression of its intent, statements made by its chief executive officer or its senior executives because these executives constitute the firm’s top management and act on its behalf.³²⁴ When Bill Gates speaks of his perception of the threat posed by Netscape,³²⁵ or of how that threat must be handled,³²⁶ it would be strange indeed to suggest that his subjective statements cannot be assigned to Microsoft.

Similarly, when senior Microsoft executives responsible for corporate strategy express deep concern with Navigator’s moving “in a direction that could diminish the applications barrier to entry,”³²⁷

320. See, e.g., David McGowan, *Networks and Intention in Antitrust and Intellectual Property*, 24 J. CORP. L. 485, 514-16 (1999) (stressing the difficulty of determining the intention of a firm).

321. See *id.* at 514 (“More generally, what one identifies as “the firm’s” intention in the run of cases will probably depend on who is asked, and even then the answer of one individual may not be worth much.”).

322. Complaint at ¶ 16, *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9 (D.D.C. 1999) (No.98-1232).

323. See, e.g., POSNER, *supra* note 18, at 214-15 (“Especially misleading is the inveterate tendency of sales executives to brag to their superiors about their competitive prowess, often using metaphors of coercion that are compelling evidence of predatory intent to the naïve.”).

324. See Vikramaditya S. Khanna, *Should the Behavior of Top Management Matter?*, 91 GEO. L.J. 1215, 1219 (2003) (arguing that top management can uniquely influence the behavior and actions of the corporation).

325. See *Microsoft*, 84 F. Supp. 2d at ¶ 72 (warning his executives that Netscape was “pursuing a multi-platform strategy” that would “commoditize the underlying operating system”).

326. See *United States v. Microsoft Corp.*, 253 F.3d 34, 62 (D.C. Cir. 2001) (quoting Mr. Gates who said that “[w]inning Internet browser share is a very important goal” for Microsoft, and who warned of the need to stop OEMs from pre-installing Navigator and internet providers from using Navigator).

327. *Id.*

we can assume that they are expressing the collective belief and concern of the corporation, given the speakers' status and the settings in which the remarks are made. Similarly, when senior Microsoft executives exchange a series of emails to the effect that Microsoft's browser cannot compete on the merits against Netscape's browser and that its browser must therefore be integrated with Windows,³²⁸ it is reasonable to attribute these subjective statements to the corporation.

As for statements made, or documents prepared, by middle management, a good rule of thumb would be to attribute to the corporation those statements and documents relating to matters within the middle manager's areas of responsibility, provided that the manager has policy-making authority.³²⁹ Within those defined areas, middle management with policy-making functions should be deemed to act on behalf of the corporation and their statements considered that of the corporation.³³⁰

In addition to stressing the difficulty of assigning "intention" to firms, some commentators also oppose subjective intent evidence on the ground that juries could easily misconstrue the "macho" language often used by business people.³³¹ Stated differently, critics contend that subjective intent evidence is suspect because executives may say, "We want to cut off our opponent's air supply" without actually meaning it, but juries may take those statements at face value. This argument also has very little merit.

Assessing whether a particular statement has significance or should be ignored as "a clumsy choice of words to describe innocent behavior"³³² is *precisely* the function of juries in our judicial system.³³³ We routinely trust jurors to make these kinds of judgments in other situations,³³⁴ and there is no reason to believe that they are, for some

328. *Microsoft*, 84 F. Supp. 2d at ¶¶ 166-69 (stating that "[p]itting browser against browser is hard," and that Microsoft's IE browser must be bound more tightly to Windows because "it will be very hard [for Microsoft] to increase browser market share on the merits").

329. Cf. John C. Coffee, Jr., "No Soul to Damn: No Body to Kick": An Unscandalized Inquiry into the Problem of Corporate Punishment, 79 MICH. L. REV. 386, 398 (1981) (noting that mid-level managers often bear the responsibility of implementing corporate goals).

330. Cf. *id.* 407-11 (justifying liability for mid-level managers on the basis of their influence and control over the corporation's behavior).

331. POSNER, *supra* note 18, at 214-15 (cautioning that juries could wrongly infer anticompetitive intent from the tendency of executives to brag about their competitive prowess).

332. *Id.* at 214.

333. See generally ELLEN E. SWARD, THE DECLINE OF THE CIVIL JURY 23-66 (2001) (explaining the role, function, and purpose of a civil jury).

334. Business executives are certainly not the only people who may use language

reason, more obtuse or more susceptible of being led astray in antitrust litigation than in other cases. Juries are a microcosm of our society and should certainly understand that business people sometimes use sports and war metaphors when they speak of their competition—just as they surely understand that people sometimes say, “I’ll kill you,” or “you will pay,” after very bitter arguments, without actually meaning their words.

We also have an adversarial system where counsel for dominant firms are free to cross examine witnesses, introduce evidence, and otherwise argue that certain statements are just macho talk and nothing more. But it should be up to the *jury* to ultimately decide whether a particular statement expresses intent or was just loose talk. The notion that subjective intent evidence should be ignored because the jury might “get it wrong” is very odd, given the role of juries in the judicial system.

Provided that they are credible, subjective statements can be very useful guides to the interpretation of the objective steps that dominant firms took, even when the objective steps themselves are ambiguous. For example, Bill Gates’ concern over computer manufacturers’ (OEMs) altering the computer “boot sequence” (which made consumer choice of Netscape’s Navigator browser easier);³³⁵ his stress on the importance of preventing the OEMs from promoting Navigator and the internet providers that use Navigator;³³⁶ and his warning that Netscape was “pursuing a multi-platform strategy” that would “commoditize” Windows³³⁷ are all helpful in explaining the severe OEM license restrictions that Microsoft subsequently imposed. On their own, the license restrictions may be somewhat ambiguous: there are myriad reasons why any copyright owner might wish to control the terms of its license agreement.³³⁸ But Bill Gates’ state-of-mind expressions clarified the reasons for, and implications of, Microsoft’s actions.

Similarly, various internal communications among Microsoft executives regarding the IE browser and Windows 98 are helpful to the interpretation of Microsoft’s subsequent actions relating to

loosely. And juries are usually trusted to determine whether a particular statement is to be taken as some evidence of liability (or guilt), or whether it is inconsequential “loose talk,” based on the context and other evidence.

335. *United States v. Microsoft Corp.*, 253 F.3d 34, 61-62 (D.C. Cir. 2001).

336. *See id.* at 62 (noting that the prevention of OEMs from promoting rival browsers protects Microsoft’s market share).

337. *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, ¶ 72 (D.D.C. 1999).

338. *See Microsoft*, 253 F.3d at 62-64 (noting Microsoft’s attempt to justify its license restrictions as the exercise of valid copyrights and as necessary to prevent substantial alteration of copyrighted work).

Netscape. Statements such as “I don’t understand how IE is going to win [without integration],”³³⁹ or “[p]itting browser against browser is hard,”³⁴⁰ or “it will be very hard to increase browser share on the merits of IE 4 alone,”³⁴¹ are informative because, among other things, they help us discriminate between two competing stories for the bundling: the anticompetitive one (to crush competition) and the procompetitive one (to enhance the value of Windows).

With respect to the Java threat, internal email communications and other documents stating that Microsoft’s strategic goal is to “[k]ill cross-platform Java by grow[ing] the polluted Java market;”³⁴² that the company “should just quietly grow [its Java version] and assume that people will take more advantage of [it] without ever realizing that they are building win32-only java apps,”³⁴³ and that it hopes to cause “Intel to stop helping Sun” are valuable evidence toward explaining Microsoft’s various actions on the Java front.³⁴⁴

Consider also *LePage’s*,³⁴⁵ a recent case involving claims that 3M, which manufactures an extensive line of office products (including scotch tape), unlawfully maintained its transparent tape monopoly by offering its customers large bundled rebates that were conditioned on the customers’ reaching specific purchase targets across several product lines.³⁴⁶ The bundled rebate program allegedly caused most of LePage’s former customers to switch to 3M for their transparent tape purchase.³⁴⁷ Since there was no evidence that, with the rebate, 3M’s transparent tape was sold below cost,³⁴⁸ it is more difficult to determine whether the bundled rebates constitute legitimate competition or unlawful exclusionary conduct. While the Third Circuit did not explicitly rely on intent in finding the conduct exclusionary and anticompetitive, it referred to evidence of 3M’s intent to use the rebate program to expel LePage’s from the market, then cease or curtail its own private-label (low-price) tape production, and subsequently raise its prices on its “scotch” (premium) tape.³⁴⁹

339. *Microsoft*, 84 F. Supp. 2d at ¶ 166.

340. *Id.*

341. *Id.* at ¶ 169.

342. *Id.* (citations omitted).

343. *Id.* at ¶ 394.

344. *Id.* at ¶ 406.

345. *LePage’s Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003).

346. *See id.* at 145, 154.

347. *Id.* at 157 (explaining the monetary effect of 3M’s bundling on LePage’s sales of transparent tape).

348. *Id.* at 147 n.5 (“LePage’s has not contested 3M’s assertion” that its pricing was above cost).

349. *See supra* notes 10-11 and accompanying text (discussing 3M’s intent to force

To the extent that credible statements were made by 3M executives to that effect, they can be very helpful in analyzing and interpreting the complex rebate incentive program. On its own, the bundled rebates could conceivably be viewed as merely a legitimate volume discount package. But statements from 3M executives indicating a different purpose for the rebate and the desire to ultimately “kill” private-label tape³⁵⁰ and then raise scotch tape prices³⁵¹ help clarify the effect of the rebate. These statements, combined with other evidence, make it easier to interpret the action that 3M took.

To minimize the possibility that an isolated loose remark might be misused against the company, we could require that subjective statements carry some indicia of credibility. First, if the statement is largely uncontradicted, its reliability factor would be enhanced. For example, if a senior Microsoft executive had said, “we want to integrate our browser with Windows because our browser is not competitive otherwise,” and there is very little or no contradictory evidence (such as documents showing a desire to enhance consumer demand for Windows by adding value to it), then the subjective statement is unlikely to be an idle, inconsequential remark.

Second, if a subjective statement is made contemporaneously with the alleged exclusionary act, it is also likely to be credible. Thus, if the above browser integration statement is made within the same time frame as Microsoft’s various actions thwarting the distribution of Netscape’s browser, the statement is probably *not* a stray, meaningless comment. Similarly, in *LePage’s*, if subjective statements concerning “killing” private label tape and boasting of 3M’s subsequent leverage over large retailers are made around the time of the implementation of the complex bundled rebates, the statements are likely to be credible.

Third, if a subjective statement is made in settings where it has cost consequences, the statement would also bear the mark of credibility. For example, an internal email (sent by a company executive) advising employees of a business strategy and exhorting them to act accordingly is a highly credible piece of intent evidence. The email in question is unlikely to be a mere off-the-cuff expression because employees are expected to act upon it, and it would be costly to the firm if employees were to follow “instructions” that were not intended

LePage’s from the market).

³⁵⁰ *Id.* at 164.

³⁵¹ *See id.* at 163 (noting that, “3M’s interest in raising prices is well-documented in the record In internal memoranda . . . 3M executives boasted that the large retailers like Office Max and Staples had no choice but to adhere to 3M’s demands” and that “the price of Scotch-brand tape increased.”).

to be taken seriously. Therefore, the email should be considered credible evidence of intent.

If these indicia of credibility are present, subjective statements made by a firm's senior executives could reliably aid in the interpretation of facts. To the extent that an antitrust defendant considers a specific subjective statement or document too prejudicial, it can always file a motion in limine to seek its exclusion, just as in any other litigation.³⁵² A wholesale exclusion of subjective intent evidence, or an undue elevation of the standard of sufficiency for such evidence, is an unnecessarily broad "remedy" against the possibility that juries might err.

A final criticism of intent evidence that has been made is that the presence or absence of intent evidence in litigation "is often a function of luck and the defendant's legal sophistication."³⁵³ Sophisticated firms "will not leave a documentary trail of improper intent,"³⁵⁴ whereas firms unschooled in antitrust law will be trapped by their "clumsy choice of words to describe innocent behavior."³⁵⁵ The observation that the legal system favors the legally sophisticated is no doubt correct. Still, the argument that intent evidence is meaningless because the legally well-informed may know how to evade liability while the unwary may be caught is unpersuasive.

Whenever liability turns even partially on intent, there is probably always a bias in favor of sophisticated corporate defendants and against unsophisticated ones. Sophisticated firms are less likely to generate "hot" documents evidencing improper intent. Unsophisticated firms, on the other hand, might conceivably have bad intent attributed to them because of corporate executives' documented loose remarks that may not evidence the firm's true intentions.³⁵⁶ But this is an argument that resonates, not just in antitrust, but in any case where intent is relevant.

For example, the termination of a minority employee because of a superior's racial bias would violate employment discrimination laws, whereas his termination for unsatisfactory performance would not be illegal.³⁵⁷ A legally sophisticated firm that seeks to dismiss an

352. See FED. R. EVID. 403 ("Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury . . .").

353. POSNER, *supra* note 18, at 214.

354. *Id.*

355. *Id.* at 216.

356. See *id.* (observing that unsophisticated firms often create rich evidence of improper intent by a "clumsy choice of words to describe innocent behavior").

357. 42 U.S.C. § 2000e-2(a) (2003).

employee for racially motivated reasons could well paper its records prior to dismissal to show various supposed deficiencies in the employee's performance. It would also do its best to leave no hint in the corporate record of the superior's racial animus toward the employee. Perhaps evidence of the latter would surface in depositions, or perhaps not.

On the other hand, continuing with an employment discrimination example, a legally unsophisticated firm that had dismissed a minority employee for reasons unrelated to his race could well face scrutiny if discovery reveals several racially prejudiced remarks made by the employee's superiors at some point during his period of employment. And, adjudicatory errors are not implausible. Yet, few would seriously argue that, because the system is imperfect, evidence of intent is inherently suspect.³⁵⁸

CONCLUSION

This article concludes that monopolization analysis will be well served by according more respect to intent evidence. While acknowledging that this view runs counter to the Chicago and post-Chicago schools' commitment to an exclusive economic approach to antitrust, I argue that empirical data and economic theory alone are sometimes inadequate for evaluating whether an alleged exclusionary practice has anticompetitive effects. This is particularly true in markets where innovation competition is important and where network effects are substantial.

When an effects analysis using only economic tools yields inconclusive results, I argue that we should turn to intent evidence for further guidance and possibly as a proxy for effect. Indeed, Microsoft is an example of a modern monopolization case where the court made numerous references to the defendant's bad intent, thus confirming that intent evidence still plays an important role in some monopolization cases, despite much rhetoric to the contrary.³⁵⁹

358. Of course, in this employment discrimination hypothetical, intent is the ultimate issue to be decided, see *Reeves v. Sanderson Plumbing Prod., Inc.*, 530 U.S. 133, 153 (2000), whereas in monopolization analysis, intent is merely probative of effect. Thus, the two situations are not legally analogous. The point of this example, however, is to demonstrate that legally sophisticated firms generally know better than to leave a documentary trail of intent evidence in a variety of cases, not just in antitrust. Yet the law does not say that intent evidence is, therefore, of little value.

359. See *supra* note 2 (citing several cases criticizing the use of intent evidence); see also *Cal. Dental Ass'n v. FTC*, 224 F.3d 942, 948 (9th Cir. 2000) (dismissing intent evidence as devoid of value in antitrust cases); *FTC v. Freeman Hosp.*, 69 F.3d 260, 270 n.14 (8th Cir. 1995) (rejecting opinion and intent evidence); *A.A. Poultry Farms v. Rose Acre Farms*, 881 F.2d 1396, 1402 (7th Cir. 1989) (explaining that intent

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Finally, while commentators have raised a number of objections to the use of intent evidence in monopolization analysis, this article concludes that the objections are mostly overstated. Intent evidence, in fact, can be reliable and manageable. In short, there is a place for intent evidence in monopolization analysis.

evidence does not help courts to distinguish between competitive and monopolization efforts).