

**ENFORCEMENT OF SECTION 2 OF THE SHERMAN ACT:
THEORY AND PRACTICE**

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Section 2 of the Sherman Act was enacted over 100 years ago to address the acquisition and maintenance of monopoly power by anticompetitive conduct. The concerns with monopoly were identified early on in section 2 jurisprudence.¹ As a leading treatise explains, “[W]e worry about monopoly because of its generally evil result or potentialities: reduced output and higher prices, diminished incentives for innovation, and fewer alternatives for suppliers and customers.”²

Yet courts have not declared monopolies unlawful per se. They have recognized that monopoly may be obtained by superior skill and unmatched effort. They have understood that “[t]he successful competitor, having been urged to compete, must not be turned upon when he wins.”³ This “fundamental tension—one might almost say the paradox—that is near the heart of § 2,”⁴ has generated decades of litigation and scholarly efforts focused on identifying the types of settings in which monopoly should appropriately be condemned.

Today, “monopolization” refers to certain types of strategic behavior that may be

* The views expressed are those of the authors and Policy Studies’ staff and do not necessarily reflect the views of the Commission or any individual Commissioner.

¹ Standard Oil Co. v. United States, 221 U.S. 1, 52 (1911) (describing the “evils which led to the public outcry against monopolies” as “(1) The power . . . to fix the price and thereby injure the public; (2) The power . . . of enabling a limitation on productin [sic]; and (3) The danger of deterioration in quality of the monopolized article which it was deemed was the inevitable resultant of the monopolistic control over its production and sale”).

² 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 631, at 71 (3d ed. 2008) (noting, however, the possibility that some monopolies may confer advantages that offset their dangers). See generally HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY § 1.3 (3d ed. 2005) (summarizing recent economic learning regarding the potential costs of monopoly).

³ United States v. Aluminum Co. of Am. (*Alcoa*), 148 F.2d 416, 430 (2d Cir. 1945).

⁴ Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 273 (2d Cir. 1979).

unlawful when engaged in by a firm seeking to obtain or maintain monopoly power.⁵ Sometimes the anticompetitive conduct is employed to acquire monopoly power, exposing consumers to the price, output, and innovation effects that can result from monopoly. Sometimes the anticompetitive conduct is employed to maintain a monopoly position, preventing rivals from entering or effectively competing with the monopolist, and thereby prolonging consumers' exposure to the potentially harmful effects of monopoly.

This paper provides an overview of section 2 and its application to single-firm conduct, highlighting major features of section 2 enforcement activity and central policy issues facing courts and enforcers. Section I describes the elements of the primary section 2 offenses—monopolization and attempted monopolization—and the role of section 2 in antitrust enforcement. Section II describes the methods of section 2 enforcement, tracing the historical development of federal enforcement and surveying recent enforcement activity, both governmental and private. Section III provides a brief thematic overview of section 2 jurisprudence, and Section IV describes the economic theories and tools that have played an important role in section 2 analysis. Finally, Section V identifies certain recurring policy issues that were addressed at the recent Federal Trade Commission/Department of Justice Hearings on Section 2 of the Sherman Act: Single-Firm Conduct as Related to Competition [hereinafter “the hearings”]—the effort to develop clear and administrable rules and the consideration of error costs in designing rules.

I. The Structure and Scope of Section 2

The Supreme Court has described the Sherman Act as “the Magna Carta of free enterprise,”⁶ and emphasized that it is directed “not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself.”⁷ The Act’s far-reaching objectives are achieved through two substantive provisions of broad coverage.

Section 1 of the Sherman Act prohibits any “contract, combination . . . , or conspiracy, in restraint of trade.”⁸ This prohibition applies only to agreements between firms and is primarily aimed at preventing injury to competition from collusion—arrangements designed to eliminate competition among competitors to their mutual benefit. Combating collusion has long “supplied the core of federal antitrust enforcement”⁹ cases, in part because, as the Supreme Court has

⁵ HOVENKAMP, *supra* note 2, § 6.1, at 269.

⁶ United States v. Topco Assocs., Inc. 405 U.S. 596, 610 (1972).

⁷ Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 458 (1993).

⁸ 15 U.S.C. § 1 (2007).

⁹ William E. Kovacic, *The Modern Evolution of U.S. Competition Policy Enforcement Norms*, 71 ANTITRUST L.J. 377, 415 (2003) (noting the “primacy” of section 1

explained, “[c]oncerted activity is fraught with anticompetitive risks.”¹⁰

Section 2 of the Sherman Act declares:

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony¹¹

Section 2 applies to all types of unilateral conduct by firms, and thus covers a vast range of activities. It is primarily aimed at preventing injury to competition accomplished through exclusion of rivals.¹² Accordingly, “the effects of exclusionary conduct are always *indirect*: by excluding a rival, or impairing its ability to compete effectively . . . the predator hopes to obtain power over price or influence some other dimension of competition.”¹³ Distinguishing anticompetitive exclusionary conduct from vigorous competition is often difficult, because both types of conduct frequently “look alike.”¹⁴ The resulting concern that uncertainty or enforcement errors might discourage procompetitive conduct has influenced the Supreme Court’s approach to recent section 2 enforcement.¹⁵

enforcement).

¹⁰ Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752, 768–69 (1984).

¹¹ 15 U.S.C. § 2 (2007).

¹² Certain types of vertical agreements, such as exclusive dealing and tying, are actionable under both sections 1 and 2.

¹³ ANDREW I. GAVIL, WILLIAM E. KOVACIC & JONATHAN B. BAKER, ANTITRUST LAW IN PERSPECTIVE 45 (2002).

¹⁴ Frank H. Easterbrook, *When Is It Worthwhile to Use the Courts to Search for Exclusionary Conduct?*, 2003 Colum. Bus. L. Rev. 345, 345.

¹⁵ *See* Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 127 S. Ct. 1069, 1078 (2007) (noting the “serious” risk of “chilling procompetitive behavior with too lax a liability standard” for predatory bidding); Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408, 414 (2004) (noting that the Court has “been very cautious” in applying section 2 to unilateral refusals to deal, in part to avoid chilling desirable investment); Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 226–27 (1993) (explaining that the prerequisites of a predatory pricing claim are necessary to avoid undue chilling of price-cutting); Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 458 (1993) (noting that the Court has avoided construing section 2 in ways that “might chill competition rather than foster it”); *Copperweld*, 467 U.S. at 767–68 (explaining the limitation of section 2 to cases involving a danger of

Section 2 sets forth three offenses, commonly termed “monopolization,” “attempted monopolization,” and “conspiracy to monopolize.” The first two offenses are of principal relevance to this paper.¹⁶

Monopolization is the core section 2 offense. The long-standing test for monopolization, articulated in *United States v. Grinnell Corp.*, consists of 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.”¹⁷

“Monopoly power” as used in the first element means market power—the ability to raise prices profitably above those that would be charged in a competitive market—that is both substantial and durable. Courts and agencies have identified important indicators of monopoly power, including the defendant’s market share and barriers to entry.¹⁸ The second requirement is “an element of anticompetitive *conduct*” that contributes to the acquisition or maintenance of monopoly power.¹⁹ A wide range of unilateral conduct has been challenged under section 2, and there is considerable debate about what standards should be used in determining whether conduct should be condemned under this provision.²⁰

Section 2 also proscribes “attempt[s] to monopolize.”²¹ Attempted monopolization requires proof “(1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power.”²² Although this paper—and, indeed, most of the legal and economic debate—focuses on monopolization, much of the discussion applies to both of these closely-related offenses.

monopolization as mitigating the “risk that the antitrust laws will dampen the competitive zeal of a single aggressive entrepreneur”).

¹⁶ The “conspiracy to monopolize” offense addresses monopoly power acquired through concerted action and therefore is largely outside the scope of this paper.

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

¹⁸ *See generally* 1 ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 229–40 (6th ed. 2007).

¹⁹ *Trinko*, 540 U.S. at 407.

²⁰ *See generally* Karen L. Grimm, *General Standards for Exclusionary Conduct* (Fed. Trade Comm’n Staff Working Paper, 2008), <http://www.ftc.gov/os/section2hearings/index.shtm>.

²¹ 15 U.S.C. § 2 (2007).

²² *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456 (1993).

The anticompetitive conduct requirement is assessed using the conduct standards of the monopolization offense,²³ although courts have observed that conduct that is illegal for a monopolist may be legal for an aspiring monopolist, as certain conduct may not have anticompetitive effects unless undertaken by a firm already possessing monopoly power.²⁴ Moreover, the “specific intent” to monopolize does not encompass “an intent to compete vigorously,”²⁵ rather, it entails “a specific intent to destroy competition or build monopoly.”²⁶ Finally, the “dangerous probability” inquiry focuses on the same factors used to assess monopoly power in monopolization claims,²⁷ although a “dangerous probability” of attaining monopoly power generally can be demonstrated with less market power than is needed for establishing actual monopoly power.²⁸

²³ See 1 ABA SECTION OF ANTITRUST LAW, *supra* note 18, at 307 (“The same principles used in the monopolization context to distinguish aggressive competition from anticompetitive exclusion thus apply in attempt cases.”).

²⁴ See, e.g., *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 187 (3d Cir. 2005) (“Behavior that otherwise might comply with antitrust law may be impermissibly exclusionary when practiced by a monopolist.”); 3B AREEDA & HOVENKAMP, *supra* note 2, ¶ 806e, at 423.

²⁵ *Spectrum Sports*, 506 U.S. at 459; see also 3B AREEDA & HOVENKAMP, *supra* note 2, ¶ 805b, at 407–08 (“[T]here is at least one kind of intent that the proscribed ‘specific intent’ clearly cannot include: the mere intention to prevail over one’s rivals. To declare that intention unlawful would defeat the antitrust goal of encouraging competition on the merits, which is heavily motivated by such an intent.”) (footnote omitted).

²⁶ *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 626 (1953). One leading treatise concludes that “‘objective intent’ manifested by the use of prohibited means should be sufficient to satisfy the intent component of attempt to monopolize.” 3B AREEDA & HOVENKAMP, *supra* note 2, ¶ 805b2, at 410.

²⁷ See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 81 (D.C. Cir. 2001) (en banc) (per curiam) (“Defining a market for an attempted monopolization claim involves the same steps as defining a market for a monopoly maintenance claim.”); ABA SECTION OF ANTITRUST LAW, *supra* note 18, at 312–17 (cataloguing the factors considered by courts, including, most importantly, market share and barriers to entry).

²⁸ See, e.g., *McGahee v. N. Propane Gas Co.*, 858 F.2d 1487, 1505 (11th Cir. 1988) (“Determining whether a defendant possesses sufficient market power to be dangerously close to achieving a monopoly requires analysis and proof of the same character, but not the same quantum, as would be necessary to establish monopoly power for an actual monopolization claim.”).

II. Methods of Enforcement

A. Overview

Section 2 enforcement is a mosaic of the separate, but related, activities of three types of plaintiffs—the federal enforcement agencies (the Federal Trade Commission and the Antitrust Division of the Department of Justice, hereinafter the “Agencies”), state enforcers, and private parties. At the federal level, the United States Attorney General, acting through the Antitrust Division of the United States Department of Justice (“DOJ”), possesses exclusive federal governmental authority to bring claims under the Sherman Act.²⁹ Civil remedies include injunctive relief and treble damages for harm suffered by the United States.³⁰

The Federal Trade Commission (“FTC”) has authority to bring administrative proceedings challenging “unfair methods of competition”—including conduct that violates section 2 of the Sherman Act³¹—under section 5 of the FTC Act. The FTC may issue a cease and desist order and seek enforcement of that order, including civil penalties and injunctive relief, in federal court.³² Additionally, the FTC may apply for injunctive relief pending adjudication of its own administrative complaint or, in a “proper case,” for permanent injunctive relief against entities that have violated or threaten to violate the laws it administers.³³ The FTC has used this latter authority to seek and obtain equitable relief in the form of restitution and disgorgement in limited circumstances.³⁴

State attorneys general also enforce section 2. Section 4 of the Clayton Act authorizes state attorneys general to bring civil actions seeking treble damages as direct purchasers of goods or services,³⁵ while section 4C provides that state attorneys general may bring civil actions in

²⁹ See 15 U.S.C. § 4 (2007).

³⁰ See *id.* § 15a. Although section 2 authorizes criminal remedies, the Justice Department has not sought criminal relief in a section 2 case for many years.

³¹ *Id.* § 45(b).

³² *Id.* § 45(b), (l).

³³ *Id.* § 53(b).

³⁴ See *FTC v. Mylan Labs.*, 62 F. Supp. 2d 25, 36–37 (D.D.C. 1999), *revised and reaffirmed in pertinent part*, 99 F. Supp. 2d 1, 4–5 (D.D.C. 1999); Federal Trade Commission, Policy Statement on Monetary Equitable Remedies in Competition Cases, 68 Fed. Reg. 45,820 (Aug. 4, 2003), *available at* <http://www.ftc.gov/os/2003/07/disgorgementfrn.htm>.

³⁵ See 15 U.S.C. § 15(a) (2007).

federal district courts as *parens patriae* on behalf of natural persons residing within their states.³⁶ Likewise, state attorneys general may seek injunctive relief against loss or damage threatened by a violation of section 2.³⁷

Private parties injured by a violation of section 2 may sue in federal court for treble damages, injunctive relief, and reasonable attorneys' fees.³⁸ While consumers and competitors of the alleged antitrust violator are the most common private plaintiffs, any class of persons—including distributors, wholesalers, retailers, sellers, suppliers, and end users may bring suit, subject to certain limitations. For example, in order to recover, a private party must demonstrate that it suffered “antitrust injury”³⁹ and that it otherwise has standing as a proper plaintiff.⁴⁰ Federal civil procedure law authorizes private litigants to institute class actions on behalf of similarly injured persons.⁴¹ As discussed below, private parties historically have played, and continue to play, a key role in section 2 enforcement.

These enforcement efforts intersect in important ways. Federal actions are sometimes accompanied by contemporaneous state enforcement activity; for example, nineteen states and the District of Columbia joined DOJ in challenging Microsoft's conduct, and various states filed damage actions parallel to FTC complaints involving drug company conduct.⁴² Agency

³⁶ *Id.* § 15c.

³⁷ *Id.* § 26; *Hawaii v. Standard Oil Co. of Cal.*, 405 U.S. 251, 261 (1972). In addition, most states have enacted statutes comparable to section 2. 1 ABA SECTION OF ANTITRUST LAW, AM. BAR ASS'N, STATE ANTITRUST PRACTICE AND STATUTES 1-22 (3d ed. 2004). These statutes are construed in accord with federal law to varying degrees. *Id.* at 1-22 to -23.

³⁸ 15 U.S.C. §§ 15, 26 (2007).

³⁹ *See Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104 (1986); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477 (1977).

⁴⁰ *See Blue Shield of Va. v. McCready*, 457 U.S. 465 (1982); *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519 (1983). In addition, the “indirect purchaser” rule bars buyers other than the immediate buyer from the antitrust violator from recovering damages (except under limited circumstances). *See Ill. Brick Co. v. Illinois*, 431 U.S. 720, 736 (1977).

⁴¹ *See* FED. R. CIV. P. 23.

⁴² FTC actions against pharmaceutical companies were accompanied by state enforcement actions and follow-on private litigation against Schering-Plough, Mylan, Aventis (formerly Hoechst Marion Roussel), and Bristol-Meyers Squibb. *See infra* note 80 (discussing FTC actions); Appendix Table 1 (listing state actions); Public Comment from Patrick E. Cafferty, Miller Faucher & Cafferty LLP, to the Antitrust Modernization

enforcement actions have also recently led to large recoveries in follow-on private actions.⁴³ For example, panelists estimated that Microsoft had paid approximately \$10 billion to settle actions on behalf of consumers and competitors.⁴⁴ At the same time, the Agencies play an important role in private enforcement through their *amicus* participation in the Supreme Court.⁴⁵

B. Federal Enforcement

1. An Historical Overview

Over the years federal enforcement of section 2 has changed in response to evolving jurisprudence and new economic learning.⁴⁶ Whereas federal enforcement policy prior to the early 1980's often took an expansive view of section 2 liability,⁴⁷ recent enforcement policy has been more cautious.

Comm'n 1–4 (June 2, 2006), http://govinfo.library.unt.edu/amc/public_studies_fr28902/remedies_pdf/060602_Cafferty_Persky_Gustafson_Remedies.pdf (listing private actions); *In re K-Dur Antitrust Litigation*, 338 F. Supp. 2d 517 (D.N.J. 2004).

⁴³ Prior research has shown that a significant portion of private antitrust cases follow from government actions, but that most follow-on cases are those alleging horizontal price-fixing. See Thomas E. Kauper & Edward A. Snyder, *Private Antitrust Cases that Follow on Government Cases*, in PRIVATE ANTITRUST LITIGATION 329, 333 tbl.7.1, 338 tbl.7.3, 339 (Lawrence J. White ed., 1988).

⁴⁴ See Sherman Act Section 2 Joint Hearing: Remedies Hr'g Tr. 104, Mar. 29, 2006 [hereinafter Mar. 29 Hr'g Tr.] (Page) (citing reports that Microsoft settlement payments totaled close to \$9 billion); Sherman Act Section 2 Joint Hearing: Concluding Session Hr'g Tr. 151, May 8, 2007 [hereinafter May 8 Hr'g Tr.] (Rule) (suggesting that Microsoft's settlement payments may exceed \$10 billion).

⁴⁵ Brief for the United States as Amicus Curiae Supporting Petitioner, *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069 (2006) (No. 05-381), available at <http://www.ftc.gov/ogc/briefs/05381weyerhaeuser217988.pdf>; Brief for the United States and Federal Trade Commission as Amicus Curiae Supporting Petitioner, *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2003) (No. 02-682), available at <http://www.ftc.gov/os/2003/05/trinkof.pdf>.

⁴⁶ See generally *infra* Sections III, IV.

⁴⁷ See, e.g., William K. Kovacic, *The Intellectual DNA of Modern U.S. Competition Law for Dominant Firm Conduct: The Chicago/Harvard Double Helix*, 2007 COLUM. BUS. L. REV. 1, 17 (“From the 1940s through the mid-1970s, the United States developed an intervention-minded body of legal doctrine and enforcement policy toward dominant firms that no system of competition law has matched.”).

In the decades immediately following passage of the Sherman Act in 1890, the Justice Department brought monopolization cases against some of the largest firms in the country, including Standard Oil,⁴⁸ which had been a major target of Congressional concern.⁴⁹ It was the trust-busting, Progressive era of Presidents Theodore Roosevelt and William Taft, and the courts generally upheld Government efforts to rein in powerful monopolies.⁵⁰

This first phase of aggressive enforcement subsided in the 1920s after the Supreme Court's decision in *United States v. United States Steel Corp.*,⁵¹ and continued to decline until the late 1930s, as the early New Deal de-emphasized competition in favor of central-planning initiatives designed to combat the Depression and promote economic growth.⁵²

By the mid-1930s, however, there was renewed interest in antitrust enforcement, and the Justice Department again brought a number of section 2 cases, including, most importantly, *Alcoa*.⁵³ After the Supreme Court adopted an expansive view of unlawful conduct in a number of monopolization cases in the late 1940s and early 1950s,⁵⁴ leading commentators began to urge that section 2 be broadly employed against monopolies, and that the Agencies embrace a “no fault” interpretation of section 2.⁵⁵ The Justice Department, while not employing “no fault” theories, brought monopolization cases in a variety of different industries, and, with few

⁴⁸ See *Standard Oil Co. v. United States*, 221 U.S. 1 (1911). See generally GAVIL ET AL., *supra* note 13, at 567 (“*Standard Oil* was one of many monopolization cases the Justice Department initiated from 1905 through 1912. The targets of these cases, companies such as Standard Oil, General Electric, DuPont, American Tobacco, International Harvester, and U.S. Steel, had exploited law enforcement and favorable judicial interpretations to achieve market supremacy by purchasing competitors.”).

⁴⁹ GAVIL ET AL., *supra* note 13, at 566–67.

⁵⁰ See, e.g., *Standard Oil*, 221 U.S. 1; *United States v. Am. Tobacco Co.*, 221 U.S. 106 (1911); *United States v. United Shoe Mach. Co.*, 247 U.S. 32 (1918).

⁵¹ *United States v. U.S. Steel Corp.*, 251 U.S. 417 (1920) (upholding a ruling in favor of U.S. Steel based largely on the Government's failure to prove that U.S. Steel had substantial market power).

⁵² See GAVIL ET AL., *supra* note 13, at 593.

⁵³ *United States v. Aluminum Co. of Am.*, 148 F.2d 416 (2d Cir. 1945).

⁵⁴ See, e.g., *United States v. Griffith*, 334 U.S. 100 (1948).

⁵⁵ See GAVIL ET AL., *supra* note 13, at 604.

exceptions,⁵⁶ prevailed on liability issues.⁵⁷

Federal enforcement peaked during the late 1960s and the 1970s, as the Agencies, responding to increasing criticism,⁵⁸ launched a wave of cases against firms in highly concentrated industries. As one commentator has observed “[t]he ambitiousness, and risk, of this program are difficult to overstate.”⁵⁹ The Agencies relied on very expansive views of what constitutes unlawful conduct and urged the courts to adopt new theories at the outer edges of legal doctrine and economic learning.⁶⁰ They also sought strong remedies, including divestiture and compulsory licensing.

Although the campaign against dominant firms yielded some successes, largely in the form of consent decrees,⁶¹ the Government lost most of its litigated cases.⁶² Many began to question both the Agencies’ institutional ability to handle large monopoly cases and the economic theories on which the cases were based.⁶³ By 1980, there was widespread criticism of the Agencies’ aggressive enforcement agendas. The earlier concerns about concentration and

⁵⁶ Probably the most important of these was the “Cellophane Case,” *United States v. E.I. duPont de Nemours & Co.*, 351 U.S. 377 (1956), in which the Court rejected the Government’s proposed relevant market, confined to cellophane, in favor of a broader market encompassing all flexible packaging materials.

⁵⁷ GAVIL ET AL., *supra* note 13, at 604.

⁵⁸ *See Kovacic, supra* note 9, at 450 (noting that “criticism persisted in the 1960s and culminated in the recommendation of the Neal Commission in 1969 that Congress and the enforcement agencies adopt a new norm that promoted enforcement to attack abusive conduct by dominant firms and, in many instances, to deconcentrate major sectors of the economy”).

⁵⁹ *Id.* Among those challenged were “the world’s leading computer producer (IBM), the world’s leading producer of photocopiers (Xerox), the world’s largest telephone system (AT&T), the world’s two leading producers of tires (Firestone and Goodyear), the eight largest petroleum refiners, [and] the four largest suppliers of breakfast cereal. The DOJ and the FTC sued them all.” *Id.*

⁶⁰ *Id.* at 451.

⁶¹ *Id.* Probably the most important of these was the decree accepted by AT&T. *See infra* note 67.

⁶² Kovacic, *supra* note 9, at 451–52 (“The dominant legacy of the federal campaign involving concentrated industries is failure in the form of litigated defeats on the merits . . . and dismissals before trial . . .”).

⁶³ *Id.* at 452.

“shared monopolies” were largely discredited, as respected authorities began to question the structuralist assumptions⁶⁴ that had guided antitrust policy and to challenge the economic basis for attacking concentrated industries.⁶⁵

By this time, the “pro-market, and largely anti-interventionist” views of the Chicago School⁶⁶ were increasingly reflected in the Agencies’ enforcement policies. During the 1980s, the Justice Department entered a landmark consent decree that dismantled the AT&T monopoly⁶⁷ but voluntarily dismissed its 13-year case against IBM.⁶⁸ Between 1981 and early 1989, the Agencies between them filed four new cases, but, “[that was] the smallest number of government dominant firm cases initiated in any comparable period since passage of the Sherman Act in 1890.”⁶⁹

The 1990s saw a limited increased level of enforcement.⁷⁰ However, unlike their campaign against concentrated industries in the 1960s and 1970s, the Agencies in the 1990s adopted a far more targeted approach focused on conduct rather than market structure. The Justice Department secured a consent decree against Microsoft’s exclusive dealing practices in 1995,⁷¹ and filed a more expansive case in 1999, alleging that Microsoft had maintained its monopoly through a wide variety of exclusionary practices.⁷² It also filed a predatory pricing

⁶⁴ See generally HERBERT HOVENKAMP, *THE ANTITRUST ENTERPRISE* 35–37 (2005) (summarizing the development of the traditional “structuralist” view, which posited that the structure of a market essentially dictates the conduct of market participants, which in turn dictates performance). See also *infra* Section IV.A.

⁶⁵ Kovacic, *supra* note 9, at 458.

⁶⁶ HOVENKAMP, *supra* note 64, at 32.

⁶⁷ See *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff’d sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

⁶⁸ See *In re IBM Corp.*, 687 F.2d 591 (2d Cir. 1982) (affirming dismissal of Government’s case).

⁶⁹ Kovacic, *supra* note 9, at 453.

⁷⁰ *Id.* at 459.

⁷¹ See *United States v. Microsoft Corp.*, 56 F.3d 1448 (D.C. Cir. 1995).

⁷² *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59 (D.D.C. 2000), *aff’d, rev’d, and remanded in part*, 253 F.3d 34 (D.C. Cir. 2001) (finding Microsoft liable for monopolization).

case against American Airlines in 1993,⁷³ and an exclusive dealing case against Dentsply in 1999.⁷⁴ The FTC sued Intel, challenging its refusal to deal with certain firms that refused to license their technologies to Intel, resulting in a consent decree.⁷⁵

2. Recent Enforcement: 2000–2008

In the last eight years, the Justice Department completed litigating the section 2 cases it had initiated in the previous decade. It won conduct remedies against both Microsoft⁷⁶ and Dentsply⁷⁷ but brought no new section 2 cases.

The Federal Trade Commission brought two new cases based on section 2 theories that alleged that firms had deceived standard-setting bodies regarding patent positions or patent enforcement intentions, thereby improperly inducing adoption of standards covered by the patents.⁷⁸ The Commission also initiated enforcement actions based, at least in part, on section 2 theories, challenging efforts by a number of branded pharmaceutical companies to prevent generic companies from introducing products that would compete with patent-protected drugs.⁷⁹

⁷³ United States v. AMR Corp., 140 F. Supp. 2d 1141 (D. Kan. 2001), *aff'd*, 335 F.3d 1109 (10th Cir. 2003) (granting summary judgment for defendant).

⁷⁴ United States v. Dentsply Int'l, Inc., 277 F. Supp. 2d 387 (D. Del. 2003), *rev'd*, 399 F.3d 181, 197 (3d Cir. 2005) (holding that exclusivity policy of dominant manufacturer of artificial teeth violated section 2).

⁷⁵ *In re Intel Corp.*, 128 F.T.C. 213 (1999).

⁷⁶ See United States v. Microsoft Corp., 231 F. Supp. 2d 144 (D.D.C. 2002), *aff'd sub nom.* Massachusetts v. Microsoft Corp., 373 F.3d 1199 (D.C. Cir. 2004).

⁷⁷ See United States v. Dentsply Int'l, Inc., No. 99-005(SLR), 2006 WL 2612167 (D. Del. Apr. 26, 2006).

⁷⁸ See *In re Rambus Inc.*, No. 9302, 2006-2 Trade Cas. (CCH) ¶ 75364 (F.T.C. Aug. 2, 2006), *vacated sub nom.* Rambus Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008); *In re Union Oil Co. of Cal.*, 138 F.T.C. 1 (2004).

⁷⁹ See FTC v. Cephalon, Inc., No. 1:08-CV-244 (D.D.C. Feb. 13, 2008) (complaint); *In re Bristol-Myers Squibb Co.*, 135 F.T.C. 444 (2003) (consent order); *In re Biovail Corp.*, 134 F.T.C. 407 (2002) (consent order); FTC v. Mylan Labs., 62 F. Supp. 2d 25 (D.D.C. 1999), *revised and reaffirmed in pertinent part*, 99 F. Supp. 2d 1 (D.D.C. 1999); *In re Schering-Plough Corp.*, 136 F.T.C. 956 (2003) (finding violation), *rev'd sub nom.* Schering-Plough Corp. v. FTC, 402 F.3d 1056 (11th Cir. 2005); *In re Hoechst Marion Roussel, Inc.*, 131 F.T.C. 924 (2001) (consent order); *In re Abbott Labs.*, No. C-3945 (F.T.C. May 22, 2000), *available at* <http://www.ftc.gov/os/2000/05/c3945.do.htm> (consent order). Some of these enforcement actions proceeded primarily on section 1

In addition, the Commission in two recent enforcement actions has challenged unilateral conduct as a violation of the FTC Act's prohibition on unfair methods of competition, without alleging that the conduct violated section 2.⁸⁰ Recently, a Commission investigation of unilateral conduct by Intel has been identified in the press.⁸¹

C. State Enforcement

Review of a database maintained by the National Association of Attorneys General (NAAG) reveals fourteen state challenges to single-firm conduct since 2000, under state or federal law. The states obtained either damages or injunctive relief in thirteen of these cases. The data suggest that state efforts, like recent federal enforcement efforts, were concentrated in the pharmaceutical and software industries. The appendix, particularly Section 1 and Table 1, provides further information regarding how this review was conducted and the resulting data.

D. Private Enforcement

Private actions have long accounted for the lion's share of antitrust enforcement activity.⁸² Private enforcement activity grew rapidly during the late 1960s and 1970s, and then

bases, *see, e.g. Schering*, 136 F.T.C. at 1057–58 (Commission opinion finding it unnecessary to reach section 2 theories), but all relied, at least in part, on section 2 principles in their complaints.

⁸⁰ *See In re Valassis Commc'ns, Inc.*, No. C-4160 (F.T.C. Apr. 19, 2006) (consent order resolving a challenge to an alleged invitation to collude), *available at* <http://www.ftc.gov/os/caselist/0510008/0510008c4160ValassisDecisionandOrder.pdf>; *In re Negotiated Data Solutions LLC*, No. C-4234 (F.T.C. Sept. 22, 2008), *available at* <http://www.ftc.gov/os/caselist/0510094/080923ndsdo.pdf> (consent order resolving allegations that the respondent reneged on a predecessor's commitments to license, for a specified royalty, patents essential to a standard).

⁸¹ *See* Peter Whoriskey, *Antitrust Inquiry Launched Into Intel: FTC to Review Firm's Practices*, WASH. POST, June 7, 2008, at D01, *available at* <http://www.washingtonpost.com/wp-dyn/content/article/2008/06/06/AR2008060602115.html>.

⁸² *See* Douglas H. Ginsburg & Leah Brannon, *Determinants of Private Antitrust Enforcement in the United States*, COMPETITION POL'Y INT'L, Autumn 2005, at 29, 32 fig.1; Steven C. Salop & Lawrence J. White, *Private Antitrust Litigation: An Introduction and Framework*, in PRIVATE ANTITRUST LITIGATION, *supra* note 43, 3–4 tbl 1.1.1; Sherman Act Section 2 Joint Hearing: Misleading and Deceptive Conduct Hr'g Tr. 24, Dec. 6, 2006 [hereinafter Dec. 6 Hr'g Tr.] (McAfee) (estimating that “private suits outnumber government suits nine to one”).

fell back toward historical trends,⁸³ a pattern similar, though not identical, to the swings in federal actions.⁸⁴ Hearing panelists emphasized that in the monopolization context it is private treble damage suits, rather than government enforcement actions, that are the focal point of business attention.⁸⁵ Despite the importance of private actions in section 2 enforcement, there is very limited aggregate information about them.

To obtain a current perspective on private enforcement regarding single-firm conduct, FTC staff conducted a review of federal judicial opinions discussing section 2 claims that were issued between January 2000 and July 2007 and published in Westlaw. Staff identified 539 cases in which section 2 claims were asserted, and collected (to the extent available in the opinions) a variety of data, including the relationship between the parties to the action (*e.g.*, competitors), the alleged theory of liability under section 2 (*e.g.*, predatory pricing), and the judicial resolution (*e.g.*, motion to dismiss granted). Data limitations necessarily qualify specific findings, but the review nonetheless provides an overview of recent section 2 activity.⁸⁶ The appendix, particularly Section 2 and Tables 2 and 3, presents the full results and discusses the methodology used.

The survey confirms that private parties account for the vast majority of section 2 enforcement activity, and that most private section 2 actions involve claims asserted by plaintiffs against their competitors. In most cases, parties asserted section 1 claims as well as section 2 claims, although the section 2 claims often provided a distinct theory for recovery. While monopolization claims were the most common, in a majority of cases plaintiffs separately alleged an attempt to monopolize.

Regarding specific theories of liability, the survey suggests that, in practice, section 2 claims reflect a limited number of recurring theories. Only about ten theories arose in more than a few percent of the cases. Seven theories of liability each arose in at least ten percent of the cases: refusals to deal with non-rivals (nineteen percent), business torts (eighteen percent), *Walker Process* claims (eighteen percent), exclusive dealing (fifteen percent), unilateral refusals to deal with rivals (twelve percent), other IP-related conduct (ten percent), and tying (ten

⁸³ See Ginsburg & Brannon, *supra* note 82, at 31–33, 32 fig.1.

⁸⁴ See *id.* at 36 fig.2.

⁸⁵ See, *e.g.*, Sherman Act Section 2 Joint Hearing: Section 2 Policy Issues Hr’g Tr. 45, May 1, 2007 [hereinafter May 1 Hr’g Tr.] (Willig) (declaring that “the real force . . . behind your clients paying attention to your counseling is . . . the massive treble damages in all the follow-on cases”); *id.* at 46 (Jacobson) (same).

⁸⁶ Information was limited to what could be gleaned from published opinions at the time of the review. Some of the recorded judicial resolutions may be subject to subsequent appeal or further judicial resolution of the section 2 claims. Moreover, the review did not include information on resolution by settlement.

percent). These seven theories collectively arose in more than three-quarters of all cases surveyed. Five types of pricing conduct collectively arose in another fourteen percent of cases.⁸⁷ The remaining theories of liability either accounted for relatively few cases,⁸⁸ or largely involved conduct not typically addressed under section 2.⁸⁹ Moreover, the survey indicates that individual actions seldom focus on more than a few theories of section 2 liability; in the vast majority of cases, the plaintiff asserted only one or two theories.

Plaintiffs won a favorable judicial ruling on at least one section 2 claim in just two percent of all cases, all by trial verdicts. Defendants obtained favorable judicial resolution in over 60 percent of all cases. In nearly 60 percent of all cases, defendants were able to eliminate all section 2 claims on pretrial motions (*i.e.*, motions for dismissal or for summary judgment).⁹⁰ Plaintiffs, however, successfully opposed defendants' preliminary motions in a significant minority of cases, with some of plaintiffs' claims surviving close to half of the motions to dismiss and more than a quarter of defendants' summary judgment motions.

The results regarding judicial resolutions are intriguing, but subject to differing interpretations. The paucity of judgments for plaintiffs suggests that false positives in the sense of incorrect final rulings of liability likely are relatively infrequent. Taken in isolation, this could suggest that any undue influence of private section 2 enforcement on the conduct of dominant firms is limited. However, plaintiffs may also affect dominant-firm conduct by obtaining favorable settlements,⁹¹ and the standards that courts apply in deciding preliminary motions could have significant bearing on these results. In nearly 40 percent of the cases

⁸⁷ These cases included predatory pricing (six percent of all cases surveyed), bundled discounting (five percent), single-product loyalty discounts (two percent), price squeezes (two percent), and predatory bidding/buying (one percent). (Some cases involved allegations of multiple forms of pricing conduct.)

⁸⁸ Technological tying, other claims based on product design, and sham litigation together arose in only seven percent of all cases. Monopoly leveraging, alleged in eight percent of the cases, typically was based on conduct implicating one of the other theories identified above—usually refusals to deal or tying.

⁸⁹ In eight percent of the cases, plaintiffs challenged mergers and acquisitions, which are most commonly addressed under section 7 of the Clayton Act. A substantial number of cases involved allegations of concerted activity generally challenged under section 1 of the Sherman Act, such as price fixing and group boycotts.

⁹⁰ Defendants prevailed at trial on all still-extant section 2 claims in another four percent of the cases.

⁹¹ *See* Sherman Act Section 2 Joint Hearing: Academic Testimony Hr'g Tr. 74, Jan. 31, 2007 [hereinafter Jan. 31 Hr'g Tr.] (Shelanski) (stating "you get a lot of hidden false positives through settlement, particularly in the private cases").

reviewed, the survey did not uncover a judicial resolution of all of plaintiffs' section 2 claims. A number of these cases may have been settled,⁹² but a survey of judicial opinions could not collect data that permit conclusions on this issue. Further research might fruitfully focus on the frequency, nature, and effects of section 2 settlements.

III. The Courts' Section 2 Jurisprudence: A Thematic Overview

Section 2's brief language offers little guidance in identifying prohibited conduct.⁹³ Rather than defining its central concept—"monopolize"—the statute leaves that task to the courts. Their analysis has evolved over time, reflecting changes in business practices and market characteristics and the evolution of economic thinking.

Generally, the trend has been towards shrinking the scope of section 2 liability, and giving dominant firms more leeway in pricing, product development, and other business strategies.⁹⁴ This shrinkage has occurred virtually across the spectrum of section 2 offenses, as economic thinking and legal learning has cast doubt on the more interventionist approach of earlier years. An understanding of this evolution provides a foundation for approaching today's section 2 debates and places consideration of further guidance in a useful context.

A. Early Section 2 Jurisprudence

Early section 2 jurisprudence tended to read section 2 expansively. One of the earliest monopolization cases, *Standard Oil*, established that monopoly power alone was not sufficient to constitute a violation; some type of inappropriate conduct was also required.⁹⁵ However, the

⁹² Available evidence suggests that settlement of private antitrust litigation is common. *See generally* Salop & White, *supra* note 82, at 10–11 (reporting that a survey of antitrust actions whose final disposition was known revealed that between 71 and 89 percent of the cases were settled); Sherman Act Section 2 Joint Hearing: Loyalty Discounts Hr'g Tr. 135, Nov. 29, 2006 (Crane) ("cases either are dismissed on summary judgment or a motion to dismiss or [defendants] have to settle, . . . because defendants cannot take the risk of going to trial").

⁹³ *See, e.g.*, Thomas E. Kauper, *Section 2 of the Sherman Act: The Search for Standards*, 93 GEO. L.J. 1623, 1623 (2005) ("Over its 114-year history, Section 2 of the Sherman Act has been a source of puzzlement to lawyers, judges and scholars, a puzzlement derived in large part from the statute's extraordinary brevity.") (footnote omitted).

⁹⁴ *See* Kovacic, *supra* note 47, at 1, 3.

⁹⁵ *See* *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1, 62 (1911) (ruling that the Sherman Act does not include "any direct prohibition against monopoly in the concrete").

courts in *Alcoa*,⁹⁶ and subsequent cases such as *American Tobacco*⁹⁷ and *Griffith*,⁹⁸ articulated very expansive definitions of the types of conduct that were to be deemed unlawful under section 2.⁹⁹

The early decisions also expressed concerns about monopoly power that were based, not only on economic factors, but also on a strong socio-political preference for small businesses.¹⁰⁰ This preference was reflected in Supreme Court antitrust jurisprudence throughout the middle of the century. As one antitrust scholar has observed,

The modern debate over basic antitrust goals began during the era when Earl Warren was Chief Justice of the Supreme Court (1953-1969). Under Warren antitrust cases became relatively easy for plaintiffs to bring and win But too often the protected class seemed to be small business rather than consumers. Indeed, many Warren-era decisions condemned conduct precisely because it reduced costs or generated more desirable products. Such practices harm rivals unable to match them, but they benefit consumers. On top of that, Warren Court antitrust was highly distrustful of markets, suspicious of innovation and the intellectual property laws, and convinced that aggressive antitrust remedies would make the economic world a better place.¹⁰¹

This perspective, however, came under increasing criticism as Chicago School views

⁹⁶ United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945).

⁹⁷ Am. Tobacco Co. v. United States, 328 U.S. 781 (1946).

⁹⁸ United States v. Griffith, 334 U.S. 100 (1948).

⁹⁹ See *Alcoa*, 148 F.2d at 431 (condemning Alcoa's adding capacity to meet increased demand on the ground that "[i]t was not inevitable that [Alcoa] should always anticipate increases in the demand for ingot and be prepared to supply them"); *Am. Tobacco*, 328 U.S. at 810 ("Neither 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."); *Griffith*, 334 U.S. at 107 (stating that monopoly power, however acquired, "may itself constitute an evil and stand condemned under s 2 even though it remains unexercised," and that "the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage, or to destroy a competitor, is unlawful").

¹⁰⁰ See *Alcoa*, 148 F.2d at 428 ("We have been speaking only of the economic reasons which forbid monopoly; but . . . there are others, based upon the belief that great industrial combinations are inherently undesirable, regardless of their economic results.").

¹⁰¹ HOVENKAMP, *supra* note 64, at 1.

gained acceptance in the late 1970s,¹⁰² and subsequent Supreme Court jurisprudence under Chief Justices Rehnquist and Roberts has charted a very different course.¹⁰³

B. Modern Antitrust Jurisprudence

Although there have been some notable exceptions,¹⁰⁴ the trend of modern antitrust jurisprudence has been to narrow the scope of liability under section 2, and to make it more difficult for plaintiffs—especially private plaintiffs—to bring successful section 2 actions.¹⁰⁵ The earlier emphasis on protection of individual competitors (particularly small firms) has been replaced by the goal of protecting consumer welfare, and the socio-political goals of antitrust jurisprudence, once important, have been supplanted by an almost exclusive concern with economic effects.¹⁰⁶ Whereas earlier jurisprudence tended to encourage interventionist approaches, more recent jurisprudence tends to emphasize the potential costs of overly restrictive rules governing dominant-firm conduct on future innovation and economic growth.¹⁰⁷ Recent Supreme Court jurisprudence also considers whether remedies and rules of decision are

¹⁰² See generally *infra* Section III.B.

¹⁰³ See William Kolasky, *Reinvigorating Antitrust Enforcement in the United States: A Proposal*, ANTITRUST, Spring 2008, at 85, 86 (noting that the Rehnquist and Roberts Courts have largely “deconstructed the Warren Court’s populist approach to antitrust”).

¹⁰⁴ See *Aspen Skiing Co. v. Aspen Highlands Skiing Co.*, 472 U.S. 585 (1985); *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451 (1992).

¹⁰⁵ See Kovacic, *supra* note 47, at 19–20 (noting that the “Supreme Court’s post-*Kodak* decisions have emphasized principles that discourage intervention . . . and imposed significant burdens on plaintiffs . . . seeking to challenge dominant firm conduct,” and that “[s]ince 1970, dominant firms generally have faced less exposure at the end of each decade (and in the current decade, from 2001 through 2006) than they did at its beginning”).

¹⁰⁶ See *id.* (noting as one of the characteristics of modern section 2 jurisprudence that “the definition of liability standards and the analysis of specific claims of unlawful exclusion focus overwhelmingly on efficiency consequences”).

¹⁰⁷ See, e.g., *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 767–69 (1984) (stressing the importance of “reduc[ing] the risk that the antitrust laws will dampen the competitive zeal of a single aggressive entrepreneur,” a competitive spirit that “promotes the consumer interests that the Sherman Act aims to foster”); *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 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.”).

administrable by the courts,¹⁰⁸ and the potential limitations of lay antitrust courts and juries to reach the right result in complex antitrust cases.¹⁰⁹

One of the most fundamental tenets of the Court’s modern antitrust jurisprudence has been its repeated observation that the antitrust laws are intended to protect against harm to the competitive process, not merely harm to competitors. This theme was first articulated in merger cases such as *Brunswick*¹¹⁰ and *Cargill*,¹¹¹ and was later forcefully reiterated in leading section 2 cases such as *Spectrum Sports*, in which the Court explained that

The purpose of the Act is not to protect businesses from the working of the market; it is to protect the public from the failure of the market. The law directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself. It does so not out of solicitude for private concerns but out of concern for the public interest. Thus, this Court and other courts have been careful to avoid constructions of § 2 which might chill competition, rather than foster it.¹¹²

Today, the basic principle—that the antitrust laws are intended to protect competition rather than competitors—is well-established.¹¹³ As discussed in a companion paper, the key section 2 policy issue now focuses on the standards and rules to be used in distinguishing

¹⁰⁸ See *Trinko*, 540 U.S. at 414–15 (noting that “[e]ffective remediation of violations of regulatory sharing requirements will ordinarily require continuing supervision of a highly detailed decree,” and “[a]n antitrust court is unlikely to be an effective day-to-day enforcer of these detailed sharing obligations”); *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 223 (1993) (stating that above-cost pricing schemes are “beyond the practical ability of a judicial tribunal to control without courting intolerable risks of chilling legitimate price cutting”).

¹⁰⁹ See *Trinko*, 540 U.S. at 414; see also *Credit Suisse Securities (USA) LLC v. Billing*, 127 S. Ct. 2383, 2395 (2007) (expressing doubt, in a context involving securities markets, regarding the ability of “different nonexpert judges and different nonexpert juries” to reach correct and consistent results in making “nuanced . . . evidentiary evaluations”); *Kovacic*, *supra* note 47, at 21.

¹¹⁰ *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977).

¹¹¹ *Cargill v. Monfort of Colo., Inc.*, 479 U.S. 104, 122 (1986).

¹¹² *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993) (citations omitted).

¹¹³ See, e.g., *Brooke Group*, 509 U.S. at 224 (“It is axiomatic that the antitrust laws were passed for ‘the protection of *competition* not *competitors*’”), quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962).

aggressive competition, which is to be encouraged, from “conduct which unfairly tends to destroy competition itself,” which is to be condemned.¹¹⁴

Applying these principles, federal district and appeals courts generally require strong showings of anticompetitive conduct in order to find a violation. As the survey of recent decisions indicates, relatively few reported decisions award victories to plaintiffs. However, in a number of important cases, involving a wide range of unilateral conduct, federal courts in recent years have adjudged the defendant’s conduct to have harmed competition in violation of section 2. Most significantly, the D.C. Circuit upheld determinations that Microsoft had violated section 2 by imposing improper restraints on key distributors, tying its Internet browser software to its ubiquitous operating system, and other improper conduct.¹¹⁵ In *Dentsply*, the Third Circuit overruled the district court in finding that the defendant had engaged in illegal exclusive dealing.¹¹⁶ And plaintiffs have obtained significant treble damage awards in a number of other cases.¹¹⁷

IV. Major Trends in the Economic Analysis of Section 2 Conduct

Economic theory and evidence regarding the operation of markets and incentives of firms have played an increasingly central role in the development of antitrust doctrines and rules, as well as their application to particular practices. Economics supplies the analytic tools with which to assess, albeit imperfectly, the likelihood that particular conduct will harm consumer welfare and the circumstances influencing this evaluation. This section briefly highlights the major schools of thought regarding the likely competitive effects of single-firm conduct and concludes with a discussion of how courts increasingly are using decision theory to inform their analysis. Section V then discusses these strands of analysis in the context of some recurring enforcement issues.

A. The Structure-Conduct-Performance Paradigm

The structure-conduct-performance (SCP) paradigm arose from the work of Harvard economist Joseph Bain and his colleagues in the 1950s. The SCP paradigm posited that market structure and related factors (particularly measures of concentration and entry barriers) largely

¹¹⁴ Grimm, *supra* note 20 (quoting *Spectrum Sports*, 506 U.S. at 458).

¹¹⁵ *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

¹¹⁶ *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181 (3d Cir. 2005).

¹¹⁷ *See, e.g., LePage’s, Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003); *Conwood Co. v. U.S. Tobacco Co.*, 290 F.3d 768 (6th Cir. 2002).

determined conduct, which in turn determined performance.¹¹⁸ Bain’s research in particular suggested that high concentration or monopoly were rarely justified by economies of scale and that dominant firms could protect their position by raising entry barriers. Subsequent researchers, through the 1960s, generally suggested that high concentration and high entry barriers resulted in large profits and high prices for consumers.¹¹⁹

In 1959, Carl Kaysen and Donald Turner published an academic text consistent with many of these views,¹²⁰ which soon became the “most influential law and economics synthesis” of the era.¹²¹ They and others called for aggressive measures to address monopoly power by subjecting monopolies to “no fault” liability and imposing far-reaching structural remedies.¹²²

B. The Chicago and Harvard School Critiques

By the late 1970s, a far different vision, generally referred to as the “Chicago School,” had substantially undermined the SCP paradigm’s prescriptions. Chicago School scholars espoused “an elegant pro-market and largely anti-interventionist vision of antitrust.”¹²³ In their view, the sole aim of the antitrust laws was protecting consumers and promoting efficiencies, not protecting small rivals.¹²⁴ They viewed antitrust theories based on the exclusion of competitors skeptically, arguing that a monopolist could earn all available profits by setting its price, so that

¹¹⁸ For a description of this paradigm, see F.M. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* ch. 1 (Houghton Mifflin Co., 2d ed. 1980) (1970).

¹¹⁹ *Id.* at 276–95.

¹²⁰ CARL KAYSEN & DONALD F. TURNER, *ANTITRUST POLICY: AN ECONOMIC AND LEGAL ANALYSIS* (1959).

¹²¹ Kovacic, *supra* note 47, at 31.

¹²² GAVIL ET AL., *supra* note 13, at 604–05; *see also* Oliver E. Williamson, *Dominant Firms and the Monopoly Problem: Market Failure Considerations*, 85 *HARV. L. REV.* 1512, 1516 (1972).

¹²³ HOVENKAMP, *supra* note 64, at 32 (“Chicago School antitrust writers argued that in the long run markets tend to correct their own imperfections; that the history of aggressive judicial intervention has produced many indefensible results; that courts have often condemned suspicious-looking business practices without understanding them, and when these practices were understood they were shown to have benign or procompetitive explanations.”).

¹²⁴ *See, e.g.*, ROBERT H. BORK, *THE ANTITRUST PARADOX* chs. 2–5 (The Free Press, 1993) (1978); Richard A. Posner, *Exclusionary Practices and the Antitrust Laws*, 41 *U. CHI. L. REV.* 506, 507 (1974).

using monopoly power to foreclose competition could not increase profits.¹²⁵ Accordingly, these scholars criticized decisions such as *Alcoa*, and many voiced serious reservations about section 2 enforcement generally,¹²⁶ arguing that it would chill aggressive competition and innovation.¹²⁷ They also challenged the empirical underpinnings of the SCP paradigm, suggesting that the association of high concentration with high profits may signal superior efficiency rather than excessive pricing.¹²⁸

At the same time, scholars at Harvard, led by Professors Philip Areeda and Donald Turner, expressed similar views, including the need to focus on protecting competition, the potential for deterring procompetitive conduct, and, particularly, limitations on the capacity of courts and juries to implement antitrust rules reliably.¹²⁹ As then-Judge Breyer explained, “[U]nlike economics, law is an administrative system the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients.”¹³⁰ As a consequence, these scholars eschewed “[r]ules that seek to embody every economic complexity and qualification,” in favor of relatively “bright-line”

¹²⁵ See HOVENKAMP, *supra* note 64, at 33.

¹²⁶ See, e.g., BORK, *supra* note 124, at 137–44, 163–97; Richard A. Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562, 1596–97 (1969); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 933 (1979) (explaining that the “orthodox Chicago position” was that “only explicit price-fixing and very large horizontal mergers (mergers to monopoly) were worthy of serious concern”); HOVENKAMP, *supra* note 64, at 32 (“Chicago School writers also believed that many of the practices identified in the case law and literature as ‘exclusionary’ in fact reflected aggressive competition or innovation.”).

¹²⁷ See, e.g., Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2–3 (1984).

¹²⁸ See Harold Demsetz, *Two Systems of Belief About Monopoly*, in INDUSTRIAL CONCENTRATION: THE NEW LEARNING 164, 183 (HARVEY J. GOLDSCHIDT, H. MICHAEL MANN & J. FRED WESTON, eds. 1974); Timothy J. Muris, *Improving the Economic Foundations of Competition Policy*, 12 GEO. MASON L. REV. 1, 9 (2003) (“For many antitrust lawyers and industrial organization economists, the debate turned at the 1973 Airlie House conference memorialized in *Industrial Concentration: The New Learning*, . . . [which] showed that the SCP paradigm had theoretical flaws and lacked empirical support.”)

¹²⁹ See Kovacic, *supra* note 47, at 30–33, 43–71; HOVENKAMP, *supra* note 64, at 37 (describing the “new” Harvard School).

¹³⁰ *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 234 (1st Cir. 1983) (Breyer, J.).

rules that courts and business could implement more reliably.¹³¹

C. The Post-Chicago School Response

During the 1990s strict Chicago School views increasingly were challenged by post-Chicago scholars who found Chicago economic models overly simplified.¹³² They illuminated strategic business behavior through sophisticated tools such as game theory, demonstrating that various types of exclusionary behavior were possible using these more complex models.¹³³ For example, post-Chicago scholars identified strategies through which a dominant firm could increase its profits by raising rivals' costs.¹³⁴ As a result, they argued for more aggressive enforcement of section 2,¹³⁵ with some success.¹³⁶

While the post-Chicago scholars identified a variety of circumstances in which dominant firms could harm competition through particular practices, some critics argued that their

¹³¹ *Id.*

¹³² HOVENKAMP, *supra* note 64, at 38 (“The post-Chicago economics literature argues that certain market structures and types of collaborative activity are more likely to be anticompetitive than Chicago School antitrust writers imagined.”). For further discussion of post-Chicago views, *see generally* Jonathan B. Baker, *Recent Developments in Economics That Challenge Chicago School Views*, 58 ANTITRUST L.J. 645 (1989), and Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique*, 2001 COLUM. BUS. L. REV. 257 (2001).

¹³³ *See generally*, Patrick Rey & Jean Tirole, *A Primer on Foreclosure*, in 3 HANDBOOK OF INDUSTRIAL ORGANIZATION (Mark Armstrong & Robert H. Porter eds., 2007) (surveying the literature); *see also* Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 Am. Econ. Rev. 837 (1990).

¹³⁴ *See* HOVENKAMP, *supra* note 64, at 38; Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986).

¹³⁵ GAVIL ET AL., *supra* note 13, at 679 (“Through the 1980s and 1990s a new debate surfaced in which post-Chicago commentators, operating within an efficiency framework, have suggested new possibilities for intervention and sought to develop analytical tools that courts and enforcement bodies can administer successfully.”).

¹³⁶ For example, post-Chicago theory is reflected in cases such as *Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451 (1992), in which the Court focused on the possibility of higher prices being charged to consumers of aftermarket parts because of lock-in effects and other alleged market imperfections, including information deficiencies. *See* HOVENKAMP, *supra* note 64, at 38.

analyses provided little guidance as to whether there was any substantial likelihood that such conduct imposed anticompetitive harm in the real world.¹³⁷ Such criticism suggested that, as a practical matter, the Chicago School’s assessment of single-firm conduct remained largely un rebutted. Moreover, echoing concerns of the “new” Harvard School, others suggested that “the complexity of post-Chicago theories would force the federal courts to confront problems that they are not capable of solving” and emphasized the importance of developing rules that courts can apply.¹³⁸ Indeed, panelists observed that, in addressing particular practices, courts must contend with competing procompetitive and anticompetitive explanations, and economic analysis often cannot reliably distinguish between these impacts or identify which is most significant.¹³⁹

D. Decision Theory

In the face of these difficulties, courts¹⁴⁰ and scholars¹⁴¹ increasingly have made use of

¹³⁷ See Easterbrook, *supra* note 14, at 349 (arguing that “judges and enforcers must be wary of claims that take the form: ‘Here is a model in which bad results *can* happen; let’s use the legal system to find out *whether* they happen”); see generally FTC, Empirical Industrial Organization Roundtable Transcript 98–103 (Sept. 11, 2001), <http://ftc.gov/be/empiricalioroundtabletranscript.pdf> (Whinston) (observing that economists had generated “possibility theories” about anticompetitive effects from exclusionary conduct in “stylized settings and haven’t really looked to see how robust these conclusions are” and concluding that “we don’t know much” about the likelihood that the studied exclusionary behavior will actually be anticompetitive).

¹³⁸ HOVENKAMP, *supra* note 64, at 39, 49 (“There is nothing inherently wrong with much of post-Chicago antitrust analysis. The problem is that in many cases the analysis has not yet been transformed into rules that a court can apply with confidence that it is making markets work better.”).

¹³⁹ See Sherman Act Section 2 Joint Hearing: Empirical Perspectives Hr’g Tr. 20–23, 28–29, 91–93, Sept. 26, 2006 [hereinafter Sept. 26 Hr’g Tr.] (Froeb) (suggesting that most conduct evaluated under section 2 can have beneficial and anticompetitive effects that are difficult to identify and balance); *id.* at 45–50 (Baker) (agreeing that such assessments are challenging, while suggesting that in some cases assessments can be based on evidence from the same or similar industries).

¹⁴⁰ See, e.g., *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 413–14 (2004); *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222–27 (1993); *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 234 (1st Cir. 1983) (Breyer, J.).

¹⁴¹ See, e.g., Mark S. Popofsky, *Defining Exclusionary Conduct: Section 2, the Rule of Reason, and the Unifying Principle Underlying Antitrust Rules*, 73 ANTITRUST L.J. 435,

concepts drawn from decision theory in conducting antitrust analysis. Decision theory explicitly accounts for the fact that courts will err in implementing any standard. It seeks to maximize the net benefits of antitrust enforcement by minimizing the sum of expected costs from false positives (condemning procompetitive conduct) and false negatives (failing to condemn anticompetitive conduct), focusing on the probability of such errors and the magnitude of resulting harms.¹⁴²

In evaluating possible standards, this approach considers not just their impact on parties to the litigation, but also how the standards will influence other actors in similar circumstances. Thus, the cost of false positives includes the deterrence of procompetitive conduct by firms who fear litigation due to an overly inclusive or vague decision.¹⁴³ Similarly, the cost of false negatives includes the loss to competition and consumers inflicted by anticompetitive conduct that is not deterred.¹⁴⁴ In addition, decision theory considers enforcement costs—the expenses

448 (2005) (applying decision theory to the design of section 2 standards); Michael L. Katz & Howard A. Shelanski, *Merger Analysis and the Treatment of Uncertainty: Should We Expect Better?*, 74 ANTITRUST L.J. 537 (2007) (applying decision theory to the design of merger enforcement); C. Frederick Beckner III & Steven C. Salop, *Decision Theory and Antitrust Rules*, 67 ANTITRUST L.J. 41, 41–42 (1999) (applying decision theory to joint ventures and other horizontal restraints); *cf.* Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257, 272 (1974) (applying a decision-theoretic approach to legal rulemaking generally).

¹⁴² See, e.g., Popofsky, *supra* note 141, at 449 (“The optimal legal test minimizes the sum of expected error and legal process costs because that legal test can be expected to minimize deviations from optimal deterrence.”); Ken Heyer, *A World of Uncertainty: Economics and the Globalization of Antitrust*, 72 ANTITRUST L.J. 375, 381–82 (2004).

¹⁴³ See Dennis W. Carlton, *Does Antitrust Need to be Modernized?*, 21 J. ECON. PERSPECTIVES, Summer 2007, at 155, 159–160 (observing that “the cost of errors must include not only the cost of mistakes on the firms involved in a particular case, but also the effect of setting a legal precedent that will cause other firms to adjust their behavior inefficiently”); see also Sherman Act Section 2 Joint Hearing: Business Testimony Hr’g Tr. 170, Feb. 13, 2007 [hereinafter Feb. 13 Hr’g Tr.] (Wark) (in-house counsel reporting that his client had altered its conduct “based not on what we thought was illegal, but on what we feared others might argue is illegal” and that “in these circumstances competition has likely been compromised”).

¹⁴⁴ See, e.g., Andrew I. Gavil, *Exclusionary Distribution Strategies by Dominant Firms: Striking a Better Balance*, 72 ANTITRUST L.J. 3, 5 (2004) (expressing concern that tolerant section 2 liability standards may “lead to ‘false negatives’ and under-deterrence with uncertain, but very likely substantial adverse consequences”); May 1 Hr’g Tr. at 34–35 (Jacobson) (stating that “the harm inflicted on the economy by unlawful monopolization is very, very severe and much longer lasting than cartels”).

that parties and courts incur investigating and litigating section 2 claims—when framing legal tests.¹⁴⁵

V. Recurring Issues in Section 2 Enforcement

Section 2 affords the fundamental protection against monopolistic abuse through single-firm conduct, but its broad mandate continues to pose vexing issues for courts, enforcement agencies, and private parties. Some panelists declared that section 2 is essential to protecting their firms' ability to compete.¹⁴⁶ But others warned that over-enforcement of section 2 can chill procompetitive conduct and “prevent[] a successful firm from competing aggressively.”¹⁴⁷ In

¹⁴⁵ See Ehrlich & Posner, *supra* note 141, at 270; see also Feb. 13 Hr'g Tr. at 47 (Stern) (“It’s important to help avoid inadvertent violations and disputes and investigations that end up wasting company time and resources as well as the time and resources of the agencies.”); *id.* at 163 (Wark) (in-house counsel commenting that “it diverts a tremendous amount of management attention and company resources” to defend an antitrust lawsuit).

¹⁴⁶ See Sherman Act Section 2 Joint Hearing: Business Testimony Hr'g Tr. 131, Jan. 30, 2007 [hereinafter Jan. 30 Hr'g Tr.] (McCoy) (“rigorous enforcement of Section 2 . . . is absolutely vital to the continued success of the United States technology industries”); *id.* at 154–55 (Dull) (declaring that “our antitrust regime, including that addressing single-firm conduct, must remain robust to deal with the issues of the 21st century”); Feb. 13 Hr'g Tr. at 13 (Balto) (“Policing exclusionary conduct by branded pharmaceutical companies could not be a greater priority.”); *cf.* Public Comment from R. Bruce Josten, Executive Vice President, Gov't Affairs, U.S. Chamber of Commerce, to the FTC & U.S. Dept. of Justice 1 (Sept. 5, 2006), *available at* <http://www.ftc.gov/os/comments/section2hearings/522292-00008.pdf> (“An effective and balanced system of antitrust law is critical to ensuring the efficient operation of our economy . . .”).

¹⁴⁷ Feb. 13 Hr'g Tr. at 145–46 (Sewell) (noting that strategic use of the antitrust laws was “more than a passing concern” for Intel); see also Jan. 30 Hr'g Tr. at 36 (Heiner) (stating that concerns about potential liability under section 2 have led Microsoft not to include new product features and to raise prices); Feb. 13 Hr'g Tr. at 125–26 (Heather) (“the [U.S. Chamber of Commerce] believes that the U.S. and foreign competition authorities must use special care in policing single-firm conduct to avoid chilling behavior that is in fact both procompetitive and beneficial to consumers”); *id.* at 56 (Stern) (asserting that potential liability for activities in aftermarkets “chills conduct”); *id.* at 207–08 (Wark) (stating that predatory-pricing cases create concerns that expanding capacity will result in section 2 liability). *But cf. id.* at 209–10 (Sewell) (“I can’t think of any situation in which we [Intel] have foregone an opportunity that was demonstrable and was understood was sitting on the table because we feared a suit by our competitor”); Jan. 30 Hr'g Tr. at 183

balancing these concerns, courts and commentators have emphasized the importance of ensuring that rules are sufficiently clear for courts to administer and for businesses to understand. Moreover, they appreciate that any rule will generate false positives and false negatives, and have developed sometimes conflicting assessments of the relative importance of such errors.

The Supreme Court has emphasized considerations of false positives and negatives, and the need for administrable standards, in recent section 2 decisions. In *Brooke Group*, it adopted a price-cost test for evaluating predatory pricing claims, recognizing that false positives in that context “are especially costly because they chill the very conduct [price cutting] the antitrust laws are designed to protect.”¹⁴⁸ Similarly, in *Trinko* the Court explained that it had been “very cautious” in permitting the imposition of section 2 liability for refusals to deal, emphasizing the potential for false positives and concerns regarding administrability.¹⁴⁹

A. The Pursuit of Clear and Administrable Rules

Clarity in legal standards promotes reliable judicial decision-making and enables businesses to conform their conduct and planning to the requirements of law. Advisors want clarity so that they can render “clear and understandable advice” and avoid risks that clients will be unable to act “in conformity with the advice.”¹⁵⁰

Clarity, however, may come at a cost. A clearer, more administrable rule will tend to be more over- or under-inclusive.¹⁵¹ At the extremes, a clear rule of *per se* legality will maximize

(McCoy) (stating that he has never observed companies “pulling punches” due to concerns of section 2 liability).

¹⁴⁸ *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 226 (1993) (internal quotation marks omitted). The Court’s further observation, that “predatory pricing schemes are rarely tried, and even more rarely successful,” *id.*, suggests that the Court viewed false negatives in this context as likely to be infrequent.

¹⁴⁹ *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004) (noting that enforced sharing obligates courts to identify “the proper price, quantity, and other terms of dealing—a role for which they are ill suited”).

¹⁵⁰ Feb. 13 Hr’g Tr. at 89 (Stern); *see also id.* at 45 (Sheller); *id.* at 187 (Sewell); Jan. 30 Hr’g Tr. at 12 (Heiner) (“often advice . . . has to be provided in shades of gray”); May 1 Hr’g Tr. at 11 (McDavid) (requesting “practical advice” that can be applied by business people and counsel).

¹⁵¹ *See Ehrlich & Posner, supra* note 141, at 262–71; 275–78; Popofsky, *supra* note 141, at 457–59; *cf. Sherman Act Section 2 Joint Hearing: Monopoly Power Hr’g Tr.* 172, Mar. 7, 2007 (Sims) (expressing doubt that “we can productively create clear rules or safe harbors” and urging that “we really ought to pay attention to the facts”).

false negatives, while a clear rule of *per se* illegality will maximize false positives. Thus perceptions about the likelihood and cost of errors (and administrative costs) shape proposals for clearer rules.

Several business panelists expressed a desire for clear rules governing section 2 liability.¹⁵² One academic panelist went so far as to opine that “the number one issue should be increasing clarity.”¹⁵³ Some of the discussion focused on particular areas of the law, such as the uncertainty caused by the imposition of liability for bundled pricing in the *LePage’s* decision.¹⁵⁴ Some panelists indicated relative satisfaction with the guidance already available in a number of areas,¹⁵⁵ whereas others have argued more generally that the standards for assessing single-firm conduct under section 2 are unclear and uncertain.¹⁵⁶

At the same time, some business panelists argued that clear standards can leave too much lawful conduct subject to challenge, and that antitrust law could be made “very predictable” in

¹⁵² See Feb. 13 Hr’g Tr. at 46 (Stern) (in-house counsel stressing that “it is important to have clear, administrable, and objective rules”); *id.* at 94 (Sheller) (in-house counsel noting the desirability of clear rules that paint “brighter lines for the client”); *id.* at 126 (Heather) (“Firms do want to obey the rules of the road, but discerning and applying those rules is becoming increasingly difficult.”); *id.* at 146–47 (Sewell) (quoting Assistant Attorney General Thomas O. Barnett for the proposition that “antitrust rules in the unilateral conduct area must set forth ‘clear, objective standards that businesses can follow and that are also administrable for enforcers, courts, and juries’”); *id.* at 163–64, 170–71 (Wark); Jan. 30 Hr’g Tr. at 12–13, 37 (Heiner).

¹⁵³ May 1 Hr’g Tr. at 20–21 (Elhauge).

¹⁵⁴ *LePage’s, Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003); see Feb. 13 Hr’g Tr. at 38–40 (Sheller) (declaring that there is “no coherent standard with which to evaluate bundled pricing under the *LePage’s* decision”); *id.* at 63–64 (Stern) (identifying “a real need for clarity” in the bundled discounts area); *id.* at 117 (Balto); Jan. 30 Hr’g Tr. at 91–92. (Skitol) (charging that bundled discounting law has “been a tangled mess in particular ever since the *LePage’s* decision”).

¹⁵⁵ See, e.g., Feb. 13 Hr’g Tr. at 82–83 (Stern) (expressing satisfaction with the guidance available in the United States regarding monopoly power thresholds and predatory pricing); *id.* at 83 (Sheller) (finding sufficient clarity in the United States regarding exclusive dealing, predatory pricing, and thresholds for monopoly power).

¹⁵⁶ See, e.g., Herbert Hovenkamp, *Exclusion and the Sherman Act*, 72 U. CHI. L. REV. 147, 147–48 (“[T]he scope and meaning of exclusionary conduct under the Sherman Act remain poorly defined.”).

ways that dominant firms would not find helpful.¹⁵⁷ Other panelists expressed concern that “bright-line rules” might unduly shelter anticompetitive conduct.¹⁵⁸ More broadly, a substantial number of panelists endorsed analysis based on the rule of reason,¹⁵⁹ with some observing that more specific rules could also be applied where appropriate.¹⁶⁰

Moreover, clear rules generally are developed in the context of addressing particular exclusionary practices,¹⁶¹ while alleged monopolizing conduct “must always be analyzed ‘as a whole.’”¹⁶² Foreclosure effects “may be assessed on an aggregate basis,” rather than by examining the impact of each discrete anticompetitive action,¹⁶³ and a “pattern” of behavior may give “increased plausibility to [plaintiff’s] claim,”¹⁶⁴ although “care must be taken, lest . . . illegality be inferred from procompetitive conduct.”¹⁶⁵ Consequently, some rules governing particular types of conduct may be of less utility when multiple exclusionary practices are

¹⁵⁷ Jan. 30 Hr’g Tr. at 97 (Heiner); *cf.* Feb. 13 Hr’g Tr. at 95 (Stern) (cautioning that if “clear rules” are not “thoughtful,” they “can do more harm than good”).

¹⁵⁸ *See* Feb. 13 Hr’g Tr. at 13–14, 16–17, 92–93 (Balto) (cautioning against analyzing exclusionary conduct with “simple,” “bright-line” rules); *see also* Jan. 30 Hr’g Tr. at 150 (Haglund).

¹⁵⁹ *See, e.g.,* May 8 Hr’g Tr. at 15–16 (Pitofsky); May 1 Hr’g Tr. at 16–17, 57–61, 103–04 (Kolasky); Jan. 30 Hr’g Tr. at 150 (Haglund) (arguing that “the amazing factual variability” of markets and industries makes rule-of-reason analysis appropriate).

¹⁶⁰ *See, e.g.,* May 1 Hr’g Tr. at 74 (Kolasky); *id.* at 61 (Jacobson); May 8 Hr’g Tr. at 24 (Creighton). These themes are developed at greater length in Grimm, *supra* note 20.

¹⁶¹ *See* Popofsky, *supra* note 141, at 437 (“the few clear guideposts in Section 2 case law demonstrate that courts properly apply different Section 2 legal tests to different conduct”).

¹⁶² 2 AREEDA & HOVENKAMP, *supra* note 2, ¶ 310c7, at 208 (3d ed. 2007) (quoting *Continental Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690, 699 (1962)).

¹⁶³ 1 ABA SECTION OF ANTITRUST LAW, *supra* note 18, at 244.

¹⁶⁴ 2 AREEDA & HOVENKAMP, *supra* note 2, ¶ 310c7, at 208 (3d ed. 2007).

¹⁶⁵ *Id.* ¶ 310c7, at 209; *cf.* *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346, 1367 (Fed. Cir. 1999) (rejecting the notion “that the degrees of support for each legal theory should be added up” and explaining that “[e]ach legal theory must be examined for its sufficiency and applicability, on the entirety of the relevant facts”) (*citing* *City of Groton v. Connecticut Light & Power Co.*, 662 F.2d 921, 928–29 (2d Cir. 1981)).

alleged.¹⁶⁶

B. Error Costs: The False Positives/False Negatives Debate

Debate about whether there is over- or under-enforcement of section 2 has been contentious. Panelists' views regarding the current level of section 2 enforcement varied, with some suggesting that federal enforcement activity has not been aggressive enough¹⁶⁷ and others countering that the Agencies have been “appropriately cautious.”¹⁶⁸ Much of the debate can be framed in the language of decision theory, asking whether government and private enforcement results in excessive false positives or too many false negatives.

Some analysts argue that false positives resulting from section 2 enforcement are more important—more frequent and with greater effects—than false negatives. First, they argue that false positives are more likely, emphasizing that the bulk of private section 2 actions are brought by the defendant's competitors,¹⁶⁹ who have strong incentives to use the antitrust laws to force leading firms to pull their competitive punches.¹⁷⁰ They further point to the special remedies afforded to private antitrust plaintiffs that can spur such litigation.¹⁷¹

¹⁶⁶ See Feb. 13 Hr'g Tr. at 92–93 (Balto) (suggesting that the various activities challenged in the *Microsoft* case might appear legal under a clear rule, but that “if you put all of the types of conduct together, you could see why the conduct was really problematic”); Daniel A. Crane, *Rules Versus Standards in Antitrust Adjudication*, 64 WASH. & LEE L. REV. 49, 70–71 (noting that when multiple practices are alleged, some courts “reason[] that no single rule can exonerate the defendant since the legality of each practice depends upon its interaction with other practices”).

¹⁶⁷ See, e.g., May 1 Hr'g Tr. at 32–33 (Calkins); *id.* at 34, 39 (Jacobson); *id.* at 47 (Kolasky).

¹⁶⁸ Feb. 13 Hr'g Tr. at 147 (Sewell); see also *id.* at 182 (Wark) (stating that proper standards are being applied in the United States); *id.* at 184 (Heather) (same).

¹⁶⁹ See *infra* Appendix Table 2 (reporting that over 60 percent of recent private section 2 enforcement actions with published opinions were brought by a competitor of a defendant).

¹⁷⁰ 2A AREEDA & HOVENKAMP, *supra* note 2, ¶ 348a, at 202 (3d ed. 2007) (cautioning that “a competitor opposes efficient, aggressive, and legitimate competition by its rivals [and therefore] has an incentive to use an antitrust suit to delay their operations or to induce them to moderate their competition”); Dec. 6 Hr'g Tr. at 25–28 (McAfee) (describing strategic abuses of the antitrust laws).

¹⁷¹ See, e.g., Dec. 6 Hr'g Tr. at 24 (McAfee) (arguing that “access to treble damages [and] recovery of legal fees” create incentives to turn contract disputes into antitrust actions).

Second, they argue that the harm caused by such errors is generally greater than that caused by false negatives. Treble damages and attorneys fees enhance any chilling of procompetitive conduct that may follow from an erroneous condemnation.¹⁷² Moreover, as discussed above, over-deterrence can be especially costly, given that the types of single-firm conduct subject to challenge, such as price cutting, frequently have procompetitive ends. Finally, they argue that false positives, perpetuated by the force of *stare decisis*, will be more durable, while the monopoly power created by false negatives “is self-destructive” since it “eventually attract[s] entry.”¹⁷³

However, others challenge the claim that false positives generally pose the more significant concern.¹⁷⁴ First, some commentators question whether false positives are particularly likely.¹⁷⁵ They argue that courts are not prone to err on the side of false positives,¹⁷⁶ and, if anything, are likely to err in the other direction.¹⁷⁷ In addition, the required showing of

¹⁷² See, e.g., Feb. 13 Hr’g Tr. at 169 (Wark) (“Given the punitive nature of the antitrust laws and the inevitability of private class action litigation, including the prospect of treble damages, defending ourselves in that situation, irrespective of the courage of our convictions, is high-stakes poker indeed.”).

¹⁷³ See, e.g., Easterbrook, *supra* note 127, at 3 (“[J]udicial errors that tolerate baleful practices are self-correcting, while erroneous condemnations are not.”); Sept. 26 Hr’g Tr. at 58 (Winston) (“it’s important to keep in mind the self-correcting nature of markets” in analyzing section 2 issues).

¹⁷⁴ See, e.g., Andrew I. Gavil, *Antitrust Bookends: The 2006 Supreme Court Term in Historical Context*, 22 ANTITRUST, Fall 2007, at 21, 25 (2007) (describing “the absence of empirical support for the continued assertion that [false positives] are frequent and consequential”).

¹⁷⁵ See, e.g., Sherman Act Section 2 Joint Hearing: Refusals to Deal Hr’g Tr. 23, July 18, 2006 (Pitofsky) (“[T]here have been mistakes that have been made, but the idea that there’s just constant false positives, I don’t know where that’s coming from.”); Jan. 31 Hr’g Tr. at 36 (Edlin) (suggesting that “modern example[s]” of false positives are “pretty scarce”).

¹⁷⁶ See, e.g., May 1 Hr’g Tr. at 88 (Kolasky) (“[W]hy do we think [the courts] will do any worse job resolving the uncertainty in Section 2 cases, . . . [including] the potential chilling effect of false positives, than they do in Section 1 cases?”).

¹⁷⁷ See, e.g., Peter C. Carstensen, *False Positives in Identifying Liability for Exclusionary Conduct: Conceptual Error, Business Reality, and Aspen*, 2008 WIS. L. REV. 295, 315 (2008); (concluding that “there is no reason to think that [courts] have any proclivity to err on the side of . . . false positives” in complex antitrust litigation, and suggesting that “there is a strong bias against finding problems even if the evidence might support such a

monopoly power (or the dangerous probability of achieving such power) significantly circumscribes the reach of section 2.¹⁷⁸ Moreover, a number of panelists and commentators emphasize that the risk of false positives has been dramatically reduced by three decades of judicial reform resulting in “more rigorous burdens of pleading, production, and proof.”¹⁷⁹ Indeed, some warn that “if anything, we are now in greater danger of false negatives.”¹⁸⁰

Second, some contend that the cost of false negatives may be greater than the cost of false positives.¹⁸¹ They argue that the burdens imposed by monopolies are large and that failing to deter the unlawful acquisition or maintenance of monopoly power can harm consumers severely.¹⁸² In contrast, some commentators argue, the cost of false positives is low, because well-counseled firms can achieve efficiencies at low cost while generally avoiding “serious antitrust concerns.”¹⁸³ Furthermore, some argue that false negatives are more durable than false positives; they urge that the effects of false positives may be more ephemeral than some have

conclusion”).

¹⁷⁸ See, e.g., Feb. 13 Hr’g Tr. at 52 (Stern) (describing the market power requirement as providing business with a “pretty helpful screen”).

¹⁷⁹ Gavil, *supra* note 174, at 25; see also May 1 Hr’g Tr. at 44 (Elhauge) (stating that “current Section 2 law . . . is already constrained by the fear of over-deterrence because of private litigation”); see *supra* section III.B.

¹⁸⁰ Kolasky, *supra* note 103, at 86–87; see also Gavil, *supra* note 174, at 22 (“An urgent question now facing antitrust is whether this thirty-year reconstruction effort has reached the point of overcorrection, resulting in false negatives becoming the problem that false positives once were.”).

¹⁸¹ See, e.g., Carstensen, *supra* note 177, at 321 (“A false negative is more likely to have a significant, durable economic effect than a false positive.”).

¹⁸² See, e.g., *id.* at 304–07; May 1 Hr’g Tr. at 28–29 (Baker) (“[E]xclusion can be as harmful as collusion.” “I would start with a big endorsement of Section 2 and its importance.”); *id.* at 34–35 (Jacobson) (arguing that “if one goes back through history and looks at the conduct that has had long-term deleterious effects on consumers, we will focus on single-firm conduct a good deal more than we will focus on collusion”); *cf. id.* at 46–48 (Kolasky) (stating that although he views collusion as a more significant concern than exclusion, it is important that enforcers “prosecute monopolization cases vigorously, not just often”).

¹⁸³ Carstensen, *supra* note 177, at 318; see also Gavil, *supra* note 144, at 41 (if dominant firms “are truly more efficient than their rivals, . . . they will have many potent tools available for the competitive struggle” and will not require arguably exclusionary distribution strategies); May 1 Hr’g Tr. at 87 (Jacobson).

claimed¹⁸⁴ and that dominant firms frequently will be able to retain their market power in the face of market forces such as new entry.¹⁸⁵

This debate reflects both the potential promise of decision theory as an analytical framework and its current limits as a calibrated tool. While decision theory provides “a way to organize our thinking about legal standards,” the lack of reliable data limits its ability to identify optimal rules.¹⁸⁶ As one panelist observed, “[F]alse positives [and] false negatives” should be considered “on the basis of empirical data and not on theoretical assumptions.”¹⁸⁷ Yet the hearings suggested no basis for reliably quantifying the likelihood and magnitude of false positives and negatives under potential liability rules.

When evidence is limited, decision theory primarily provides general directions and broad insights, leading courts and enforcers to identify circumstances in which concerns regarding either false positives or false negatives are likely to be especially significant, and where greater tolerance or heightened vigilance may be appropriate.¹⁸⁸ The Supreme Court’s application of decision theory in antitrust cases has reflected these limitations, identifying two areas—predatory pricing and predatory buying—in which concerns regarding false positives warrant the use of a specially-designed test.¹⁸⁹ As to the remainder of the section 2 landscape, the more general section 2 standards continue to govern, and it is those standards that are

¹⁸⁴ May 1 Hr’g Tr. at 88–89 (Jacobson); *id.* (Krattenmaker).

¹⁸⁵ *See, e.g.*, Gavil, *supra* note 144, at 40 (“Before embracing the ‘self-correcting market’ narrative, therefore, it is essential to ask: What firm will undertake—and what investor will seriously support—entry into a market occupied by a dominant firm that has already demonstrated its penchant for entry-detering strategies”); *cf.* May 1 Hr’g Tr. at 147–48 (Baker) (opining that the defendants in recent government cases had market power that was “durable and would not have eroded absent government action”); Mar. 29 Hr’g Tr. at 65 (Lao) (suggesting that high-tech markets may not self-correct easily in the face of network externalities).

¹⁸⁶ *The Current State of Economics Underlying Section 2: Comments of Michael Katz and Michael Salinger*, ANTITRUST SOURCE, Dec. 2006, at 1, 2, available at <http://www.abanet.org/antitrust/at-source/06/12/Dec06-BrownBag.pdf> (Salinger) (“[n]o one seriously supposes that we can objectively measure all of the[] factors” that decision theory suggests are important to the design of section 2 enforcement).

¹⁸⁷ May 8 Hr’g Tr. at 118 (Pitofsky).

¹⁸⁸ *See generally* Popofsky, *supra* note 141, at 448–53 (describing how the Supreme Court has developed rules based on general assessments of the likely magnitude of false positives and false negatives).

¹⁸⁹ *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 226 (1993).

addressed in a companion working paper.¹⁹⁰

¹⁹⁰ See generally Grimm, *supra* note 20.

APPENDIX: METHODOLOGY FOR THE STUDIES OF STATE AND PRIVATE SECTION 2 ENFORCEMENT ACTIONS

1. State Enforcement Actions

The researchers studied the State Antitrust Litigation Database maintained by the National Association of Attorneys General (NAAG). Information on state enforcement actions is reported by states and made available by NAAG as an online database.¹ Although NAAG's database is the most comprehensive database of antitrust actions filed by state antitrust enforcement agencies, it is not complete, because not all states have contributed information.² In addition, a case description provided by a state may not include all of the information called for by the NAAG forms. NAAG generally does not independently verify the information reported by the states.

The review focused on those cases that were commenced or concluded between January 1, 2000 and July 1, 2007 and that were based, at least in part, on a theory generally cognizable under section 2. Information in the NAAG database on the "type of case" identified 60 monopolization actions and two conspiracy-to-monopolize actions. The database, however, does not identify the specific provisions of state and/or federal law under which actions were brought. Therefore, the researchers reviewed the information in the NAAG litigation report for each enforcement action to determine whether the case was based, in whole or in part, on a theory generally cognizable under section 2 (i.e., directed at unilateral conduct) and whether it fell within the period studied. Actions that appeared to be based on theories normally pursued under other provisions of federal antitrust law (*e.g.*, mergers generally challenged under section 7 of the Clayton Act or price agreements generally challenged under section 1 of the Sherman Act) were excluded. However, the review did not attempt to distinguish actions brought under section 2 and actions brought under other laws (*e.g.*, state antitrust laws).

The results for each state enforcement action, based on the information available in the NAAG database, are reported in Table 1, including information on the following topics:

The nature of the interest protected. Table 1 reports on whether the NAAG database indicates that the case was brought as a *parens patriae* action (on behalf of state residents), as an action to protect the state's proprietary interests, or as a law enforcement action.

Participation by multiple states. The NAAG litigation report identifies all states participating in the enforcement proceeding. Table 1 identifies those cases in which more than

¹ See Nat'l Ass'n Att'ys Gen. (NAAG), State Antitrust Litigation Database, <http://www.naag.org/antitrust/search> (last visited Sept. 2007).

² NAAG describes the database as a "work in progress." *Id.*

one state participated.

Type(s) of offense. Table 1 reports on the type of offense—*i.e.*, monopolization, attempted monopolization, or conspiracy to monopolize—challenged in each enforcement action.³

Federal court actions. Table 1 reports which state enforcement actions were brought in federal court, when that information was available in the NAAG litigation reports.

Theories of liability asserted. Table 1 reports the theories of section 2 liability asserted in each state enforcement action, as well as the context in which the claim arose, based on the information in the NAAG litigation reports. The categories are identical to those used in categorizing private enforcement actions, discussed below.

Resolution. Table 1 reports on the resolution of the action based on the information in the NAAG litigation reports.

2. Private Enforcement Actions

The researchers identified a set of recent private actions that asserted claims under section 2 by conducting two searches of opinions filed between January 1, 2000 and July 1, 2007 and published in Westlaw's ALLFEDS database. The initial search used a combination of search terms and West key numbers designed to identify opinions that were likely to address section 2 claims.⁴ That search captured 677 opinions, from which a total of 419 federal court cases asserting section 2 claims were identified. Each case represents a single action between

³ Neither of the two cases identified as challenging a "conspiracy to monopolize" was based on a section 2 theory.

⁴ The initial Westlaw search was specified as follows:

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((OP((PREDATOR!) (ATTEMPT! /3 MONOP!)) /P (((15 U.S.C." 15 U.S.C.A.) +3 ("SS 1 AND 2" "SS 1, 2" "S 2")) (SHERMAN /6 ("S 2" "SS 1, 2" "SS 1 AND 2" "SECTION 2" "SECTIONS 1 AND 2" "SEC. 2")))) (HE((PREDATOR! /3 PRIC!) (ATTEMPT! /3 MONOP!) ((15 U.S.C." 15 U.S.C.A.) +3 ("SS 1 AND 2" "SS 1, 2" "S 2")) (SHERMAN /6 ("S 2" "SS1, 2" "SS 1 AND 2" "SECTION 2" "SECTIONS 1 AND 2" "SEC. 2")))) & OP((PREDATOR! EXCLU! MONOPOL!) /P (((15 U.S.C." 15 U.S.C.A.) +3 ("SS 1 AND 2" "SS 1, 2" "S 2")) (SHERMAN /6 ("S 2" "SS 1, 2" "SS 1 AND 2" "SECTION 2" "SECTIONS 1 AND 2" "SEC. 2")))))) 29TVII 29TVIII 29TX(d) 265k12(1.3)) and da( aft 1/1/2000) and da(bef 7/1/2007).
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antitrust plaintiffs and defendants, and frequently was covered by multiple opinions.⁵ Cases that were consolidated through the MDL process were treated as a single case. A second search was then performed to identify all opinions within the date range that used variations of the word “monopolize” and that were not captured by the initial search.⁶ The second search captured 698 additional opinions, from which 113 additional section 2 actions were identified. Seven more cases were identified through a subsequent review of case digests prepared by the Unilateral Conduct Committee of the Antitrust Section of the ABA (most of which had not been published in Westlaw when the initial review was undertaken).⁷ Thus the study identified a total of 539 private actions in which section 2 claims were asserted.

The study included only those cases that resulted in an opinion captured by the Westlaw searches. In particular, it did not seek to identify all cases involving complaints raising a section 2 claim.⁸ For example, if a complaint was filed during the period of study, but did not result in a judicial opinion during that period, the case would not be covered. Similarly, if a case resulted in an opinion that was not retrieved by either of the searches (*e.g.*, because the opinion discussed matters other than the section 2 claim), the case was not covered by the survey.

The researchers collected information for each of the 539 private enforcement actions identified.⁹ The information was limited to that available in the judicial opinions. In particular, information on settlements was not separately compiled. In some cases, the judicial opinions provided little information on the section 2 claim. This was often true when the opinions were limited to procedural issues, such as discovery.

The aggregate results for all 539 private enforcement actions covered by the review are reported in Tables 2 and 3, including information on the following topics:

⁵ For example, one dispute may have resulted in several district court opinions on preliminary issues (*e.g.*, discovery or class action certification), district court opinions on dispositive motions, and/or appellate decisions.

⁶ The second search identified all opinions in the date range that contained “monopoliz!”, but that did not contain the terms in the original search set forth in note 4. This captured opinions using, *e.g.*, the words monopolize, monopolizing, and monopolization.

⁷ See Unilateral Conduct Committee of the Antitrust Section of the ABA, E-Bulletins, <http://www.abanet.org/antitrust/at-committees/at-s2/ebulletins.shtml>.

⁸ A search of the docket sheets of two jurisdictions (the federal district courts for the District of Columbia and the Northern District of California) during the relevant period revealed over 700 complaints that were categorized as “anti-trust” cases.

⁹ In many cases, the opinions arose out of actions filed before January 2000. Researchers reviewed the “full history” of the opinions as reported in Westlaw to find additional opinions with information about the case.

1. *Plaintiff's business relationship with the defendant(s)*. The review collected information on whether the section 2 plaintiff's relationship with the defendant(s) was as a buyer, distributor, supplier, or competitor (or some "other" relationship).¹⁰ Table 2 reports the results. Buyers included plaintiffs who were end users of a product, service, or technology supplied by defendants, either as final consumers or as businesses that supplied a different product or service. Distributors included sellers/resellers of products or services that they purchased or otherwise obtained from the defendants. Suppliers included businesses providing products or services to defendants. Competitors included businesses that competed with the defendant or were potential competitors of the defendant (*e.g.*, were attempting to enter the market). The "other" category covered a variety of situations, including where plaintiff and defendant provided complementary products or services; where the defendant was a patentee asserting a patent but did not compete directly with the plaintiff; or where the relationship was unclear. In some cases, there were multiple types of business relationships. In each case, the conduct was categorized based on the information available in the opinions, and the primary effort was to identify the principal relationship(s) relating to the section 2 claims.

2. *Type(s) of offense*. Table 2 reports the type(s) of section 2 offenses asserted by plaintiff—*i.e.*, monopolization, attempted monopolization, or conspiracy to monopolize. Frequently an opinion discussed more than one type of offense. When there was no specific discussion of the type of offense, the category "monopolization" was applied.

3. *Other federal antitrust laws asserted*. Table 2 reports whether the plaintiff asserted claims under other federal antitrust laws—primarily section 1 of the Sherman Act—in addition to claims based on section 2.

4. *Theories of liability asserted*. Table 2 reports the theories of section 2 liability asserted, as well as the context in which the claim arose, based on the court's characterization of plaintiff's claims. Eighteen different categories of conduct were used to describe the alleged misconduct: two refusal-to-deal categories (unilateral refusals to deal with rivals and refusals to deal with non-rivals),¹¹ exclusive dealing, tying, single-product loyalty discounts, bundled discounting, technological tying, other product design, price squeeze, predatory pricing, predatory bidding/buying, *Walker Process*, other IP-related conduct, sham litigation (non-

¹⁰ In all cases, the party asserting the section 2 claim was treated as the section 2 plaintiff, including those instances in which the section 2 claim was a counterclaim asserted by the nominal defendant.

¹¹ Ten subcategories of the two refusals to deal categories were identified: hospital privileges, medical industry, sports association, intellectual property, telecom/cable, energy systems, aftermarket, coercing others not to deal, termination of dealings, and other.

patent), mergers and acquisitions, monopoly leveraging, business torts, and other.¹² Table 2 also reports data regarding two specific contexts in which defendant's conduct sometimes arose: IP licensing/asserting IP rights and standard setting.¹³ Finally, in some cases plaintiff's section 2 allegations included more than one type of conduct. Table 2 reports information on the portion of cases in which multiple types of conduct were alleged.

5. *Judicial resolution of the section 2 claims.* The research reviewed the opinions for information on judicial resolution of the section 2 claims at both the district court and appellate court levels, and on remand. The review did not collect information on private settlements. Some of the private actions reviewed were ongoing at the end of the study period on June 30, 2007, and later activity may have provided judicial resolution or modified recorded results. The study; however does not reflect judicial actions that occurred subsequent to June 2008.

In some cases, the court or jury rendered a "split" resolution of defendant's pretrial dispositive motion or at trial, with defendant prevailing on only some of the section 2 claims. Similarly, some appeals resulted in partial reversals of grants of defendant's dispositive pretrial motions. Because at least some of plaintiff's section 2 claims survived these decisions, they are not treated as rulings in which defendant prevailed. Instances in which defendant sought preliminary disposition on only some of plaintiff's claims are also treated as split resolutions.

Table 3 reports information on the judicial resolutions of the cases surveyed. The following explains the manner in which these data were compiled:

- Of the 539 cases reviewed, 344 (64 percent) were found to have a judicial resolution of all of plaintiff's section 2 claims. Of these, 335 cases were decided for defendants, and nine were decided for plaintiffs.
 - ▶ Plaintiffs prevailed on at least one section 2 claim in nine of the cases reviewed (less than 2 percent of the total), all through verdicts at trial.¹⁴

¹² The "other" category was further divided into eight subcategories: group boycott, price-fixing/market allocation conspiracy, discrimination in price or terms of dealing, action by a government entity, price or capacity manipulation, regulated industry, unknown, and other.

¹³ For example, a case that involved a refusal to license intellectual property would be categorized as a refusal to deal and would also be listed as arising in the IP licensing context.

¹⁴ Verdicts for plaintiff (nine) were calculated by combining the 14 verdicts plaintiff won at trial with the four split verdicts (where plaintiff prevailed on at least one section 2 claim), and deducting the two verdicts overturned in their entirety on post-trial motion and seven verdicts overturned in their entirety on appeal. Because some jury verdicts may not have

- ▶ Defendants prevailed on the section 2 claims in 335 of the 539 cases reviewed (62 percent).¹⁵ This included 22 verdicts or directed verdicts (4 percent of all cases).¹⁶ Defendants eliminated all of plaintiffs' section 2 claims on pretrial motion in 313 cases (58 percent), including 171 grants of motions to dismiss (nearly one-third of all cases) and 142 grants of summary judgment motions (over one-quarter of all cases).¹⁷
- ▶ Courts rendered verdicts in about 6 percent of all cases; ruled on motions to dismiss or on summary judgment motions in over 85 percent of cases; and ruled on preliminary injunction motions in 5 percent of all cases. In 42 of the cases (8 percent), the review did not uncover any information on a judicial ruling regarding any of plaintiff's substantive section 2 claims.¹⁸

been reflected in published opinions, researchers reviewed case digests prepared by the ABA Antitrust Section's Unilateral Conduct Committee as a second source of information.

- ¹⁵ In contrast, the Georgetown study found that defendants obtained a favorable final judicial resolution in less than ten percent of all private antitrust cases filed. *See* Steven C. Salop & Lawrence J. White, *Private Antitrust Litigation: An Introduction and Framework*, in PRIVATE ANTITRUST LITIGATION 10 tbl.1.9 (Lawrence J. White ed., 1988). The Georgetown study collected information regarding all antitrust complaints filed in five federal districts.
- ¹⁶ Verdicts for defendants (22 cases) were calculated by combining the 12 verdicts awarded to defendants at trial with the ten verdicts obtained through post-trial motions or on remand after appeal.
- ¹⁷ Defendant wins on motions to dismiss and motions for summary judgment (171 cases and 142 cases, respectively) were calculated by combining grants of motions to dismiss and summary judgment motions (185 and 144, respectively), deducting reversals or partial reversals on appeal (sixteen and six, respectively), and adding grants of motions after appeal (two and four, respectively). ("Split" judgments on defendant's pretrial motions, where at least some of plaintiff's section 2 claims survived, were not counted as victories for defendant.)
- ¹⁸ In five percent of the cases, the available opinions addressed non-dispositive, preliminary, procedural matters or related non-antitrust claims (mainly IP claims). In the other three percent of the cases, it appeared that a procedural ruling (*e.g.*, denial of class certification) or private resolution (*e.g.*, settlement) may have effectively terminated the matter without any substantive decision on the section 2 claims. As a result, the survey results may slightly understate the portion of cases in which there were judicial resolutions bearing on the merits of the section 2 claims.

- ▶ Despite defendants' success, in nearly 40 percent of the cases reviewed, at least some of plaintiffs' section 2 claims had no identifiable judicial resolution within the study period.¹⁹ The substantial number of unresolved claims was largely attributable to plaintiffs' success in opposing defendants' preliminary motions in a significant minority of cases. In particular, some of plaintiffs' claims survived 142 of defendants' 313 motions to dismiss (45 percent) and 53 of the defendants' 196 motions for summary judgment (27 percent).

¹⁹ As noted above, research did not seek to determine whether cases had been resolved through settlement without any judicial opinion or to account for judicial resolutions after the end of the study period.

Table 1
State Unilateral Conduct Enforcement Actions, Jan. 2000-June 2007

Case Name	§2 Claimant				Offense (type)				Theory of Liability																		Context		Resolution							
	Parens Patriae action	Proprietary interest	Law enforcer	Multiple states	Monopolization	Attempted Monopolization	Conspiracy to Monopolize	Federal Court Actions	Unilateral Refusals to Deal with Rivals	Refusals to Deal with Non-Rivals	Exclusive Dealing	Tying	Single-Product Loyalty Discounts	Bundled Discounting	Technological Tying	Other Product Design	Price Squeeze	Predatory Pricing	Predatory Bidding/Buying	Walker Process Claims	Other IP-Related Conduct	Sham Litigation (non-patent)	Mergers and Acquisitions	Monopoly Leveraging	Business Torts	Other	Licensing or Asserting IP	Standard Setting	Settlement	Motion to Dismiss Denied	In Litigation	Damages	Injunctive Relief			
1 Alabama, et al. v. Bristol-Myers Squibb Co, et al., No. 01-CV. 11401, MDL 1413; In re: Buspirone Antitrust Litigation, 185 F. Supp. 2d 363 (S.D.N.Y. 2002)		x		x	x		x													x	x						x		x			x	x			
2 Connecticut v. Mylan Laboratories, Inc. (In re Lorazepam & Clorazepate Antitrust Litigation), MDL No. 1290 (D.D.C. June 15, 2000). (See 205 F.R.D. 369 (D.D.C. 2002); No. 98 CV 3115 (D.D.C. 2000))	x	x		x	x		x			x																	x		x			x	x			
3 In re Cardizem CD Antitrust Litigation, 99-MD-1278 (E.D. Mich. Jan. 29, 2003), 332 F.3d 896 (6th Cir. 2003)		x		x	x		x														x						x		x			x	x			
4 In re Relafen Antitrust Litigation		x		x	x		x													x							x		x			x	x			
5 In re K-Dur Litigation, Civil Action No. 01-1652 (D.N.J.)	x	x			x		x														x						x		x							
6 In re Casella Waste Systems, Inc. No. 296-5-02 (Superior Court of Vermont, Washington Cty, May 22, 2002)			x		x					x																			x				x			
7 In the Matter of GlaxoSmithKline, PLC (Augmentin)	x		x		x																x						x		x							
8 In the Matter of Medical Transportation Management, Inc.	x	x			x					x																		x								
9 Maryland v. SmithKline Beecham Corp., No. 2:06-CV-01298-JP (E.D. Pa Mar. 27, 2006)		x		x	x		x														x						x		x							
10 New York v. Microsoft Corp., 97 F. Supp. 2d 59 (D.D.C. 2000)			x	x	x		x				x	x		x										x	x	x		x						x		
11 West Virginia ex rel. McGraw v. Microsoft Corp.	x	x			x						x	x		x										x	x	x		x								
12 Ohio, et al, v. Bristol-Myers Squibb Co., et al. (D.D.C. 2002)		x		x	x		x														x						x									
13 Utah v. Gemstone Properties, Inc., (Case No. 2004-001-0364)			x		x						x																		x							
14 West Virigina ex rel. McGraw v. GlaxoSmithKline, PLC et al.		x			x																x						x									
Totals	3	11	4	8	14	0	0	8	0	0	6	2	0	0	2	0	0	0	0	0	6	3	0	0	2	0	2	11	0	13	1	1	10	8		

Table 2
Private Section 2 Actions, Jan. 2000-June 2007
Section 2 Claims by Theory of Liability
(539 Total Cases*)

	§2 Claimant						Offense (type)				Theory of Liability											Context		Number of Theories Alleged															
	Buyer	Distributor	Supplier	Competitor	Other / Unknown	Class Action	Counterclaims	Monopolization	Attempted Monopolization	Conspiracy to Monopolize	Other Federal Antitrust Law Claims	Unilateral Refusals to Deal with Rivals	Refusals to Deal with Non-Rivals	Exclusive Dealing	Tying	Single-Product Loyalty Discounts	Bundled Discounting	Technological Tying	Other Product Design	Price Squeeze	Predatory Pricing	Predatory Bidding/Buying	Walker/Process Claims	Other IP-Related Conduct	Sham Litigation (non-patent)	Mergers and Acquisitions	Monopoly Leveraging**	Business Torts	Other	Licensing or Asserting IP Rights	Standard Setting	One	Two	Three	Four	Five	Six	Seven	Eight
Total cases	128	68	29	344	137	79	93	399	332	154	341	65	104	82	53	12	25	1	14	10	34	7	96	54	22	43	43	99	125	167	8	318	139	49	20	9	2	0	1
Percent of all cases	23.7%	12.6%	5.4%	63.8%	25.4%	14.7%	17.3%	74.0%	61.6%	28.6%	63.3%	12.1%	19.3%	15.2%	9.8%	2.2%	4.6%	0.2%	2.6%	1.9%	6.3%	1.3%	17.8%	10.0%	4.1%	8.0%	8.0%	18.4%	23.2%	31.0%	1.5%	59.0%	25.8%	9.1%	3.7%	1.7%	0.4%	0.0%	0.2%

Refusals to Deal Categories

	↓	↓
Energy	5	3
Aftermarkets	9	2
Hospital privileges	3	18
Sports association	4	9
Medical industry	3	12
Intellectual property	7	8
Telecom/Cable	21	5
Coercing others not to deal with competitor	0	16
Termination of dealings	4	11
Other	9	20

Other Conduct Categories

	↓
Group boycott	18
Price fixing conspiracy/market allocation	32
Discrimination in price or terms of dealing	10
Action by governmental entity	19
Activity alleged not known	9
Price or capacity manipulation	11
Regulated industry	7
Other	19

* These 539 cases were identified through searches of all opinions in the Westlaw ALLFEDS database between 1/1/2000 and 7/1/2007 that contained variants of the word "monopolize" or references to section 2.

** All cases involving claims of monopoly leveraging also included allegations identifying the theory through which the defendant sought to leverage power. For example, refusals to deal with rivals or with non-rivals accounted for 25 of the 43 cases.

Table 3
Private Section 2 Actions, Jan. 2000-June 2007
Judicial Resolution by Manner
(539 Total Cases*)

	Manner Of Resolution								Manner Of Resolution on Remand					
	Preliminary Injunction	Motion to Dismiss	SJ for \$2 Defendant	SJ for \$2 Plaintiff	Verdict for \$2 Plaintiff	Verdict for \$2 Defendant	JMOL for \$2 Defendant	No Judicial Resolution****	Motion to Dismiss	SJ for \$2 Defendant	SJ for \$2 Plaintiff	Verdict for \$2 Plaintiff	Verdict for \$2 Defendant	JMOL for \$2 Defendant
District Court Decisions														
Motion Granted/Verdict Awarded	4	185	144	0	14	12	2		2	4	0	0	8	0
Split**	0	38	18	5	4	4	2		0	2	0	0	0	0
Motion Denied	24	88	27	15	NA	NA	4		0	0	1	0	0	0
Totals	28	311	189	20	18	16	8	41	2	6	1	0	8	0
Appeals of Grants of Pretrial Motions or Verdict Awards***														
Total motions granted/verdicts awarded***	4	185	144	0	18	12	2		2	4	0	0	8	0
Total appeals	5	60	62	1	13	5	2		1	4	0	0	3	0
Affirmed	3	44	56	1	4	4	2		1	4	0	0	3	0
Partially reversed	0	7	0	0	2	1	0		0	0	0	0	0	0
Reversed	2	9	6	0	7	0	0		0	0	0	0	0	0
*These 539 cases were identified through searches of all opinions in the Westlaw ALLFEDS database between 1/1/2000 and 7/1/2007 that contained variants of the word "monopolize" or references to section 2.														
**Where courts rendered split decisions on defendants' pretrial motions, at least some of plaintiff's section 2 claims survived. Split verdicts provided a resolution for plaintiff on at least one section 2 claim, but not on all claims.														
***Split decisions on defendants' motions to dismiss and motions for summary judgments were not counted as victories for defendants. Split verdicts were counted as victories for plaintiffs. The five split decisions on plaintiff's summary judgment motions were not counted as plaintiff victories, since plaintiffs prevailed on only some of the elements of their section 2 claims.														
****Opinions for 41 cases did not reflect any judicial resolution of the section 2 claim, and were categorized as follows: 17 cases involved procedural motions (such as motions to transfer or compel discovery), nine addressed IP claims (antitrust claims were often stayed), six involved class certification decisions (all denied), three cases in which the section 2 claims were dropped by the plaintiff prior to any judicial resolution, five cases in which the section 2 claims had been settled, and one other.														