I. Introduction

Without a proper remedy, winning a judgment of a section 2 violation is similar to winning a battle but losing the war. Designing and implementing effective remedies in unilateral conduct cases often is a daunting challenge. The central goals of remedies in government section 2 cases are to terminate the defendant’s unlawful conduct, prevent its recurrence, and re-establish the opportunity for competition in the affected market. Section 2 remedies should achieve these goals without unnecessarily chilling legitimate competitive conduct and incentives.

In some instances, these remedial goals can be achieved through a prohibitory injunction banning repetition of specific past acts. In other instances, more may be required, including “fencing-in” provisions or affirmative obligations. In addition to these conduct remedies, structural remedies are sometimes considered. However, both conduct and structural remedies can have high administrative costs that must be considered when determining what remedy, if any, should apply in a given case. Indeed, different remedial approaches generally have different effects on efficiency and innovation as well as different administrative costs, and selecting the optimal approach requires careful thought. In particular, structural remedies, often preferred in merger cases where they can be “‘simple, relatively easy to administer, and sure’ to preserve competition,” 1 are less favored in section 2 cases where they often would require structural change to an existing unitary firm that had not grown by acquisition. In those situations, the advantages typically associated with structural relief in merger cases may not exist, and the source of the violation may not have the same nexus with the structure of the defendant. Furthermore, in the section 2 context, structural remedies may undermine productive efficiencies achieved by unitary firms, a lesser risk in merger cases.

Notwithstanding their importance, the study of remedies has been somewhat neglected. As one panelist quipped, “Everybody likes to catch them, but nobody wants to clean them.” 2 Because selecting and implementing a suitable remedy is such a crucial yet difficult task, panelists stressed that the antitrust enforcement agencies need to give careful consideration to potential remedies early in their investigations. 3

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2 Sherman Act Section 2 Joint Hearing: Remedies Hr’g Tr. 47, Mar. 28, 2007 [hereinafter Mar. 28 Hr’g Tr.] (Lipsky) (quoting former Assistant Attorney General William Baxter).

3 Sherman Act Section 2 Joint Hearing: Final Session Hr’g Tr. 149–50, May 8, 2007 [hereinafter May 8 Hr’g Tr.] (Sidak) (asserting it was “unfortunate” that “at the very beginning of the [Microsoft] case there wasn’t a clear statement as to what the desired remedies were on the part of the federal government”); Sherman Act Section 2 Joint Hearing: Section 2 Policy Issues Hr’g Tr. 13, May 1, 2007 [hereinafter May 1 Hr’g Tr.] (Krattenmaker) (“you begin with remedies” in a section 2 case); id. at 32 (Baer) (advocating “thinking about remedy … as a front-end issue”); Sherman Act Section 2 Joint Hearing: Remedies Hr’g Tr. 12, Mar. 29, 2007 [hereinafter Mar. 29 Hr’g Tr.] (Shelanski) (stating that a remedy “needs to be clearly articulable at the start of a case”); id. at 18 (Hesse) (focusing on the remedy at an early stage “helps you try to figure out what your goal is”); Sherman Act Section 2 Joint Hearing: Welcome and Overview of Hearings Hr’g Tr. 52–53, June 20, 2006 (Hovenkamp) (“The only purpose in bringing [section 2] cases is to make the economy work better, and if you do not have a clear picture of the kind of remedy you want when you go in, then you really have to wonder whether it is worth bringing the action to begin with.”).
Chairman William E. Kovacic explained, “Responsible prosecutorial practice dictates that government enforcement agencies begin an abuse of dominance case only after they first have defined their remedial aims clearly and devised a convincing strategy for achieving them if the defendant’s liability is established.”

This chapter addresses a range of section 2 remedial issues. Part II reviews the basic goals of section 2 remedies. Part III identifies the various trade-offs in crafting equitable remedies. Part IV discusses the major types of equitable remedies, ranging from prohibitory provisions to structural remedies. Part V discusses monetary remedies and whether the current mix of available remedies is appropriate.

II. Goals of Section 2 Remedies

Three central goals of section 2 remedies in government cases are terminating defendant’s wrongful conduct, preventing its recurrence, and re-establishing the opportunity for competition in the affected market. As the Supreme Court stated, “We start from the premise that adequate relief in a monopolization case should put an end to the combination and deprive the defendants of any of the benefits of the illegal conduct, and break up or render impotent the monopoly power found to be in violation of the Act.”

1 William E. Kovacic, Designing Antitrust Remedies for Dominant Firm Misconduct, 31 Conn. L. Rev. 1285, 1310 (1999); see also Lawrence A. Sullivan, Handbook of the Law of Antitrust 146 (1977) (“The ideal presentation in a monopoly case would be one in which [the] remedial proposal arose organically out of the theory of the case. . . . The remedy would be . . . a public policy goal integral to the entire proceeding.”); Edward Cavanagh, Antitrust Remedies Revisited, 84 Ore. L. Rev. 147, 201 (2005) (“Remedies should be at the top of the agenda from the outset of litigation. Enforcers should be considering remedies from the moment an investigation is commenced.”).

2 United States v. Microsoft Corp., 253 F.3d 34, 103 (D.C. Cir. 2001) (en banc) (per curiam). In private actions and actions brought by the government as a victim, compensation through damage awards is also an important goal.

3 United States v. Grinnell Corp., 384 U.S. 563, 577 (1966); see also United States v. United Shoe Mach. Corp., 391 U.S. 244, 250 (1968) (“[I]n a [section] 2 case . . . it is the duty of the court to prescribe relief which will terminate the illegal monopoly, deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future.”).

4 See, e.g., United Shoe, 391 U.S. at 251–52 (approving additional measures to achieve “‘principal objects’” of district court’s remedy, namely, “‘to extirpate practices that have caused or may hereafter cause monopolization, and to restore workable competition in the market’” (quoting United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 343 (D. Mass. 1953), aff’d, 347 U.S. 521 (1954) (per curiam))).


7 Id. at 1231.

It is important that any remedy re-establish the opportunity for competition in the affected market. This entails “unfetter[ing] a market from anticompetitive conduct” and creating an opportunity for the market to work, not necessarily creating a competitive market or any specific level of competition. As the D.C. Circuit held, “[D]epriev[ing] an antitrust violator of the fruits of its violation does not entail conferring a correlative benefit upon the particular competitor harmed by the violation.” Section 2 remedies should not attempt to redress harm to competition by “providing aid to a particular competitor,” but rather should aim to “restore[e] conditions in which the competitive process is revived and any number of competitors may flourish (or not) based upon the merits of their offerings.” For example, in a monopoly-maintenance case, conditions before the unlawful conduct may have involved a lawful monopoly, and re-establishing the opportunity for competition would not necessarily produce new competitors or reduce the monopolist’s market share. In contrast, in a monopoly-acquisition case, the pre-conduct setting may have been competitive, so eliminating the anticompetitive consequences of the violation might include dismantling the monopoly to restore the competitive environment that would have existed without the violation. In both instances, however, the focus is on re-establishing the
opportunity for the market to work, unfettered by the defendant’s illegal practices.

Panelists and commentators frequently identified re-establishing the opportunity for competition as the central remedial goal in section 2 cases.\textsuperscript{11} They also stated that achieving this goal requires, at a minimum, terminating the unlawful conduct and preventing its recurrence.\textsuperscript{12} In some cases, however, additional steps may be necessary. Practices similar to the unlawful conduct that could give rise to the same anticompetitive effects may also need to be prohibited.\textsuperscript{13}

Beyond this, affirmative steps sometimes may be needed to re-establish the opportunity for competition.\textsuperscript{14} One panelist contended that “focusing the remedy on the specific conduct found to be unlawful[] will not return competition to the status quo; thus drafting or crafting forward-looking remedies is quite important.”\textsuperscript{15}

The reach of remedies is not unlimited, however. Panelists warned that remedies reaching beyond re-establishment of the opportunity for competition and aiming instead to create a particular market structure run the risk of engineering a market outcome that may deprive consumers of the benefit of the normal competitive process.\textsuperscript{16} One panelist cautioned that government remedies should “focus on competitive opportunity rather than outcome of market shares.”\textsuperscript{17}

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\textsuperscript{11} See Mar. 29 H’g Tr., supra note 3, at 48 (Page) (“The goals of Section 2 remedies should be to restore [the] competitive conditions that would have existed but for the illegal conduct.”); Mar. 28 H’g Tr., supra note 2, at 107 (Fisher) (“[O]ne ought to want to restore competition. That ought to be a primary objective. One ought to want to undo the anticompetitive effects of the violation.”); 2 PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶ 325a, at 246 (2d ed. 2000) (“Ultimately . . . the purpose of the decree is to create a situation in which unrestrained competition can occur.”); id. ¶ 325c, at 253-55; John E. Lopatka & William Page, Devising a Microsoft Remedy that Serves Consumers, 9 GEO. MASON L. REV. 691, 700 (2001) (stating that “the goal of the remedy should be to return the market to a baseline condition that would have prevailed in the market but for the defendant’s anticompetitive acts”).

\textsuperscript{12} See 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 653b, at 98 (2d ed. 2002) (“[T]here is no unfairness or disincentive to meritorious competition in simply preventing the conduct at the outset or ordering the monopolist to stop.”); Charles A. James, The Real Microsoft Case and Settlement, ANTITRUST, Fall 2001, at 58, 60-62 (stating that an “antitrust remedy for a Section 2 violation must stop the offending conduct, prevent its recurrence, and restore competition” and explaining the focus of restoration is on “lost competition”); John E. Lopatka & William H. Page, A (Cautionary) Note on Remedies in the Microsoft Case, ANTITRUST, Summer 1999, at 25, 26 (“The starting point . . . is an order prohibiting the defendant from engaging in the proven illegal conduct. . . . Only if the circumstances of the case demonstrate that such an approach would be ineffective in restoring competition to the condition that would have existed but for the illegal conduct should the court consider broader conduct relief or structural relief.”).

\textsuperscript{13} See Zenith Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 132 (1969) (“In exercising its equitable jurisdiction, ‘(a) federal court has broad power to restrain acts which are of the same type or class as unlawful acts which the court has found to have been committed or whose commission in the future unless enjoined, may fairly be anticipated from the defendant’s conduct in the past.”’ (quoting NLRB v. Express Publ’g Co., 312 U.S. 426, 435 (1941))); Int’l Salt Co. v. United States, 332 U.S. 392, 400 (1947) (“[I]t is not necessary that all of the untraveled roads . . . be left open and that only the worn one be closed.”); Microsoft, 373 F.3d at 1233 (approving remedial actions that denied Microsoft “the ability to take the same or similar actions to limit competition in the future”); AREEDA ET AL., supra note 11, ¶ 325c, at 253 (stating that decrees may “forbid conduct that is different from the conduct that was actually condemned” and “may even prohibit lawful conduct if such a prohibition ‘represents a reasonable method of eliminating the consequences of the illegal conduct’” (quoting Nat’l Soc’y of Prof’l Eng’rs v. United States, 435 U.S. 679, 697 (1978))).

\textsuperscript{14} See Mar. 29 H’g Tr., supra note 3, at 70–72 (Lao) (discussing scenarios where it “would be helpful . . . to impose affirmative duties on the dominant firm” and listing forms of affirmative remedies).

\textsuperscript{15} Id. at 67 (Lao); see also Mar. 28 H’g Tr., supra note 2, at 108 (Fisher) (arguing that barring practices similar to those found unlawful may be insufficient if defendant had used exclusionary conduct to ward off a competitive threat “at a crucial moment”).

\textsuperscript{16} See, e.g., Mar. 28 H’g Tr., supra note 2, at 10 (Heiner) (suggesting that remedies should be designed “to safeguard competitive opportunities but not necessarily to engineer any particular market outcome”). See generally Microsoft, 373 F.3d at 1243.

\textsuperscript{17} Mar. 28 H’g Tr., supra note 2, at 11 (Heiner); see also id. at 10.
panelist elaborated: “The goals of Section 2 remedies should be to restore competitive conditions that would have existed but for the illegal conduct. They should not be to try to restore or to create some sort of ideal competitive condition or to supervise market outcomes.”

The Department agrees. A section 2 remedy in a government case is neither a chance to fix all perceived competitive problems in an industry nor an opportunity to punish the defendants. Thus, the Department will focus its unilateral-conduct remedies on re-establishing the opportunity for competition in the affected market rather than dictating a market outcome or any particular level of competition. This means that the remedy should be tailored to the violation charged and to its actual competitive harm.

III. Considerations in Crafting Remedies

Crafting a successful section 2 remedy often requires balancing a number of important, sometimes competing, considerations. For instance, the sufficiency of the remedy must be balanced against the danger of overbreadth. Similarly, the remedy’s impact on efficiency and innovation must be considered. Moreover, the remedy must be sufficiently specific yet also adaptable. And finally, a remedy’s administrability must be taken into account.

**Sufficiency Versus Overbreadth.** Re-establishing the opportunity for competition may require going beyond mere prohibition of the offending conduct. For example, “proactive steps to address conduct of [a] similar nature” may be necessary. Further, if the conduct has so changed market structure that ending the unlawful practice will not re-establish the opportunity for competition, the defendant may be required to take affirmative

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21 See Microsoft, 373 F.3d at 1243 (stating that the proposed judgment “addresses and remedies precisely” the “fruit of Microsoft’s unlawful conduct” in order to “restore the competitive conditions” potentially created by middleware threats similar to those previously restricted by Microsoft’s conduct (internal quotation marks omitted)).
steps.\textsuperscript{24} At the same time, remedies must be “commensurate with the offense.”\textsuperscript{25} Implementing a remedy that extends too broadly runs the risk of distorting markets and, ultimately, impairing competition, often through wholly unintended consequences.\textsuperscript{26}

**Impact on Efficiency and Innovation.** Imposing a remedy sufficient to re-establish the opportunity for competition sometimes may be in tension with maintaining the efficiency of defendant’s operations or its incentives and ability to innovate. As two commentators explain, although a remedy should “deprive the offender of the benefits of the violation,” it should not take away “the benefits of lawful conduct.”\textsuperscript{27} The courts and the federal enforcement agencies, they caution, should aim to implement remedies that do not “harm consumers by deterring hard competition, efficient arrangements, or innovation.”\textsuperscript{28} Although this problem may arise in remedies requiring divestiture, it can also result from certain conduct remedies, particularly those that impose affirmative-conduct obligations. In addition to potentially blunting defendant’s incentives to innovate, affirmative-conduct obligations, especially ones imposing a duty to provide competitors access to assets, may also lessen the incentives of those competitors to develop their own assets or to innovate around defendant’s assets.\textsuperscript{29} Nevertheless, preserving a defendant’s efficiency does not take precedence over ensuring that a remedy effectively addresses the illegal conduct.

**Specificity Versus Adaptable Remedy.** A remedial decree ideally will be sufficiently specific for defendant readily to understand its obligations and for the supervising court (or agency) to determine whether its terms are being satisfied. Uncertainty about a decree’s requirements may cause defendant to refrain from engaging in procompetitive conduct that the decree did not intend to prohibit or lead to conduct that violates the spirit of the decree but is not clearly prohibited.\textsuperscript{30} Specificity, however, may limit the adaptability of relief to changes. A lack of adaptability may reduce the efficacy of a decree, particularly when a market is

\textsuperscript{24} See Mar. 29 Hr’g Tr., supra note 3, at 67 (Lao) (noting shortcomings of “narrowly focusing the remedy on the specific conduct found to be unlawful”); id. at 70.

\textsuperscript{25} Lopatka & Page, supra note 11, at 700; see also Mar. 28 Hr’g Tr., supra note 2, at 107 (Fisher) (“It is natural to require that the remedy be reasonably consonant with the liability findings.”); Cavanagh, supra note 4, at 201 (“The overarching principle of equitable remedies in monopolization cases is that the remedy must be proportional to the wrongdoing.”).

\textsuperscript{26} See, e.g., Microsoft, 373 F.3d at 1223–24 (limiting discretion of the district court in crafting forward-looking remedy that covered conduct not found to have been exclusionary); id. at 1232–33 (identifying the “fruits” of Microsoft’s violations and discussing whether the remedy denied Microsoft those fruits); Areeda & Hovenkamp, supra note 12, ¶ 653e, at 102 (“Wholly apart from fairness, . . . a policy [of far reaching equitable sanctions] would undesirably deter firms from engaging in superficially restrictive conduct that is in fact reasonably necessary to competition on the merits.”); E. Thomas Sullivan, The Jurisprudence of Antitrust Divestiture: The Path Less Traveled, 86 MINN. L. REV. 565, 612 (2002) (“Courts should be wary when brandishing the club of divestiture.”).

\textsuperscript{27} Lopatka & Page, supra note 11, at 700 (citation omitted).

\textsuperscript{28} Id.

\textsuperscript{29} See, e.g., Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407–08 (2004) (observing that compelling firms that have acquired monopoly power “to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities”); Mar. 29 Hr’g Tr., supra note 3, at 93 (Shelanski) (urging caution in mandating interoperaibility, even in network markets, due to risk of “eliminating the incentive to try to create the new network standard”); Mar. 28 Hr’g Tr., supra note 2, at 52 (Lipsky) (noting that access remedies may potentially cause competitors “invest their resources in legal maneuvering rather than . . . in innovation that would destroy the monopoly”).

\textsuperscript{30} Cf. Int’l Salt Co. v. United States, 332 U.S. 392, 400 (1947) (“[I]t is desirable, in the interests of the court and of both litigants, that the decree be as specific as possible, not only in the core of its relief, but in its outward limits, so that parties may know their duties and unintended contempts may not occur.”); Lopatka & Page, supra note 11, at 704 (“A conduct remedy, however well-crafted, raises a significant possibility of future litigation, because it is likely to require some interpretation.”).
undergoing rapid change. Accordingly, successful remedies must balance sufficient specificity against the adaptability necessary to address future developments.

The importance of adaptability in crafting specific remedies may be tied to the decree’s duration. For most section 2 decrees to succeed, they must be of sufficient duration to encourage entrants to invest in competing products or otherwise re-establish the opportunity for competition in the market. In fast-changing markets, however, absent sufficient adaptability, decrees of long duration can soon become obsolete, with unintended effects that potentially can stifle a defendant’s ability to compete, thereby harming consumers. Although in recent years both the Department and the FTC have avoided the perpetual decrees they sometimes sought in the past, the decree’s duration remains an important consideration in any particular case.

**Administrability.** Administrability is another critical consideration in shaping a remedy. Panelists and commentators have urged close attention to the complexity and cost of administration. Ideally, a remedy should be “self-executing” in the sense that it should not require significant oversight or intervention from the courts or a government enforcement agency. But as a practical matter, few injunctive remedies are truly self-executing, and the effectiveness of most remedial solutions will therefore depend in part on how easily they can be administered or enforced.

Complex remedies may have high implementation or enforcement costs, ultimately borne by businesses and consumers. According to one panelist, the judicial oversight needed to continuously fine-tune complex remedial decrees may create an enormous drag on affected businesses, lowering their efficiency and diminishing their innovation. Similarly, remedies that require courts to prescribe (or to determine the fairness or reasonableness of) pricing or price-related terms of sale may convert courts into de facto regulators, a role for which they are not suited. Indeed, in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, the Supreme Court warned against remedies that would place courts in the role of “assum[ing] the day-to-day controls characteristic of a regulatory agency.” At the extreme, a remedy may be so

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31 See Mar. 29 Hr’g Tr., supra note 3, at 72–73 (Lao) (arguing for continuing jurisdiction clauses in decrees to allow courts to modify them to ensure their success); HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE 299–300 (2005) (“By the time each round of Microsoft litigation had produced a ‘cure,’ the victim was already dead. This makes it vitally important that settlements such as the one in Microsoft contain a clause that permits a court to retain its jurisdiction and assess future developments.”).

32 See, e.g., Mar. 29 Hr’g Tr., supra note 3, at 100 (Page) (noting that forward-looking remedies may require lengthy decrees).


34 See Mar. 29 Hr’g Tr., supra note 3, at 102–03 (Hesse) (“Both of the agencies have gone away from the idea of doing perpetual decrees[,] ten years is generally the standard.”).

35 See, e.g., id. at 20 (urging consideration of “whether or not the problem is subject to a fix that’s worth the investment of resources in not only the investigation and prosecution of the matter, but also the compliance and enforcement activities that will happen post judgment”); Mar. 28 Hr’g Tr., supra note 2, at 62 (Lipsky) (“The administrative costs and complexities [of a remedy] . . . mean[ ] that you don’t mess around with lemon carts even if they are monopolies.”); Howard A. Shelanski & J. Gregory Sidak, Antitrust Divestiture in Network Industries, 68 U. Chi. L. Rev. 1, 31 (2001) (“The importance of taking enforcement costs into account is enormous, though often underemphasized.”); id. at 32 (“Any complete analysis of enforcement costs needs systematically to compare the litigation, monitoring, and other administrative costs of remedies under consideration.”).

36 Shelanski & Sidak, supra note 35, at 34; see also Mar. 28 Hr’g Tr., supra note 2, at 106 (Fisher) (“[I]njective relief . . . can require continuing and perhaps continual judicial supervision.”).

37 RICHARD A. EPSTEIN, ANTITRUST CONSENT DECREES IN THEORY AND PRACTICE 107 (2007).

difficult or expensive to administer that it is effectively unenforceable and, as a result, will not succeed in stopping defendant’s illegal conduct or re-establishing the opportunity for competition.  

IV. Equitable Remedies

Equitable remedies in section 2 cases run along a spectrum. Traditionally, remedies have been categorized as either conduct remedies (often less drastic) or structural remedies (often more drastic). Many antitrust remedies, however, do not fit neatly into one category or the other; many contain both conduct and structural components. Consequently, although this chapter relies on the traditional categories for ease of exposition, many remedies blend attributes from across the spectrum.

Conduct remedies typically seek to terminate the conduct that was found unlawful or similar conduct. They also may impose affirmative obligations to foster the competitive process, including requiring a defendant to sell to, or provide interconnection with, a rival in order to lower entry barriers.

Structural remedies typically re-establish the opportunity for competition by requiring a violator to divest certain assets or even to dissolve. Some licensing requirements may also have structural characteristics.

In the merger context, structural remedies generally are preferred over conduct remedies because they are “relatively clean and certain, and generally avoid costly government entanglement in the market.” Since the parties to a merger have either not yet or only recently merged, there generally still exist clear demarcations between entities and units, facilitating a structural solution. Further, there typically is a close nexus between the firm’s structure and the antitrust violation (i.e., the merger).

These advantages usually are absent in the section 2 context, especially where the firm in question has not grown through acquisition. As a result, many panelists and commentators favor conduct remedies over structural relief in section 2 cases. To the extent that conduct remedies can be tailored to address specific exclusionary conduct, they may serve to re-establish the opportunity for competition without the disruption often associated with divestitures. As two commentators summarize, “Even if structural and conduct relief would be equally effective, a conduct remedy is nevertheless preferable if any higher administrative costs it entails are outweighed by lower costs of lost efficiencies and stifled innovation.” While both conduct and structural remedies can impose high administrative costs, an advantage of conduct remedies in the section 2 context is that they may more easily be fine-tuned over time in response to changing market circumstances.

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Principles, 58 Antitrust L.J. 841, 853 (1990); see also Sherman Act Section 2 Joint Hearing: Predatory Pricing Hr’g Tr. 95, June 22, 2006 (Elzinga) (warning against making antitrust a “price regulatory regime”).

39 See Lopatka & Page, supra note 11, at 701-03 (noting that conduct relief can be ineffective where a conduct order might be “unenforceable” and discussing the difficulties in drafting a conduct remedy of “sufficient specificity to prohibit the full range of exclusionary practices Microsoft might employ”).

40 See generally Antitrust Div., supra note 1, at 23–24. While an access requirement may, under certain circumstances, be an appropriate remedy, denial of access to an asset should rarely, if ever, serve as the basis for antitrust liability. See generally supra Chapter 7 (concluding that antitrust liability for unilateral, unconditional refusals to deal with competitors should not play a meaningful part in section 2 enforcement).

41 See, e.g., Massachusetts v. Microsoft Corp., 373 F.3d 1199, 1233 (D.C. Cir. 2004) (en banc) (describing a proposal to require Microsoft to offer royalty-free licenses as a “structural remedy”).

42 See Antitrust Div., supra note 1, at 7.

43 Lopatka & Page, supra note 12, at 27 (“[I]n cases where the defendant lawfully acquired its monopoly position by internal expansion in an unregulated market, structural relief will rarely be appropriate.”).

44 See, e.g., Mar. 29 Hr’g Tr., supra note 3, at 7 (Shelanski) (“I think while innovation makes structural remedies more difficult, it may in some cases make conduct remedies particularly valuable.”); Mar. 29 Hr’g Tr., supra note 2, at 141 (Joskow) (asserting that in section 2 cases, “it is more likely desirable to focus on some form of conduct remedy”).

45 Lopatka & Page, supra note 11, at 701.
Therefore, while both conduct and structural remedies may produce unanticipated consequences, it may be easier to adjust conduct remedies as these consequences emerge.

As FTC Chairman William E. Kovacic observes, however, “[C]onduct remedies do not enjoy a sturdy reputation in the antitrust literature.” He notes one “frequently voiced criticism” of conduct remedies is that they are insufficient to “unravel existing accumulations of market power” and are “feeble alternatives” to structural remedies that can “directly dismantle positions of dominance.” Others contend that conduct remedies may prove insufficient “if the market is locked into a position that is the result of prior exclusionary behavior.” Moreover, as one panelist argued, “[I]njective relief can simply turn into an effort to prohibit actions already in the past and already obsolete . . . .”

Conduct and structural remedies need not be mutually exclusive. In some instances, relief with both conduct and structural aspects may be needed. The trial court consequently is “clothed with ‘large discretion’ to fit the decree to the special needs of the individual case.”

A. Conduct Remedies

1. Prohibitory Provisions

Many conduct remedies focus on prohibiting the defendant from engaging in specific anticompetitive acts in the future. Prohibitory provisions have been used frequently to remedy a variety of unlawful exclusionary conduct, including exclusive dealing and tying, and they take two general forms. First, where sufficient to achieve proper remedial goals, prohibitory provisions can be designed to prohibit only the specific practices found to be unlawful. These provisions are sometimes referred to as “cease and desist” or “no more” provisions. Second, where appropriate, they may go beyond prohibiting specific prior unlawful acts and prohibit other conduct that may result in recurrence of the violation. These measures are often referred to as “fencing in” provisions.

One panelist argued that orders prohibiting specific illegal conduct are the optimal remedies: “[I]njunctive remedies should be limited to preventing reoccurrence of proven anticompetitive behavior. The Sherman Act . . . reflects the assumption that if specific impediments to

51 See, e.g., United States v. Microsoft Corp., 231 F. Supp. 2d 144, 183 (D.D.C. 2002) (prohibiting exclusive-dealing arrangements “that have a significant degree of foreclosure of the market”), aff’d sub nom. Microsoft Corp. v. United States, 373 F.3d 1199 (D.C. Cir. 2004) (en banc); United States v. Gen. Motors Corp., 1965 Trade Cas. (CCH) ¶ 71,624 (E.D. Mich. 1965) (prohibiting contracts that required bus operators or manufacturers to purchase all or a stated percentage of their requirements of buses or bus parts from General Motors); United States v. W. Elec. Co., 1956 Trade Cas. (CCH) ¶ 68,246 (D.N.J. 1956) (prohibiting exclusive distributorship and requirements contracts); United States v. IBM, 1956 Trade Cas. (CCH) ¶ 68,245 (S.D.N.Y. 1956) (prohibiting requiring lessees or purchasers of IBM tabulating or electronic data processing machines to purchase IBM tabulating cards); United States v. Eastman Kodak Co., 1954 Trade Cas. (CCH) ¶ 67,920 (W.D.N.Y. 1954) (prohibiting Kodak tying or otherwise connecting sale of its color film to processing of that film); see also In re Biovail Corp., 134 F.T.C. 407 (2002) (prohibiting improper Orange Book listings); In re Bristol-Myers-Squibb, 135 F.T.C. 444 (2003) (barring misuse of FDA Orange Book listings based on false or misleading information, or other specified forms of misconduct, in order to initiate or maintain a stay of FDA generic drug approvals).

52 See AREEDA & HOVENKAMP, supra note 12, ¶ 653b, at 99 (“Where the prohibited conduct is discrete and well defined, a prohibitory injunction may be sufficient to remedy the problem, particularly where it is clear that the defendant is unlikely to exercise its market power in other ways.”).

53 See, e.g., Mar. 29 H’g Tr., supra note 3, at 59 (Page).
competition are removed, then private contracting within the market will lead to the efficient outcome.”

Another panelist explained that a remedy’s effectiveness “is likely to be tied to the precision with which one can define the cause of anticompetitive harm, and in some cases, this can be done quite clearly, and in those cases, I think behavioral injunctions can be quite effective.”

Although commentators generally agree that provisions prohibiting the actual illegal conduct found to violate section 2 are the proper first step in crafting a remedy, those provisions are not always sufficient to re-establish the opportunity for competition. Fencing-in provisions, which prohibit conduct not specifically described in the complaint but capable of effecting a recurrence of the violation, may also be appropriate. They may prohibit conduct not charged as part of the violation, but which would have been unlawful if defendant had engaged in it, or conduct not unlawful by itself, but which needs to be prohibited to re-establish the opportunity for competition.

Fencing-in provisions can take several forms. First, they can prohibit the “same type or class” of acts that created the violation “or whose commission in the future, unless enjoined, may fairly be anticipated from the defendant’s conduct in the past.” That can mean prohibiting different but reasonably related acts, or the same past acts directed against different but reasonably related product or geographic markets. Further, “[a]cts entirely proper when viewed alone may be prohibited.” Thus, if necessary or appropriate, remedial provisions may constrain conduct in markets distinct from, but logically related to, the market at issue in the complaint, and may prohibit the defendant from taking otherwise lawful acts in those markets.

Second, fencing-in provisions can prohibit acts that are not similar to the defendant’s past illegal acts but that could be used to repeat the same basic violation. To reach every new way that a defendant might act anticompetitively, fencing-in provisions often would need to contain broad language that also constrains normal, competitive behavior. As a result, seeking to entirely eliminate the chance of recurrence, if possible at all, may lead to such sweeping prohibitions that the remedy could create more harm than good for consumers. It is important to evaluate carefully the likely impact of each fencing-in provision to avoid unnecessarily constraining normal competitive behavior in order to reach behavior that is possible but unlikely to occur or to cause competitive harm.

The Department believes that, where based on clear and objective criteria and sufficient to stop the violation, prevent its recurrence, and re-establish the opportunity for competition, a prohibitory provision is the proper remedy. If, however, a prohibitory provision is insufficient to achieve these goals, then the Department will not hesitate to seek additional relief.

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54 Id. at 49; see also id. at 59 (conceding that “forward-looking or fencing in kinds of provisions may be necessary” but urging that they be applied only when the record establishes that they are needed).

55 Id. at 12–13 (Shelanski).

56 See, e.g., supra notes 52, 54–55.

57 See, e.g., Mar. 29 H’g Tr., supra note 3, at 59 (Page) (stating that “forward-looking or fencing in kinds of remedies may be necessary”); id. at 67 (Lao) (concluding that in high-technology markets, after a competitor has been forced out of the market, “focusing the remedy on the specific conduct found to be unlawful[] will not return competition to the status quo; thus drafting or crafting forward-looking remedies is quite important”); cf. Robert W. Crandall & Kenneth G. Elzinga, Injunctive Relief in Sherman Act Monopolization Cases, 21 RES. LAW AND ECON. 277, 335–37 (2004) (analyzing ten separate conduct remedies imposed on firms charged with monopolization and finding “little evidence that any of them contributed favorably to consumer welfare”).


60 Cf. Richard Craswell, Regulating Deceptive Advertising: The Role of Cost Benefit Analysis, 64 S. CAL. L. REV. 549, 552 (1991) (“The required level of precautions should therefore be defined as the point at which the value of any further precautions would be outweighed by any costs those precautions would inflict.”).
The Department believes that, where based on clear and objective criteria and sufficient to stop the violation, prevent its recurrence, and re-establish the opportunity for competition, a prohibitory provision is the proper remedy. If, however, a prohibitory provision is insufficient to achieve these goals, then the Department will not hesitate to seek additional relief.

2. Affirmative-Obligation Remedies

Designing and implementing an effective remedy can be particularly difficult when the defendant’s conduct extensively changed the market, precluding the opportunity for competition. For example, unlawful exclusionary conduct can deprive rivals of economies of scale or network economies. Once a defendant denies these economies to rivals (and secures them for itself), it may be difficult or impossible to re-establish the opportunity for competition simply by barring continuation of the specific exclusionary practices or other, related conduct. In addition, a company may engage in unlawful exclusionary practices when there is competition for a market. In those situations, a remedy that requires a defendant to take affirmative steps may be necessary to re-establish the opportunity for competition.60

Some panelists recognized a need for affirmative-obligation remedies in appropriate circumstances.62 When, for example, scale economies make successful entry by new competitors unlikely, an affirmative remedy may allow potential competitors to enter with a cost structure similar to a defendant’s.63 Even when a defendant already has established its technology as the current market standard, an affirmative remedy may be able to approximate the competitive conditions that would have prevailed but for the exclusionary conduct.64 Finally, forward-looking affirmative remedies that go beyond the precise conduct at issue may help ensure that a defendant does not use similar tactics to foreclose competition in the future.65

While affirmative-obligation remedies potentially can be effective,66 these remedies also run the risk of being overbroad and disproportionate to the unlawful conduct. Careful consideration of the nexus between the remedy and the exclusionary conduct helps reduce this risk.67

Access remedies, which may mandate

60 See Lopata & Page, supra note 11, at 705–07 (observing that “if predatory behavior has irreversible anticompetitive effects, an order that does more than stop the anticompetitive conduct may be justified”).

62 See, e.g., Mar. 29 H’g Tr., supra note 3, at 70–71 (Lao) (describing “the importance of implementing creative affirmative obligations”); Tad Lipsky, Remedies for Monopolization 4 (Mar. 28, 2007) (hearing submission) (“Mandatory access has benefits and deserves consideration.”); see also Philip J. Weiser, Goldwasser, The Telecom Act, and Reflections on Antitrust Remedies, 35 ADMIN. L. REV. 1, 15 (2003) (asserting that conduct remedies need not “mere courts in supervisory roles for which they are ill-suited” because courts can rely on (1) an arrangement regulated by a regulatory agency; (2) an existing access arrangement; (3) a prior course of dealing; or (4) a non-discrimination standard).

63 See Mar. 29 H’g Tr., supra note 3, at 70 (Lao) (where the dominant firm has already successfully excluded rivals, an affirmative remedy that requires the “dominant firm to reduce rivals’ costs” may be necessary).

64 See, e.g., Mar. 28 H’g Tr., supra note 2, at 121 (Fisher) (arguing that requiring Microsoft to auction “licenses to Windows,” along with “the requisite know-how,” would have been an appropriate remedy).

65 See Mar. 29 H’g Tr., supra note 3, at 67–69 (Lao); Willard K. Tom & Gregory F. Wells, Raising Rivals’ Costs: The Problem of Remedies, 12 GEO. MASON L. REV. 389, 404 (2003) (noting that an antitrust remedy “must take into account the evolution of the market between the time the violation occurred and the time the remedy is being entered, as well as the likely future course of the market”).

66 See generally Massachusetts v. Microsoft Corp., 373 F.3d 1199 (D.C. Cir. 2004) (en banc). But cf. Mar. 29 H’g Tr., supra note 3, at 57 (Page) (arguing that if the original rationale for the Microsoft remedy “was to preserve the middleware threat to the Microsoft monopoly in the network . . . the remedy has not succeeded, because it’s attracted very few licensees, despite these enormous efforts”).

67 See, e.g., United States v. Microsoft Corp., 231 F. Supp. 2d 144, 183 (D.D.C. 2002) (finding it “entirely appropriate” that the remedy “prohibit only those contracts that have a significant degree of foreclosure of the market”), aff’d sub nom. Massachusetts v. Microsoft Corp., 373 F.3d 1199 (D.C. Cir. 2004) (en banc).
selling or licensing physical assets or intellectual property, offering services, or providing interconnection to a network, can particularly raise significant administrability concerns. They can be the most complex remedies to design, implement, and supervise. At the design stage, an access remedy typically requires specifying the nature of access, its price, and other terms. In many instances, however, adequately specifying these conditions in advance may prove difficult. As one panelist explained, price-setting in a regulatory context is often “complicated” and raises the “familiar problems of traditional public utility-style regulation.”68 Similarly, another panelist noted that “the many complex and unforeseeable consequences of a forced sharing regime are extremely difficult to administer.”69

Any access remedy requires a pricing determination. The price cannot be left to defendant’s unilateral determination; otherwise, it could set a price so high as to effectively deny access, which would subvert the remedial goals of the decree. At the same time, some panelists expressed significant concern that courts and antitrust enforcement agencies are not well-equipped to determine appropriate prices.70 However, others challenged that proposition, arguing that in some contexts an appropriate price may be established easily. For instance, where the monopolist already has been selling to other buyers in a more competitive setting, the price established in that market may be appropriate for the remedy.71 Other commentators observe, however, that using prior-course-of-dealing comparisons to craft a remedy may be difficult in practice, particularly in fast-moving markets where terms may change quickly.72

Access remedies that mandate selling or licensing physical assets or intellectual property, offering services, or providing interconnection to a network can also require extensive continuing oversight.73 In some circumstances, they may require the antitrust enforcement agencies and courts to make decisions traditionally vested in regulatory agencies with features better suited for these determinations, including a large permanent staff, well-established reporting requirements, and specialized expertise in evaluating the relevant industry.74

The Microsoft decree highlights the complexities that interconnection remedies can create. It requires Microsoft to share certain communications protocols with potential middleware providers so that personal computers can interconnect with Microsoft servers. The purpose is to ensure that rival middleware is able to interconnect with Microsoft-based servers and thereby compete

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68 Mar. 28 Hr’g Tr., supra note 2, at 50 (Lipsky); see also id. at 24 (Crandall) (“[I]n any regulated access there is going to be an argument about the price.”).
69 Sherman Act Section 2 Joint Hearing: Refusals to Deal Panel Hr’g Tr. 35, July 18, 2006 (Pate).
70 See id. at 30 (Pate) (“Government-imposed duties to assist competitors force courts into setting prices, a task for which they are not very well equipped . . . .”); id. at 110 (Walton) (“[H]ow do we get this pricing?”). See generally supra Chapter 4 (discussing remedial difficulties in predatory-pricing cases); Chapter 7 (discussing remedial difficulties in refusal-to-deal cases).
71 See, e.g., May 8 Hr’g Tr., supra note 3, at 107 (Pitofsky) (“I don’t think the remedy [in Aspen Skiing] is very difficult. You take whatever the arrangement was in the other resort areas and apply it to Aspen.”); Mar. 28 Hr’g Tr., supra note 2, at 53 (Lipsky) (noting that setting prices may be less challenging in a regulated industry, at least where prices already have been set through the regulatory process).
72 See, e.g., Weiser, supra note 62, at 18–19 (urging caution in using prior course of dealing as the basis for crafting a remedy, especially in “markets that move very quickly”).
74 See, e.g., Trinko, 540 U.S. at 415 (“An antitrust court is unlikely to be an effective day-to-day enforcer of . . . detailed sharing obligations.”); RICHARD A. POSNER, ANTITRUST LAW 242 (2d ed. 2001) (noting that “supervision of an ongoing commercial relationship” is “a function that courts are not equipped to perform effectively”).
with Microsoft’s middleware. This interconnection provision, according to one panelist, “has turned out to be the most difficult and the most problematic in its enforcement,” and, according to another panelist, it has taken up “the lion’s share of compliance work for Microsoft and the agencies.” The technological complexity of the protocols has made implementation, he claimed, “quite challenging.” He noted that the Department and the district court have had to rely upon assistance from a forty-person “technical committee” for determining and enforcing Microsoft’s compliance with the consent decree.

Access remedies also raise efficiency and innovation concerns. By forcing defendant to share the benefits of its investments and relieving rivals of the incentive to develop comparable assets, access remedies can reduce an industry’s competitive vitality. One panelist, for example, argued that subjecting an industry to regulatory scrutiny over technical aspects of network interconnection drains the industry of its entrepreneurial energy or “mojo.” Similarly, one commentator notes that others maintain that access remedies tend to lead to “creeping regulation” by courts and competition agencies, which have to regulate the defendant’s day-to-day efforts to comply with the decree. However, as another panelist observed, when the market in question is one “where you can’t assume that there is a competitive structure that will automatically achieve optimal performance,” it is appropriate to assess the possibility that “some kind of access remedy, despite all the costs and burdens . . . might actually be better than doing nothing or might be better than applying some other regulatory remedy.”

The Department believes that, in certain circumstances, affirmative-obligation remedies will play an important role in remediating section 2 violations. In some settings, merely barring a defendant’s exclusionary conduct, or other similar conduct, is insufficient to re-establish the opportunity for competition, and affirmative relief is needed. The Department recognizes, however, that any affirmative obligation must carefully balance the benefits it brings to consumers with the costs it may impose on the Department and courts in designing and supervising the remedy, on defendant’s and competitors’ business

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76 Mar. 28 Hr’g Tr., supra note 3, at 45 (Page).
77 Mar. 28 Hr’g Tr., supra note 2, at 16 (Heiner); see also Mar. 29 Hr’g Tr., supra note 3, at 57 (Page) (stating that 313 Microsoft employees work on this portion of the decree).
78 Mar. 28 Hr’g Tr., supra note 2, at 16 (Heiner); see also id. at 16–17.
79 Id. at 16–17 (Heiner); see also Mar. 29 Hr’g Tr., supra note 3, at 47 (Page). But see id. at 30 (Hesse) (asserting that “hiring technical experts to help out was an innovative thing to do and . . . has proven to be a pretty successful component of the Microsoft decree”).
80 See Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004) (recognizing that forced sharing may “lessen the incentive for the monopolist, the rival, or both to invest in . . . economically beneficial facilities”).
81 May 8 Hr’g Tr., supra note 3, at 102 (Sidak).
83 See Mar. 28 Hr’g Tr., supra note 2, at 53 (Lipsky).
84 See, e.g., Mar. 29 Hr’g Tr., supra note 3, at 99–100 (Page) (noting that longer decrees may be preferable with access remedies, as in Microsoft, to assure competitors that investments made in interconnecting with the monopolist will be worthwhile); id. at 102 (Hesse) (arguing that length of decree in a network market will depend on whether there is a quick way to lower entry barriers or otherwise overcome network effects and concluding that longer decrees will be appropriate in most technology markets).
operations and incentives, and on consumers.

The Department believes that, in certain circumstances, affirmative-obligation remedies will play an important role in remediying section 2 violations.

B. Structural Remedies

Structural remedies typically dissolve the defendant, split it into two or more entities, or require divestiture of assets to a new owner. The Supreme Court has recognized that, along the spectrum of antitrust remedies, these are the “most drastic.”85 Similarly, in Microsoft, the D.C. Circuit cautioned that “structural relief, which is ‘designed to eliminate the monopoly altogether . . . require[s] a clearer indication of a significant causal connection between the conduct and creation or maintenance of the market power.’”86 The court indicated that the further the relief under consideration is toward the structural end of the remedial spectrum, the greater the need for “a sufficient causal connection between [the] anticompetitive conduct and [the firm’s] dominant position.”87 The court also suggested that structural remedies are best suited to instances involving a firm “that has expanded by acquiring its competitors,”88 because, while it is likely to be difficult to divide a unitary company into efficient competitors, a company formed through mergers may still have identifiable structural divisions.89

Some commentators favor structural remedies in section 2 cases as a general matter:

Structural relief is the most far-reaching category of remedies, but there are several reasons for the presumption favoring structural remedies in monopolization cases. If the aim is to “terminate the monopoly”, the most straightforward solution is to break it up in some fashion. This is consistent with the economic view that structural relief goes to the root of the problem, even if the problem is merely conduct that unlawfully maintains the monopoly. . . . If there are significant reasons why restraining conduct or licensing remedies are not likely to be effective in . . . terminating the monopoly . . . then the case for some sort of structural remedy is compelling.”90

Some commentators also note that divestiture, and other structural remedies, offer the possibility of swiftly dissipating a defendant’s monopoly power by introducing new competitors into the market.91 In addition, some panelists argued that structural remedies can be administratively efficient. As one panelist noted, “[S]tructural remedies generally eliminate, although not entirely, the need for ongoing enforcement in compliance activity, which also can be an extremely time consuming and resource intensive process.”92 Another panelist observed that a structural remedy “doesn’t require continued and long judicial supervision and continued wrangling and litigation that can go with that.”93

What structural remedies may gain by reducing long-term administration burdens, however, they may lose by imposing significant up-front implementation costs. Some commentators have observed that breaking up a company can present acute administrability challenges. As one panelist explained:

86 United States v. Microsoft Corp., 253 F.3d 34, 106 (D.C. Cir. 2001) (en banc) (per curiam) (quoting AREEDA & HOVENKAMP, supra note 12, ¶ 653b, at 91-92) (alteration in original) (emphasis in original); see also Mar. 29 H’g Tr., supra note 3, at 60 (Page) (“[R]emedy should be proportional to the strength of the proof that [defendant’s] illegal actions actually reduced competition. . . . [Y]ou need more evidence to support more Draconian remedies.”).
87 See Microsoft, 253 F.3d at 106.
88 Id.
91 Kovacic, supra note 4, at 1294.
92 Mar. 29 H’g Tr., supra note 3, at 24 (Hesse).
93 Mar. 28 H’g Tr., supra note 2, at 110 (Fisher).
The structural remedy is very difficult because firms just aren’t divided up this way.

In the case of a horizontal divestiture, it is not necessarily neatly divided in that way.

What are the necessary assets, what are the necessary intellectual property, what are the necessary employees to create a going concern and have these separated entities?\textsuperscript{94}

A court crafting a structural remedy that entails dismantling a defendant to terminate an unlawful monopoly may face difficult decisions regarding allocation of personnel and assets that serve the company as a whole. For example, if the firm’s operations are carried out in fully integrated teams, the court would need to decide how personnel who serve in the integrated teams will be allocated among the new enterprises.\textsuperscript{95} Because of these challenges, one panelist noted that “courts are traditionally reluctant to grant structural relief” and “crafting a structural remedy is not easy and may sometimes be impossible.”\textsuperscript{96} Another panelist advised that because of these challenges, divestiture “should be a last resort” for an integrated or “unitary” company.\textsuperscript{97}

In addition, major restructuring may have serious consequences for business efficiency and innovation. Just as the problems of dividing a company into parts present challenges for a court, the separate entities created by divestiture may face challenges post-breakup due to lack of personnel, organizations, or information necessary to compete. These challenges may be particularly acute in technologically dynamic markets characterized by rapid innovation. For example, an order splitting up a company might leave one post-divestiture entity without research and development operations, or two entities each with diminished research and development capability, making it difficult for these entities to maintain the level of innovation necessary to compete in a rapidly changing market.\textsuperscript{98} Concern with undermining the efficiency of post-divestiture operations was one of the issues that led the Microsoft court to reject the divestiture remedy initially ordered by the district court.\textsuperscript{99} As one panelist concluded, “[M]ost of the structural remedies are a case of too much at too high a cost.”\textsuperscript{100} In exceptional cases, however, a simple divestiture of intellectual property might be an adequate structural remedy that would impose a relatively modest cost.

Panelists were also divided on whether structural remedies actually work. One argued that structural remedies are more likely to be successful than conduct remedies: “The lines are clearer, and if you’ve actually proven a violation where you can support imposition of a structural remedy, I think the likelihood of that structural remedy having an effect is probably higher.”\textsuperscript{101} Other panelists disagreed. One asserted that “the effectiveness of structural remedies in Section 2 cases is not assured and there’s certainly quite a bit of debate of effectiveness historically over structural remedies.”\textsuperscript{102} Another writes more bluntly that attempts to break up monopolists have been “costly exercises in futility.”\textsuperscript{103}

\textsuperscript{94} Id. at 136 (Joskow).

\textsuperscript{95} See, e.g., United States v. Microsoft Corp., 253 F.3d 34, 106 (D.C. Cir. 2001) (en banc) (per curiam); Kovacic, \textit{supra} note 4, at 1294–95.

\textsuperscript{96} Mar. 28 Hr’g Tr., \textit{supra} note 2, at 110 (Fisher).

\textsuperscript{97} Mar. 29 Hr’g Tr., \textit{supra} note 3, at 49 (Page).

\textsuperscript{98} See \textit{id.} at 9 (Shelanski).

\textsuperscript{99} Microsoft, 253 F.3d at 106 (“[A] ‘corporation, designed to operate effectively as a single entity, cannot readily be dismembered of parts of its various operations without a marked loss of efficiency.’” (quoting United States v. Aluminum Co. of Am., 91 F. Supp. 333, 416 (S.D.N.Y. 1950)). These concerns are similar to those that, in the merger context, cause the Department to disfavor divestitures of less than an existing, standalone business entity. \textit{See} \textit{Antitrust Div.}, \textit{supra} note 1, at 12–13.

\textsuperscript{100} Mar. 28 Hr’g Tr., \textit{supra} note 2, at 172 (Epstein).

\textsuperscript{101} Mar. 29 Hr’g Tr., \textit{supra} note 3, at 25 (Hesse); \textit{see also id.} at 24 (Hesse) (arguing that structural remedies are “generally less easy to evade” because “[i]t’s pretty clear what you’re supposed to do”).

\textsuperscript{102} Id. at 8 (Shelanski).

\textsuperscript{103} Robert W. Crandall, \textit{Costly Exercises in Futility: Breaking Up Firms to Increase Competition} 1 (Dec. 2003) (unpublished manuscript), \textit{available at} http://www.brookings.edu/~/media/Files/rc/
Evaluating the efficacy of past structural remedies in monopolization cases is difficult because generally there is no way of determining how competition in the relevant market would have fared had the remedy not been imposed. One panelist questioned whether anyone has an adequate “tool kit” for evaluating whether decrees systematically improve or reduce consumer welfare.\textsuperscript{104}

Indeed, commentators continue to debate whether past divestiture remedies were successful. For example, some commentators point to the breakup of Standard Oil in the early 1900s as an example of a successful structural remedy.\textsuperscript{105} That divestiture “ordered the dissolution of the trust by directing the combination to distribute the stock of thirty-seven subsidiaries to its shareholders”\textsuperscript{106} and created a number of sizable, enduring, independent competitors, including the companies that became Amoco, Chevron, Exxon, and Mobil.\textsuperscript{107} Despite Standard Oil’s predictions, dissolution did not disrupt the industry’s provision of goods and services, or significantly undermine the operations of the divested companies.\textsuperscript{108} Some, however, have questioned the overall success of the remedy.\textsuperscript{109}

Evaluations of the structural remedy imposed on AT&T in the 1980s are also mixed. The order split the Bell System between its monopoly local exchange business (assigned to the seven Regional Bell Operating Companies (RBOCs)) and its competitive long distance and manufacturing businesses (assigned to AT&T).\textsuperscript{110} Some panelists believed that these divestitures had important positive benefits. One suggested that “it is arguable” that many innovations in the telecommunications industry “might [never] have occurred without the divestiture decree.”\textsuperscript{111} Another contended that “the structural remedy in the AT&T case unleashed innovation from smaller telecommunications firms on an unprecedented scale, which enhanced consumer welfare.”\textsuperscript{112}

Other observers, however, viewed the AT&T remedy as less successful and possibly costly from the standpoint of lost efficiencies.\textsuperscript{113} Two panelists argued that Bell’s vertical integration had been efficient, as demonstrated by the RBOCs’ subsequent vertical re-integration.\textsuperscript{114}

\textsuperscript{104} See May 8 Hr’g Tr., \textit{supra} note 3, at 39 (Sidak).
\textsuperscript{106} Kovacic, \textit{supra} note 4, at 1295, 1300.
\textsuperscript{107} \textit{Id.}; see also 1 SIMON N. WHITNEY, \textit{ANTITRUST POLICIES} 103–10 (1958) (arguing that over time vigorous competition developed among the divested companies).
\textsuperscript{108} Kovacic, \textit{supra} note 4, at 1298 (“The transition proceed[ed] relatively smoothly even though most of the newly independent entities were deprived of the full-scale integration that Standard had argued was vital to their survival.”).
\textsuperscript{109} See Sherman Act Section 2 Joint Hearing: Business History Session Hr’g Tr. 15–18, 63–65, Oct. 26, 2006 [hereinafter Oct. 26 Hr’g Tr.] (May); Walter Adams, \textit{Dissolution, Divorce, Divestiture: The Pyrrhic Victories of Antitrust}, 27 \textit{Ind. L.J.} 1, 2 (1951); \textit{POSNER, supra} note 74, at 107 (“The decree had substituted a series of regional monopolies for a national monopoly.”).
\textsuperscript{111} Mar. 28 Hr’g Tr., \textit{supra} note 2, at 55 (Lipsky); see also Oct. 26 Hr’g Tr., \textit{supra} note 109, at 185 (Smith).
\textsuperscript{112} Mar. 29. Hr’g Tr., \textit{supra} note 3, at 67 (Lao).
\textsuperscript{113} See, \textit{e.g.}, Mar. 28 Hr’g Tr., \textit{supra} note 2, at 34 (Crandall) (“The cost of the vertical divestiture was extremely high. Was it necessary? I think in retrospect I can say probably not.”); Oct. 26 Hr’g Tr., \textit{supra} note 109, at 46 (Galambos) (“There was no consideration of whether deregulation might not serve the public interest better than structural settlements under the Sherman Act. There was, instead, dedication to a policy that was rooted in the past . . . .”); \textit{id.} at 77–78 (stating that the breakup of AT&T, in the long term, did not lead to the increased innovation and productivity that the government had sought in the case).
\textsuperscript{114} See Mar. 28 Hr’g Tr., \textit{supra} note 2, at 33 (Crandall) (“[A]fter 12 years of the AT&T decree and nine years after the 1996 [A]ct, we reverted back to a vertically integrated telecom sector.”); \textit{id.} at 147–48 (Thorne) (“Some of the efficiencies of a larger firm were sacrificed. Many of those efficiencies have been recreated since, reached via since the divestiture happened.”); see also Oct. 26 Hr’g Tr., \textit{supra} note 109, at 83 (Galambos) (“I do not think we are moving back to
One panelist estimated that the economy “lost about $5 billion of output just in the transition from the old AT&T to the new AT&T.”

The Department believes that structural remedies remain an important part of the government’s remedial arsenal. They may be appropriate if a section 2 violation has a clear, significant causal connection to a defendant’s acquisition of monopoly power. Radical restructuring of a defendant, however, is appropriate only after a determination that alternative remedies would not satisfactorily achieve the remedial goals or would do so at an unacceptable cost and a determination that the structural remedy is likely to benefit consumers.

C. The Special Challenge of Remedies in Technologically Dynamic Industries

The rapid changes and innovation typical of new-economy industries raise the question whether current antitrust enforcement mechanisms, which often involve lengthy investigation, followed by complex, time-consuming trials, are suitable for implementing effective remedies that adequately protect competition. Developing an equitable remedy in these markets has been likened to “trying to shoe a galloping horse.” One panelist observed that “the system seems broken in terms of speed, cost, and effectiveness of remedies.” Professor Hovenkamp explained the problem in the context of the Microsoft litigation: “[T]he legal wheels turn far too slowly. By the time each round of Microsoft litigation had produced a ‘cure,’ the victim was already dead.” Similar criticisms were

directed to the long-running litigation against IBM. A panelist concluded that the IBM case highlights the “need for speed” and demonstrates “how the industry and the technology tend to change in a manner that by the time you are done, everything you thought when you started the case is irrelevant.”

The time required for litigation may present particularly acute concerns in new-economy industries because in many instances, if anticompetitive conduct has eliminated potential competitors, the opportunity for robust competition may be difficult to recreate. As one panelist explained, in fast-moving, high-technology markets, “it’s extremely difficult to resuscitate a competitor, after the competitor has been crushed. The convergence of factors that produced a competitive challenge before it was anticompetitively excluded] may never reappear, not in the same fashion, anyway.”

To be sure, antitrust litigation ideally would be more rapid, reaching resolution and a remedy before the markets change significantly. In some cases, this issue can be addressed by consent decrees entered into before litigation; in others, it may suggest seeking preliminary injunctive relief. More generally, the effort to develop clear, objective standards for liability discussed in chapters 1-8 can help address this concern. The clearer and more objective the standard for liability, the more efficient and effective the antitrust enforcement. Violations are more likely to be deterred, litigation is likely to be faster and less expensive, and parties are more likely to reach prompt and effective settlements.

Once an appropriate judgment has been issued, steps can be taken to ensure the efficacy of relief in dynamic industries. One possibility is to fashion remedies that go beyond the precise conduct at issue. For example, some panelists suggested that, before the Microsoft
litigation ended, “the browser wars were over.”

For that reason, the remedies at least partially focused on protecting competition that might arise through future middleware technologies.

Of course, even when an industry’s dynamic nature makes effective injunctive relief problematic, antitrust enforcement continues to play an important role. Thus, the Microsoft court recognized that, while the passage of time in fast-changing settings threatens enormous practical difficulties for courts considering the appropriate measure of relief . . . . [e]ven in those cases where forward-looking remedies appear limited, the Government will continue to have an interest in defining the contours of the antitrust laws so that law-abiding firms will have a clear sense of what is permissible and what is not .”

The same potential for dynamic change between complaint and judgment that complicates crafting a remedy in the first place raises further complexity after a remedy is in place. Panelists warned that when technology is changing rapidly, a fixed remedy running years into the future may have damaging, unintended consequences. Panelists’ general admonitions that decrees should provide adequate flexibility and should run no longer than necessary for re-establishing the opportunity for competition are therefore particularly applicable to cases in technologically dynamic settings.

V. Monetary Remedies

The antitrust-remedial system in the United States is not limited to conduct and structural remedies. There are also a variety of monetary remedies available that can both deter future anticompetitive conduct and help restore injured parties to the position they would have been in without the unlawful conduct. Private plaintiffs in antitrust cases can seek monetary damages, which by law are trebled automatically. Similarly, the federal government may seek treble damages in instances in which anticompetitive conduct harmed the United States itself, and the states may recover damages they suffered as well as on behalf of injured citizens in their parens patriae capacity. In addition, certain monetary equitable remedies, such as disgorgement and restitution, may be available. The antitrust enforcement agencies, however, do not have the authority to impose civil fines.

A. Private Monetary Remedies—Treble Damages

The U.S. antitrust laws permit private plaintiffs to recover three times the damages they prove they have suffered. Although treble damages can increase deterrence and overall enforcement, a number of observers argue that,

121 Id. at 50 (Page); see also Mar. 28 Hr’g Tr., supra note 2, at 117-18 (Fisher).
122 Microsoft, 253 F.3d at 49.
123 See Mar. 29 Hr’g Tr., supra note 3, at 7 (Shelanski) (stating that “innovative markets are cause for agencies and courts to be more cautious about remedies”); Crandall & Elzinga, supra note 57, at 287-88 (arguing that the 1956 Western Electric settlement provisions confining AT&T and its manufacturing and research arms to markets involving common carrier communications services and equipment “cut off a major potential source of innovation” in the computer and other electronics markets).
124 See Mar. 29 Hr’g Tr., supra note 3, at 72–73 (Lao) (explaining that continued judicial supervision over decrees is “helpful in a dynamic high technology market because it allows the court to assess the success of the remedy, and to assess future development”).
125 See supra notes 32-34 and accompanying text. But cf. Tom & Wells, supra note 65, at 407 (noting that, where rapid change “takes place against a background of powerful network effects,” decree should be longer to account for fact that challenges to a dominant position rarely arise).
127 Id. § 15a.
128 Id. §§ 15(a), 15c; see also Georgia v. Evans, 316 U.S. 159, 162–63 (1942) (holding that states are “persons” capable of bringing treble damage actions when they are “immediate victim[s] of a violation of the Sherman Law”).
in the section 2 context, treble damages also can
chill procompetitive conduct and that the
rationale for trebling is weaker here than in
other contexts. As explained below, these
concerns have led to questions about the
appropriateness of treble damages in private
section 2 cases.

A successful plaintiff in a section 2 case is
entitled to recover “threethreefold the damages by
him sustained.” 130 Plaintiffs also may recover
attorneys’ fees and, in limited circumstances,
pre-judgment interest. 131 These private
monetary remedies provide incentives for
private enforcement and advance at least three
important goals: deterrence, punishment of
wrongdoers, and compensation of victims. 132
Trebling damages generally increases
deterrence by compensating for the possibility
that anticompetitive conduct will not be
detected and prosecuted. 133 Likewise, the
possibility of winning multiple damages
enhances plaintiffs’ incentives to seek out and
detect anticompetitive conduct and to bear the
time, expense, and uncertainty of bringing
suit. 134

The Department believes that private actions
and resulting monetary remedies play an
important role in overall antitrust enforcement.
The government has finite resources to
prosecute antitrust violations; private
enforcement supplements these efforts. Indeed,
private plaintiffs, rather than the government,
undertake a significant portion of antitrust
enforcement, including section 2 enforcement. 135
Moreover, by deterring violations, private
damages can reduce the need for government
enforcement in the first instance.

Panelists expressed a variety of opinions
regarding the suitability of treble damages in
section 2 cases. A number voiced policy
concerns. One argued that enhanced incentives
for bringing suit lead to baseless litigation. 136
Other commentators suggest that the prospect
of treble damages has led courts to apply
section 2 more narrowly than they might
otherwise. 137 Along these lines, one panelist
stressed that the prospect of treble damages
should not distort the agencies’ analysis of
potential section 2 liability. 138

Some commentators and panelists argued
that the key goals of trebling—deterrence,
punishment of violators, and compensation of
victims—apply less forcefully in the section 2
context. With regard to deterrence, to ensure
that the expected penalty for violating the
antitrust laws exceeds the benefit to the
perpetrator, the penalty must be set as a
multiple of the actual harm to compensate for
the possibility that the violation will not be
detected. 139 However, one panel moderator
suggested that because section 2 violations are
rarely covert and instead are typically open and
known to customers, competitors, and the
public, the justification for trebling damages
is weaker in most section 2 contexts than with

130 15 U.S.C. § 15(a). There are a limited number of
exemptions from this general rule. See, e.g., Export
(limiting to single damages claims against export
trading companies for conduct undertaken pursuant to
certificates of review issued by the Department of
Commerce).


132 See, e.g., Edward Cavanagh, Detracting Antitrust
L. Rev. 777, 783 (1987); see also Antitrust
Modernization Comm’n, Report and Recommendations
recommendation/amc_final_report.pdf.

133 See, e.g., Cavanagh, supra note 133, at 803; Frank
H. Easterbrook, Detracting Antitrust Damages, 28 J.L.

134 See May 1 Hr’g Tr., supra note 3, at 94 (Jacobson)
(notin that “treble damages are there for the principal
reason of inducing private enforcement of the antitrust
laws”); Cavanagh, supra note 133, at 786; Easterbrook,
supra note 133, at 451–52, 455.

135 See, e.g., 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.

136 See Mar. 28 Hr’g Tr., supra note 2, at 108–09
(Fisher).

137 See William E. Kovacic, Gen. Counsel, Fed. Trade
Comm’n, Private Participation in the Enforcement of
Public Competition Laws § III & nn.13–14 (May 15,
2003), available at http://www.ftc.gov/speeches/other/
030514biicl.shtml.

138 May 8 Hr’g Tr., supra note 3, at 25 (Creighton).

139 See, e.g., Easterbrook, supra note 133, at 454–55.
regard to other antitrust violations.\textsuperscript{140}

Further, private section 2 cases sometimes follow on government investigations into the same conduct. In those cases, a plaintiff bears substantially reduced risk and expense, and treble damages may not be necessary to create incentives to sue.

In addition to deterrence, treble damages have a punitive element. In most civil actions, a defendant is required to pay for damage actually caused, and that amount is not multiplied. Antitrust, in contrast, adds the punitive element of trebling. However, in section 2 cases, determining whether the conduct is anticompetitive or procompetitive often requires a probing analysis.\textsuperscript{141} For example, in predatory-pricing cases, consumers benefit from deep discounts in the short run; similarly, tying and exclusive-dealing arrangements, which sometimes have anticompetitive impact, can have procompetitive effects as well. Resolving whether these types of business conduct are unlawfully exclusionary in particular contexts usually requires a difficult and fact-intensive inquiry. Punishment through treble damages, some observers conclude, may be inappropriate because it could chill similar conduct that may be procompetitive.\textsuperscript{142}

Treble damages also may be unnecessary to compensate victims of anticompetitive conduct adequately. As one treatise observes, compensation is generally aided by “liberal proof of damages, other procedural and substantial rules favorable to plaintiffs, and awards of substantial attorney’s fees.”\textsuperscript{143} Accordingly, it notes, “excessive awards only encourage increasingly marginal suits.”\textsuperscript{144}

These qualms regarding treble damages are by no means universally shared. A number of panelists countered that the length and cost of a typical section 2 case, the general lack of pre-judgment interest, and the promotion of deterrence and private enforcement provide support for trebling damages.\textsuperscript{145} For example, a panelist observed that damages may not compensate fully for foregone sales and may not be awarded to all who bear the burden of higher prices.\textsuperscript{146} Similarly, one commentator concludes, “[T]he reality is that plaintiffs are unlikely to undertake the arduous task of prosecuting a civil antitrust claim if their recovery is limited to actual damages. Without trebling, therefore, antitrust violators may not be sued and may well be able to reap the benefits of their illegal conduct.”\textsuperscript{147}

B. Civil Fines

The federal enforcement agencies lack civil-fine authority.\textsuperscript{148} Several panelists, however,

\begin{itemize}
  \item AREEDA & HOVENKAMP, supra note 12, ¶ 656c, at 111.
  \item Id.
  \item See May 1 H’g Tr., supra note 3, at 91–92 (Elhauge) (stressing the need to compensate for the cost of bringing successful litigation); \textit{id.} at 92–93 (Willig) (stressing the role of treble damages in enhancing deterrence); \textit{id.} at 93 (McDavid) (stressing the contribution of treble damages as a substitute for pre-judgment interest); \textit{id.} at 94–95 (Jacobson) (concluding that “you do not have private enforcement of antitrust without treble damages”).
  \item See \textit{id.} at 91–92 (Elhauge).
  \item Cavanagh, supra note 4, at 172.
  \item Under the Sherman Act, the Department may seek criminal fines of up to $100 million for violations of either section 1 or section 2. \textit{See} 15 U.S.C. § 2 (2000). The Department also can proceed under the
\end{itemize}
suggested that civil fines would be a potentially useful federal-enforcement remedy. Civil fines would be particularly useful, they contended, when a section 2 violation is otherwise difficult or costly to remedy.\textsuperscript{149}

A remedial scheme under which government agencies have authority to seek civil fines as part of a comprehensive array of remedies may have certain attractive aspects. Coupled with a prohibitory provision, fines may prevent recurrence without resort to more costly and disruptive remedies. Under the current U.S. antitrust remedial scheme, however, private litigation has the potential to impose similar, if not greater, payment obligations than a system of civil fines.\textsuperscript{150} In comparison, jurisdictions with civil fine authority tend not to have as robust a system of private monetary remedies as the United States.\textsuperscript{151} Thus, adding civil fines to existing

“alternative fines” statute, 18 U.S.C. § 3571(d), to seek even greater criminal fines. See Antitrust Div., Sherman Act Violations Yielding a Corporate Fine of $10 Million or More (2008), available at http://www.usdoj.gov/atr/public/criminal/225540.pdf (reporting fines of as much as $500 million). The Department has not criminally prosecuted section 2 violations in several decades and seeks criminal fines only for “hard-core” violations of section 1, such as price-fixing and bid-rigging. The government must prove a criminal violation beyond a reasonable doubt, while it must prove a civil violation only by a preponderance of the evidence.

\textsuperscript{149} See, e.g., Mar. 28 Hr’g Tr., supra note 2, at 84 (Lipsky) (stating that a fine might be a desirable remedy in a predatory-pricing case); id. at 140 (Joskow) (same).

\textsuperscript{150} See, e.g., Mar. 28 Hr’g Tr., supra note 2, at 108 (Fisher); Franklin M. Fisher, Remedy Issues in Section 2 Cases 2 (Mar. 28, 2007) (hearing submission). For example, the European Union fined Microsoft €497 million (approximately $610 million at the time) in connection with Microsoft’s alleged anticompetitive conduct relating to its Windows software. In comparison, Microsoft entered into several settlements—with IBM, AOL, and Sun, among others—which, in combination, vastly exceeded that amount. See May 8 Hr’g Tr., supra note 3, at 151 (Rule) (Microsoft’s settlement payments may exceed $10 billion); Mar. 29 Hr’g Tr., supra note 3, at 104 (Page) (citing reports that Microsoft consents totaled close to $9 billion).

\textsuperscript{151} In countries belonging to the Organisation for Economic Co-Operation and Development, monetary sanctions are frequently imposed for abuse of

private remedies could run the risk of making total available monetary remedies unduly punitive.\textsuperscript{152}

Further, the availability of civil fines in the section 2 context could lead to chilling of procompetitive business conduct. At present, defendants in section 2 cases generally face an injunction from government enforcement and treble-damage liability from private enforcement. The possibility of additional substantial fines from governmental enforcement may discourage firms from engaging in conduct that would not violate the antitrust laws, especially without clear, objective standards for defining violations.\textsuperscript{153}

Some have raised the issue whether it might be appropriate to reduce the private section 2 remedy to single damages but, at the same time, enable the antitrust enforcement agencies to seek civil fines.\textsuperscript{154} The Department believes that further consideration of the appropriate monetary-penalty system for section 2 violations may be useful. Such consideration would need to examine the complicated interplay among various factors, including

dominance. Private damages, however, generally are unavailable. Private damages are an “idea that has not quite taken off yet outside of a small number of jurisdictions.” DIRECTORATE FOR FIN. AND ENTER. AFFAIRS COMPETITION COMM., ORG. FOR ECON. COOPERATION AND DEV., REMEDIES AND SANCTIONS IN ABUSE OF DOMINANCE CASES 45 (2007), available at http://www.oecd.org/dataoecd/20/17/38623413.pdf.

\textsuperscript{152} See Mar. 28 Hr’g Tr., supra note 2, at 108 (Fisher) (loss of treble-damages suit likely to result in payment greater than disgorgement of monopoly profits).

\textsuperscript{153} Additionally, to the extent such fines were applicable for antitrust violations generally, they might tend to blur the clear demarcation between civil and criminal antitrust enforcement. The Department has spent decades establishing a clear demarcation between civil and criminal antitrust violations. This effort has been crucial to the successful efforts to increase criminal antitrust penalties appropriately and dramatically.

\textsuperscript{154} See, e.g., ANTITRUST MODERNIZATION COMM’N, supra note 132, at 287 (“If the Commission had recommended reducing or eliminating treble damages recoveries, or significantly limiting their availability, it might have been appropriate to consider whether civil fine authority should take their place. The Commission has not recommended any change to treble damage recovery, however.”).
adequate deterrence of anticompetitive behavior, chilling procompetitive behavior, the role of private enforcement, the pros and cons of governmental civil-fine authority, and the full compensation of section 2 victims.

VI. Conclusion

Early and careful consideration of remedies in section 2 cases is vitally important. Designing and implementing appropriate remedies may be at least as challenging as reaching the initial determination of liability, if not more so. Remedies should terminate the defendant’s unlawful conduct, prevent its recurrence, and re-establish the opportunity for competition in the market. Engineering a specific market outcome that may favor a given rival or achieve a particular market structure should never be the goal.

Section 2 remedies must carefully balance a number of potentially conflicting considerations. A remedy should be sufficiently specific to allow a defendant to comply with its terms and the court to supervise that compliance, but should also be flexible enough to handle changed circumstances. Duration should be considered carefully. Considerations of efficacy must be evaluated alongside concerns with administrability and the desire to maintain efficiency and innovation.

Because prohibitory remedies are generally the least costly to implement and supervise and also the least disruptive in this context, the Department generally prefers them in section 2 cases when they are sufficient to re-establish the opportunity for competition. In other instances, however, more extensive affirmative obligation remedies may be needed. Finally, when warranted by the circumstances, the Department may seek divestiture or other structural relief. In each case, the Department will seek to ensure that its chosen remedy preserves and protects competition and does more good than harm.

The availability of monetary remedies for section 2 violations encourages private enforcement efforts and thus supplements injunctive relief by providing deterrence. The Department believes further consideration of

the range and level of monetary remedies available in section 2 cases would be useful to determine whether adjustment may be appropriate.