

CHAPTER 4

PRICE PREDATION

A firm with monopoly power can violate section 2 if it engages in classic price predation, namely, predatory pricing, or in its buy-side equivalent, predatory bidding.¹ Drawing on the testimony and submissions presented at the hearings, as well as cases and commentary, this chapter explores and provides the Department's views on some important issues surrounding these forms of exclusionary conduct.

I. Predatory Pricing

A. Introduction

There is broad consensus that, in certain circumstances, temporarily charging prices below a firm's costs can harm competition and consumers.² For example, harm could occur if a firm priced low to make it unprofitable for competitors to stay in the market and then, following their exits, increased price to supracompetitive levels for a significant period.³ In such circumstances, although consumers may benefit in the short term from low prices, in the long term they may be worse off.⁴ "There is, therefore, good reason for

including a 'predatory pricing' antitrust offense within the proscription of monopolization or attempts to monopolize in section 2 of the Sherman Act."⁵

However, a firm accused of pursuing a predatory-pricing strategy is, in essence, accused of charging prices that are too low. Therein lies "a difficult conundrum in antitrust law."⁶ Price cutting is a core competitive activity. Consumers prefer lower prices to higher prices, and they benefit when firms aggressively compete to price as low as possible. Price competition enables consumers to secure desired products and services for less.

Thus, alongside the broad consensus that predatory pricing can be anticompetitive, there is general recognition that, in the words of one treatise, "[a]ntitrust would be acting foolishly if it forbade price cuts any time a firm knew that its cuts would impose hardship on any competitor or even force its exit from the market."⁷ In the absence of clear standards, distinguishing harmful predation from procompetitive discounting is often difficult and runs the risk of erroneous condemnation, which can discourage firms from engaging in beneficial price competition and thus "chill the very conduct the antitrust laws are designed to protect."⁸ The key question, therefore, is how

¹ See generally 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶¶ 722-49 (2d ed. 2002). This chapter deals solely with what one commentator characterizes as "conventional" predatory pricing and not with bundling, quantity discounts, market-share discounts, and other forms of what he terms "exclusionary pricing." Herbert Hovenkamp, *The Law of Exclusionary Pricing*, *COMPETITION POL'Y INT'L*, Spring 2006, at 21. These other types of conduct are addressed in other chapters.

² See generally AREEDA & HOVENKAMP, *supra* note 1, ¶ 723b, at 273-74; RICHARD A. POSNER, *ANTITRUST LAW* 214 (2d ed. 2001).

³ See *Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104, 117 (1986); AREEDA & HOVENKAMP, *supra* note 1, ¶ 723a, at 272.

⁴ See Sherman Act Section 2 Joint Hearing: Predatory Pricing Hr'g Tr. 30, June 22, 2006 [hereinafter June 22 Hr'g Tr.] (Bolton).

⁵ Phillip Areeda & Donald F. Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697, 697 (1975).

⁶ Ari Lehman, Note, *Eliminating the Below-Cost Pricing Requirement from Predatory Pricing Claims*, 27 CARDOZO L. REV. 343, 385 (2005).

⁷ AREEDA & HOVENKAMP, *supra* note 1, ¶ 722, at 271.

⁸ *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 414 (2004) (quoting *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986)). See generally Phillip Areeda, *Monopolization, Mergers, and Markets: A Century Past and the Future*, 75 CAL. L. REV. 959, 965-70 (1987); Daniel A. Crane, *The Paradox of Predatory Pricing*, 91 CORNELL L.

to structure a rule under section 2 that effectively condemns only harmful predation while providing clear and sound guidance to firms, competition authorities, potential private plaintiffs, and courts.

B. Background

“The predatory price-cutter is one of the oldest and most familiar villains in our economic folklore.”⁹ For instance, the 1906 complaint in *Standard Oil Co. of New Jersey v. United States* alleged, among other things, “local price cutting at the points where necessary to suppress competition.”¹⁰ Similarly, in 1911, *United States v. American Tobacco Co.* involved allegations of “ruinous competition, by lowering the price of plug below its cost.”¹¹

“Historically, treatment of predatory pricing in the cases and the literature suffered from two interrelated defects: (1) failure to delineate clearly and correctly what practices should constitute the offense, and (2) exaggerated fears that large firms would be inclined to engage in predatory pricing.”¹² The result was that in the decades before the Supreme Court decided *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*,¹³ “[p]laintiffs won most litigated cases, including those they probably should have lost.”¹⁴

The Supreme Court’s decision in *Utah Pie Co. v. Continental Baking Co.*,¹⁵ although decided within the context of the Robinson-Patman

Act¹⁶ and not section 2 of the Sherman Act, nevertheless illustrates the courts’ approach to predatory-pricing claims during that period. In *Utah Pie*, defendant Continental Baking Company sold apple pies for \$2.85 a dozen, which “was less than its direct cost plus an allocation for overhead.”¹⁷ This caused plaintiff Utah Pie to reduce its price for frozen apple pies to \$2.75 per dozen, a price Continental refused to match.¹⁸ The Supreme Court found Continental had engaged in predatory pricing because a jury could have “reasonably concluded that a competitor who is forced to reduce his price to a new all-time low in a market of declining prices will in time feel the financial pinch and will be a less effective competitive force.”¹⁹

Utah Pie received much scholarly criticism as an example of a case where “low prices seemed more likely to injure competitors than competition and consumers.”²⁰ One commentator wrote that it “must rank as the most anticompetitive antitrust decision of the decade.”²¹ Judge Bork’s view was that “[t]here is no economic theory worthy of the name that could find an injury to competition on the facts of the case.”²² As he saw it, “Defendants were convicted not of injuring competition but, quite

REV. 1, 55–56 (2005).

⁹ Roland H. Koller II, *The Myth of Predatory Pricing: An Empirical Study*, ANTITRUST L. & ECON. REV., Summer 1971, at 105, 105.

¹⁰ 221 U.S. 1, 43 (1911). See generally Elizabeth Granitz & Benjamin Klein, *Monopolization by “Raising Rivals’ Costs”: The Standard Oil Case*, 39 J.L. & ECON. 1 (1996); John S. McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J.L. & ECON. 137 (1958).

¹¹ 221 U.S. 106, 160 (1911).

¹² AREEDA & HOVENKAMP, *supra* note 1, ¶ 723a, at 272–73 (footnotes omitted).

¹³ 509 U.S. 209 (1993).

¹⁴ Patrick Bolton et al., *Predatory Pricing: Strategic Theory and Legal Policy*, 88 GEO. L.J. 2239, 2250 (2000).

¹⁵ 386 U.S. 685 (1967).

¹⁶ 15 U.S.C. § 13(a) (2000); see *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069, 1074 n.1 (2007) (“[P]rimary-line competitive injury under the Robinson-Patman Act is of the same general character as the injury inflicted by predatory pricing schemes actionable under § 2 of the Sherman Act.” (quoting *Brooke Group*, 509 U.S. at 221)).

¹⁷ 386 U.S. at 698.

¹⁸ *Id.* at 698–99.

¹⁹ *Id.* at 699–700.

²⁰ Aaron S. Edlin, *Stopping Above-Cost Predatory Pricing*, 111 YALE L.J. 941, 953 (2002); see also Kenneth G. Elzinga & Thomas F. Hogarty, *Utah Pie and the Consequences of Robinson-Patman*, 21 J.L. & ECON. 427, 427 (1978) (“The *Utah Pie* opinion . . . has provoked much criticism on the grounds that it serves to protect localized firms from the competition of more distant sellers.”).

²¹ Ward S. Bowman, *Restraint of Trade by the Supreme Court: The Utah Pie Case*, 77 YALE L.J. 70, 84 (1967).

²² ROBERT H. BORK, *THE ANTITRUST PARADOX* 387 (1978).

simply, of competing.”²³

Utah Pie was not an aberration. As one treatise points out, “Historically, courts approved formulations or jury instructions containing . . . useless formulae” that “provide[d] little or no basis for analyzing the predatory pricing offense.”²⁴

In 1975, after *Utah Pie* but before *Brooke Group*, Professors Areeda and Turner published a landmark article “attempt[ing] to formulate meaningful and workable tests for distinguishing between predatory and competitive pricing by examining the relationship between a firm’s costs and its prices.”²⁵ Their proposal was that, for a firm with monopoly power, “[a] price at or above reasonably anticipated average variable cost should be conclusively presumed lawful,” and a price below that cost “should be conclusively presumed unlawful.”²⁶ The rationale was that prices at or above average variable cost²⁷ exclude less efficient firms while minimizing the likelihood of excluding equally efficient firms.²⁸

Notwithstanding the rapidity with which the appellate courts embraced the new Areeda-Turner test²⁹ and the increasing scholarly

criticism of then-prevailing legal doctrine that predatory intent plus an unreasonably low price was sufficient to prove predatory pricing,³⁰ firms continued to face the risk of antitrust liability for price cutting that appeared to benefit consumers. For instance, in 1983, the Ninth Circuit rejected the notion, espoused by Areeda and Turner, that “prices above average total cost ‘should be conclusively presumed legal.’”³¹ The court reasoned that “we should hesitate to create a ‘free zone’ in which monopolists can exploit their power without fear of scrutiny by the law” and that a “rule based exclusively on cost forecloses consideration of other important factors, such as intent, market power, market structure, and long-run behavior in evaluating the predatory impact of a pricing decision.”³² The court accordingly held that “if the challenged prices exceed average total cost, the plaintiff must prove by clear and convincing evidence—i.e., that it is highly probably true—that the defendant’s pricing policy was predatory.”³³

But in 1986, the Supreme Court handed down two significant decisions—*Matsushita Electric Industrial Co. v. Zenith Radio Corp.*³⁴ and *Cargill*³⁵—that focused on the relationship between price and cost and the central role that recoupment plays in a successful predation strategy, and thus anticipated by seven years its opinion in *Brooke Group*.³⁶ In *Matsushita*, the

²³ *Id.*; see also Edlin, *supra* note 20, at 953 (the “facts [of *Utah Pie*] suggest vigorous price competition that benefited consumers”).

²⁴ AREEDA & HOVENKAMP, *supra* note 1, ¶ 723d, at 276-77.

²⁵ Areeda & Turner, *supra* note 5, at 699-700, see also June 22 Hr’g Tr., *supra* note 4, at 8 (Elzinga) (stating that Areeda and Turner’s 1975 article on predatory pricing is “the most often cited article in antitrust scholarship”).

²⁶ Areeda & Turner, *supra* note 5, at 733.

²⁷ DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 29 (4th ed. 2005) (Average variable costs are the “costs that change with the level of output.”).

²⁸ Areeda & Turner, *supra* note 5, at 711, 716-18.

²⁹ See, e.g., Bolton et al., *supra* note 14, at 225 (“The Areeda-Turner rule had an immediate impact on the courts.”); William E. Kovacic, *The Intellectual DNA of Modern U.S. Competition Law for Dominant Firm Conduct: The Chicago/Harvard Double Helix*, 2007 COLUM. BUS. L. REV. 1, 46 (“In 1975, Areeda and Turner published a proposal that courts use the relationship of the dominant firm’s prices to its variable costs to determine

the legality of a challenged pricing strategy. Within months of the article’s publication, two courts of appeals relied heavily on the paper to dismiss predatory pricing allegations.”).

³⁰ See generally Richard O. Zerbe, Jr. & Michael T. Mumford, *Does Predatory Pricing Exist? Economic Theory and the Courts After Brooke Group*, 41 ANTITRUST BULL. 949, 949-50 (1996) (summarizing the pre-*Brooke Group* criticism).

³¹ *Transamerica Computer Co. v. IBM*, 698 F.2d 1377, 1386 (9th Cir. 1983). Average total cost is total fixed and total variable costs, divided by quantity of output. *Id.* at 1384.

³² *Id.* at 1387.

³³ *Id.* at 1388.

³⁴ 475 U.S. 574 (1986).

³⁵ 479 U.S. 104 (1986).

³⁶ See June 22 Hr’g Tr., *supra* note 4, at 8 (Elzinga) (describing *Matsushita* and the Areeda and Turner

Court affirmed the grant of summary judgment in favor of defendants on a claim that a group of twenty-one Japanese television manufacturers and U.S. subsidiaries had engaged in a twenty-year predatory-pricing conspiracy,³⁷ noting in the process that “there is a consensus among commentators that predatory pricing schemes are rarely tried, and even more rarely successful.”³⁸ Similarly, *Cargill* contains an extensive discussion of why predatory pricing rarely succeeds.³⁹ In particular, the Court highlighted two significant obstacles to a successful predation strategy that are not often overcome. First, “[T]o succeed in a sustained campaign of predatory pricing, a predator must be able to absorb the market shares of its rivals once prices have been cut.”⁴⁰ Second, “It is also important to examine the barriers to entry into the market, because ‘without barriers to entry it would presumably be impossible to maintain supracompetitive prices for an extended time.’”⁴¹

Three years after *Matsushita* and *Cargill*, Professors Elzinga and Mills proposed that the feasibility of recoupment be used as a complement to the Areeda-Turner below-

article as the two events that most changed the thinking regarding predatory pricing).

³⁷ 475 U.S. at 590–92 (“In order to recoup their losses, petitioners must obtain enough market power to set higher than competitive prices, and then must sustain those prices long enough to earn in excess profits what they earlier gave up in below-cost prices. Two decades after their conspiracy is alleged to have commenced, petitioners appear to be far from achieving this goal: the two largest shares of the retail market in television sets are held by RCA and respondent Zenith. . . . The alleged conspiracy’s failure to achieve its ends in the two decades of its asserted operation is strong evidence that the conspiracy does not in fact exist.” (citations omitted) (footnote omitted)).

³⁸ *Id.* at 589. *But see Cargill*, 479 U.S. at 121 (“While firms may engage in [predatory pricing] only infrequently, there is ample evidence suggesting that the practice does occur.”).

³⁹ See 479 U.S. at 119–21 n.15; *id.* at 121–22 n.17.

⁴⁰ *Id.* at 119 n.15.

⁴¹ *Id.* at 120 n.15 (quoting *Matsushita*, 475 U.S. at 591).

average-variable-cost requirement.⁴² Under their recoupment-feasibility test, “if a given predatory strategy is an economically implausible investment, as judged by the parameters of the recoupment plan it implies, then the alleged predator is exonerated.”⁴³ Elzinga and Mills viewed this “investment test” as “a check on the internal consistency of a plaintiff’s allegations.”⁴⁴ They pointed out that in predatory pricing, “[t]he predator’s short-run loss is an investment in prospective monopoly profits.” Consequently, “predatory pricing is attractive to a profit-seeking firm only where it expects enough monopoly profit to earn a return on its investment in predation that equals or exceeds the interest rate that could be earned on alternative investments.”⁴⁵ In particular, “If it can be shown that a firm has no reasonable prospect for recouping its losses and profiting from its investment, then predatory claims would be discredited.”⁴⁶

In 1993, *Brooke Group* presented the Supreme Court with a direct opportunity to consider the then-contemporary legal and economic scholarship on predatory pricing, including the already extant game theoretic literature.⁴⁷ The plaintiff in *Brooke Group*, Liggett, contended that a rival cigarette manufacturer had “cut prices on generic cigarettes below cost . . . to force Liggett to raise its own generic cigarette prices and introduce oligopoly pricing in the economy segment.”⁴⁸ Viewing the evidence in the light most favorable to Liggett, the Court held that the rival cigarette manufacturer was entitled to judgment as a matter of law since “the evidence cannot support a finding that [the rival cigarette manufacturer]’s alleged scheme was likely to result in oligopolistic price coordination and sustained supracompetitive

⁴² Kenneth G. Elzinga & David E. Mills, *Testing for Predation: Is Recoupment Feasible?*, 34 ANTITRUST BULL. 869 (1989).

⁴³ *Id.* at 871.

⁴⁴ *Id.*

⁴⁵ *Id.* at 870.

⁴⁶ *Id.* at 872.

⁴⁷ See *infra* Part C(1).

⁴⁸ 509 U.S. 209, 212 (1993).

pricing in the generic segment of the national cigarette market.”⁴⁹

Relying on the principles set forth in both the Areeda and Turner and Elzinga and Mills articles, the Court in *Brooke Group* held that there are “two prerequisites to recovery” where the claim alleges predatory pricing under section 2.⁵⁰ Plaintiff must prove that (1) the prices were “below an appropriate measure”⁵¹ of defendant’s costs in the short term, and (2) defendant had “a dangerous probability of recouping its investment in below-cost prices.”⁵² The Court elaborated on the recoupment prerequisite, concluding that “plaintiff must demonstrate that there is a likelihood that the predatory scheme alleged would cause a rise in prices above a competitive level that would be sufficient to compensate for the amounts expended on the predation, including the time value of the money invested in it.”⁵³

To prevail on a predatory-pricing claim, plaintiff must prove that (1) the prices were below an appropriate measure of defendant’s costs in the short term, and (2) defendant had a dangerous probability of recouping its investment in below-cost prices.

By establishing these basic prerequisites, *Brooke Group* brought needed rigor and order to predatory-pricing law. Importantly, while the Court in *Brooke Group* recognized that there can be occasions when above-cost pricing theoretically could hurt consumers, it also concluded that there is no reliable way to distinguish between above-cost predatory pricing and legitimate price discounting.⁵⁴

Thus, any rule permitting findings of above-cost predation, the Court reasoned, could discourage desirable price competition. The Court concluded that above-cost predatory-pricing schemes may be “beyond the practical ability of a judicial tribunal to control”⁵⁵ and created a safe harbor for pricing above cost.

Also importantly, by limiting liability to prices below a short-run measure of incremental cost, the Court implicitly rejected the idea that liability in this context could be based on a failure to maximize profits.⁵⁶ Evidence that defendant would have been better off at least in the short run by shutting down production provides a reasonable indication that there might be harmful exclusion. It is a far different step – and one the Court rejected – to base liability on an ex post evaluation of the relative profitability of another potential course of action that defendant might not have even considered at the time.⁵⁷

Some have suggested that since *Brooke Group* it has become unnecessarily difficult for plaintiffs to prove predatory pricing.⁵⁸ Another commentator, however, suggests that this view is unsupported, arguing that, even under *Brooke Group*, plaintiffs still “can strategically misuse predatory pricing law to coerce more efficient rivals to forgo . . . price cuts.”⁵⁹

chilling legitimate price cutting.”)

⁴⁹ *Id.* at 243.
⁵⁰ *Id.* at 222–27.
⁵¹ *Id.* at 222.
⁵² *Id.* at 224.
⁵³ *Id.* at 225.

⁴⁹ *Id.* at 243.

⁵⁰ *Id.* at 222–27.

⁵¹ *Id.* at 222.

⁵² *Id.* at 224.

⁵³ *Id.* at 225.

⁵⁴ See *id.* at 223 (“As a general rule, the exclusionary effect of prices above a relevant measure of cost either reflects the lower cost structure of the alleged predator . . . or is beyond the practical ability of a judicial tribunal to control without courting intolerable risks of

⁵⁵ *Id.* The Court strongly reiterated this conclusion in *Weyerhaeuser*, 127 S. Ct. 1069, 1074 (2007), and *Trinko*, 540 U.S. 398, 414 (2004).

⁵⁶ *Brooke Group*, 509 U.S. at 223.

⁵⁷ See June 22 Hr. Tr., *supra* note 4, at 52 (Melamed).

⁵⁸ Bolton et al., *supra* note 14, at 2241–49; Edlin, *supra* note 20, at 941–942.

⁵⁹ Crane, *supra* note 8, at 1; see also *id.* at 4–5 (noting that “although it is accepted wisdom that no predatory pricing plaintiff has won a verdict since *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, plaintiffs have recently won some predatory pricing cases and procured substantial settlements in others. Additionally, regardless of their low probability of success, plaintiffs continue to file a significant number of federal predatory pricing cases, suggesting that predatory pricing complaints may afford plaintiffs strategic advantages whether or not they ultimately prevail.”) (footnote omitted).

Since *Brooke Group*, a significant issue in the lower courts has been defining the “appropriate measure” of cost, an issue the Court expressly did not resolve in *Brooke Group*. In 2003, the Tenth Circuit noted in *United States v. AMR Corp.*, “Despite a great deal of debate on the subject, no consensus has emerged.”⁶⁰

In *AMR*, the Tenth Circuit affirmed a grant of summary judgment in favor of an established airline that allegedly engaged in a scheme of price cutting and predatory-capacity additions designed to drive out a start-up airline. The Tenth Circuit held that the government had not established “pricing below an appropriate measure of cost.”⁶¹

The Court “decline[d] to dictate a definitive cost measure for all cases.”⁶² It observed that average variable cost is a “commonly accepted proxy for marginal cost in predatory pricing cases,”⁶³ citing Areeda and Turner’s 1975 article. But it also cautioned that “[w]hatever the proxy used to measure marginal cost, it must be accurate and reliable in the specific circumstances of the case at bar.”⁶⁴

In particular, the court emphasized that “[s]ole reliance on AVC [average variable cost] as the appropriate measure of cost may obscure the nature of a particular predatory scheme and, thus . . . we do not favor AVC to the exclusion of other proxies for marginal cost.”⁶⁵ The court rejected several proposed measures of incremental costs and revenues attributable to allegedly predatory capacity additions in part because they would be equivalent to applying an average total cost test “implicitly ruled out by *Brooke Group*’s mention of incremental costs only.”⁶⁶

In another recent case in which an established air carrier allegedly engaged in predation against a new competitor, the Sixth Circuit took a different approach. Applying a

“modified version of the Areeda-Turner test,” the court seemed open to the possibility of a price being illegal under section 2 even if it is above average variable cost, so long as it is below average total cost:

If the defendant’s prices were below average total cost but above average variable cost, the plaintiff bears the burden of showing defendant’s pricing was predatory. If, however, the plaintiff proves that the defendant’s prices were below average variable cost, the plaintiff has established a prima facie case of predatory pricing and the burden shifts to the defendant to prove that the prices were justified without regard to any anticipated destructive effect they might have on competitors.⁶⁷

C. Analysis

Six key issues animate the structuring of a rule under section 2 that provides clear and sound guidance regarding predatory pricing: (1) the frequency of predatory pricing, (2) treatment of above-cost pricing, (3) cost measures, (4) recoupment, (5) potential defenses, and (6) equitable remedies. This part of the chapter describes the legal and economic analysis pertinent to each of these issues.

1. Frequency of Predatory Pricing

As one commentator notes, “A key premise in developing an enforcement policy for predatory pricing is the expected frequency and severity of its occurrence.”⁶⁸ Some commentators maintain that the Court’s statement in *Matsushita* that “predatory pricing schemes are rarely tried, and even more rarely successful”⁶⁹ is “not justified by the available data”⁷⁰ and that there is “little reason to accept the comforting view that predation very rarely

⁶⁷ *Spirit Airlines, Inc. v. Nw. Airlines, Inc.*, 431 F.3d 917, 938 (6th Cir. 2005).

⁶⁸ Bolton et al., *supra* note 14, at 2243.

⁶⁹ 475 U.S. 574, 589 (1986).

⁷⁰ Richard O. Zerbe, Jr., *Monopsony and the Ross-Simmons Case: A Comment on Salop and Kirkwood*, 72 ANTITRUST L.J. 717, 717 (2005); see also Zerbe & Mumford, *supra* note 30, at 955–64, 982–85 (noting that “there is theoretical and empirical evidence to refute” the Court’s statement).

⁶⁰ 335 F.3d 1109, 1115 (10th Cir. 2003).

⁶¹ *Id.* at 1120.

⁶² *Id.* at 1116.

⁶³ *Id.* at 1116 & n.7.

⁶⁴ *Id.* at 1116.

⁶⁵ *Id.*

⁶⁶ *Id.* at 1119.

or never occurs in reality.”⁷¹ However, others argue that regardless of how often predatory-pricing schemes are attempted, successful predation—predation that causes consumer harm—is indeed rare.⁷²

This controversy over the frequency and severity of predatory pricing has existed since at least 1958.⁷³ That year, economist John McGee published a seminal article arguing that predatory pricing is not a rational business strategy, and hence is rare or nonexistent,⁷⁴ because the monopolist, by cutting prices, loses more than its prey: “To lure customers away from somebody, [the monopolizing firm] must be prepared to serve them himself. The monopolizer thus finds himself in the position of selling more—and therefore losing more—than his competitors.”⁷⁵ Thus, in the words of Judge Bork, “predatory price cutting is most unlikely to exist,” and we should instead “look for methods of predation which do not require the predator to expand output and incur

disproportionately large costs.”⁷⁶

Modern economic game theory models, developed in the 1980s, counter the view that predatory pricing cannot be a rational business strategy.⁷⁷ These models provide theoretical support for the proposition that a monopolist may be willing to trade off current and future profits under certain circumstances. When it induces the exit of a recent entrant or deters future entrants, according to these models, predatory pricing can be a successful and rational strategy that maximizes long-run profits. As one commentator explains:

Thus, for example, a firm in an industry with rapid product change might cut prices sharply in answer to new entry in order to discourage the new entrant from continuing an active product development programme. Whether the entrant attributes its lack of profitability to its high costs, to weak market demand, to overcapacity in the industry, or to aggressive behaviour by its competitor, it will properly reduce its estimate of its future profits. If its capital has other good uses, this might lead it to withdraw from the industry. If not, it may nevertheless be dissuaded from making new investments in and developing [n]ew products for the industry. At the same time, other firms may be deterred from entering the industry. If *any* of these things happen, the predator benefits.⁷⁸

Other economists, however, are less sanguine about the ability of modern game

⁷¹ William J. Baumol, *Principles Relevant to Predatory Pricing*, in SWEDISH COMPETITION AUTHORITY, THE PROS AND CONS OF LOW PRICES 15, 35 (2003); see also June 22 Hr’g Tr., *supra* note 4, at 58 (Bolton) (“[T]here has been new scholarship started in the 1980s, rigorous economic scholarship based on rigorous game theory analysis showing exactly how predatory pricing strategy could be rational, and . . . slowly, this literature is being brought in, is being acknowledged, and is being recognized, and so . . . today, we should be less skeptical about the rationale for predatory pricing than we have been and that the Supreme Court has been in its *Brooke* decision and its *Matsushita* decision, which was based on older writing which couldn’t be articulated using the tools of modern game theory.”); Thomas B. Leary, *The Dialogue Between Students of Business and Students of Antitrust: A Keynote Address*, 47 N.Y.L. SCH. L. REV. 1, 13 (2003).

⁷² See Kenneth G. Elzinga, Remarks 3 (June 23, 2006) (hearing submission) (“In my experience, if one plays with the math behind most alleged episodes of predatory pricing, it is difficult to come up with examples where recoupment is mathematically possible.”). See generally JOHN R. LOTT, JR., ARE PREDATORY COMMITMENTS CREDIBLE? 4–10 (1999).

⁷³ See AREEDA & HOVENKAMP, *supra* note 1, ¶ 723b, at 273 & nn.7–9.

⁷⁴ McGee, *supra* note 10.

⁷⁵ *Id.* at 140.

⁷⁶ BORK, *supra* note 22, at 155; see also Frank H. Easterbrook, *When Is It Worthwhile to Use Courts to Search for Exclusionary Conduct?*, 2003 COLUM. BUS. L. REV. 345, 346–47 (“Claims that the long run will depart from the short run are easy to make but hard to prove. . . . If monopolistic prices happen later, prosecute then.”); Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263, 263–64 (1981) [hereinafter *Predatory Strategies*] (“[T]here is no sufficient reason for antitrust law or courts to take predation seriously.”).

⁷⁷ See, e.g., Paul Milgrom & John Roberts, *Predation, Reputation, and Entry Deterrence*, 27 J. ECON. THEORY 280, 303 (1982); David M. Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253 (1982).

⁷⁸ Paul Milgrom, *Predatory Pricing*, in 3 THE NEW PALGRAVE: A DICTIONARY OF ECONOMICS 937, 938 (John Eatwell et al. eds., 1987) (emphasis in original).

theoretic models to distinguish between predatory pricing and benign price discounting. Thus, one commentary argues, “Although strategic theories of predatory pricing are exemplary in their coherence and rigor, their potential to add value to antitrust policy is much more modest than the authors admit.”⁷⁹ This is because the strategic theories of predatory pricing that underlie these game theoretic models “are so fragile,” relying on strict assumptions that may not be met in the real world.⁸⁰

One panelist suggested that these economic models could help identify predatory pricing,⁸¹ while acknowledging that the “formal economic proof of the theories is complex.”⁸² Most panelists, however, expressed concern regarding the practical utility of many of these models. As one panelist put it, “[W]e should take the learning of these models and figure out what they mean in terms of implementable rules.”⁸³ He also noted,

[W]e come back to the question . . . [of] how to translate it into something that a businessperson, who has to be counseled, will be able to understand in day-to-day operations, and how [a] Court [will] be able to take these principles of game theory,

⁷⁹ Kenneth G. Elzinga & David E. Mills, *Predatory Pricing and Strategic Theory*, 89 GEO. L.J. 2475, 2475 (2001).

⁸⁰ *Id.* at 2494; *see also id.* at 2493–94 (noting that they are “pristine theoretical existence proofs” and “require[] more factual support than the authors admit” and require compliance with strict assumptions that may not be likely to be met in the real world); *id.* at 2478 (“These theories typically assume an extremely simple market structure. . . . While this stylized market structure yields sufficient conditions to sustain the plausibility of predatory pricing, the plausibility does not transfer automatically to other generally more complex market structures.”); *id.* at 2477–78 (“The foundational assumption upon which most strategic theories of predation rest is either asymmetric information or asymmetric access to financial resources. . . . Before the authority of a strategic theory can be invoked in a particular dispute, it must be established that the information or financial resource condition in the market square[s] with the theory.” (internal quotation marks omitted)).

⁸¹ *See* June 22 Hr’g Tr., *supra* note 4, at 58 (Bolton).

⁸² Bolton et al., *supra* note 14, at 2248.

⁸³ June 22 Hr’g Tr., *supra* note 4, at 67–68 (Ordovery).

subgame perfect[] Nash equilibria and all these things, and translate it into some simple rules that . . . thou shall not do what?⁸⁴

As Judge Posner notes, “[R]ecent scholarship has brought to light a nontrivial number of cases of predatory pricing.”⁸⁵ As another commentary puts it, “Even were empirical evidence lacking, one should be cautious in saying that predation does not exist today since theory suggests that it can occur.”⁸⁶ Indeed, the

⁸⁴ *Id.* at 67 (Ordovery); *see also id.* at 74 (Melamed) (noting the difficulty of implementing a game theory model); Sherman Act Section 2 Joint Hearing: Business Testimony Hr’g Tr. 187, Feb. 13, 2007 [hereinafter Feb. 13 Hr’g Tr.] (Sewell) (“The laws [to which] we’re seeking to conform need to be understandable by the people who are asked to adhere to them.”).

⁸⁵ POSNER, *supra* note 2, at 214; *see also* Malcolm R. Burns, *New Evidence of Price-Cutting*, 10 MANAGERIAL & DECISION ECON. 327, 327 (1989) (letters between officers of the tobacco trust show predatory intent); Malcolm R. Burns, *Predatory Pricing and the Acquisition Cost of Competitors*, 94 J. POL. ECON. 266, 268–69 (1986) (the tobacco trust between 1891 and 1901 engaged in profitable predation); Kenneth G. Elzinga & David E. Mills, *Predatory Pricing in the Airlines Industry: Spirit Airlines v. Northwest Airlines*, in THE ANTITRUST REVOLUTION 219, 244 (John E. Kwoka & Lawrence J. White eds., 5th ed. 2008) (“[T]he facts in *Spirit v. Northwest* feature the exit of a viable competitor and a subsequent increase in prices.”); David Genesove & Wallace P. Mullin, *Predation and Its Rate of Return: The Sugar Industry, 1887–1914*, 37 RAND J. ECON. 47, 67 (2006) (the American Sugar Refining Company engaged in predatory pricing); Fiona Scott Morton, *Entry and Predation: British Shipping Cartels 1879–1929*, 6 J. ECON. & MGMT. STRATEGY 679, 714 (1997) (“The evidence on price wars in the early liner shipping industry suggests they were predatory in nature.”); Balder Von Hohenbalken & Douglas S. West, *Empirical Tests for Predatory Reputation*, 19 CAN. J. ECON. 160, 176 (1986) (describing empirical evidence that “having a reputation for aggressiveness created by earlier spatial predation” discourages “new entry by other firms”); David F. Weiman & Richard C. Levin, *Preying for Monopoly? The Case of Southern Bell Telephone Company, 1894–1912*, 102 J. POL. ECON. 103, 103 (1994) (“Southern Bell effectively eliminated competition through a strategy of pricing below cost in response to entry. . . .”); B. S. Yamey, *Predatory Price Cutting: Notes and Comments*, 15 J.L. & ECON. 129, 137–42 (1972) (a conference of shipowners in the China-England trade in the 1880s engaged in predatory pricing).

⁸⁶ Zerbe & Mumford, *supra* note 30, at 956.

consensus at the hearings, and the predominant (but by no means unanimous) view among commentators, is that, in certain circumstances, predatory pricing can be a rational strategy for a firm with monopoly power facing a smaller competitor.⁸⁷

In certain circumstances, predatory pricing can be a rational strategy for a firm with monopoly power facing a smaller competitor.

Although theoretically a rational strategy, actual evidence on the frequency of predatory pricing, nonetheless, is limited. “Since *Brooke Group* was decided in 1993, at least fifty-seven federal antitrust lawsuits alleging predatory pricing have been filed.”⁸⁸ Because publicly available data about all predatory-pricing claims or allegations are limited, it is impossible to determine whether this number either supports or refutes the conclusion that “evidence regarding predation does not suggest it is either rare or unsuccessful.”⁸⁹ In addition, as one antitrust scholar notes, “[I]t is impossible to be certain how pervasive predation would be or how long its effects would endure” because “[a]ny studies of business behavior today are affected by the fact that predatory pricing is illegal.”⁹⁰

⁸⁷ See, e.g., June 22 Hr’g Tr., *supra* note 4, at 31 (Bolton) (“I would argue that over time, things have moved in the direction of thinking of predatory pricing as being more prevalent than we thought and also more likely to succeed than we thought before . . .”); *id.* at 55–56 (Elzinga); see also, e.g., CARLTON & PERLOFF, *supra* note 27, at 360 (“[I]t is a mistake to think of price predation as inconceivable.”).

⁸⁸ Crane, *supra* note 8, at 6.

⁸⁹ Zerbe & Mumford, *supra* note 30, at 957; see also Bolton et al., *supra* note 14, at 2258–59 (noting that in the six years following the 1993 *Brooke Group* decision, defendants won thirty-six of thirty-nine reported decisions; two cases settled after plaintiffs’ claims survived motions for summary judgment; and the disposition of the remaining case was uncertain).

⁹⁰ Crane, *supra* note 8, at 39; see also *id.* at 38–39 (“The incidence of costs of predatory pricing in a regime without any predatory pricing prohibition . . . remains highly speculative” and “is unlikely to be ascertained empirically except by reference to historical case studies

However, certain market characteristics may contribute to potentially successful predatory pricing.⁹¹ For example, in markets where information is imperfect, a predator can mislead potential entrants into thinking that market conditions are unfavorable when they are not or that the predator’s costs are lower than they actually are.⁹² Also, the predator can engage in “reputation-effect” predation by building a reputation that discourages future entrants from entering the market because they fear that they will suffer the same fate as earlier victims.⁹³ This may occur when “the entrants [are] less than certain that they are correct in modeling the established firm as rationally choosing between predation and peaceful coexistence.”⁹⁴ Where potential rivals refrain from entering simply because they fear the “retribution” of the dominant firm,⁹⁵ the dominant firm’s reputation as a predator itself operates as an entry barrier.⁹⁶

[T]hink of it this way. You are walking

of particular firms from the time period before the adoption of the Sherman Act, since predatory pricing has long been illegal . . .” (footnote omitted)). Accord POSNER, *supra* note 2, at 214; Bolton et al., *supra* note 14, at 2247.

⁹¹ See generally AREEDA & HOVENKAMP, *supra* note 1, ¶ 723c.

⁹² See Bolton et al., *supra* note 14, at 2248–49.

⁹³ *The Current State of Economics Underlying Section 2: Comments of Michael Katz and Michael Salinger*, ANTITRUST SOURCE, Dec. 2006, at 1, 5, <http://www.abanet.org/antitrust/at-source/06/12/Dec06-BrownBag.pdf> [hereinafter *Katz & Salinger Comments*]; Bolton et al., *supra* note 14, at 2248 (“In reputation effect predation . . . a predator reduces price in one market to induce the prey to believe that the predator will cut price in its other markets or in the predatory market itself at a later time, thereby enabling multimarket recoupment of predatory losses.”).

⁹⁴ Milgrom & Roberts, *supra* note 77, at 302; see also Bolton et al., *supra* note 14, at 2301 n.271.

⁹⁵ See *Katz & Salinger Comments*, *supra* note 93, at 5.

⁹⁶ See Sherman Act Section 2 Joint Hearing: Academic Testimony Hr’g Tr. 12, Jan. 31, 2007 [hereinafter Jan. 31 Hr’g Tr.] (Farrell) (“[E]verybody recognizes that if [Spirit] enters and offers the three hundred dollar deal, Northwest will cut its price to two hundred dollars. . . . So, [Spirit] anticipates that, doesn’t enter, and consumers continue to pay five hundred dollars.”).

along and you want to have a picnic, and there's a sign that says, "No trespassing." . . . You throw down your blanket, you have a nice picnic, and you leave, right?

Now you are walking along and there's another field where you want to have a picnic and there's a no trespassing sign, and there are about four or five corpses lying around. Are you going to have a picnic there? I don't think so.⁹⁷

As a result, by predating in one or more markets, the monopolist potentially can defend many of its other markets from entry, making predation more profitable.⁹⁸ And in any market where entry barriers are high, there will be greater opportunity for the monopolist to recoup whatever investment it makes in below-cost pricing.⁹⁹

The Department concurs with the panelists and the vast majority of commentators that, absent legal proscription, predatory pricing can occur in certain circumstances. Accordingly, it is necessary to develop rules for distinguishing between legitimate discounting and unlawful predation.

2. Above-Cost Pricing

While acknowledging the theoretical possibility that above-cost pricing may sometimes reduce welfare, the Court in *Brooke Group* held that above-cost pricing does not violate section 2 because condemning it would chill desirable discounting: "As a general rule, the exclusionary effect of prices above a relevant measure of cost either reflects the lower cost structure of the alleged predator . . . or is beyond the practical ability of a judicial tribunal to control without courting intolerable risks of chilling legitimate price cutting."¹⁰⁰ Over a decade later, in *Weyerhaeuser*, the Court pointed out that in *Brooke Group*, "[w]e were particularly wary of allowing recovery for

⁹⁷ Sherman Act Section 2 Joint Hearing: Monopoly Power Session Hr'g Tr. 191, Mar. 7, 2007 (Stelzer).

⁹⁸ See Jonathan B. Baker, *Predatory Pricing After Brooke Group: An Economic Perspective*, 62 ANTITRUST L.J. 585, 590 (1994).

⁹⁹ AREEDA & HOVENKAMP, *supra* note 1, ¶ 723c.

¹⁰⁰ *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 223 (1993).

above-cost price cutting because such claims could, perversely, 'chil[l] legitimate price cutting,' which directly benefits consumers."¹⁰¹

Thus, *Brooke Group* created a safe harbor for above-cost pricing, concluding that reliably distinguishing between welfare-enhancing and welfare-decreasing above-cost pricing was impractical and counterproductive. As one commentator notes, "Even though one can easily construct theoretical models of above-cost predatory pricing, antitrust authorities treat above-cost pricing decisions as a safe harbor, not to be challenged."¹⁰²

Some commentators advocate revisiting *Brooke Group's* safe harbor for above-cost pricing. They contend that economic theory now can reliably be used to identify and efficiently prosecute anticompetitive above-cost pricing.¹⁰³ One economist, for example, asserts that above-cost predation is possible "where rivals have higher costs than an incumbent monopoly."¹⁰⁴ He proposes preventing an incumbent monopolist from charging prices above its costs if preventing it from doing so would facilitate entry by new competitors.

In markets where an incumbent monopoly enjoys significant advantages over potential entrants, but another firm enters and provides buyers with a substantial discount, the monopoly should be prevented from responding with substantial price cuts or significant product enhancements until the entrant has had a reasonable time to recover its entry costs and become viable, or until the entrant's share grows enough so that the monopoly loses its dominance.¹⁰⁵

However, others strongly disagree. One

¹⁰¹ *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069, 1074 (2007) (alteration in original) (citing *Brooke Group*, 509 U.S. at 222-23).

¹⁰² Dennis W. Carlton, *Does Antitrust Need to Be Modernized?*, J. ECON. PERSP., Summer 2007, at 155, 160.

¹⁰³ Some commentators are particularly concerned about possible above-cost predation with products such as software or pharmaceuticals that have large fixed costs but very low marginal costs. This is discussed further below at part C(3)(c) in connection with long-run average incremental cost.

¹⁰⁴ Edlin, *supra* note 20, at 963.

¹⁰⁵ *Id.* at 945.

commentator concludes:

Even when incumbents do have market power, restrictions on their ability to adopt reactive above-cost price cuts are unlikely to achieve the objective of encouraging and protecting entry because less efficient entrants cannot survive in the long run, and entrants who are (or will predictably become) more efficient need no encouragement or protection.¹⁰⁶

As then-Judge Breyer once explained:

In sum, we believe that such above-cost price cuts are typically sustainable; that they are normally desirable (particularly in concentrated industries); that the “disciplinary cut” is difficult to distinguish in practice; that it, in any event, primarily injures only higher cost competitors; that its presence may well be “wrongly” asserted in a host of cases involving legitimate competition; and that to allow its assertion threatens to “chill” highly desirable procompetitive price cutting.¹⁰⁷

Most panelists concluded that “[p]rices above some measure of cost . . . should not be considered predatory.”¹⁰⁸ They largely agreed that “[administrability] is a serious concern,”¹⁰⁹ that current game theory models “do not give a clear reading on cost benchmarks,”¹¹⁰ and that it is still not within “the practical ability of a

judicial tribunal to control” above-cost predatory pricing “without courting intolerable risks of chilling legitimate price cutting.”¹¹¹ The Department sees no reason to revisit *Brooke Group* under these circumstances.

Most panelists concluded that prices above some measure of cost should not be considered predatory.

Moreover, even if beneficial above-cost price cutting and deleterious predatory pricing could be distinguished after the fact, the Department does not believe that there is a practical, readily applicable test businesses can use to determine whether their above-cost prices are legal at the time they are making pricing decisions.¹¹² For example, under the approach one commentator describes, the legality of above-cost price cuts could depend, in part, on whether the price cut permits an entrant “reasonable time” to recover its “entry costs” or “become viable,” or capture sufficient market share so that the price-cutting firm “loses its dominance.”¹¹³ However, an incumbent firm is unlikely to be able to make this determination with any confidence, even assuming it has all relevant data about its rivals, which it usually will not.

If firms can violate section 2 by pricing above cost, this likely will discourage

¹⁰⁶ Einer Elhauge, *Why Above-Cost Price Cuts to Drive Out Entrants Are Not Predatory – and the Implications for Defining Costs and Market Power*, 112 YALE L.J. 681, 826 (2003).

¹⁰⁷ *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 235–36 (1st Cir. 1983) (Breyer, J.).

¹⁰⁸ June 22 Hr’g Tr., *supra* note 4, at 72. Although one panelist disagreed that “prices above average variable cost should not be considered as predatory,” *id.* at 72 (Bolton), he “would not object to a rule that says price above average total cost is per se legal as a way of implementing an easily administrable rule,” *id.* at 75.

¹⁰⁹ *Id.* at 75 (Bolton); *see also id.* at 99 (Ordovery) (“I think at this point we have enough learning to try to go back to first principles and try to understand what it is that we are trying to accomplish, taking full account of the [administrability] of whatever provisions are going to ultimately be developed . . .”).

¹¹⁰ *Id.* at 73 (Bolton); *see id.* (Ordovery); *see also id.* (Bolton) (adding, however, that focusing on cost may not be an effective way of distinguishing between procompetitive and anticompetitive effects).

¹¹¹ *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 223 (1993); *see also* June 22 Hr’g Tr., *supra* note 4, at 74 (Melamed) (“I understand the theory, even if I cannot understand the game theory, of why an above cost . . . test could be predatory. . . . What I don’t understand . . . is how one turns that into a legal rule that companies can comply with.”); *id.* at 75 (Bolton).

¹¹² *See* June 22 Hr’g Tr., *supra* note 4, at 67–68, 74 (Ordovery); *id.* at 74 (Melamed).

¹¹³ *See, e.g.,* Edlin, *supra* note 20, at 945. This commentator notes, however, that “for the sake of correctness in application, this Essay usually assumes that if an entrant prices twenty percent below an incumbent monopoly, the incumbent’s prices will be frozen for twelve to eighteen months.” *Id.* at 945–46. “The exact operationalization of the rule,” however, “could vary by industry or be decided on a case-by-case basis. The price freeze might also be adjusted for inflation in periods of high inflation or for substantial industry-specific price trends.” *Id.* at 946 n.19.

aggressive price discounting that benefits consumers. As was noted at the hearings, sometimes firms with monopoly power will not lower their prices to consumers because they are worried about false condemnations.¹¹⁴ Such a result harms consumer welfare and justifies a safe harbor for above-cost pricing.¹¹⁵

The Department believes that above-cost pricing should remain per se legal. Aggressive price cutting is central to a properly functioning market.¹¹⁶ Consequently, it is critical that enforcement against predatory pricing avoids chilling procompetitive price discounting to the extent reasonably possible. The Department, therefore, will intervene only in those instances where prices are below an appropriate measure of cost, in addition to meeting the other elements of a price-predation claim.

The Department believes that above-cost pricing should remain per se legal.

3. Appropriate Measure of Cost

a. Analytical Considerations

The Department believes three factors bear on the appropriate measure of cost to use in the price-cost test for predatory pricing. First, the cost measure should help reveal whether the firm made unprofitable sales—or, to be more precise, whether the firm’s sales were

economically irrational but for their apparent exclusionary effect.

Second, the cost measure should help identify situations in which the firm’s pricing would force the exit of a rival that could produce the additional output resulting from the pricing strategy (i.e., the predatory increment) as efficiently as the monopolist. An efficient firm should not be prohibited from reducing its prices based on claims that a rival could become equally efficient in the future, as such claims are too speculative to support a finding of section 2 liability and would sacrifice current consumer benefits for uncertain future gains.¹¹⁷

Both of these factors point to a focus on some form of incremental cost. *Brooke Group*¹¹⁸ and its precursors,¹¹⁹ while not prescribing any particular cost measure, nonetheless are predicated upon the notion, perhaps best expressed by then-Judge Breyer in *Barry Wright*, that “modern antitrust courts look to the relation of price to ‘avoidable’ or ‘incremental’ costs as a way of segregating price cuts that are ‘suspect’ from those that are not.”¹²⁰ This is because, in general, if

a firm charges prices that fail to cover these “avoidable” or “incremental” costs—the costs that the firm would save by not producing the additional product it can sell

¹¹⁴ See June 22 Hr’g Tr., *supra* note 4, at 68–69 (Melamed) (acknowledging some chilling of procompetitive discounting but refraining from comparing the magnitude of harm from false positives and false negatives); see also Crane, *supra* note 8, at 10.

¹¹⁵ Cf. Crane, *supra* note 8, at 32 (“In sum, the available information on lawyer fee structures in post-*Brooke Group* predatory pricing cases supports two hypotheses regarding the Chicago School predatory pricing precedents: First, that the potential for substantial plaintiff’s verdicts in predatory pricing cases remains, and second, that some firms use predatory pricing complaints strategically to diminish price competition by competitors.”). Available evidence, however, suggests that in recent years liability findings on claims involving predatory pricing have been rare. See *supra* Part I(C)(1).

¹¹⁶ Cf. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986) (noting that “cutting prices in order to increase business often is the very essence of competition”).

¹¹⁷ Cf. Elhauge, *supra* note 106, at 784 (suggesting no need to protect from incumbent’s above-cost price cuts an entrant who will eventually become more, or as, efficient as the incumbent since capital markets already successfully take that into account); *id.* at 782–92.

¹¹⁸ 509 U.S. 209, 223 (1993) (“Although *Cargill* and *Matsushita* reserved as a formal matter the question whether recovery should *ever* be available . . . when the pricing in question is above some measure of incremental cost, the reasoning in both opinions suggests that only below-cost prices should suffice . . .” (citations omitted) (internal quotation omitted) (emphasis in original)).

¹¹⁹ *Matsushita*, 475 U.S. at 585 n.9 (“We do not consider whether recovery should *ever* be available on a theory such as respondents’ when the pricing in question is above some measure of incremental cost.” (emphasis in original)); *Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104, 117 n.12 (1986) (same).

¹²⁰ *Barry Wright Corp. v. IIT Grinnell Corp.*, 724 F.2d 227, 232 (1st Cir. 1983) (Breyer, J.).

at that price . . . [t]hen one would know that the firm cannot rationally plan to maintain this low price; if it does not expect to raise its price, it would do better to discontinue production.¹²¹

As a consequence, there is general agreement that the appropriate measure of cost in any price-cost test for predatory pricing is “some kind of incremental cost.”¹²²

The third factor is administrability. Businesses must have rules that they can readily apply at the time of their conduct to know with a reasonable degree of confidence whether their pricing will be deemed predatory. As one panelist stressed, it is valuable in “saying to the client, when I’m talking about costs, ‘What are the costs you are incurring to engage in the strategy at issue *that you wouldn’t otherwise have incurred?*’ Clients understand that question, and it’s not always a trivial question, but I think it’s one they can answer.”¹²³ In addition, courts and enforcers must be able to assess whether the rules were applied properly. “A rule that cannot be intelligibly applied invites confusion and quixotic results”¹²⁴

Panelists emphasized that this third consideration is as important as the first two.¹²⁵ One panelist noted:

[I]t is absolutely essential that we take these models and we translate them into principles that are implementable by the business people, by the lawyers and by the courts. Otherwise, we are nowhere, and . . . what we have been struggling with is trying to come to articulation of some principles

¹²¹ *Id.*

¹²² June 22 Hr’g Tr., *supra* note 4, at 44–45 (Melamed).

¹²³ *Id.* at 46 (emphasis added).

¹²⁴ AREEDA & HOVENKAMP, *supra* note 1, ¶ 736d, at 392.

¹²⁵ June 22 Hr’g Tr., *supra* note 4, at 74 (Melamed); *see also id.* at 75 (Bolton); Sherman Act Section 2 Joint Hearing: Section 2 Policy Issues Hr’g Tr. 77–79, May 1, 2007 [hereinafter May 1 Hr’g Tr.] (Baker) (discussing difficulties in administering price-cost test in predatory-pricing cases); Feb. 13 Hr’g Tr., *supra* note 84, at 187 (Sewell).

that are actually understandable¹²⁶

The issue, then, is what kind of incremental cost best serves the above three goals.

b. Average Total Cost

Given the above factors, the Department agrees with the many courts and commentators concluding that pricing above average total cost—total cost divided by total output—should be per se legal.¹²⁷ Moreover, even pricing below average total cost frequently may be economically rational.¹²⁸ A price below average total cost would often be cash-flow positive for an equally efficient competitor. Such a rival would find it more advantageous in the short run to continue producing than to exit. Accordingly, since lower prices will always provide short-term benefits to consumers, the Department believes that merely showing that prices are below average total cost should not be sufficient to support a finding of liability.

¹²⁶ June 22 Hr’g Tr., *supra* note 4, at 67 (Ordovery).

¹²⁷ *See, e.g.,* United States v. AMR Corp., 335 F.3d 1109, 1117 (10th Cir. 2003) (asserting that *Brooke Group’s* focus on incremental costs “implicitly ruled out” above-total-cost pricing as a basis for antitrust liability); AREEDA & HOVENKAMP, *supra* note 1, ¶ 723d2, at 280 (“Dicta in the Supreme Court’s *Brooke* decision appears to have settled this matter for all prices higher than average total cost.”); *id.* ¶ 739c3, at 420 (“But numerous lower courts have concluded that condemning prices greater than average total cost—that is, fully profitable prices—unwisely invites plaintiffs into protracted litigation and close questions about the precise location of marginal cost and the reasons for such prices. The prospect of such litigation serves to deter legitimate, pro-competitive price cutting.” (footnote omitted)); *see also* June 22 Hr’g Tr., *supra* note 4, at 75 (Bolton) (“I would not object to a rule that says price above average total cost is per se legal as a way of implementing an easily administrable rule.”).

¹²⁸ June 22 Hr’g Tr., *supra* at note 4, at 8–9 (Elzinga) (“Let’s say . . . that this [television] set was sold by Toshiba . . . to Sears for \$95, and the average total cost was \$100, but the average variable cost was \$90 Almost everyone at the time believed Toshiba was selling below cost. . . . And it took an instinct for economic reasoning or a recollection of a price theory course to realize that such a price was above the shut-down point, it was cash flow positive, and that Toshiba was better off making the sale to Sears than not making that sale”).

c. Measures of Incremental Cost

The four most frequently suggested incremental-cost measures are: (1) marginal cost, (2) average variable cost, (3) long-run average incremental cost, and (4) average avoidable cost. Each seeks to ascertain what it would cost a firm to make additional units of output.

Marginal Cost. For each unit sold, marginal cost is the additional cost of producing that unit.¹²⁹ It refers to short-run marginal cost—the change in cost that results from producing a unit of output during a period in which “a firm does not change its fixed cost-productive assets, such as its plant.”¹³⁰ In other words, fixed costs are not included in determining marginal costs.

Many courts have suggested that marginal cost is the theoretically appropriate measure of cost for evaluating predatory pricing. For example, in *AMR* the Tenth Circuit observed, with qualifications,¹³¹ that marginal cost is “the ideal measure of cost . . . because ‘[a]s long as a firm’s prices exceed its marginal cost, each additional sale decreases losses or increases profits.’”¹³² Likewise, a treatise notes that “[m]arginal-cost pricing generally maximizes market efficiency.”¹³³ Hence, “no price equal to

or exceeding properly defined and reasonably anticipated marginal cost should be deemed unlawful under the antitrust laws.”¹³⁴ One panelist also said that marginal cost “really i[s] the right test.”¹³⁵

However, as Areeda and Turner pointed out as early as 1975, marginal cost is difficult to determine in most instances.¹³⁶ In addition, because marginal cost indicates only the cost of a single unit, comparing price with marginal cost does not indicate whether the alleged predation is causing the firm to lose money on anything but that single unit—normally the last unit produced.

Average Variable Cost. Average variable cost is the total of all the costs that vary when there is a change in the quantity of a particular good produced, divided by the quantity of the goods produced.¹³⁷ Average variable cost excludes all fixed costs.¹³⁸ Typical costs that vary with changes in output are materials, fuel, labor, repair and maintenance, use depreciation, and per-unit royalties and license fees.¹³⁹

A treatise notes that “[n]umerous decisions have concluded that [average variable cost] is at least the presumptive baseline for determining predation.”¹⁴⁰ Average variable cost is favored both as a more workable proxy for marginal cost¹⁴¹ and because it is instructive in and of

¹²⁹ *E.g.*, *Pac. Eng’g & Prod. Co. of Nev. v. Kerr-McGee Corp.*, 551 F.2d 790, 796 n.7 (10th Cir. 1977) (citing *Areeda & Turner*, *supra* note 5, at 700); *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 753b3, at 367; *CARLTON & PERLOFF*, *supra* note 27, at 783 (defining marginal cost as “the increment, or addition, to cost that results from producing one more unit of output”).

¹³⁰ *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 735b1, at 365; *see id.* ¶ 735b3, at 367.

¹³¹ *See infra* note 136.

¹³² *AMR*, 335 F.3d at 1116 (alteration in original) (quoting *Advo, Inc. v. Phila. Newspapers, Inc.*, 51 F.3d 1191, 1198 (3d Cir. 1995)); *see also* *Spirit Airlines, Inc. v. Nw. Airlines, Inc.*, 431 F.3d 917, 937–38 (6th Cir. 2005); *Stearns Airport Equip. Co. v. FMC Corp.*, 170 F.3d 518, 532 (5th Cir. 1999); *Kelco Disposal, Inc. v. Browning-Ferris Indus. of Vt. Inc.*, 845 F.2d 404, 407 (2d Cir. 1988), *aff’d on other grounds*, 492 U.S. 257 (1989); *McGahee v. N. Propane Gas Co.*, 858 F.2d 1487, 1504 (11th Cir. 1988); *Arthur S. Langenderfer, Inc. v. S.E. Johnson Co.*, 729 F.2d 1050, 1056 (6th Cir. 1984); *MCI Commc’ns Corp. v. AT&T*, 708 F.2d 1081, 1119–23 (7th Cir. 1983).

¹³³ *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 739a, at 412–13.

¹³⁴ *Id.*

¹³⁵ *Feb. 13 Hr’g Tr.*, *supra* note 84, at 185 (Wark).

¹³⁶ *See* *Areeda & Turner*, *supra* note 5, at 716 (noting that “[t]he incremental cost of making and selling the last unit cannot readily be inferred from conventional business accounts”); *see also* *AMR*, 335 F.3d at 1116 (acknowledging that “marginal cost, an economic abstraction, is notoriously difficult to measure and ‘cannot be determined from conventional accounting methods’” (quoting *Ne. Tel. Co. v. AT&T*, 651 F.2d 76, 88 (2d Cir. 1981))).

¹³⁷ *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 735b3 (“Variable costs, as the name implies, are costs that vary with changes in output,” and “[t]he average variable cost is the sum of all variable costs divided by output.” (internal quotation marks omitted)).

¹³⁸ *See* *Bolton et al.*, *supra* note 14, at 2271–72.

¹³⁹ *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 735b3, at 366.

¹⁴⁰ *Id.* ¶ 740a, at 425.

¹⁴¹ *See* *AMR*, 335 F.3d at 1116; *Stearns Airport Equip.*

itself in evaluating allegedly predatory pricing.¹⁴²

However, a major shortcoming of average variable cost is that it measures the average cost of the entire output, not just of the incremental output that is the focus of the predation claim.¹⁴³ Moreover, using average variable cost frequently requires difficult determinations of whether a particular cost is, in the circumstances involved, fixed or variable. Only the latter is included in calculating the average variable cost. But ascertaining whether a particular expenditure should be classified as fixed or variable is often difficult or at least seemingly somewhat arbitrary.¹⁴⁴ For example, the Second Circuit has held that “the general legal rule is that depreciation caused by use is a variable cost, while the depreciation through obsolescence is a fixed cost,” and “the characterization of legitimately disputed costs is a question of fact for the jury.”¹⁴⁵

Co. v. FMC Corp., 170 F.3d 518, 532 (5th Cir. 1999); see also Areeda & Turner, *supra* note 5, at 718 (“[D]espite the possibility that average variable cost will differ from marginal cost, it is a useful surrogate for predatory pricing analysis”); Feb. 13 Hr’g Tr., *supra* note 84, at 185 (Wark) (“I think it’s important to recognize that average variable cost is really a proxy for marginal cost because that really i[s] the right test.”).

¹⁴² See William J. Baumol, *Predation and the Logic of the Average Variable Cost Test*, 39 J.L. & ECON. 49, 55–57 (1996); cf. Cascade Health Solutions v. PeaceHealth, 515 F.3d 883, 910 (9th Cir. 2008) (holding that the appropriate measure of costs in a “bundled discounting context” is average variable cost).

¹⁴³ See Baumol, *supra* note 142, at 57–59; see also June 22 Hr’g Tr., *supra* note 4, at 32 (Bolton) (“price being below average variable cost[] is a very poor proxy for measuring profit sacrifice, which is what we are trying to go after”).

¹⁴⁴ See June 22 Hr’g Tr., *supra* note 4, at 82–83 (Elzinga); *id.* at 83 (Ordovery).

¹⁴⁵ Kelco Disposal, Inc. v. Browning-Ferris Indus. of Vt., Inc., 845 F.2d 404, 408 (2d Cir. 1988), *aff’d on other grounds*, 492 U.S. 257 (1989); see also U.S. Philips Corp. v. Windmere Corp., 861 F.2d 695, 704 (Fed. Cir. 1988) (whether advertising expenses were variable or fixed costs was a question of fact); Sunshine Books, Ltd. v. Temple Univ., 697 F.2d 90, 94–97 (3d Cir. 1982) (whether inventory shrinkage and payroll expenses are variable or fixed costs are questions of fact); Ne. Tel. Co. v. AT&T, 651 F.2d 76, 86 n.12 (2d Cir. 1981) (“Whether a particular

Long-run Average Incremental Cost. Long-run average incremental cost is the average “cost of producing the predatory increment of output whenever such costs [are] incurred.”¹⁴⁶ Unlike average variable cost, it includes all product-specific fixed costs, “even if those costs were sunk before the period of predatory pricing.”¹⁴⁷ That is, long-run average incremental cost by definition includes both recoverable and sunk fixed costs.

Long-run average incremental cost has been suggested as the appropriate cost measure when predatory conduct involves intellectual property. The contention is that “the only tenable cost standard” for predatory pricing with regard to intellectual property “must be a long-run cost measure,”¹⁴⁸ because “after the product is developed and launched, [average avoidable cost] or [average variable cost] may approach or equal zero.”¹⁴⁹ In computer software, for example, once the software product has been developed “the short-run incremental cost of a program downloaded from the Internet is nil.”¹⁵⁰

In many instances, however, long-run average incremental cost may identify as “predatory” pricing that is actually economically rational apart from any exclusionary effect. Because long-run average incremental cost includes all product-specific sunk fixed costs, a firm pricing below that cost could generate a positive cash flow (i.e., cover its variable costs and make a contribution to its already-sunk fixed costs) and thus would not necessarily be better off by discontinuing or reducing production. Such sales, which a long-run average incremental cost standard might condemn as predatory, would therefore be potentially profitable, and hence reflect no

expense, e.g., the cost of a new factory, should be classified as variable or fixed depends in part on the time under consideration.”).

¹⁴⁶ Bolton et al., *supra* note 14, at 2272.

¹⁴⁷ *Id.* at 2272. “Sunk cost” is “the portion of fixed costs that is not recoverable.” CARLTON & PERLOFF, *supra* note 27, at 785.

¹⁴⁸ Bolton et al., *supra* note 14, at 2273.

¹⁴⁹ *Id.* at 2272.

¹⁵⁰ *Id.*

more than economically rational competition, not predation.¹⁵¹

Average Avoidable Cost. Average avoidable cost consists of all costs, including both variable costs and product-specific fixed costs, that could have been avoided by not engaging in the predatory strategy. Unlike long-run average incremental cost, average avoidable cost omits all fixed costs that were already sunk before the time of the predation; consequently, average avoidable cost will generally be lower than long-run average incremental cost.

Many have observed that by omitting fixed costs that were sunk before the predatory sales, average avoidable cost appropriately answers the question about avoidable losses.¹⁵² The absence or presence of avoidable losses is the best indicator of whether the firm made or lost money on the additional increment of product, which *Brooke Group* and *Weyerhaeuser* made clear is the critical question in predatory-pricing cases. Moreover, by including all costs that the firm could have avoided by not producing the additional units, average avoidable cost circumvents the difficult issue of whether a particular cost is fixed or variable. This obviates the frequently thorny expense classification that the use of average variable cost often entails. These considerations are no doubt factors in the recent decision of several foreign competition authorities to use average avoidable cost as their preferred measure in predatory-pricing cases.¹⁵³

¹⁵¹ See generally Elzinga & Mills, *supra* note 79, at 2484 (“Adopting . . . [the long-run average incremental cost standard] would be inconsistent with the generally accepted view that predatory pricing means pricing that would not be remunerative except for its exclusionary effect.”); AREEDA & HOVENKAMP, *supra* note 1, ¶ 741e, at 449–55 (noting that preexisting capital costs “are not part of the cost of predation, because those costs remain the same”).

¹⁵² See CARLTON & PERLOFF, *supra* note 27, at 29 (“A sunk cost is like spilled milk. Once it is sunk, there is no use worrying about it, and it should not affect any subsequent decisions. . . . Costs, including fixed costs, that are not incurred if operations cease are called avoidable costs.”).

¹⁵³ See COMPETITION BUREAU, CAN., ENFORCEMENT GUIDELINES: PREDATORY PRICING 14–15 (2008), available at <http://www.competitionbureau.gc.ca/epic/site/cb->

Illustrative Application of Different Cost Measures

The following example illustrates some of these different cost measures. Suppose a dominant firm produces 1,500 units at a variable cost of \$8 per unit with no fixed costs. A new firm enters the market. The dominant firm produces an additional 500 units at a variable cost of \$10 per unit and sells 2,000 units at a price of \$9.50 per unit. Since the dominant firm would have sold 1,500 units absent entry, the potentially predatory increment is 500 units. The dominant firm’s marginal cost (the cost of producing the last good) is \$10, its average variable cost is \$8.50 per unit,¹⁵⁴ and its average avoidable cost is \$10 per unit.¹⁵⁵ The firm’s \$9.50 per unit price is thus greater than its average variable cost, but less than its marginal cost and its average avoidable cost and is potentially predatory.

In this example, all the costs included in average avoidable cost are variable. There can be instances where some fixed costs would be included in average avoidable cost, such as if some fixed costs were incurred to produce the predatory increment, but would have been avoided if that increment had not been produced. For example, suppose that the dominant firm had a factory capable of producing 1,500 units and that to produce the additional 500 units it had to expand the

[bc.nsf/vwapj/Predatory_Pricing_Guidelines-e.pdf/\\$file/Predatory_Pricing_Guidelines-e.pdf](http://www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/vwapj/Predatory_Pricing_Guidelines-e.pdf/$file/Predatory_Pricing_Guidelines-e.pdf); DIRECTORATE-GEN. FOR COMPETITION, EUROPEAN COMM’N, DISCUSSION PAPER ON THE APPLICATION OF ARTICLE 82 OF THE TREATY TO EXCLUSIONARY ABUSES 31 (2005), available at <http://ec.europa.eu/comm/competition/antitrust/art82/discpaper2005.pdf>.

¹⁵⁴ (1,500 units at \$8 per unit + 500 units at \$10 per unit) divided by 2,000 units.

¹⁵⁵ (500 units at \$10 per unit) divided by 500 units.

factory. The cost of expansion would be included in average avoidable cost. In contrast, long-run average incremental cost would include the cost of both the initial factory and the expansion.

d. Emerging Consensus Support for Average Avoidable Cost

The emerging consensus is that average avoidable cost typically is the best cost measure to evaluate predation claims.¹⁵⁶ However, there is not complete unanimity on this issue.

One panelist, although willing to use average avoidable cost to define a level below which price should be presumptively unlawful,¹⁵⁷ urged that prices above average avoidable cost but below long-run average incremental cost be treated as predatory in the absence of a plausible efficiency defense.¹⁵⁸ He argued that a long-run standard is necessary to provide meaningful protection against predatory pricing in contexts like computer software, where costs are minimal after the product has been developed and launched.¹⁵⁹

¹⁵⁶ See June 22 Hr'g Tr., *supra* note 4, at 36 (Bolton), 46 (Melamed); *id.* at 53–54 (Melamed); *id.* at 77–80 (panelists voiced no disagreement that average avoidable cost was the “best cost measure,” although one panelist questioned this proposition’s phrasing and another panelist noted definitional ambiguities in the cost measure); Baumol, *supra* note 142, at 49, 57–59; Bolton et al., *supra* note 14, at 2271–72; *see also* Gregory J. Werden, *The American Airlines Decision: Not with a Bang but a Whimper*, ANTI-TRUST, Fall 2003, at 32, 34–35; UNILATERAL CONDUCT WORKING GROUP, INT’L COMPETITION NETWORK, REPORT ON PREDATORY PRICING 3, 10–11 (2008), *available at* http://www.internationalcompetitionnetwork.org/media/library/unilateral_conduct/FINALPredatoryPricingPDF.pdf (“The most commonly cited measure is average variable cost, although there appears to be a growing trend toward the use of average avoidable cost.”); *see supra* note 153.

¹⁵⁷ See Bolton et al., *supra* note 14, at 2271; June 22 Hr'g Tr., *supra* note 4, at 36–37 (Bolton).

¹⁵⁸ See June 22 Hr'g Tr., *supra* note 4, at 37 (Bolton); Bolton et al., *supra* note 14, at 2271–74.

¹⁵⁹ See Bolton et al., *supra* note 14, at 2272–73; *cf.* Feb. 13 Hr'g Tr., *supra* note 84, at 93 (Balto) (arguing that average variable cost is a poor test for predatory pricing in the context of pharmaceuticals where “all the costs are up front”).

Another commentator, however, maintains that, although long-run average incremental cost would be relevant for testing whether a defendant’s price is compensatory in the long run, that is not the appropriate question regarding predatory pricing. Rather, he concludes that defendant’s average avoidable cost is the appropriate cost measure because it focuses on the threat to an efficient rival in the short run.¹⁶⁰

The Department agrees that average avoidable cost is the most appropriate cost measure to use when evaluating an alleged predatory-pricing scheme because it focuses on the costs that were incurred when the predatory pricing was pursued. Predatory pricing, if it is to have an exclusionary effect, must result in additional sales for the predator that were taken away from its prey. When price is set below average avoidable cost, the firm is experiencing a negative cash flow on its incremental sales at that price. Prices below average avoidable cost should trigger antitrust inquiry because they suggest that the firm is making sales that are unprofitable and may reflect an effort to exclude. Prices that are set above average avoidable cost, however, may enhance the firm’s profits irrespective of any exclusionary effects.

The illustration demonstrates the superiority of average avoidable cost over both marginal cost and average variable cost as the appropriate measure for predatory pricing. The dominant firm made 500 additional units when the new firm entered. It was not the 500th unit that caused the new firm’s demise. Rather, it was all 500 new units—the whole additional incremental lot. Average avoidable cost measures what it cost to make those additional units. That is a better measure of what it cost the firm to make the alleged predatory incremental sales than the cost of the last unit of that increment.

Likewise, it was not the original production quantity of the dominant firm that caused the entrant’s demise. It was the 500 additional units the dominant firm produced after the new firm arrived on the scene. Yet, average variable

¹⁶⁰ See Baumol, *supra* note 142, at 58–59.

cost reflects what it cost the dominant firm to make each unit of the combined original and incremental production. Average avoidable cost, in contrast, focuses on what it cost the dominant firm to make just the incremental amount.

Moreover, as long as the rival firm can cover its average avoidable cost, selling its goods will be more profitable than exiting the market or not entering.¹⁶¹ The consequence is that an equally efficient rival pricing below long-run average incremental cost, but above average avoidable cost, will remain in the market and compete against the alleged predator. Only when price falls below average avoidable cost will the equally efficient rival exit the market.

Panelists cautioned it may be difficult to implement an average avoidable cost standard.¹⁶² But the Department believes that average avoidable cost is easier to calculate and theoretically more appropriate than either marginal cost—with its abstract “single, last unit”—or average variable cost—with its difficult separation of variable from fixed costs.¹⁶³ Although the difficulties presented by the use of an average avoidable cost standard should not be understated, panelists suggested that the basic concept of identifying those costs that would be avoided in the absence of an alleged predatory strategy was something that businesses understand and can analyze.¹⁶⁴

The hearings focused particular attention on one implementation issue—whether avoidable costs should include any revenues forgone by

reducing price on sales that the firm would have made without the predatory scheme. Although panelists generally agreed that opportunity costs should be included in the calculation of avoidable costs, they disagreed on whether these lost “inframarginal revenues” should be considered. One panelist contended that, theoretically, lost inframarginal revenues should be taken into account,¹⁶⁵ although he expressly recognized a “real question” as to whether this would be administrable.¹⁶⁶ Another panelist argued that “inframarginal revenues . . . shouldn’t be treated as an opportunity cost, at least not for this purpose, because they are not a cost. . . . They are simply a transfer payment actually from producer to consumer”¹⁶⁷ Taking into account inframarginal revenues, he continued, requires “a profit maximization test . . . and that is in most cases going to be virtually impossible . . . for the Court to figure out and surely impossible for the firm to figure out in real time when it’s trying to comply with the law.”¹⁶⁸ Moreover, a commentator has argued that the loss of inframarginal revenues should be ignored because “it is irrelevant to whether the lower price, in itself, is or is not a threat to an efficient rival.”¹⁶⁹

Furthermore, there is no support in the case law for including lost inframarginal revenues as a cost.¹⁷⁰ *AMR*, for example, notes that the

¹⁶¹ See *id.* at 58.

¹⁶² See June 22 Hr’g Tr., *supra* note 4, at 83 (Ordovery).

¹⁶³ Cf. *id.* at 82 (Elzinga) (noting the potential sensitivity of average variable cost to choice of accounting convention). But see Feb. 13 Hr’g Tr., *supra* note 84, at 187 (Sewell) (stating that “average variable cost is a measure which is widely understood by business people . . . it’s a metric that exists for other than just antitrust enforcement purposes . . . and therefore has some additional validity”).

¹⁶⁴ See June 22 Hr’g Tr., *supra* note 4, at 46 (Melamed); *id.* at 79 (Ordovery) (noting that “these avoidable costs which we looked at at the route level are typically the kind of costs business people look at when they make business decisions in the airline business”).

¹⁶⁵ *Id.* at 84–85 (Bolton); see also Jan. 31 Hr’g Tr., *supra* note 96, at 33 (Edlin) (“The [*AMR* trial] Judge thought there that the extra plane was profitable if you ignore effects on other planes. I suggest that everyone reread footnote 13 of that case over and over and over again if you think that the extreme sacrifice test might make sense, as the Judge did.”).

¹⁶⁶ June 22 Hr’g Tr., *supra* note 4, at 84 (Bolton).

¹⁶⁷ *Id.* at 53 (Melamed).

¹⁶⁸ *Id.* at 52.

¹⁶⁹ Baumol, *supra* note 142, at 70–71.

¹⁷⁰ See *United States v. AMR Corp.*, 335 F.3d 1109, 1118–19 (10th Cir. 2003) (treating as “invalid as a matter of law” a cost test that “simply performs a ‘before-and-after’ comparison of the route as a whole, looking to whether profits on the route as a whole decline after capacity was added, not to whether the challenged capacity additions were done below cost” because such a test treats foregone profits as costs (citation omitted)).

Supreme Court's predatory-pricing jurisprudence rejects requiring a firm to maximize profits.¹⁷¹ A firm failing to maximize profits could nevertheless still be attaining a positive cash-flow, and hence acting rationally irrespective of the impact of the firm's conduct on rivals.¹⁷²

The Department concludes that consideration of foregone revenues is neither appropriate nor likely to be administrable. The Department consequently will not consider the lost revenues on inframarginal sales as a cost when evaluating predatory-pricing claims.¹⁷³

Given the above, when the Department can determine the predatory increment, it generally will rely on average avoidable cost as the appropriate measure of incremental cost under the *Brooke Group* test. The Department believes average avoidable cost typically will most accurately reflect the incremental cost of the alleged predatory output increase, and therefore will most accurately depict whether sales are beneficial to the firm, apart from any exclusionary effect, and whether the pricing strategy could cause the exit in the short run of an equally efficient competitor. Furthermore, average avoidable cost tends to be a more administrable standard than the other available cost measures and business-decision makers readily understand the concept. However, if the predatory increment is indeterminate and average avoidable cost is difficult to assess, the Department will consider other measures of

cost, with average variable cost as typically the next best alternative.¹⁷⁴

When the Department can determine the predatory increment, it generally will rely on average avoidable cost in determining whether prices are predatory.

4. Recoupment

"Predatory pricing is a three-stage process: Low prices, followed by the exit of producers who can no longer make a profit, followed by monopoly prices."¹⁷⁵ The Supreme Court observed in *Brooke Group* that, unless recoupment is feasible, "predatory pricing produces lower aggregate prices in the market, and consumer welfare is enhanced."¹⁷⁶ Thus, the Court held that a plaintiff in a section 2 predatory-pricing case must demonstrate that the dominant firm had "a dangerous probability[] of recouping its investment in below-cost prices."¹⁷⁷

One panelist at the hearings was "very skeptical" about retaining the recoupment requirement as an element of the offense.¹⁷⁸ He argued that this requirement "clearly complicates the proceedings,"¹⁷⁹ explaining that "[i]t's not necessary in order to identify anticompetitive conduct, because if we think we got the price-cost test right and the guy is selling below cost, you can . . . infer that he

¹⁷¹ *Id.* at 1118-19. See also *Stearns Airport Equip. Co., Inc. v. FMC Corp.*, 170 F.3d 518, 533 n.14 (5th Cir. 1999); *MCI Comm'ns Corp. v. AT&T*, 708 F.2d 1081, 1114 (7th Cir. 1983).

¹⁷² Cf. June 22 Hr'g, *supra* note 4, at 9 (Elzinga).

¹⁷³ The Department will, however, consider the foregone value of the possibility of renting or leasing an owned fixed asset in determining the cost the firm incurred in producing the putatively predatory increment. See generally Baumol, *supra* note 142, at 70-71 (noting that "a price of firm F that does not cover the opportunity cost of that firm's avoidable investment can constitute a threat to a more efficient rival and should be considered to fail the generalized Areeda-Turner Test"). In that situation, there is a readily available means to ascertain the firm's cost of the asset used to produce the purportedly predatory increment. This does not involve constructing hypothetical costs for the firm or imputing lost profits to it.

¹⁷⁴ See generally *id.* at 55-58 ("I will argue now that the Areeda-Turner test is entirely defensible as a criterion to determine whether the price at issue constitutes a threat to efficient rivals of firm F. But I will show that for this purpose it is average variable cost or a near relative of [average variable cost], rather than marginal cost, that provides the requisite information."); Hovenkamp, *supra* note 1, at 23-24.

¹⁷⁵ *Wallace v. IBM*, 467 F.3d 1104, 1106 (7th Cir. 2006) (Easterbrook, J.).

¹⁷⁶ 509 U.S. 209, 224 (1993). But see *Katz & Salinger Comments*, *supra* note 93, at 6 (noting that, as a logical matter, even without successful recoupment, predatory pricing could, under certain circumstances, harm consumers).

¹⁷⁷ 509 U.S. at 224.

¹⁷⁸ June 22 Hr'g Tr., *supra* note 4, at 49-50 (Melamed).

¹⁷⁹ *Id.* at 49.

expects to recoup.”¹⁸⁰

However, as Professors Elzinga and Mills have pointed out, the recoupment requirement serves as a valuable reality check—if a firm is unlikely to be able to recoup, then it raises the question of why the firm would have tried to engage in predatory pricing.¹⁸¹ It appropriately leads courts to inquire into alternative explanations for the lower prices. For example, lower prices may simply be some type of procompetitive discounting.¹⁸² As one panelist noted, failing the recoupment test “can dispose of a large fraction of predatory pricing cases . . . [because] at the end of the day, [that] indicates that there is really not harm to consumer welfare; there is not exclusion that you need to be concerned about.”¹⁸³

This reality check is particularly important because predatory pricing contains a key temporal element: a monopolist incurs short-term losses in the expectation of recouping those losses in the future by raising prices.¹⁸⁴ Thus, the *Brooke Group* Court went to some length to set out the analytic framework for deciding whether a firm could recoup short-term losses.¹⁸⁵ The Court held that assessment of recoupment “requires an estimate of the cost of the alleged predation and a close analysis of both the scheme alleged by the plaintiff and the structure and conditions of the relevant market.”¹⁸⁶

A panelist indicated that recoupment is most likely when there is asymmetry between conditions of exit from, and entry into, a particular market—in other words, when exit from the market is easy, but entry is difficult.¹⁸⁷ In that situation, a predator is more likely to recoup its investment in below-cost pricing. Once its prey exits quickly, the predator may enjoy the payoff of its relatively low-cost investment without fear of subsequent entry rapidly eroding its monopoly profits.

In assessing whether recoupment is likely, courts since *Brooke Group* have also considered reputation effects. For example, the Tenth Circuit recognized that a firm might engage in predation in one market to prevent the target of the predation from expanding to compete in a separate market.¹⁸⁸ Similarly, the Third Circuit explained that predation makes sense when a monopolist operates in several related markets because “the predator needs to make a relatively small investment (below-cost prices in only a few markets) in order to reap a large reward (supra-competitive prices in many markets).”¹⁸⁹ As these cases suggest, consideration of out-of-market effects can be significant because the predator’s low prices in only one market may induce the prey or other competitors to believe that the predator will reduce prices in other monopolized markets in the future, discouraging entry there as well.¹⁹⁰

¹⁸⁰ *Id.* at 50.

¹⁸¹ Elzinga & Mills, *supra* note 42, at 870–72, 893; *see also* Bolton et al., *supra* note 14, at 2263; Katz & Salinger *Comments*, *supra* note 93, at 6.

¹⁸² *Cf.* June 22 Hr’g Tr., *supra* note 4, at 71–72 (Bolton) (stating that recoupment is “the right question to ask”).

¹⁸³ Sherman Act Section 2 Joint Hearing: Conduct as Related to Competition Hr’g Tr. 70, May 8, 2007 [hereinafter May 8 Hr’g Tr.] (Rule).

¹⁸⁴ *See* June 22 Hr’g Tr., *supra* note 4, at 10 (Elzinga) (“[T]he recoupment returns for the aspiring monopolist must be enjoyed for a longer time period than the time frame in which the aspiring monopolist shouldered the cost of the predation strategy . . .”); *Predatory Strategies*, *supra* note 76, at 266–69.

¹⁸⁵ *See* *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 225–26 (1993).

¹⁸⁶ *Id.* at 226.

¹⁸⁷ *See* June 22 Hr’g Tr., *supra* note 4, at 13 (Elzinga); *see also* Kenneth G. Elzinga, *When Does Predatory Pricing Work?* 1 (n.d.) (hearing submission).

¹⁸⁸ *See* *Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal and Prof’l Publ’ns, Inc.*, 63 F.3d 1540, 1549 n.6 (10th Cir. 1995).

¹⁸⁹ *Advo, Inc. v. Phila. Newspapers, Inc.*, 51 F.3d 1191, 1196 n.4 (3d Cir. 1995); *accord* AREEDA & HOVENKAMP, *supra* note 1, ¶ 727g, at 337 (stating that a firm that operates in numerous markets may predate in only one to acquire or maintain “higher prices in all the others as well”); *see also* Bolton et al., *supra* note 14, at 2267–68 (recoupment “may occur in either the predatory market or in a strategically related market where the effects of the predation are felt”); *id.* at 2300 (“Reputation effects may be present when the predator sells in two or more markets or in successive time periods within the same market.”).

¹⁹⁰ *See* Baker, *supra* note 98, at 590–91; Bolton et al., *supra* note 14, at 2248–49, 2267–68; *see also* June 22 Hr’g

Panelists generally agreed that, in principle, reputation effects should be taken into account when considering predatory-pricing claims.¹⁹¹ At the same time, however, panelists voiced substantial concern about the administrability of considering reputation effects. While one panelist asserted that reputation effects could conceivably be assessed by analyzing “[c]ircumstantial evidence,”¹⁹² other panelists cautioned that such effects may depend on factors that are difficult, if not impossible, to measure. “What we don’t know in real life is how many of these new entrants do you have to kill . . . before somebody finally realizes, hey, I’m not coming in”¹⁹³ Thus, while courts may be able to evaluate reputation effects in assessing the probability of recoupment, they must exercise great care when doing so, or otherwise risk exceeding their “practical ability . . . to control [predatory pricing] without courting [the] intolerable risks of chilling legitimate price cutting.”¹⁹⁴

Tr., *supra* note 4, at 22 (Ordovery); *id.* at 36 (Bolton).

¹⁹¹ See, e.g., June 22 Hr’g Tr., *supra* note 4, at 63 (Bolton) (“We have to look at the deterrent effect of episodic, very rare predatory pricing.”); *id.* at 86–92 (multiple panelists).

¹⁹² *Id.* at 87 (Bolton); see also Aaron S. Edlin & Joseph Farrell, *The American Airlines Case: A Chance to Clarify Predation Policy* (2001), in *THE ANTITRUST REVOLUTION* 502, 518–19 (John E. Kwoka & Lawrence J. White eds., 2004) (observing that “there is apt to be a reason why a firm is in multiple markets, so there will usually be some link”).

¹⁹³ June 22 Hr’g Tr., *supra* note 4, at 89–90 (Ordovery) (adding, “I just don’t see how I can translate that into an administrable test for the courts and for counsel”); see also *id.* at 48–49 (Melamed) (noting that while “the recoupment requirement is central to and a great contribution to predatory pricing law,” demanding stringent quantification as some have suggested “clearly complicates the proceedings, increases costs” and “may be an impossible burden for the plaintiff in a multi-market reputation effect recoupment story”); *cf. id.* at 88 (Elzinga) (“[O]nce you start bringing in reputation effects as a potential hammer for antitrust plaintiffs, what is the consequence of that for all the good things that reputations do . . . to keep people, even for their own good, out of markets in which they have no business competing because they will not be efficient utilizers of society’s scarce resources in those settings?”).

¹⁹⁴ *Brooke Group Ltd. v. Brown & Williamson*

The Department believes that the recoupment requirement, when properly applied, serves as a valuable screening device to identify implausible predatory-pricing claims. In many instances, the obvious inability of a firm to recoup any losses may obviate the more difficult task of determining whether prices were below cost.¹⁹⁵ Further, the recoupment requirement may help ensure that procompetitive price discounting is not unduly chilled. Although acknowledging the difficulties inherent in doing so, the Department may, in appropriate circumstances, consider both in-market and out-of-market effects when assessing recoupment.¹⁹⁶

The recoupment requirement serves as a valuable screening device to identify implausible predatory-pricing claims.

5. Potential Defenses

Even when recoupment appears plausible, below-cost pricing is not necessarily proof of

Tobacco Corp., 509 U.S. 209, 223 (1993).

¹⁹⁵ See *A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc.*, 881 F.2d 1396, 1401 (7th Cir. 1989) (Easterbrook, J.) (“Only if market structure makes recoupment feasible need a court inquire into the relation between price and cost.”); see also June 22 Hr’g Tr., *supra* note 4, at 70 (Ordovery) (stating sometimes “there is no need to somehow construct this potentially complicated analytics” because industry structure is such that “you know, quick as a bunny, somebody else is going to show up who may be even [a] more competitively advantaged rival”); *id.* at 71 (Elzinga) (“I do not think you need to do a recoupment analysis for many predation allegations, because entry conditions or prices and costs will tell you you needn’t take that extra step.”).

¹⁹⁶ For an example of an approach to considering out-of-market effects in assessing the likelihood of recoupment, see Bolton et al., *supra* note 14, at 2302–04 (articulating a four-part test: (1) a dominant multi-market firm or a predator that “faces localized or product-limited competition or potential competition, or alternatively operating within a single market . . . and faces probable successive entry over time,” (2) the reputation effect either reinforces another predatory strategy or is based on the perceived probability that the predator will repeat its conduct in the future, (3) the “predator deliberately pursues a reputation effects strategy,” and (4) potential entrants observe the exit or other adverse effect).

anticompetitive predation. Certain defenses may justify below-cost pricing. Although the Department will not accept a meeting-competition defense, as discussed below, the Department will consider efficiency defenses in appropriate circumstances.

a. Meeting Competition

There is a substantial question regarding whether the antitrust laws should ever prohibit a firm from matching a rival's prices. In *United States v. AMR Corp.*, the trial court held in the alternative that defendant was entitled to summary judgment because "it is uncontroverted that American's prices only matched, and never undercut, the fares of the new entrant."¹⁹⁷ The court reasoned that "[t]he meeting competition defense to Section 2 liability is predicated on a similar statutory defense to price discrimination claims under the Robinson-Patman Act."¹⁹⁸ In contrast, the United States on appeal argued that "[t]here is nothing in [the] text of the Sherman Act that speaks of such a defense" and that "such a defense would make *Brooke Group's* below-cost pricing prerequisite superfluous when it is most important: when an entrenched, high-cost monopolist faces new, more efficient competition."¹⁹⁹

The Tenth Circuit "declin[ed] to rule that the 'meeting competition' defense applies in the § 2 context" but did note that "[t]here may be strong arguments for application of the meeting competition defense in the Sherman Act context by analogy to the Robinson-Patman context."²⁰⁰ On the other hand, the trial court in *Spirit Airlines* ruled there was no such defense, "respectfully declin[ing] to follow *AMR Corp.* on this point," because "[a]lthough *Brooke Group* does not formally and expressly reject the possibility of a 'matching competition' defense, it does adopt an economic model

which is at odds with the assumptions underlying such a defense."²⁰¹

Panelists did not agree on whether there should be a meeting-competition defense to predatory-pricing claims. One panelist asserted there should be no safe harbor for pricing below cost to meet competition.²⁰² Another panelist had previously written that "[a] monopoly or dominant firm should not be permitted to sell below its short-run costs to meet the price of a new entrant or smaller rival."²⁰³ "To allow a predator to price below its short-run cost frustrates a market test based on . . . relative efficiency," he explained, because "[i]f the rival's price is sustainable, it will almost surely be above short-run cost."²⁰⁴ On the other hand, one panelist asserted there should be a general meeting-competition defense under section 2 since "[s]uch a rule would provide a clear line, and matching a competitor's price in hopes of competing for every last customer is exactly what competitors are supposed to do."²⁰⁵ He added that a "competitor that cannot survive at the price point it has chosen is not the type of efficient competitor the antitrust laws should be protecting."²⁰⁶

Panelists also expressed concern regarding the administrability of a meeting-competition defense:

[W]hat do we mean by meeting the competition? Is matching the price of the entrant meeting the competition? Is that

²⁰¹ *Spirit Airlines, Inc. v. Nw. Airlines, Inc.*, No. 00-71535, 2003 WL 24197742, at 12 & n.15 (E.D. Mich. Mar. 31, 2003), *rev'd on other grounds*, 431 F.3d 917 (6th Cir. 2005).

²⁰² June 22 Hr'g Tr., *supra* note 4, at 93 (Melamed).

²⁰³ Bolton et al., *supra* note 14, at 2276 n.198.

²⁰⁴ *Id.* At the hearings, however, this panelist stated, "If meeting the competition is a best response, then this should be a defense." June 22 Hr'g Tr., *supra* note 4, at 92 (Bolton). Another panelist responded, "If it's the best response, then it would seem . . . that the revenues generated by the response are in excess of the avoidable costs, in which case it passes the price-cost test, but if that's not the case, if it fails that test, it's an inefficient response." *Id.* at 93 (Melamed).

²⁰⁵ Feb. 13 Hr'g Tr., *supra* note 84, at 180 (Wark).

²⁰⁶ *Id.*

¹⁹⁷ 140 F. Supp. 2d 1141, 1204 (D. Kan. 2001).

¹⁹⁸ *Id.*

¹⁹⁹ Brief for Appellant United States of America at 67, *United States v. AMR Corp.*, 335 F.3d 1109 (10th Cir. 2003) (No. 01-3202), available at <http://www.usdoj.gov/aatr/cases/f9800/9814.pdf>.

²⁰⁰ *AMR*, 335 F.3d at 1120 n.15.

how we define it? I would argue that's dangerous, because the products may not be the same. If the incumbent's product is higher quality than the entrant's, then matching the price of the entrant is not meeting competition.²⁰⁷

A meeting-competition defense would be difficult to administer and could protect below-cost pricing that harms competition and consumers. The Department believes that a meeting-competition defense should not apply in section 2 predatory-pricing cases.

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b. Efficiency Defenses

The Department will consider as possible defenses to below-cost pricing a persuasive showing that the conduct is part of a firm's procompetitive efforts to promote or improve its product or reduce its costs and may, in the long term, reduce the price consumers pay for its goods and services or increase the value of those goods or services.²⁰⁸ One panelist suggested,

There are all sorts of reasons that [pricing below costs] could be okay . . . I mean, it could be that . . . the price is low relative to whatever the measure is because the firms are making all sorts of investments in market share . . . to induce people to try the product . . . or . . . create scale economies or learning.²⁰⁹

These efficiency defenses received little attention at the hearings, and the Department will not attempt in this report to depict all the circumstances in which their recognition would or would not be appropriate. However, some general points can be made here.

Certain types of efficient conduct, such as

promotional pricing,²¹⁰ may not be plausible when the firm already has monopoly power or a dangerous probability of acquiring monopoly power.²¹¹ Network externalities, which occur "when a consumer's valuation of a product increases with the number of other consumers using the product,"²¹² raise somewhat similar issues. When a firm is trying to build an installed base and win a standards competition, initially pricing below cost may enhance the value of and demand for its product.²¹³ When a monopolist has already built a large installed-base network, that rationale may not hold.²¹⁴ Other efficiencies, such as "learning-by-doing," which occurs when a firm's cost of production "decreases as it produces more because it learns how to produce the product more efficiently,"²¹⁵ may be plausible for a new product even when a firm has achieved monopoly power as to different products; the below-cost price of today may become an above-cost price in the future, and "the prospect of reducing costs in the future"

²¹⁰ See Bolton et al., *supra* note 14, at 2278–79 (noting that promotional pricing involves "temporarily pric[ing] below . . . cost in order to induce consumers to try a new product"). The firm's expectation in engaging in promotional pricing is that "a favorable consumption experience induced by prices below cost will increase future consumer demand at prices above cost." *Id.* at 2279. Efficiency is enhanced if this occurs, since the firm's profits stem from customers' future willingness to purchase its product and not the elimination of rivals. This "reflects rational, profit-maximizing behavior," not predation. CARLTON & PERLOFF, *supra* note 27, at 357.

²¹¹ See AREEDA & HOVENKAMP, *supra* note 1, ¶ 746a, at 494 ("When a firm has considerable market power in the very product or service being promoted, the promotional pricing defense disappears. . . . In contrast to new entrants or small rivals, the monopolist has little need to resort to extreme price reductions to acquaint existing consumers with the merits of its brand."); *cf. id.* at 492 ("Unless continued over a long period of time, in which case it is no longer promotional, promotional pricing by new entrants or established firms who lack power in the promoted product or service are no threat to competition.").

²¹² Bolton et al., *supra* note 14, at 2281.

²¹³ See Sherman Act Section 2 Joint Hearing: Remedies Hr'g Tr. 95–97, Mar. 29, 2007 (Page).

²¹⁴ See Bolton, *supra* note 14, at 2281–82.

²¹⁵ CARLTON & PERLOFF, *supra* note 27, at 359.

²⁰⁷ June 22 Hr'g Tr., *supra* note 4, at 92–93 (Bolton).

²⁰⁸ See, e.g., AREEDA & HOVENKAMP, *supra* note 1, ¶ 742f, at 470–71, *id.* ¶ 746a, at 491–95. See generally Bolton et al., *supra* note 14, at 2276–82.

²⁰⁹ May 1 Hr'g Tr., *supra* note 125, at 78–79 (Baker).

may “justif[y] the lower price as an important investment for the firm.”²¹⁶ Accordingly, the Department will consider efficiency claims supported by evidence even in settings where there is existing monopoly power.

6. Equitable Remedies

In cases where predatory pricing is established, the next question for an enforcer or a court is what to do about it. Chapter 9 of this report discusses the topic of section 2 remedies in greater detail, but there are aspects of equitable remedies in the context of predatory-pricing cases that should be noted here.

Injunctive remedies can pose particularly severe difficulties in predatory-pricing cases. For instance, an injunction setting a defendant’s prices would substitute a court’s or agency’s judgment for the workings of the market. Summarizing concerns with this approach, one panelist observed that he “probably like everybody” is “suspicious of having antitrust become a price regulatory regime.”²¹⁷ The pricing issues often will be both complex and constantly shifting and call to mind the Supreme Court’s warning against remedies that require a court “to assume the day-to-day controls characteristic of a regulatory agency.”²¹⁸ And, of course, in predatory-pricing contexts, any errors on the side of stringency will suppress legitimate price competition.

The Department believes courts should exercise particular care when crafting behavioral injunctive relief in privately litigated predatory-pricing cases.²¹⁹ The plaintiff in a private predatory-pricing injunctive action is typically a rival whose interests may conflict with those of consumers or the general public. Indeed, it may be in the interest of both plaintiff

and defendant to have the court preclude defendant from discounting even if consumers would be better off with the lower prices.

Other approaches sometimes may be possible. One panelist suggested crafting injunctive remedies that do not involve price-regulation regimes: “I don’t think we would want to have a remedy that said, defendant, don’t sell your widgets for less than \$4. But we might say don’t sell it for less than whatever we think the appropriate cost measure is and in effect incorporate into an injunction the substantive standard.”²²⁰ Compliance issues, however, could become complex; the court or agency might be called upon over time, for example, repeatedly to assess a multitude of changing prices against the cost standard.²²¹

Another suggestion was that courts, where possible, consider ways of altering market structure to eliminate opportunities for continued predatory pricing.²²² A drawback to this approach, however, is that structural remedies may impose large costs of their own; a divestiture may harm a firm’s own efficiency and not necessarily create an efficient rival.²²³ A divestiture also may raise regulatory issues. For example, one panelist suggested that predatory pricing by an airline might be remedied by requiring the airline to divest airport-gate leases or landing or take-off rights that prevent entry and enable predation to

²¹⁶ *Id.*

²¹⁷ June 22 Hr’g Tr., *supra* note 4, at 95 (Elzinga).

²¹⁸ *Verizon Comm’n Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 415 (2004) (discussing access remedies for refusals to deal).

²¹⁹ See May 8 Hr’g Tr., *supra* note 183, at 159–60 (Rule) (suggesting that injunctive remedies be available only in section 2 cases brought by the federal government).

²²⁰ *Id.* at 158 (Melamed); see also Gregory J. Werden, *Remedies for Exclusionary Conduct Should Protect and Preserve the Competitive Process*, 76 ANTITRUST L.J. (forthcoming 2009) (“[A] predatory pricing decree should prescribe a particular price-cost comparison. Thus, the decree should specify a particular measure of the defendant’s cost and indicate how the defendant’s accounts are to be employed in constructing that cost measure. The decree also should specify how the defendant’s price data are to be used in the comparison.”).

²²¹ *Cf. Trinko*, 540 U.S. at 414–15.

²²² See, e.g., June 22 Hr’g Tr., *supra* note 4, at 95–96 (Elzinga) (“It may be that in a genuine predatory pricing case . . . you could get at some other part of the structure of the market that allows the predatory pricing to be a viable marketing strategy.”).

²²³ See *infra* Chapter 9, Part IV(B).

succeed.²²⁴ However, another panelist responded that this remedy raised issues of access pricing for those gates. According to this panelist, the structural remedy might merely replace a difficult price-regulation issue with an even more difficult access-regulation issue.²²⁵ Thus, the Department believes that courts should be very cautious in imposing structural remedies in predatory-pricing cases.

D. Conclusion

The Department believes that predatory pricing can harm competition and should be condemned in appropriate circumstances. It is nonetheless important to develop sound, clear, objective, effective, and administrable predatory-pricing rules that enable firms to know in advance whether their price cutting will result in antitrust liability. The development of such rules is necessary, feasible, and already far along. Such rules must enable enforcers, courts, and businesses to determine whether the incremental revenue from the pricing claimed to be predatory is greater than the incremental cost of the additional output. Only claims involving prices below average avoidable cost, or below a similarly appropriate cost measure, combined with a dangerous probability of recoupment, should be subject to potential liability. Efficiency defenses, when supported by evidence, should be considered, and, in instances where injunctive relief is appropriate, care should be taken to ensure that the remedy imposed ultimately benefits consumers.

II. Predatory Bidding

Predatory bidding involves a buyer of a critical input bidding up the price of that input and thereby foreclosing rival buyers from competing. In certain circumstances, a buyer might be able to drive rival purchasers from the market. By obtaining monopsony power and thereby the ability to purchase its inputs at prices below competitive levels, the predatory buyer would recoup any losses it might incur

from “paying too much” in the short run.²²⁶

In effect, predatory bidding is the mirror image of predatory pricing.²²⁷ When a firm engages in predatory pricing, it lowers its price to consumers, to the detriment of competing sellers. When a firm engages in predatory bidding, it raises its price to input suppliers, to the detriment of competing input buyers. Just as consumers benefit in the short run from lower prices charged by a firm that pursues a predatory-pricing strategy, input suppliers benefit in the short run from higher prices paid for inputs by a firm that pursues a predatory-bidding strategy.

Historically, predatory bidding had been a minor antitrust issue.²²⁸ However, in 2005, the Ninth Circuit issued an opinion finding Weyerhaeuser liable for timber-buying practices that the court deemed predatory.²²⁹ This decision generated substantial interest concerning the proper legal standards for predatory bidding, which were addressed at the hearings.²³⁰ The consensus at the hearings was that successful predatory bidding is relatively rare and should be penalized only when bidding up input prices will clearly lead to long-run competitive harm. The Supreme Court granted certiorari in *Weyerhaeuser* during the course of the hearings.²³¹

In *Weyerhaeuser*, a sawmill operator claimed that Weyerhaeuser, a rival sawmill operator, violated section 2 by predatorily bidding up the price for alder sawlogs in the Pacific Northwest. The trial court instructed jurors that they could find that Weyerhaeuser, which had a sixty-five

²²⁶ See generally John B. Kirkwood, *Buyer Power and Exclusionary Conduct: Should Brooke Group Set the Standards for Buyer-Induced Price Discrimination and Predatory Pricing?*, 72 ANTITRUST L.J. 625, 652 (2005).

²²⁷ June 22 Hr’g Tr., *supra* note 4, at 104 (Kirkwood).

²²⁸ See Scott C. Hall, *Ross-Simmons v. Weyerhaeuser: Antitrust Liability in Predatory Bidding Cases*, ANTITRUST, Spring 2006, at 55.

²²⁹ *Confederated Tribes of Siletz Indians v. Weyerhaeuser Co.*, 411 F.3d 1030 (9th Cir. 2005), *vacated and remanded sub nom. Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069 (2007).

²³⁰ June 22 Hr’g Tr., *supra* note 4.

²³¹ 127 S. Ct. 1069.

²²⁴ See June 22 Hr’g Tr., *supra* note 4, at 96 (Elzinga).

²²⁵ See *id.* at 97 (Ordovery).

percent share of the alder sawlog market, had acted anticompetitively if they found that Weyerhaeuser had “purchased more logs than it needed or paid a higher price for logs than necessary, in order to prevent the Plaintiffs from obtaining the logs they needed at a fair price.”²³² The jury found for plaintiff, and the Ninth Circuit affirmed, concluding that the prerequisites for establishing liability for predatory pricing set forth in *Brooke Group*²³³ did not control predatory bidding.²³⁴

The Supreme Court unanimously overruled the Ninth Circuit, holding that the *Brooke Group* test for predatory pricing – below-cost pricing and likelihood of recoupment – also applies to predatory bidding. The Court noted that “predatory bidding mirrors predatory pricing” in respects most significant to its analysis in *Brooke Group*.²³⁵ Just as with predatory pricing, the Court found, predatory bidding involves a firm suffering short-term losses on the chance of recouping those losses through supracompetitive profits in the future. The Court reasoned that no rational business will incur such losses unless recoupment is feasible,²³⁶ and recognized that recoupment could occur through lower input or higher output prices.²³⁷ It noted that there are many benign or even procompetitive reasons why a buyer might bid up the price of inputs, ranging from merely miscalculating its input needs to attempting to increase its market share in the output or downstream market. The Court stressed that there is “nothing illicit about these bidding decisions;” indeed, they are “the very essence of competition.”²³⁸ Thus: “Given the multitude of procompetitive ends served by higher bidding for inputs, the risk of chilling procompetitive behavior with too lax a liability

standard is as serious here as it was in *Brooke Group*.”²³⁹ Accordingly, to prevail on a predatory-bidding claim, plaintiff must show that defendant (1) suffered (or expected to suffer) a short-term loss as a result of its higher bidding and (2) had a dangerous probability of recouping its loss.²⁴⁰

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The Department believes that, as with predatory pricing,²⁴¹ the focus of the price-cost analysis should be on the additional output generated by the incremental input purchases. The Department also believes that, in most cases, average avoidable cost is likely to be the best measure of the incremental changes in cost associated with the increased purchase of inputs resulting from the allegedly predatory act.²⁴²

Although the exercise of monopsony power against input suppliers can be associated with the exercise of monopoly power in the output market, that does not have to be the case, and *Weyerhaeuser* was a case in which the potential anticompetitive effects were confined to the input market.²⁴³ The Department believes that the Sherman Act “does not confine its protection to consumers, or to purchasers, or to competitors, or to sellers.”²⁴⁴ “The Act is comprehensive in its terms and coverage, protecting all who are made victims of . . . forbidden practices[,] by whomever they may be perpetrated.”²⁴⁵ As the Court observed in

²³² 411 F.3d at 1036 n.8.

²³³ 509 U.S. 209 (1993).

²³⁴ 411 F.3d at 1037 (concluding that “benefit to consumers and stimulation of competition do not necessarily result from predatory bidding the way they do from predatory pricing”).

²³⁵ 127 S. Ct. at 1077.

²³⁶ *Id.*

²³⁷ *Id.* at 1076–77 & n.2.

²³⁸ *Id.* at 1077 (internal quotation marks omitted).

²³⁹ *Id.* at 1078.

²⁴⁰ *Id.*

²⁴¹ See *supra* Part I.

²⁴² *Id.*

²⁴³ See 127 S. Ct. at 1076 (“[T]his case does not present . . . a risk of significantly increased concentration in . . . the market for finished lumber.”).

²⁴⁴ *Mandeville Island Farms, Inc. v. Am. Crystal Sugar Co.*, 334 U.S. 219, 236 (1948).

²⁴⁵ *Id.*

Weyerhaeuser, “The kinship between monopoly and monopsony suggests that similar legal standards should apply to claims of monopolization and to claims of monopsonization.”²⁴⁶ Thus, the Department will challenge under section 2 conduct that threatens harm to the competitive process, whether that harm occurs upstream or downstream.

In this regard, as the Supreme Court recognized in *Weyerhaeuser*, higher input prices alone do not indicate harm to the competitive process.²⁴⁷ To the contrary, they are often indicative of vigorous competition, raising the danger that faulty assessments could chill procompetitive activity.²⁴⁸ For example, a firm might “acquire excess inputs as a hedge against the risk of future rises in input costs or future input shortages”²⁴⁹ or to “ensure that it obtains the input from a particularly reliable or high-quality supplier.”²⁵⁰ In those situations, the competitive process has not been harmed, and antitrust enforcement should not discourage the conduct.²⁵¹ Moreover, even where potential harm to competition can be demonstrated, appropriate efficiency defenses also need to be considered.

The Supreme Court’s *Weyerhaeuser* decision

was a significant step towards the development of clear, administrable rules for predatory bidding. The Department believes that the decision strikes the right balance in ensuring that only bidding that harms the competitive process will be found to violate section 2.

²⁴⁶ 127 S. Ct. at 1076.

²⁴⁷ *Id.* at 1077.

²⁴⁸ See June 22 Hr’g Tr., *supra* note 4, at 135 (Salop) (stating that he was “very worried that there could be false positives”). *But cf. id.* at 106 (Kirkwood) (“[A]rguably, there have been no false positives, no liability findings [in predatory bidding cases] where it appeared that the defendant had not, indeed, harmed welfare.”).

²⁴⁹ *Weyerhaeuser*, 127 S. Ct. at 1077; see also June 22 Hr’g Tr., *supra* note 4, at 158 (McDavid) (stating that a firm might decide to “stockpile inventory to preclude future shortages or to hedge against a future price increase”).

²⁵⁰ Brief for the United States as Amicus Curiae Supporting Petitioner at 16, *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069 (No. 05-381), available at <http://www.usdoj.gov/atr/cases/f217900/217988.pdf>.

²⁵¹ *Cf.* June 22 Hr’g Tr., *supra* note 4, at 113 (Kirkwood) (“[I]f the defendant can show that bidding up input prices was profitable, without regard to any increase in monopsony power, [then] it should have a complete defense.”).