



UNILATERAL CONDUCT WORKBOOK

CHAPTER 4: PREDATORY PRICING ANALYSIS

Prepared by

The Unilateral Conduct Working Group

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ICN Unilateral Conduct Workbook

CHAPTER 4 — Predatory Pricing Analysis

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I. Introduction

1. In an effective competitive process, producers compete for customers by offering attractive products and services. That competition fosters the most productive allocation of resources and puts pressure on firms to innovate, reduce costs, offer low prices and high quality, to the benefit of consumers. Competition laws against anticompetitive agreements, anticompetitive mergers, and exclusionary abusive behavior by dominant firms¹ are intended to prohibit conduct that distorts the competitive process and harms consumers by reducing or eliminating the ability or incentives to compete of all or certain competitors in a market.
2. Competition law may also be concerned about low prices. For example, in limited circumstances, low prices charged by a dominant firm in the short run can create the risk of an increase in prices (or other adverse competitive effects)² in the long run. Such “predatory pricing” is the subject of this Chapter.
3. The Unilateral Conduct Working Group’s (“UCWG”) Report on Predatory Pricing provides specific guidance on this topic.³ It reports the responses of

¹ For specific guidance on the assessment of “dominance” see Chapter 3 of the Workbook, available at: www.internationalcompetitionnetwork.org/uploads/library/doc752.pdf. See also [ICN Recommended Practices on the Assessment of Dominance/Substantial Market Power](http://www.internationalcompetitionnetwork.org/uploads/library/doc317.pdf), available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc317.pdf>.

² A dominant company may use its market power to influence market prices, output, innovation, or the variety or quality of goods and services. References in this Chapter to increases in price sometimes are used as shorthand for the various ways in which a successful predator might exercise the market power thereby acquired or preserved.

³ See ICN Report on Predatory Pricing, at <http://www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf>.

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thirty-four ICN Members and six non-governmental advisors to a UCWG questionnaire and takes into account the approaches of competition agencies from around the world. This Workbook Chapter seeks to complement that report by providing practical guidance on conducting a predatory pricing investigation.

A. Predatory Pricing Generally

4. From an economic perspective, predatory pricing involves any pricing strategy whose goal is to drive out or weaken competitors, soften the competitive process, or preclude potential entrants, to such a degree that the competitive process is harmed and consumer welfare is reduced. In practice this is achieved by the predator's setting prices sufficiently low to reduce competitors' ability or incentives to compete effectively or to exclude them from the market. This reduction or elimination of competition potentially allows the predator subsequently to exercise increased market power with respect to prices or non-price dimensions of competition.
5. In the standard predatory pricing scenario, the alleged predator is said to make an "investment in predation"—meaning that it incurs short-term losses during the period of predation by charging prices that are "too low" in order to drive competitors from the market or discourage potential entrants.⁴ Harm to consumers occurs when the predator later recovers its losses (along with an

⁴ Predatory behavior can also involve non-price actions such as predatory investments in capacity. For example, a dominant firm might invest in capacity expansion that would not be ex ante profitable but for its prospect of foreclosing competition. *See United States v. AMR Corp.*, 335 F.3rd 1109 (10th Cir. 2003) (involving price cutting accompanied by capacity expansion). While principles similar to those applicable in predatory pricing cases apply to non-price predation cases, the focus of this chapter is limited to pricing conduct by dominant firms.

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- adequate return on the investment in such losses) by charging supra-competitive prices. A related theory is that, while rivals are not driven from the market, their willingness or ability to compete aggressively is diminished by the experience of predatory pricing by a dominant rival (disciplining of competitors), which enables the dominant firm to charge higher prices than it otherwise could have charged.
6. For two related reasons, it is difficult to develop satisfactory and administrable enforcement standards to detect and prevent predatory pricing.
 7. First, because the behavior involves low prices to consumers and because low prices generally promote consumer welfare, which is among the primary objectives of competition law, the legal rule should be crafted and enforced so as not to discourage pro-competitive price competition and beneficial low pricing, which may look similar to predatory pricing. This has led to the development of various tests discussed in greater detail in Section II below, to determine whether the dominant firm's prices are simply low (for example, because the dominant firm enjoys greater scale efficiencies than its competitors) or "too low," and thus potentially part of an anticompetitive strategy rather than competition on the merits.
 8. Second, rules and enforcement standards that attempt carefully to distinguish between pro- and anti-competitive low prices can be complex, vague, and challenging for agencies and for companies and their counsel to apply, which can result in problems of administrability for courts and agencies, and leave firms uncertain as to whether their contemplated conduct complies with the law.

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9. Various jurisdictions have sought to adopt practical legal rules to deal with these issues. From a conceptual point of view, pricing is usually condemned as predatory under such rules when a firm (1) temporarily charges prices below some appropriate measure of its costs, and (2) subsequently has the ability successfully to raise and maintain prices to the detriment of consumers.⁵ As explained in greater detail below, a firm's costs for purposes of detecting predatory pricing can be defined in different ways. Depending on the facts, some of these rules are more susceptible to intervention error (risks of over- or under-enforcement) than others and some are more difficult to apply than others.

B. Different Approaches to Enforcement

10. Competition regimes typically prohibit predatory pricing under one of two different approaches.⁶ Under the first approach, predatory pricing is addressed through a general statutory prohibition of anticompetitive “abuse of dominance” or “monopolization” conduct.⁷ Such statutes often do not set out conditions for establishing “predatory pricing” and may not refer to such conduct specifically. In some of these jurisdictions, the general provisions and their applicability to predatory pricing may be given further definition through judicial or enforcement agency interpretation.

⁵ See footnote 2.

⁶ Some jurisdictions may have laws that allow both approaches.

⁷ See ICN Report on Predatory Pricing, at 5.

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11. Under an alternative approach, other jurisdictions may have statutes that specifically prohibit dominant firms from selling below cost.⁸ Some have provisions that prohibit firms from selling at a price that is “unreasonably” low or “unreasonably” below cost, for example, while others may provide specific cost benchmarks that are to be used in assessing pricing conduct that is allegedly predatory.
12. Regardless of whether the law is specific or general in its terms, the tools and approaches for analysis of predatory pricing generally are the same. Of course, where a law has specific requirements (e.g., calls for use of a certain cost measure) that jurisdiction will need to use those analytical methods in a way that conforms to the requirements of its law.
13. Relevant criteria for identifying predatory pricing are generally set out in the law itself, in accompanying regulations or guidelines, or developed through agency practice and/or court decisions. At least nine agencies have adopted guidelines and similar instruments that describe the legal elements and the assessment of predatory pricing.⁹

⁸ The Workbook does not address provisions that do not necessarily rely on the existence of dominance or market power but which generally prohibit “below-cost selling” (e.g., those of Austria, France, and Greece) or similar unfair competition law provisions. However, this Workbook may be a useful tool with regard to understanding and interpreting such provisions (e.g., with regard to price-cost tests).

⁹ Brazil, Canada, Denmark, Jersey, Korea, Lithuania, and Singapore. *See* ICN Report on Predatory Pricing, at 6. *See also* European Commission Communication, Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, OJ [2009] C 45/7, ¶¶ 63-74; Japan Fair Trade Commission, Guidelines for Exclusionary Private Monopolization under the Antimonopoly Act (JFTC Oct. 28, 2009)

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C. Framework for Assessing Predatory Pricing

14. While allegations of predatory pricing and agency investigations of such allegations may be common, agency challenges to predatory pricing are relatively rare.¹⁰ This may be because predatory pricing is rarely attempted or rarely successful, or at least infrequently identified. Or it may be because such cases—whether brought by enforcement agencies or by private plaintiffs—are made difficult to prove because of the overriding concern that pro-competitive price competition should not be deterred.

Although pricing is usually condemned as predatory only if the alleged predator charges prices that are below some appropriate measure of its costs, applying such price-cost tests is a complex and resource-intensive exercise. Thus, before moving to an assessment of the alleged predator's prices and costs, it may be advisable to develop a framework for evaluating the allegations that will enable the agency to make an initial determination of whether the alleged predator's prices are likely to cause competitive harm.

15. Like other investigations of unilateral conduct, predatory pricing investigations require an assessment of the relevant market and a determination of whether the alleged predator is dominant (or has “monopoly power”) within that market.¹¹

¹⁰ See ICN Report on Predatory Pricing, 3 (2008), *available at*: www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf (noting that “[d]uring the last ten years, responding agencies brought approximately twenty-four cases in which a predatory pricing violation was established and have initiated at least five times as many investigations in which predatory pricing was alleged, but no violation was found”).

¹¹ As explained in the workbook chapter on assessment of dominance, jurisdictions have differing definitions of the concept of dominance. A recurring feature of the concept is a high degree of

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These assessments can provide insight into whether the predator's actions are capable of and likely to distort the competitive process and about the potential for subsequent consumer harm.

16. As explained in Chapter 3 of this Workbook, market definition involves identifying the products that compete most closely with those directly affected by the conduct in question. If consumers have alternatives to the product sold by the alleged predator to which they could switch in the face of a later price increase, consumers are not likely to be harmed as a result of the allegedly predatory pricing scheme.
17. When assessing dominance, the potential for entry deserves particular attention. Attempts by the alleged predator to charge sustained higher prices once the prey has exited may be defeated if the prey is likely to re-enter, or if other firms are likely to come into the market and replace the lost competitive constraint. And without higher prices in the future, the low prices currently being charged can only benefit consumers. If it is clear that entry into the relevant market is easy, it is unlikely that the dominant firm will be able to effectively exclude entry and recoup its losses (by raising prices), and the agency may be able to close the investigation quickly.

market power both with respect to the level to which price can be profitably raised and to the duration that price can be maintained at such a level. Dominance can also be described by a firm's ability to behave with appreciable independence from competitive discipline. *See generally* ICN Unilateral Conduct Workbook Chapter 3: Assessment of Dominance, at 2 (2011); ICN Dominance/Substantial Market Power Analysis Pursuant to Unilateral Conduct Laws, Recommended Practices, 1 (2008).

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18. Whether treated as part of the dominance assessment or as a separate analysis of the likely competitive effects of the alleged predator's pricing strategy, which as discussed below in Section III may be required in some jurisdictions, the question that must be answered is the same. That question is whether the predator's prices are a form of legitimate competition on the merits, or are they part of an exclusionary scheme that will lead to exit of competitors from, or disciplining of competitors in, the market¹² and subsequent consumer harm? As discussed below in Section V, there may be many reasons why firms temporarily set low prices absent a plan to exclude rivals. A sale might generate additional revenues from follow on sales of the same product or related products, or the sale might be part of a temporary strategy to build customer awareness of a new product. Evaluating such possibilities at an early stage as part of a preliminary competitive effects analysis may help the agency to resolve its investigation without having to devote resources to applying a price-cost test.
19. Tests comparing the dominant firm's prices and costs can provide evidence about the potential effects of low prices on the likelihood of exit by the prey and, to some extent, on the likelihood of consumer harm. For example, prices below the firm's short run marginal cost, or average short run variable costs—two concepts which are discussed in greater detail below in Section II—are suspicious, and a sufficient reason for continued investigation. Price-cost tests must be used with care, however.

¹² There is no general consensus on whether the alleged predatory pricing must occur in the market in which the firm holds a dominant position or substantial market power. *See* ICN Report on Predatory Pricing, at 15-16. The question is analyzed in Section III of this Chapter.

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20. As discussed in greater detail in Section II, determining the relevant price (or incremental revenue) in a price-cost test can be challenging, especially when pricing is complicated by bundling, retroactive rebates, the provision of ancillary services, or other mechanisms, and when the revenue stream attributable to a sale has some dynamic aspect because of, for example introductory pricing or follow-on sales.
21. Identifying the appropriate measure of cost, which may depend on the facts of the case, is also a difficult exercise. Assuming one has determined what the most appropriate cost measure is, identifying the dominant firm's costs is often an additional burden, because accounting records typically do not correspond to, nor easily yield, the measure of cost deemed relevant by the legal rule or economic analysis.
22. A related issue is determining whose costs are relevant. The costs of competitors can be relevant to determining whether the dominant firm's conduct is likely to be exclusionary—whether competitors' allegations that they cannot compete against the alleged predator's prices are valid, for example. However, when available, the costs of the dominant firm are generally used to apply price-cost tests, for two practical reasons. First the dominant firm will generally not know its rival's costs. If the agency uses rival's costs as the benchmark, the dominant firm may not know its pricing is objectionable. Second, agencies are usually (very) reluctant to protect inefficient rivals. An important part of the competitive process involves firms striving for efficiencies that allow them to set prices that

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- their less efficient rivals may find hard to match, and using the dominant firm's costs as the benchmark will limit the risk of deterring this desirable activity.
23. One further consideration is whether merely decreased profits, rather than actual losses by the dominant firm, are sufficient to justify taking action against the firm's low prices. If the firm's conduct is not fully profit-maximizing, but the firm is not incurring any accounting losses, might its conduct nevertheless be considered anticompetitive? The resolution of this issue turns upon balancing two competing considerations: (1) low prices that reduce but do not eliminate the dominant firm's profits may nevertheless eliminate actual competitors and discourage potential competitors, but (2) punishing pricing that is above cost merely because it results in profits for the dominant firm that are lower than they might otherwise be, may result in higher prices in the short-run as well as in the long-run as firms seek to avoid liability for aggressive pricing. In addition, taking action against above-cost prices simply because they do not generate sufficient profits raises the difficult problem of determining what price the dominant firm should have charged. It also would tend to support less-efficient firms, which as discussed above is generally considered inconsistent with the goals of antitrust enforcement.
24. Section II of this Chapter discusses the role of price-cost tests in determining whether a dominant firm's prices are "too low," the factors that might be considered in determining which measure of the firm's costs may be most appropriate for that purpose (including the risk of enforcement errors), and

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practical considerations involved in using such tests, such as evidentiary challenges. Section III of this Chapter discusses the analysis of competitive effects, including the assessment of the likelihood of recoupment. Section IV discusses intent, its relevance to a predatory pricing analysis, and how it may be established. Section V concludes the Chapter with a discussion of objective justifications and defenses, including the “meeting competition” defense.

25. Neither the ordering of these topics nor their labeling is meant to be prescriptive. A predatory pricing analysis should apply concepts discussed in this Chapter as appropriate, and that could mean not following the order in which these topics are presented in this Chapter, and not include each topic discussed below. As noted, for example, an assessment of the potential for entry or of the likely competitive effects of the alleged predatory conduct can enable the agency to resolve an investigation quickly, without having to conduct a complicated and burdensome analysis of the dominant firm’s prices compared with its costs. Similarly, the justifications for low prices discussed below could be the first topic addressed, rather than the last.¹³

¹³ It is often also advisable to consider possible remedies in the initial consideration of the case. Remedies, which will be discussed in a subsequent chapter of the workbook, are beyond the scope of this chapter.

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II. Assessing the Conduct—The Use of Price-Cost Benchmarks

A. Price-Cost Tests Generally

26. Prices cannot be said to be “too low” in a vacuum—rather, they must be compared against some benchmark. As defined in virtually all legal regimes, therefore, a finding of predatory pricing requires, at least, that the alleged predator’s prices be below some measure of its cost¹⁴—or, in a few cases, below some other measure of normal or usual value.¹⁵ Prices that are above some measure of the dominant firm’s costs, in contrast, are generally not considered predatory.
27. If the alleged predator’s costs are to be used as a benchmark, how one measures those costs is very important. Various analytical considerations that bear on the choice of an appropriate measure of costs are discussed in Section II.B. Section II.C discusses the various cost measures themselves.¹⁶ The use of cost measures

¹⁴ A determination that the dominant firm is charging prices that are below some measure of its costs is not, in most regimes, sufficient to establish that the firm is engaged in predation. In addition to a finding of dominance (or monopoly power), which requires an assessment of the relevant market, issues such as entry barriers, the likelihood of recoupment, and whether the firm can provide a reasonable business justification or otherwise defend its pricing conduct may also be required, depending on the particular jurisdiction and the applicable statute.

¹⁵ ICN Unilateral Conduct Working Group Report on Predatory Pricing, April 2008 (UCWG Predatory Pricing Report), Section 2, page 9. Note that sometimes a firm’s revenues for sales of a particular product are not driven only by the price of that product, but also by revenues derived from the provision of ancillary goods or services. In some cases, while the price for the actual product may be above cost, those additional goods or services may be offered at such a discount that the full package is priced well below the firm’s cost. Similarly, revenues from ancillary services may make sales below cost profitable. Thus, it may be necessary to assess the price and cost of the full package that is sold to customers, when conducting a price-cost test for predation.

¹⁶ As this section focuses on the use of price-cost tests, predation that does not involve prices that fall below some measure of cost, or, in rare cases, some measure of forgone revenue is not discussed here. Similarly, and as noted in the Introduction, non-price predatory conduct is beyond the scope of this Chapter.

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as safe harbors or presumptions is addressed in Section II.D. Section II.E discusses the practical evidentiary challenges of price-cost tests.

B. Analytical Considerations When Assessing Various Price-Cost Tests

28. The various cost measures that may be used in predation cases each have pros and cons. Some are easier to calculate than others, for example, while others will tend to result in the cost benchmark being set higher than it would be if an alternative were used, which may lead to an increased risk of over-enforcement. Because no single cost measure is unequivocally better than the others in all cases, more than one measure is used in some jurisdictions depending on the circumstances.¹⁷
29. Investigations of predatory pricing often take place before there has been significant exit, in which case the assessment of whether exit is likely will be prospective and likely proceed under the assumption that the questionable conduct will continue in the future. When using price-cost comparisons to test for the likely exclusion of rivals it is particularly important to back up this prospective analysis with evidence that the conduct is indeed likely to continue absent intervention, and that low prices are not a temporary strategy motivated by, for example, marketing or riding out a temporary period of low demand.¹⁸

¹⁷ ICN Unilateral Conduct Working Group Report on Predatory Pricing, April 2008 (*UCWG Predatory Pricing Report), Section 2, page 11-13.

¹⁸ See Section V below.

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1. *Price-cost tests may indicate loss or sacrifice*
30. As noted, prices that result in the dominant firm sacrificing profits may be economically irrational but for their potential to exclude rivals from the market. Thus, among the factors to be considered when evaluating possible measures of costs for a price-cost test should be the extent to which the measure helps reveal whether the dominant firm is selling at a loss.
31. Using a measure of the dominant firm's costs to determine whether it is selling at a loss, and thus whether it may be engaged in predation, should not be confused with a pure "profit sacrifice" test, which might condemn above-cost prices as predatory if they result in profits that are less than what the dominant firm might otherwise have obtained through a different pricing strategy. Although above-cost prices can have exclusionary effects in some cases that mirror those of predatory below-cost prices—for example, a dominant firm with a better cost structure than its rivals could reduce its prices to a level that is greater than its (lower) costs, still make a profit, and increase its output, which could force less efficient rivals from the market—condemning such pricing as predatory raises practical and policy considerations. Rather than use as a benchmark the dominant firm's costs, which may be objectively and reasonably determined (even if with some difficulty), such an approach would require the agency to compare the dominant firm's profits with some possibly hypothetical level of "but for" profits that the agency concludes the firm could have earned. However, depending on the case, it may not be clear how those "but for" profits may reasonably or

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accurately be determined. There is also an important policy question to consider—whether it should ever be appropriate to use competition law to condemn (and thereby discourage) above-cost pricing that is profitable for the dominant firm and results in increased output.¹⁹

2. *Price-cost tests may be used to assess the ability of an “equally efficient competitor” to compete*

32. As noted in the ICN Unilateral Conduct Working Group Report on Predatory Pricing of 2008 (UCWG Predatory Pricing Report), price-cost measures may also be used to test for whether exclusion of an “equally efficient competitor” (or an “as efficient competitor”) is likely.²⁰
33. Under an “equally efficient competitor” (“EEC”) approach, the actions of a dominant firm are only considered abusive or exclusionary if they are capable of excluding a *hypothetical* rival undertaking that is as efficient—meaning that it has the same costs—as the dominant firm.²¹ If such a rival could sell profitably at the

¹⁹ *But see* Edlin, Aaron S., “Stopping Above-Cost Predatory Pricing.” *Yale Law Journal* 111 (December 2002): 681-827. (No compelling reason to restrict predation cases to below-cost pricing as above-cost pricing can also hurt consumers by limiting competition.); *but see also* Williamson, Oliver, “Predatory Pricing : A Strategic and Welfare Analysis,” *Yale Law Journal* 87 (December 1977): 284-341. (Proposing that an incumbent be allowed to make reactive price cuts, but forbid those increasing output for twelve to eighteen months after entry.); Baumol, William J. “Quasi-Permanence of Price Reductions: A Policy for Prevention of Predatory Pricing,” *Yale Law Journal* 89 (November 1979): 1-26. (Proposing that an incumbent be allowed to make reactive price cuts, but forbid those reduced prices from being raised after the entrant leaves the market unless costs of demand have changed.)

²⁰ ICN Unilateral Conduct Working Group, Report on Predatory Pricing, April 2008 (UCWG Predatory Pricing Report), page 11 and 23.

²¹ “What is Competition on the Merits?” OECD Policy Brief, *available at* <http://www.oecd.org/dataoecd/10/27/37082099.pdf>, p. 4.

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- price that the dominant firm has set, that is an indication that the dominant firm's price is not in fact predatory.
34. Under the EEC approach the exclusion of inefficient competitors, or of competitors that are less efficient than the dominant firm, harms such competitors but not the competitive process, and thus is not considered anticompetitive. As one legal theorist has noted, "it would be absurd to require the [dominant] firm to hold a price umbrella over less efficient entrants . . . [P]ractices that will exclude only less efficient firms . . . are not actionable, because we want to encourage efficiency."²² Requiring dominant firms to ensure that their prices do not disadvantage less-efficient rivals also makes it difficult for these firms to know what prices they can charge, given that the dominant firm likely will not know its rivals' costs.
35. Although the EEC approach is helpful as a theoretical concept, serving to underline that the intention of a cost test is not to protect an inefficient competitor, the EEC approach raises difficult policy questions. For example, it may not capture anticompetitive conduct in all cases. In markets with significant economies of scale or scope, or network effects, a dominant company with a high market share may have significant advantages over later entrants as a result of producing a greater quantity or number of products than its competitors; consequently, its practices might not exclude a *hypothetical* equally efficient firm, but may have the practical effect of excluding the only *actual* rivals it is ever

²² Richard A. Posner, *Antitrust Law*, at *196 (2d ed. 2001).

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- likely to face. It may not be desirable as a policy matter to ignore this loss of competition since it may constrain the dominant firm's market power.
36. Some jurisdictions may have concern for exclusion of “not yet as efficient” or “reasonably efficient” competitors. On this view, later entrants cannot be expected immediately to match the economies of scale and scope, learning curve effects, and first-mover advantages of the dominant firm. The “reasonably” or “not yet as efficient” competitor may have the potential to be as efficient as the dominant firm, but it may be less efficient at supplying individual purchasers for an interim period. As a policy matter, a jurisdiction might choose not to forgo certain near-term consumer benefits of lower prices by requiring the dominant firm to charge higher prices and thus make it possible for less efficient firms to become as efficient in the future. If there is a concern for exclusion of “reasonably” or “not yet as efficient” competitors, the EEC approach would likely result in under-enforcement in cases where competition is just beginning to emerge.
37. Applying the EEC test in cases involving multiple products is also challenging. First, it is unclear what comparison the test makes when a dominant firm selling multiple products that are produced or sold together is alleged to be predating against a rival selling only some of those products. Second, a product-by-product cost test is made difficult by cost allocation issues.

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3. *Administrability*

38. Agencies should ensure that the enforcement standards they adopt are administrable, not just by the agency itself, but by firms seeking to conform their conduct with the law. A particular cost measure, for example, might seem suitable as a theoretical concept, but it may not be easily applied to an actual case, or not be easily implemented (or even understood) by firms that wish to reduce the risk of their prices being challenged as potentially predatory. Put simply, a rule requiring data that is very difficult or virtually impossible to obtain in order to determine whether a price is “too low” is not a suitable rule. Rules that are difficult to apply consistently across investigations should also be avoided.
39. In the interest of administrability and transparency, agencies may wish to consider using particular measures of costs to inform bright-line rules that they and businesses may use when evaluating pricing conduct. Such safe harbors and presumptions are addressed in section D below.
40. The different measures of cost that are discussed in the next section present evidentiary challenges of varying degrees. Such concerns also affect the administrability of each measure as part of an enforcement standard, particularly from the perspective of an agency, and are discussed in section E below.

4. *Risk of enforcement error*

41. The choice of cost measure can also influence the likelihood of different enforcement errors. An agency may therefore select or reject a particular measure

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of cost depending on the degree to which that agency is concerned about such errors.

42. For example, if the preferred cost measure is at the higher end of the scale (e.g., average total cost), the enforcement standard will be more strict and thus more likely to condemn prices as predatory. Such standards are more likely to result in type I errors, or “false positives,” (i.e., mistakenly condemning behavior as anticompetitive) and thus chill pro-competitive discounting. On the other hand, a cost measure from the lower end of the scale (e.g., average variable cost) may yield an enforcement standard that is more lenient, which will be less likely to chill pro-competitive behavior but which could produce more type II errors, or “false negatives,” (i.e., result in anticompetitive conduct going undetected).

C. Cost Measures

43. Classifying costs in several distinct ways may be relevant to the cost benchmarks used to assess predation. Costs may be sorted into the categories of:
- (i) fixed or variable, depending on whether they vary with the amount of production;
 - (ii) general or marginal/incremental, depending on whether they are associated with total production (general) or just a portion of it (a single additional unit of production, in the case of marginal costs, or a discrete portion of production in the case of incremental costs);

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- (iii) avoidable or non-avoidable, depending on whether the dominant firm could have avoided incurring the costs in the relevant period of time under investigation; and
 - (iv) specific or common, depending on whether they are uniquely associated with a particular product or are common across the production of several products.
44. No simple rule is available with regard to the relevant quantity to consider in the cost calculation. One approach is to use the difference between the actual quantity supplied by the alleged predator, and the quantity the alleged predator would have supplied absent the alleged predatory strategy (the “but-for” quantity). However, calculating the “but for” quantity may be difficult.
45. The relevant time period over which costs should be calculated is very important in determining the classification of certain cost items, and thus the calculation of specific cost benchmarks. For instance, while in the short run a number of costs are fixed (e.g., overheads, some labor costs), in the long run generally all costs can be varied. Whether costs are avoidable also depends on the time frame over which they are assessed. Although no simple rule is available with regard to the relevant time period over which costs should be categorized and calculated, one approach is to use the timeframe over which the alleged predatory conduct took place. That timeframe, however, would not be clear if the alleged predatory pricing were still ongoing, and even after it has ended, how long the alleged predator had planned to engage in the suspect conduct is more relevant than how long it did engage in the conduct.

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46. Cost measures often used in the analysis of predation are outlined below. This overview of cost measures is by necessity abridged, and practitioners are likely to face fact-specific situations that may make it difficult to classify costs precisely. Some of those situations are discussed in sections III. c.-f.

1. *Marginal cost*

47. Marginal cost is the cost of producing one additional unit of the product or service in question.²³ As producing and selling an additional unit does not typically require any change in productive assets in the short run, fixed costs and overhead are not usually included in short-run marginal costs. In certain circumstances, e.g., where there are very severe capacity constraints, increasing output by one unit may require the firm to incur additional investments. In that case the cost of expanding production by one unit may be significantly higher.²⁴ However, in general, marginal costs do not include any fixed costs.

48. Marginal cost is the relevant measure of cost according to one early economic theory of predation.²⁵ According to this theory, a firm that prices below its marginal costs of production would incur an avoidable loss. Thus, pricing below marginal cost is not—in general—economically rational and is such a clear-cut

²³ More precisely, marginal cost (of sale) is the increase in total cost caused by a marginal increase in production and sale.

²⁴ For instance, if a firm had to buy a new machine in order to increase capacity, the whole cost of that machine could be attributed to the first unit produced with that machine, which would result in a very significant marginal cost. MC would however drop back to a more typical level for any unit of production beyond that first unit.

²⁵ See P. Areeda and D. Turner, "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act," Harvard Law Review, March 1975.

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deviation from profit maximization that—according to this theory—it provides a clear indication of predation. A price above marginal cost ensures that an equally efficient competitor would be able to operate in the market at the same scale as the dominant company without incurring short-term losses.²⁶

49. In practice, marginal cost is seldom used, given the difficulty in measuring it. To avoid this complication, economists sometimes calculate average incremental cost, which is the additional cost of producing a discrete number of units (e.g., 100 units), divided by the number of units. In addition, average variable cost has been used as a surrogate for marginal cost.

2. *Average variable cost*

50. Variable costs are those costs that vary with output, increasing when output increases and falling when output decreases (for instance, raw material or energy costs). Average variable cost (AVC) is calculated by adding all the variable costs of production, and then dividing by the total amount of production. Unlike marginal cost, which is calculated on the last unit of production, average variable cost is calculated across the firm's entire production or volume of sales. Average variable cost may in principle be higher or lower than marginal cost.
51. Average variable cost is often considered to approximate marginal costs and thus is used as a practical, workable measure of the cost that a firm incurs in expanding

²⁶ Note that this is different from saying that an as-efficient entrant would decide to operate, because – in addition to the marginal costs of production – an entrant would consider whether it is able to recover the fixed sunk entry costs.

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its production.²⁷ However, calculating average variable cost requires determining whether a particular cost is fixed or variable. As few costs are variable in the very short run while practically all costs are variable in the very long run, determining the time interval over which costs should be classified as fixed or variable is of key importance. A commonly suggested approach to the determination of the appropriate time interval consists in focusing on costs that are fixed or variable over the time period over which the predatory behavior has allegedly taken place.

52. A shortcoming of AVC from an economic perspective is that it measures the average cost of the entire production, not just that of the marginal or incremental output associated with the predatory strategy, which is the relevant economic measure for the purpose of establishing whether a company is intentionally incurring a loss in producing that unit or units (see below discussion regarding average avoidable cost).
53. Whether price is below average variable cost may be relevant to establish profit sacrifice, if the perspective is one encompassing the alleged predator's entire supply. A firm that prices below its average variable cost of production incurs a loss, which it would not have incurred had the firm not produced at all. Thus, provided that ceasing or suspending production is a strategy the firm could

²⁷ See P. Areeda and D. Turner, "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act," *Harvard Law Review*, March 1975.

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- reasonably have adopted, pricing below average variable cost is typically not economically rational and thus a sufficient condition to find profit sacrifice.²⁸
54. Note that the AVC benchmark is in general not able to capture a concern that the alleged predator may be deterring entry or expansion (as opposed to inducing exit). This is because, if the competitor has not yet entered the market (or not yet entered the market fully), it would not enter (or complete entry) unless price were projected to be sufficiently above AVC to allow it to recoup the additional (sunk) fixed costs of entry. In this case, a standard based on AVC may be seen to result in under-enforcement, as an “equally efficient competitor” may not be able to enter or to expand even if the dominant firm priced (somewhat) above AVC. Of course, healthy competition among incumbents may keep prices so low (although above AVC) that entry is prevented.

3. *Average avoidable cost*

55. Average avoidable cost (AAC) includes all costs that could have been avoided if a certain quantity of output had not been produced or a certain action (e.g. entry) had not been undertaken. The relevant volume of output over which AAC is calculated is typically the amount of (additional) output that is generated by the alleged predatory strategy. Unlike variable costs, avoidable costs include both

²⁸ Note that, this is a sufficient but not a necessary condition. In particular, it is possible that the alleged predator could be incurring a loss on the incremental output associated with the predation strategy, but not across its entire operation. A test based on average variable cost would not capture that situation.

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- variable costs and any fixed costs that are incurred only as a consequence of the decision to produce some incremental amount of output.²⁹
56. The appeal of AAC lies in the fact that the difference between the price charged for the amount of production related to the predatory strategy and the AAC of that same amount of production provides a direct measure of avoidable losses incurred as a result of the predatory strategy.³⁰ This is because it would not be economically rational for a firm to produce the amount of output related to the predatory strategy if the average sales price is below the AAC of that output.
57. There is an increasing trend towards the use of AAC as a relevant benchmark.³¹ This is because AAC is the cost threshold which—if correctly calculated (i.e. if the ‘avoidable’ amount of output is correctly defined and the relevant costs are correctly categorized—often a difficult practical test)—is generally viewed as providing a good indicator of profit sacrifice. In theory, it also addresses the issue of the dominant firm’s increased output which, as noted above, is the mechanism which may exclude rivals, as it focuses on the costs incurred to generate that increased output as those to be weighed against the revenues received, to determine if price is below cost.

²⁹ For instance, if the predatory strategy required the predator to add a new production line in order to increase output, and if that production line would not have been built had the predatory strategy not been undertaken, then the fixed costs incurred in building the production line should be included in the AAC calculation.

³⁰ Note that the relevant price should include all potential additional revenues generated by the relevant increase in the sales of the alleged predator, even if they are generated by different (ancillary) services or products.

³¹ See ICN Report on Predatory Pricing, at 3, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf>.

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4. *Long run average incremental cost*

58. Long run incremental cost comprises all the costs of producing a given, discrete increment of output, usually a particular (new) product or service in a multi-product context. Long-run average incremental cost (LRAIC) is thus the average of all the (variable and fixed) costs that a company incurs to produce a particular product. Unlike AVC, it includes all fixed costs, including sunk costs, specific to producing the given product. Unlike AAC, LRAIC includes costs associated with development of a new product or service and other product specific fixed costs made before the period in which the allegedly abusive conduct took place. As such LRAIC is typically higher than AVC and AAC. LRAIC and average total cost (ATC) are the same in case of single product firms. If multi-product firms have economies of scope, LRAIC will be lower than ATC for each individual product, as true common costs are not taken into account in LRAIC.
59. Long-run average incremental cost is sometimes considered as a more appropriate cost measure than AVC or AAC, in particular when the alleged predatory conduct involves products that have large fixed costs and low marginal costs of production, as in the telecommunication, pharmaceutical, or software industries. However, there is a risk that a long-run average incremental cost standard may identify as predatory pricing conduct that is economically rational and commercially justified. For example, a firm that is not covering all the sunk costs associated with a given level of output may still be behaving in an economically rational manner since it could be “losing less” than it would by not producing that

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- output. In that case, the conduct would reflect economically rational competition, not predation.
60. LRAIC has also been suggested as the appropriate cost measure when predatory conduct involves intellectual property, because after the investment has been made in innovation and product development and the product has been launched, average avoidable costs or average variable costs may be particularly low.³² Thus, even if a firm is pricing above these other cost measures, it may not be feasible for an equally efficient firm to enter. If the concern is one of impeding entry or expansion of competitors, the LRAIC benchmark will be useful. However, there is also opposition to the approach of using a long-run cost measure in such cases, on the basis that pricing above marginal cost is profitable to the firm once fixed costs are sunk. Indeed, if the concern is one of inducing exit rather than impeding entry, it would not be rational for an equally efficient rival that has already sunk similar costs in intellectual property to exit in the face of such behavior.
61. LRAIC can be significantly greater than AVC, MC, and AAC. Consequently, comparing price with LRAIC is more apt to be used in establishing a presumption that prices are not predatory, or that they are within a safe harbor, than in establishing a presumption that prices are predatory.

³² See Bolton, P., J. Brodley and M. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, *Georgetown Law Journal*, 88 (8), 2273 (2000).

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62. In terms of administrability, LRAIC is not in general superior to the other cost measures discussed in this section, as it also requires a careful analysis of individual cost items to determine whether those costs are incurred in order to produce a particular product, and—in many industries—it requires careful consideration of common costs.

5. *Average total cost*

63. Average total cost (ATC) is calculated as total cost divided by total output.³³ As this measure includes all variable and all fixed costs (both sunk and recoverable), it often results in the highest cost measures amongst those discussed in this section: ATC is typically (although not necessarily) higher than AAC and MC and is higher or at least equal to AVC and LRAIC.³⁴ As such, using it as part of a price-cost test for predation increases the risk of over-enforcement.

64. The problem with using ATC as a measure of predation is that pricing below average total cost may be economically rational and may be compelled by competition.³⁵ In the presence of fixed costs, a price below average total cost may still provide a higher level of cash-flow than not producing and thus be profit-maximizing (i.e. a firm may be “cutting its losses”).

³³ In the case of a multi-product firm, total product should refer only to the output of the product at issue. However, total costs may include an allocation of common costs.

³⁴ AVC is always lower than ATC provided there are some fixed costs.

³⁵ See discussion of objective justifications in Section V below.

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65. When assessing AVC and ATC as cost measures, certain jurisdictions focus on whether the dominant firm faces capacity constraints to determine which measure may be the most useful. Because ATC includes fixed costs, it may be more suitable in cases where the alleged predator is capacity constrained and thus needs to invest in new production facilities (and incur the related fixed costs) in order to expand output as part of its predatory strategy. If instead the predator has no capacity constraint, and thus no need to incur the fixed costs of investing in new production facilities, these jurisdictions consider AVC to be the more appropriate cost measure of the two.
66. Whether the alleged predator's low prices are only occasional or in effect consistently for long periods of time may also influence the choice of cost measure. Because prices below ATC may be economically rational from a commercial perspective, for example, certain jurisdictions hold that prices below ATC establish predation only when they are part of a systematic, long-standing pricing policy. On the other hand, because a firm may avoid the losses it incurs through pricing below AVC by simply suspending production, such prices may be considered predatory even when the practice is occasional.
67. From the point of view of assessing profit sacrifice, ATC is the more aggressive benchmark among those discussed in this section. For this reason, ATC is sometimes used as a safe harbor and seldom used as a threshold establishing a presumption of anticompetitive intent.

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68. As to the as-efficient competitor benchmark, pricing below ATC is generally a necessary (but not sufficient) condition to exclude rivals. Only when the as-efficient rivals have yet to incur the fixed costs of operation (e.g., they have not entered) and if these fixed costs are all sunk, will pricing below ATC be a sufficient condition for predation to arise. Thus the role of ATC as a safe harbor is also consistent with the as-efficient competitor benchmark.

D. Use of Price-Cost Tests as Safe Harbors or to Support Presumptions

1. *Create a safe harbor above relevant benchmark(s)*

69. The challenge of policing predatory pricing without chilling pro-competitive behavior and the need for clear, administrable rules has led some courts and agencies to conclude that pricing *above* an appropriate level of cost should be considered per se lawful and therefore not subject to challenge. Unlike below-cost pricing, such prices are more likely sustainable by the dominant firm regardless of any exclusionary effect that they may have, and may be a result of the dominant firm's greater efficiency compared with its competitors. Other agencies may take the approach that prices above an appropriate level of cost are generally unlikely to be predatory, and therefore rarely viewed as unlawful.
70. The advantages of creating such a safe harbor include reducing the risks of Type I error and, even more importantly, avoiding chilling aggressive price cutting. If firms know that price above an articulated level of cost cannot be, or are very unlikely to be, as a matter of law or policy, found to constitute predatory pricing, they will have greater confidence that they may lower their prices without legal

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risk. However, choosing a too lenient safe harbor risks Type II errors by allowing predation to go unchecked and cause lasting harm to the competitive process.

2. *Create a presumption of predation below relevant benchmark(s)*

71. Declaring that pricing above a relevant level of cost is *not* predatory is not the same as declaring that sales below a relevant measure of cost are predatory or are presumptively predatory. That said, many jurisdictions do conclude that pricing below a cost measure (e.g., AVC or AAC) will create a presumption of predatory pricing, although in most cases it is a rebuttable presumption.³⁶
72. If there is pricing below a relevant measure of cost, it is then necessary in most jurisdictions to determine whether such below-cost pricing is an economically rational business strategy for the dominant firm to pursue—a strategy, in other words, which does not depend on excluding or deterring rivals in order to be profitable. Thus, a determination that the dominant firm is pricing below an appropriate level of its cost, by giving rise to a presumption of predation, may result in a shifting of the burden of explanation for the conduct from the authority to the alleged predator. As discussed in section V below, the firm may have legitimate business justifications for pricing at this level, but the burden may appropriately fall on the alleged predator to articulate a justification.

³⁶ ICN Unilateral Conduct Working Group, Report on Predatory Pricing, April 2008 (UCWG Predatory Pricing Report), Section 3(1)(c), page 13.

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E. Evidentiary Challenges in Proving Relevant Cost Measures

73. Assembling reliable evidence regarding the pricing conduct and costs of the dominant company is often difficult. The data are not always available, or may not be kept by the company in a format that is useful to an agency's economists—because, for example, the relevant markets that are the subject of antitrust investigations often have no meaning within the context of the dominant firm's financial reporting. Even if the data are available in some form, producing the data may impose a substantial burden on the company. Also, cost information is regarded as a business secret in many jurisdictions, and it is often subject to legitimate confidentiality protections, which may limit the agency's ability to obtain or use the information.
74. Assembling the necessary data and evidence to assess a dominant firm's pricing conduct may also impose burdens on the enforcement agency. Crafting specific information requests that are designed to elicit the data that is needed in a format that is useful may be difficult, and depending on the agency's investigatory powers, compelling compliance with information requests (contained in subpoenas, access letters, or other requesting documents) may impose additional resource demands on the agency over and above the resources required to assess the information to reach conclusions. It is important—for agencies and for companies—to ensure that demands are not excessive relative to the value of the analysis that will result.

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75. Generally, price and cost data of the alleged predator is used to prove pricing below the relevant cost measure. Cost data from other firms may (in addition) be used to show competitive effects. It is also sometimes used for price-cost comparisons when relevant cost data are not available from the dominant firm. Certain jurisdictions may also use other comparable data, such as industry surveys concerning the industry's costs. Determining what comprises reasonably comparable cost data—for example, whether the competitors that are providing the information are as efficient as the dominant firm, such that a comparison would be meaningful—requires careful consideration.

1. *Use of accounting information*

76. Regardless of the particular cost measure used to analyze predatory pricing, a cost-price comparison will require accurate accounting data. Obtaining relevant accounting data on prices and costs and then interpreting them requires considerable investigative resources. Moreover, economic costs are often different from costs recorded on an accounting system according to financial accounting principles rather than economic theory. Therefore, accounting records must be reviewed and considered against criteria for economic costs before being used in a cost-based measure of predatory pricing. Some conversion of accounting figures may therefore be required to generate the costs needed for economic assessment through a price-cost test.

77. For example, as noted above, many of the various benchmarks for identifying predatory behavior depend on consigning costs into various categories such as

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- fixed versus variable, or avoidable versus non-avoidable. It was also noted that for antitrust practitioners, whether a given cost should be consigned to a particular category frequently depends on the relevant timeframe (often defined by the predatory episode). Thus, a given cost might be considered fixed in one timeframe, but variable in a longer timeframe. Frequently, accounting documents will categorize costs using similar nomenclatures. However, such accounting categorizations are made on the basis of objectives that may not be relevant to a determination of predatory pricing. Antitrust practitioners must be careful not to take accounting classifications of various costs as determinative for categorizing those costs for purposes of benchmarking pricing behavior.
78. Additionally, cost concepts of economics do not always have a direct counterpart in business accounting. For instance, to an accountant, costs are expenses, and thus total costs involve all expenditures that an enterprise incurs. However, there is no price, and hence no cost, for using any capital invested in the enterprise as ordinary equity. Thus, to the accountant, when the firm recovers its expenses, it is operating above total cost. In contrast, the economic theory of total cost includes all costs required to keep the enterprises in the business, which would include a reasonable return on equity as an essential part of the costs of doing business.
79. Along similar lines, even from a theoretical economic perspective, categorizing various expenses into different categories can be challenging. For example, it can be argued that advertising should be seen as a variable expense or a fixed expense (because it can be viewed as an asset that depreciates over time) or some

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combination of both. The categorization of advertising expenses can have a significant impact on whether a particular price level is considered below cost or not.

2. *Need for cost allocation*

80. The assessment of costs can be especially complicated when a firm has several product lines that share common costs (that is, costs that are necessary for the production of more than one product).³⁷ Determining the relevant costs for a firm that produces multiple products is a complex task.³⁸ When various products are produced in a common facility, the allocation of specific costs to particular sales almost always has an arbitrary element; as a result there is room for debate on the appropriate allocation. This is most clearly the case for overhead expenses, such as general and administrative costs,³⁹ which are often treated as fixed in the short run, at least in large part. The cost allocation problem is more significant for some cost measures than for others because some measures include common costs that are omitted from others.
81. Less obviously, multi-product firms may not only have common fixed inputs but may also have common variable inputs, and the allocation of those costs may be critical too. The potential complications from uncertain or even arbitrary allocation may be particularly problematic where the alleged predator produces

³⁷ IIIA Philip E. Areeda & Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application*, at 198 (3d ed. 2008).

³⁸ *Id.* at 236.

³⁹ OECD Policy Roundtables Predatory Foreclosure (2004), DAF/COMP (2005) 14, p. 134, available at <http://www.oecd.org/dataoecd/26/53/34646189.pdf>.

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multiple products but the predation is alleged to have targeted only a subset of the products.⁴⁰

3. *Comparison between cost measure and price*

a) Measuring the price charged by the dominant firm

82. Determining the relevant “price” to be used in an assessment of alleged predation also involves judgments and may be complex.⁴¹

83. As a practical matter, “price” as viewed by practitioners is often the same as incremental or marginal revenue. This is a useful measure in the context of price-cost tests, because profit sacrifice occurs when marginal revenue is less than marginal cost. However, it is important to note that recorded transaction prices may not equal marginal revenue,⁴² especially when there are follow-on sales or sales arising from complementary goods. In these situations firms may “appear” to be selling at a loss on an individual product when they are actually profit-maximizing over a suite of products (e.g., with loss-leaders in a retail setting) or over a longer time horizon (e.g., where a promotion is expected to result in follow-on sales).

⁴⁰ IIIA Philip E. Areeda & Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application*, at 238 (3d ed. 2008).

⁴¹ See Patrick Bolton, Joseph F. Brodley, Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 Georgetown L.J. 2239, 2253 (2000).

⁴² Specific techniques for estimating marginal revenue are beyond the scope of this chapter.

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- b) Comparison between the cost measure and the dominant firm's price

84. In order to determine the cost-price relationship, a competition authority must determine the relevant time period over which to measure activity. The relevant time period most commonly used is the time frame during which the predatory pricing allegedly occurred (or is expected to take place, if still continuing).⁴³ That time period may be inappropriate, however, if it is too short or episodic to result in the exclusion of competitors from the market.
85. It may also be necessary to identify the range of products to be included to determine cost and price. Some cases examine cost and price data over all products in the same product line as the product that was involved in the allegedly predatory transactions. This practice may be designed to disregard sporadic sales below cost that may simply reflect vigorous competition and that are not necessarily exclusionary. Some other cases, however, may entertain allegations of predation targeting products that are narrower than an entire product line.
86. Similarly, even where the “product” or “product line” is settled, jurisdictions vary as to the volume to be considered for purposes of the cost-price comparison. Some jurisdictions examine the predator’s total sales of the product at issue.⁴⁴

⁴³ OECD Policy Roundtables Predatory Foreclosure (2004), DAF/COMP (2005) 14, p. 233, available at <http://www.oecd.org/dataoecd/26/53/34646189.pdf>.

⁴⁴ Report on Predatory Pricing, International Competition Network, Unilateral Conduct Working Group, Presented at the 7th Annual Conference of the ICN, Kyoto, April 2008, <http://www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf>.

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Other jurisdictions, however, have focused on the incremental sales made by the dominant firm.⁴⁵

87. Finally, the cost-price comparison may be complicated in case of complementary products. If two products are complementary (e.g., they are two components of a single system), the price of both together as a combination may need to be considered in determining whether the dominant firm priced below its costs. The structure of a market involving complementary goods may result in competition compelling the pricing of one product below cost while the price of the package remains above cost.

F. Conclusion

88. Predatory pricing cases are challenging to investigate and are difficult to prove. A finding of predation requires an authority to set aside near-term consumer benefits (lower prices) based on a conclusion that those benefits are temporary and likely to result in longer-term competitive harm. While the former are certain, the latter may not be certain yet, and although the various price-cost tests discussed above may help an authority make that determination, they may be difficult to apply in practice.
89. When assessing a predatory pricing claim, it is important to have a clear view of the theory of harm, specific to the case being considered. The circumstances of each case will vary and previous cases can only give limited guidance. It is also important, as in all antitrust cases, to fully understand how competition works in

⁴⁵ *Id.* (citing *United States v. AMR Corp.*, 335 F.2d 1109, 1116 (10th Cir. 2003)).

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the relevant market or markets that are the subject of the investigation.

Discussions with the dominant firm and other industry participants may be important in helping to clarify both the nature of the market, the rationales behind participants' pricing strategies, and practical considerations that may affect the investigation, such as how price and cost data are kept by the dominant firm. This may enable information requests to be tailored more precisely, which may encourage cooperation and help ensure that the authority is able to collect information that is useful.

90. Another important point to keep in mind is the mechanism by which allegedly predatory prices cause harm to rivals or potential rivals, and therefore, theoretically, to competition. If the dominant firm lowers price but does not alter output, for example, harm is unlikely (unless demand has significantly declined). Some customers will get less expensive products, but because the dominant firm does not alter output, no rival will be foreclosed. Of course, the alleged predator will not usually keep its output fixed—it will instead likely expand output at the lower price, which can foreclose rivals. However, the exercise of thinking about the injury to competition flowing not from lower price by the dominant firm, but rather from high output, helps focus on the correct costs to consider in any price/cost test for predatory pricing.
91. So that a meaningful price-cost comparison can be made, it is important to establish exactly which costs are directly related to the product or products in question (direct costs) and hence will be included in a narrowly defined cost test.

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The extent to which costs are variable and over what period is also highly relevant once the suspected period of predation is decided. Linked to this is the question of shared costs and the methods used for cost allocation, where some costs have been allocated. Firms employ various cost allocation methods for various purposes, and many are inappropriate for the agency's analysis. Cost allocation systems, however, are useful when they are designed especially to support pricing decisions or the allocation of mobile resources.

92. Determining whether particular categories of cost should be included may be an important element of the cost test and may ultimately determine the outcome of the case. It is therefore important to consider each category of cost carefully.
93. When costs are allocated, different allocation methods might be used, and alternative allocation methods may be used to test the reasonableness of a cost allocation method that is ultimately chosen. This can allow analysis to be more focused on the cost items that are more relevant for the chosen cost test.

III. Evaluating Competitive Effects

94. As noted, establishing that a dominant firm is pricing below some appropriate measure of its costs may not, by itself, establish that the firm's conduct is causing or will cause harm to competition. It may also be necessary to establish that a

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dominant firm's conduct is likely to result in anticompetitive effects before such conduct is condemned as predatory.⁴⁶

95. There are different approaches in the various jurisdictions with regard to what specific types of (likely) effects need to be demonstrated. Some jurisdictions may assess the likely detrimental market effects of allegedly predatory conduct in an overall assessment, taking into account all the relevant factors. In others, establishing (likely) detrimental market effects can be a specific legal requirement for a finding of liability. There may also be an explicit requirement to establish the likelihood of recoupment or to demonstrate likely consumer harm. Even where these factors are not legal requirements, they may be considered as factors in an overall assessment or evidence of the absence of such effects may be relevant.
96. In either case the question will be whether the dominant firm will be able to exploit market power once its competitors have exited the market or been substantially diminished in their ability or willingness to compete as a result of the dominant firm's below-cost prices.
97. This section begins by describing the possible anticompetitive effects of predation, both in the market where predation occurs and potentially in other markets. It then discusses recoupment, and consumer harm.

⁴⁶ In some jurisdictions prices below a relevant measure of the dominant firm's costs are presumed to be anticompetitive and no separate analysis of effects is required. In other jurisdictions (or, in some cases, where the presumption is not met) it is necessary to evaluate whether the dominant firm's low prices are likely to result in harm to competition before a violation may be established.

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A. Anticompetitive Effects of Predation

1. Effects in the market in which predation occurs

98. There are two stages to a successful predatory pricing scheme, as traditionally described. In the first stage—the “predation” stage—a dominant firm charges below-cost prices which force competitors to exit the market, discipline them, drive them to become less effective competitors, or preclude entry altogether. During the second stage—the “recoupment” stage—the dominant firm increases prices to supra-competitive levels (or reduces quality, service or innovation), recouping its losses from the predatory stage and earning profits higher than what it would have earned in a competitive market. Recoupment is only possible if the predation results in the exclusion, foreclosure or disciplining of competitors.
99. Actual competitors are not likely to be foreclosed from the market as a result of a dominant firm’s low prices unless those prices result in a significant shift in sales from the alleged prey to the alleged predator. If the dominant firm does not have sufficient available capacity to absorb the sales of its rivals, a predatory pricing strategy will not succeed.
100. Foreclosure may also depend on the nature of competition. For example, if the elasticity of demand is low or products are highly differentiated, a price cut might result in few sales shifting to the dominant firm, reducing the likelihood that rivals will exit the market. However, smaller shifts of sales may be sufficient in some markets to support a predatory pricing strategy, such as in markets characterized by economies of scale or where network effects are important, in which a

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relatively small reduction in sales may have a disproportionate impact on the viability of rivals.

101. Foreclosure may occur if the dominant firm's prices enhance its market power by deterring entry. For example, by temporarily lowering its price a predatory firm may establish a reputation for having very low costs, which could deter entry or expansion by rivals that believe that they cannot compete against such a firm. An agency may therefore wish to consider whether the alleged predator is likely to be able to establish such a reputation. For example, if the relevant market is not characterized by information asymmetries—meaning that the alleged predator's actual costs are observable by the prey—such a strategy is not likely to be successful.

2. Effects in an adjacent/related market

102. A firm's alleged predation in one market could have effects in adjacent or related markets in the case of a multi-market firm. For example, the "reputational effects" discussed above may deter potential rivals from entering or expanding in other markets in which the dominant firm is or may be present in the future.
103. A predatory pricing strategy may be economically successful for the dominant firm if it is able to recoup its "investment in predation" in a relevant market other than the market in which it incurred the short run loss, even if it cannot recoup its loss in that latter relevant market. Suppose that a firm has substantial market power in market A but not in market B. By charging below-cost prices in market B, the firm could weaken or exclude competitors who might otherwise have used

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their presence in market B as a base from which to enter market A. If this deterrence protects the firm's market power in market A, predation may be a rational strategy even if there is no prospect of recoupment in market B. In this situation the sacrifice would occur in one market (market B) and the recoupment in a different market (market A).

104. Such a strategy of “defensive leveraging” is more likely to succeed where there is a close relationship between the two markets involved. For example, the theory assumes that a successful competitor in market B would be particularly well-placed to challenge the alleged predator's dominant position in market A. This might be the case if there are significant economies of scope between the two markets, for example, if there are overlapping customer bases, or if the relevant product is the same and it is a question of the competitor entering a geographic area where the alleged predator has historically been dominant. The authority might also need to demonstrate that there is a causal link between the two markets such that the sacrifice in market B is made possible by profits made as a result of the predator's continued dominance in market A.

B. Recoupment

1. Introduction

105. In some jurisdictions, the assessment of the likelihood of recoupment may be explicitly required in order to establish predation. A recoupment analysis asks whether the dominant firm will be able to recoup its short run “investment in predation” by raising prices over the longer run. If recoupment is likely,

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- competitive harm is also likely. If recoupment is not likely, competitive harm may be considered also unlikely.
106. In some other jurisdictions there is no explicit requirement to establish the likelihood of recoupment but a similar analysis is necessary to establish dominance as a pre-condition for proving predation, which might also be viewed as indicating that recoupment is likely. In either case the key question will be whether the dominant firm will be able to exploit market power once its competitors have exited the market or been substantially weakened as a result of the dominant firm's below-cost prices.
107. In jurisdictions that assess the likelihood of recoupment, it can in some cases serve as a useful and efficient investigatory screen. For example, if recoupment is highly unlikely because barriers to entry are very low, such that any additional market power wielded by the dominant firm is likely to be fleeting, it may be possible for the agency to dispose of the matter quickly, without having to conduct a complex quantitative analysis of the dominant firm's prices relative to its costs. Similarly, an assessment of dominance may also provide such a screen, as low barriers to entry may prevent a firm from being considered dominant.
2. Assessing the likelihood of recoupment
 - a) Quantitative approaches present significant challenges
108. Assessing whether recoupment is likely might entail comparing the dominant firm's sacrifice during the period of predation with the additional profits it is

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- likely to earn once exclusion has taken place. In practice, however, such a comparison is difficult to perform.
109. Such a calculation might involve some sort of discounted-cash-flow analysis. The additional profits expected in each year in the future might be discounted by an appropriate interest rate, for example, and the sum of these discounted cash flows could be compared with the sacrifice the dominant firm incurred during the predation stage (also discounted at the appropriate interest rate). However, determining the appropriate interest rate for such calculations is not likely to be a straightforward task; for example, it is often a subject of intense debate in litigation involving the calculation of damages.
110. Even if an appropriate interest rate can be determined, both the sacrifice and the additional future anticipated profits will be difficult to quantify. Determining the amount of the sacrifice, for example, requires an agency to determine what the “counterfactual” price level—the prices that would have been charged in the absence of predation—is, which may not be possible. For example, the alleged predation may be a response to new entry that has altered the dynamics of the market and would therefore inevitably have led to a change in prices.
111. Calculating future prices and profit levels for the recoupment phase may also be difficult. There may be uncertainty over how prices might develop in the future if the incumbent establishes or enhances its market power, for example.
- b) Qualitative approaches may be more practical

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112. Although a quantitative assessment of the likelihood of recoupment presents significant challenges, qualitative factors can often be examined in order to establish whether recoupment is likely. Through such an examination, the likelihood of recoupment may be used as an enforcement screen, either as part of an initial competitive effects analysis or as part of the required assessment of the alleged predator's dominance or monopoly power, enabling agencies to resolve relatively easily those cases of alleged predatory pricing where recoupment is not likely, such as in industries not characterized by high barriers to entry, as discussed below.
113. If the authority conducts its investigation after rivals have exited the market and if there is evidence that the alleged predator has raised prices to supra-competitive levels, it may be possible to determine from that available direct evidence whether the dominant firm is likely to recoup the losses that it incurred during the predation stage. However, in most cases agencies will seek to intervene before rivals have exited the market, or the existence of an investigation may deter the dominant firm from raising prices despite having sufficient market power to do so. The analysis therefore often requires the agency to predict whether recoupment will occur in the future, or whether it is likely to occur.
114. To conduct this prospective assessment, the agency may be able to rely on the dominant firm's own assessment of the market to help it determine whether recoupment is likely. For example, if the company's contemporaneous business documents indicate that it set its low prices with the intention of driving out rivals

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and an expectation that it would be able to recoup its short-run losses after its rivals had exited the market, such documentary evidence may be given particular weight by the agency.

115. Other qualitative factors that may indicate whether recoupment is likely should be examined. For example, because the period of predation will affect the likelihood of recoupment, the agency should determine how long the alleged predatory strategy has been in effect. A longer period of predatory conduct will produce a larger profit sacrifice and the larger the sacrifice, the more challenging it will be for the company to recoup the losses.
116. A traditional market power assessment will also be useful, because recoupment will only be possible if the predator is able to raise prices to supra-competitive levels after the period of predation has ended, which will be possible only if the predator possesses significant market power. The agency may therefore need to consider the factors that are part of any conventional assessment of market power, such as market definition, market shares, potential competition, and buyer power. These issues are discussed further in Workbook Chapter 3 on the assessment of dominance.
117. A key element of a recoupment analysis is the existence or absence of entry or re-entry barriers. Where *barriers to entry* are low, future entrants might undermine the predator's recoupment efforts, as a result of which the predator will be unlikely to sustain supra-competitive prices for a sufficient period of time to recoup its "investment in predation." The likelihood of such an outcome may also

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- make predation unlikely in the first instance. If *barriers to re-entry* by competitors that have exited the market are low—for example, if the prey’s assets remain in the marketplace and can easily be reactivated or switched back by the prey or its successors to produce the relevant product—recoupment will be frustrated and the dominant firm’s predatory pricing strategy likely will not be successful.⁴⁷
118. It may also be relevant to consider the impact of the alleged predatory behaviour on future competition—for example whether the reputational or signalling effects discussed above will deter potential competition that might have existed in the absence of the predatory strategy.

C. Anticompetitive Effects and Consumer Harm

119. In some jurisdictions the establishment of consumer harm may be an important factor of the overall assessment of a case. Predation potentially has two effects on consumers. During the initial predation stage consumers will benefit from lower prices and higher output. However, during the recoupment stage, if predation is successful, they will be charged prices above the competitive level and output will be below the competitive level. In practice it may be difficult to weigh these two effects against each other. Instead consumer harm might be inferred from the

⁴⁷ Access to capital to support entry or re-entry and to endure a predatory phase may also be a factor to consider. For example, the entrant or re-entrant may not have access to internally generated resources or its creditors may make further financing conditional on positive short-term cash flows. The financial markets may also not be able to discern whether poor short-run performance by the entrant is due to a predatory strategy by the dominant firm, inefficiencies on the part of the entrant, or even simple managerial incompetence. Without such information, lenders may be unwilling to support the prey during a period of loss.

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ability of the predator to exploit market power and raise prices significantly following predation.

120. Predation might be found to lead to consumer harm directly if it has led to the foreclosure of competition and higher prices (or some other exercise of market power). This harm could be harm to final consumers or to intermediate customers. However, in most cases intervention occurs before such effects have occurred. The likelihood of consumer harm is then inferred indirectly if predation is expected to eliminate or dampen competition to the detriment of consumers. Inferring consumer harm through the effects of predation on the competitive process has the benefit of allowing action to force the predator to end the conduct before consumer harm is inflicted.
121. Such an assessment may be analogous to the assessment of recoupment discussed above, since it involves establishing that the long-term impact of the conduct will be higher prices. However, strictly speaking the analysis here is addressing a different question: the impact on consumers rather than the impact on the firm's profits. Conduct may lead to consumer harm even if recoupment is not feasible: consumers might be harmed by higher prices in the future even if the price increase is not large enough to allow the firm to recoup its sacrifice. This is because the harm to consumers includes both the transfer from consumers to the predator (which equals the impact on the predator's profits) and the deadweight loss from lower output. The negative impact on consumers will therefore be greater than the positive impact on the firm's profits. Nevertheless, where

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information is limited and a qualitative assessment is made the same evidence might be relied on to address both questions.

IV. Intent

122. As explained in the Introduction, the theory of competitive harm that arises from predatory pricing is that by incurring short-run losses through below-cost pricing, the dominant firm will force competitors to exit the market or deter entry and expansion by competitors, thereby increasing or maintaining its market power in the long run. Consumer harm results when the predator uses that market power to charge supra-competitive prices or reduce output. As noted, the difficulty lies in distinguishing aggressively low prices that benefit consumers, and which competition law encourages, from those situations where low prices in the short-run will result in harm to consumers in the long run.
123. Because there may be a variety of reasons for pricing below cost other than predation, and because of the many difficulties in determining whether pricing is in fact below the relevant measure of cost, examining the intent or rationale behind a particular pricing strategy is one tool that may be used to distinguish between low pricing which will ultimately injure or deter competition and pricing that is aggressive but lawful. Many competition agencies consider the absence or presence of predatory intent relevant, albeit in varying ways, to an assessment of predatory pricing. This section of the Chapter discusses the specific circumstances in which an assessment of the dominant firm's intent may be relevant to the determination of whether the firm's pricing is predatory.

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124. Since caution and care must be taken when distinguishing between aggressive but healthy competition on the merits and predatory behaviour, this Section also discusses the types of evidence or behaviour that may properly be considered evidence of predatory intent.

A. When is Intent Relevant?

125. The relevance of evidence regarding predatory intent varies among jurisdictions and is based on factors such as the specific requirements of the applicable statute. For example, in some jurisdictions, evidence of the dominant firm's predatory intent may be a required component of a predatory pricing case. In other jurisdictions, evidence of intent may not be required but may still be relevant to establishing whether the dominant firm's conduct constitutes predation. Additionally, evidence regarding intent may be relevant when determining the penalties (if available) to be imposed upon the dominant firm.

126. Although different agencies may view the relevance of intent differently, there is general consensus that predatory intent *cannot* be the sole basis for a finding of predatory pricing. That is, the objective conditions for predatory pricing must also be met.

127. The relevance of intent may also vary depending on the relationship of the dominant firm's costs to its allegedly predatory prices. For example, as discussed above in Section II, pricing above average total cost is often considered not to be predatory and in many jurisdictions may even fall within a safe harbor. Evidence

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- regarding the intent of a firm that prices above ATC is therefore not likely to be relevant in such jurisdictions.
128. Evidence of intent may also be relevant when assessing the validity or credibility of any justifications or defences (discussed in Section V below) offered by the dominant firm.
129. When pricing is above AVC but below ATC, evidence regarding predatory intent may be particularly important (or even required in certain jurisdictions) in assessing the legality of a dominant firm's pricing strategy. It is generally accepted that pricing within this range, particularly for short-run periods, could be a rational and legitimate competitive strategy which does not constitute an abuse. If, however, there is evidence that the dominant firm's pricing was set at this level, not for procompetitive reasons (such as seasonal prices or because of the need to sell perishable inventory), but as part of a strategy to eliminate competitors, it may be more likely that prices above AVC but below ATC may be considered predatory.

B. Evidence of Intent

1. Evidence of intent to eliminate rivals insufficient
130. It is well-recognized in competition law that a desire to harm competitors is commonplace and may be entirely consistent with aggressive but otherwise healthy competition. Firms often reduce prices in their pursuit of sales or revenues and this pursuit is often intended to come at the expense of one's competitors. An OECD Competition Committee Roundtable Report has thus

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recognized that evidence of a general desire to eliminate one's competitors is not particularly useful in proving the presence of predatory intent.⁴⁸ Accordingly, predatory intent requires more than merely aggressive competition on the merits and a desire to succeed at the expense of one's competitors.

2. Sources of evidence

131. A review of a company's internal documents regarding the rationale for a particular pricing plan or approach may be helpful in assessing predatory intent. Subjective statements that, for example, the dominant firm intends to engage its competition in a "price war" or that its pricing strategy will "crush" or "kill" rivals, may be a starting point for proving intent. However, as colorful hyperbole and aggressive language about competitors is common in business documents, one should carefully assess the significance of such statements. The more corroboration they have, e.g. by a qualitative analysis of the expected impact of the pricing strategy, the more persuasive it is as evidence of predatory intent. For example, in the late 1990s in Canada, one retail gasoline company's promise to meet or beat competitors' prices precipitated a series of price wars between several retail gas companies. The Canadian competition authority ultimately concluded that intent to engage in a "price war" was insufficient to establish predatory intent.

⁴⁸ Competition Committee, Directorate for Financial and Enterprise Affairs, Roundtable Report on Predatory Foreclosure, at 30 (Mar. 2005), *available at* <http://www.oecd.org/dataoecd/26/53/34646189.pdf>

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132. Similarly, a statement by an allegedly predatory firm that its “prices are unrelated to its costs” could be read to suggest that the firm is pricing predatorily.

However, such statements could also have benign interpretations. For example, a statement that the firm’s prices are not related to its costs may simply mean the firm is a “price taker” that must sell at the market price regardless of its own costs. Where there is perfect competition, such a firm must still sell at the going competitive price (regardless of its costs) or business will simply be lost to other competitors. Accordingly, a firm’s statement that “prices are unrelated to costs” could simply mean it is acting as a competitor in setting its prices.⁴⁹ As such, purely subjective statements without any empirical analysis of the potential impact of the firm’s pricing strategy should be viewed with caution as evidence of any predatory intent.

133. In contrast, documents containing some form of objective analysis of the impact of the pricing in question are more likely to be relevant to the issue of predatory intent. For instance, detailed business plans containing a firm’s projections or calculations regarding the likelihood that its below-cost pricing will result in the elimination of a particular competitor or competitors and its eventual ability to recoup its short-run losses are likely to be far more relevant to the question of predatory intent than mere statements that the company hopes to “kill the competition.”

⁴⁹ See the explanation in *A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc.*, 881 F.2d 1396, 1401-02 (7th Cir. 1989), although the explanation is given in arguing that intent is not a useful consideration in predatory pricing litigation.

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134. In a leading European Union case,⁵⁰ predatory intent was established with internal company documents showing a detailed plan of the dominant firm to foreclose rivals. The logic of the strategy was made clear in a note written by the dominant firm's strategic management indicating that the firm's objective was to gain a dominant market position and recognizing that profitability would only come later. Apart from the note, there were also formal and detailed management-level presentations and corporate planning documents referring to the company's intention to pre-empt competition through its pricing strategy. This evidence was reinforced by documents demonstrating the dominant company's recognition that its strategy of unprofitable prices was not economically sustainable for its competitors.
135. In another leading European Union case,⁵¹ records of the dominant firm's meetings evidencing direct threats made by the dominant firm to the targeted competitor to withdraw from the market was a relevant factor showing the dominant firm's predatory intent. Those records described clearly the measures that the dominant firm intended to take if the targeted company continued to compete—for example, that the firm was willing to undercut prices in one market to maintain its position in another market.

⁵⁰ T-340/03, *France Télécom SA v. Commission*, Court of First Instance (C.F.I.) (30 January 2007), confirming the Commission Decision COMP/38.233 *Wanadoo Interactive* (July 16, 2003). A later appeal of the Court of First Instance decision was dismissed.

⁵¹ *AKZO Chemie BV v Commission of the European Communities*, C-62/86, [1991] E.C.R. I - 03359 (E.C.J.) reversing on other grounds *ECS/AKZO Chemie* of December 14, 1985, Case IV/30.698, 1985 O.J. L374/1.

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136. Because direct evidence of intent, such as documents or witness testimony, is not always available or reliable, many jurisdictions may infer intent from the company's conduct. For example, in a Canadian case, the court inferred predatory intent in part based on the magnitude of the price reductions and the disproportionately significant losses incurred from pricing reductions in order to prevent the loss of a lesser amount of sales to the competitor that was being targeted.

V. Justifications and Defenses

A. Introduction

137. When considering a predatory pricing case, agencies may examine whether the conduct of the dominant firm may be objectively justified or whether a defense might apply.⁵²
138. There are numerous reasons why a dominant firm might choose to forgo short-run profits, other than in support of a predation strategy, or where pricing below cost is not about foregoing profits but about minimising short run losses and thus not predatory in the first place. Such justifications for below-cost pricing include promotional pricing, pricing in response to a downturn in demand, pricing in order to penetrate a new market, pricing in order to increase sales and achieve greater economies of scale, and pricing to balance the two sides of a two-sided market.

⁵² A limited number of jurisdictions do not permit justification or defenses for predatory conduct. See ICN Report on Predatory Pricing, presented at the seventh annual conference of the ICN, Kyoto, April 2008 at page 26.

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139. Jurisdictions may permit certain defenses for below-cost pricing by dominant firms that might otherwise be considered predatory. For example, a “meeting competition” defense may allow a dominant firm to match a competitor’s lower price even when it may be necessary for the dominant firm to charge below-cost prices in order to do so. An agency may also determine that the dominant firm’s pricing conduct is permissible under an “efficiencies” defense, if the resulting efficiencies are passed on to consumers and outweigh the conduct’s negative effects on competition.
140. Justifications and defenses go to the issues of whether pricing found to be below a measure of cost is appropriately viewed as predatory pricing and appropriately found to be detrimental to consumer welfare. The need for justifications and defenses therefore depends on the price-cost test applied, both as to which measure of cost is used, and how it is used, e.g., to establish a presumption that prices are predatory. The issues discussed in this section, however, are of potential relevance in all predatory pricing investigations, and they can be appropriately addressed early in an investigation as well as after the agency has established a prima facie case of predatory conduct by finding pricing below cost.
141. For the purposes of discussion, the examples provided in this section are discussed primarily as affirmative defenses to a finding of predation, and thus as a second analytical step following such a determination. This is done for ease of illustration, and without prejudice to the possibility that an agency may examine justifications/defenses earlier in its analysis.

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B. Objective Justifications

142. Agencies may consider certain objective business justifications put forward by dominant companies to rebut a charge of anticompetitive predatory pricing.
143. Conduct giving rise to an objective justification is generally that which is economically rational for the dominant firm and for any other firm in the market facing the same conditions, and this wholly apart from any anticompetitive or exclusionary effect it may have. Such conduct, although it may entail pricing below some measures of cost, does not forego short-run profits (make a sacrifice) but rather minimizes losses in the short and long run, for instance in responding to adverse economic conditions.
144. Such conduct will either not harm consumers or will tend to benefit consumers in the short-term through lower pricing and may also result, in the long-term, in improved consumer and economic welfare.
145. Examples of objective justifications for below-cost pricing include:
- Promotional pricing (or “give-aways”). This could potentially include the promotion of a new product, involve the sale of one good cheaply to entice customers into a store (an “incentivizing price”), or the re-launch of an established product.⁵³
 - Seasonal pricing. This could also include using lower-than-normal prices to incentivize buyers to make out-of-season purchases for seasonal goods or services.
 - Minimizing potential losses as a result of unexpected changes in market conditions. These actions may include selling excess, obsolete, or perishable

⁵³ It should be noted that this objective justification is unlikely to be successful if the test for the predatory pricing offence includes a profit-sacrifice requirement.

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products at prices below a measure of cost to minimize losses or responding to a sudden down-turn in demand. In this situation it may be considered that variable production costs have already been sunk, and the avoidable cost is zero. Therefore, any return on the sale of these goods will be a benefit to the dominant firm.

- Responding to a down-turn in demand in order to remain active in the market. This might include taking a loss by pricing below costs in order to maintain existing customers, marketing channels, distribution routes, or an ongoing subsidiary for the resumption or future expansion of production if and when market conditions change.
- Economies of scale or network effects. For example, it may have been rational to sell the first fax machines below cost in order to build up a network of customers that will then attract further customers who are willing to pay above marginal cost. As noted, however, it may not be plausible for an already-dominant firm to justify pricing below its costs in order to develop a customer base or otherwise take advantage of scale economies and network effects.
- “Learning by doing.” It may be necessary for a firm to produce a certain minimum number of units in order to achieve operational efficiency, regardless of whether it can sell such units at a price that covers its costs of producing them.
- Two-sided markets. For example, a newspaper may choose to sell its publications below cost in order to increase circulation, with the aim of covering its costs through higher advertising rates.
- The product at issue is part of a system—where one product forming part of the system is not profitable but the firm may recover its losses by charging higher prices on other components in the system. For example, a manufacturer of razors may decide to sell its razor handles below cost with the aim of recouping its losses by charging significantly above cost for the complementary razor blades.

C. “Meeting Competition” & “Efficiency” Defenses

146. In some jurisdictions, an agency may consider “meeting competition”—whereby a dominant firm matches a competitor’s price, even if below cost, as permissible on the basis that such pricing conduct is in fact not predatory.

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147. The “meeting competition” defense raises significant administrability concerns. For example, it may not be clear whether the dominant firm’s below-cost prices are “meeting” the competitor’s price if the two firms’ products are differentiated. Also, factors other than price may be relevant to an assessment of whether the dominant firm’s prices “meet” the competitor’s price. To provide effective competition, for example, the dominant firm will likely want to meet the competitor’s offer in its entirety, which may require taking into account the prices of supplementary services such as product maintenance or customer services, depending on how those services are priced. Determining whether the dominant firm’s prices are below its costs and whether they meet the competitor’s comparable prices in such a situation, or whether they go further than necessary to “meet” competition, is often a complex task.
148. Another question raised by the “meeting competition” defense is whether a dominant firm may be permitted to charge below-cost prices that “beat” competition”—that go further than “meeting competition.” This “meet or beat” question is addressed in some jurisdictions by recourse to a proportionality requirement, which permits the dominant company only to take such reasonable steps as are necessary to protect its commercial interests, provided that such steps are proportionate to the threat.⁵⁴

⁵⁴ For example, the EU, France and Singapore. However, in the EU it has been recognized that meeting competition is not an affirmative defense (see, for example, Case T-340/03 *France Telecom SA v Commission* [2007] All ER (D) 305).

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149. The proportionality standard may help agencies balance the need to prohibit exclusionary conduct with the need to promote (or not discourage) competition. For example, a new market entrant might offer prices that are: (i) lower than those of the dominant firm; (ii) above its own costs but; (iii) below the costs of the dominant firm. It might not be considered proportionate for the dominant firm to respond by matching its prices with those of the new entrant simply because it has sufficient financial resources to sustain a prolonged period of below-cost pricing if this could have the effect of excluding a more efficient firm from the market. The proportionality standard could be used in such a case when the dominant firm minimizes its short and long run losses.
150. Certain jurisdictions assess the intent of the dominant company in deciding whether to consider a “meeting competition” defense in a particular case. In the EU, if a dominant firm’s intention in lowering its price is to eliminate its competitors or to enhance its dominant position, rather than to compete on the merits, the defense may not be successful.⁵⁵ As discussed above in Section IV, the dominant firm’s intent may be proven through an analysis of its internal business documents and its public statements made at the time of the alleged predatory behaviour. Agencies taking these matters into account may wish to require the firm in question to show that it took the measure in good faith in order, for example, to keep its regular customers and minimize its losses.

⁵⁵ For example, see Case C-26/76 *United Brands v Commission* [1978] E.C.R. 207 or Case C-62/86 *AKZO Chemie BV v Commission* [1991] E.C.R. I-3359.

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151. Some jurisdictions are unlikely to accept a “meeting competition” defense. For example, in its appellate brief in *United States v. AMR Corp.*, the U.S. Justice Department 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.”⁵⁶ As the federal district court in the *Spirit Airlines* case stressed, “[a]lthough [the Supreme Court’s] Brooke Group [predatory pricing decision] 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.”⁵⁷
152. Finally, unilateral conduct laws generally admit an efficiencies defense, which typically applies only to conduct that enhances consumer welfare. When a dominant firm’s pricing is found to be predatory through the application of price-costs tests and the full consideration of both likely competitive effects and justifications, the viability of an efficiencies defense is very limited. The dominant firm likely would have to show that prices will be lower under monopoly than they had been under competition, and even such a showing would be insufficient in some jurisdictions.

⁵⁶ 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/atr/cases/f9800/9814.pdf>.

⁵⁷ *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).