

Rethinking Antitrust Damages

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Antitrust law currently lacks a unified theory of liability and damages.¹ But the Supreme Court's recent acceptance of consumer welfare as the goal of antitrust law² underscores a growing judicial inclination to construe antitrust liability rules to encourage efficient production and efficient resource allocation.³ As the Court reconstructs the law of antitrust liability,⁴ it should also revise the law of antitrust damages⁵ by defining the rights created by those damage measures to accomplish specific economic goals.⁶

1. Antitrust law therefore invites the same criticism today that contract law invited in 1936—that it attempts to manipulate legal concepts of damages “without the orientation which comes from the simple inquiry: toward what end is this activity directed?” Fuller & Perdue, *The Reliance Interest in Contract Damages*, pt. 1, 46 YALE L.J. 52, 52 (1936). See also Page, *Antitrust Damages and Economic Efficiency: An Approach to Antitrust Injury*, 47 U. CHI. L. REV. 467 (1980).

2. See, e.g., *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (Burger, C.J.) (“Congress designed the Sherman Act as a ‘consumer welfare prescription.’”) (quoting R. BORK, *THE ANTITRUST PARADOX* 66 (1978)); *Continental T.V., Inc. v. GTE Sylvania, Inc.* 433 U.S. 36, 51 n.18, 54–56 (1977) (cites Bork and Posner as authority), Baxter, *Placing the Burger Court in Historical Perspective*, 47 ANTITRUST L.J. 803, 814–18 (1979). For a summary of the key ideas of the Chicago School, see Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 925–28 (1979).

Some antitrust scholars argue that the proper goals of antitrust law include noneconomic concerns. See, e.g., Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051 (1979); Sullivan, *Economics and More Humanistic Disciplines: What Are the Sources of Wisdom for Antitrust?*, 125 U. PA. L. REV. 1214 (1977); Scherer, Book Review, 86 YALE L.J. 974, 980–81 (1977) (reviewing R. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* (1976)).

3. Allocative efficiency “refers to the placement of resources . . . in tasks where consumers value their output most.” R. BORK, *supra* note 2, at 91 n.*. Productive efficiency “refers to the effective use of resources by particular firms.” *Id.*

4. E.g., *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 47–59 (1977) (returning to rule of reason analysis of vertical territorial restrictions).

5. The Court has already stressed the necessary causal relationship between liability and damages in antitrust law: “[T]o recover treble damages . . . [p]laintiffs must prove *antitrust* injury, which is to say injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants’ acts unlawful.” *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977) (emphasis in original); cf. Areeda, *Antitrust Violations Without Damage Recoveries*, 89 HARV. L. REV. 1127, 1139 (1976) (“an antitrust damage assessment cannot be divorced from thoughtful attention to the rationale for liability and the internal logic of the liability holding”).

6. The Court unquestionably could undertake such a redrafting since the Sherman Act essentially authorized the federal courts to draft a common law of competitive rights. See *National Soc’y of Professional Eng’rs v. United States*, 435 U.S. 679, 688 (1978) (“The legislative history [of the Sherman Act] makes it perfectly clear that [Congress] expected the courts to give shape to the statute’s broad mandate by drawing on common-law tradition.”); Berkey

Section 4 of the Clayton Act⁷ supplements criminal antitrust sanctions⁸ by awarding successful private plaintiffs three times the amount of their injury. The purposes of treble damages are twofold: to compensate plaintiffs for their injury and to punish the defendant in order to deter future violations.⁹ Unfortunately, courts construing section 4 have assumed that all antitrust violations cause essentially the same kind of competitive injury. They have, therefore, computed damages for different classes of anticompetitive behavior by the same method, regardless of whether deterrence and compensation are economically justified. But the economic injury that a firm causes consumers by exploiting market power differs intrinsically from the injury it causes competitors by obtaining, maintaining, or expanding that market power.¹⁰ Consequently, both the rationale for assessing

Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 272 (2d Cir. 1979), *cert denied*, 444 U.S. 1093 (1980); *George R. Whitten, Jr., Inc. v. Paddock Pool Builders, Inc.*, 508 F.2d 547, 559 (1st Cir. 1974); *United States v. United Shoe Mach. Corp.*, 110 F. Supp. 295, 348 (D. Mass. 1953) (Wyzanski, J.), *aff'd per curiam*, 347 U.S. 521 (1954) ("In the anti-trust field the courts have been accorded, by common consent, an authority they have in no other branch of enacted law."); *United States v. Associated Press*, 52 F. Supp. 362, 370 (S.D.N.Y. 1943) (Hand, J.), *aff'd*, 326 U.S. 1 (1945) ("Congress has incorporated in the Anti-Trust Acts the changing standards of the common law, and by so doing has delegated to the courts the duty of fixing the standard for each case."); 21 CONG. REC. 2456, 2460 (1890) (remarks of Sen. Sherman). See generally 1 P. AREEDA & D. TURNER, ANTITRUST LAW ¶ 106 (1978). Moreover, the Supreme Court has construed this authority to possess nearly a constitutional breadth. *Sugar Inst., Inc. v. United States*, 297 U.S. 553, 600 (1936); *Appalachian Coals, Inc. v. United States*, 288 U.S. 344, 359-60 (1933). See also *Vendo Co. v. Lektro-Vend Corp.*, 433 U.S. 623, 647 n.5 (1977) (Stevens, J., dissenting) (quoting *Appalachian Coals*).

7. "Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor . . . without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee." 15 U.S.C. § 15 (1976). Section 4 of the Clayton Act superseded § 7 of the Sherman Act, ch. 647, § 7, 26 Stat. 210 (1890).

8. 15 U.S.C. §§ 1-2 (1976) (imposing criminal sanctions of fine or imprisonment).

9. *Pfizer, Inc. v. Government of India*, 434 U.S. 308, 314 (1978); *Illinois Brick Co. v. Illinois*, 431 U.S. 720, 746 (1977); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 485-86 (1977); *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 130-31 (1969). The Court has also characterized the deterrent two-thirds of the damage award as concurrently encouraging "private attorneys general" to augment public enforcement of the antitrust laws. *Illinois Brick Co. v. Illinois*, 431 U.S. at 746; *Hawaii v. Standard Oil Co.*, 405 U.S. 251, 262 (1972). But encouraging private enforcement is merely a means to achieve the objectives of deterrence and compensation. Cf. Block, Nold & Sidak, *The Deterrent Effect of Antitrust Enforcement* (article forthcoming in J. POL. ECON., 1981) (empirical evidence that private antitrust enforcement deters horizontal minimum price fixing).

To say that a certain part of the treble damage remedy serves specifically to compensate or to deter is misleading because, for the first third of the award, each dollar concurrently compensates and deters. Cf. Posner, *Retribution and Related Concepts of Punishment*, 9 J. LEGAL STUD. 71, 72-74 (1980) (clarifies confusion between legal and economic meanings of deterrence).

10. Professor Baxter apparently was the first to denominate and distinguish exploitative

antitrust damages and, as a corollary, the method for calculating their amount necessarily depend on whether the injurious behavior is *exploitative* or *expansionary*.¹¹

Although the view that antitrust law should seek to maximize consumer welfare has many adherents,¹² this note assumes that the antitrust laws should serve to maximize the wealth of society—that is, of both producers and consumers—rather than the wealth of consumers alone.¹³ Furthermore, the neglected law of antitrust remedies is as important to this goal as the law of antitrust liability. Part I of the note analyzes the consumer's economic injury from exploitative behavior and shows that, prevailing contrary opinion notwithstanding, the Clayton Act does not unambiguously establish a consumer right to be free from such injury. Because the prevailing interpretation may cause allocative inefficiency, Part I proposes a countervailing *producer's* right and a corresponding damage rule.

Part II analyzes the kind of injury that competitors suffer from expansionary behavior. It criticizes the competitor's right suggested by the current damage rule and proposes an alternative right and damage rule that would improve social welfare by enhancing productive efficiency. Part III proposes implementing the economic rights suggested in Parts I and II through a judicial test for calculat-

behavior and expansionary behavior, *see* note 21 *infra*, though no detailed explication appears in print. *See Banks and Bank Holding Companies*, 39 ANTITRUST L.J. 432, 448 (1970) (remarks of William F. Baxter) (compares "the process of *exploiting* an existing monopoly position, and [the] very, very different process of *investing in the acquisition* of a new monopoly position that one does not yet have") (emphasis in original). *See also* THE POLITICAL ECONOMY OF ANTITRUST: PRINCIPAL PAPER BY WILLIAM BAXTER 115-16 (R. Tollison ed. 1980) (remarks of William F. Baxter). Posner has drawn a similar, though not identical, distinction between *collusive* practices and *exclusionary* practices. R. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE 28 (1976) (collusive practice "involves cooperation between competing sellers . . . to raise the market price above the competitive level" whereas exclusionary practice is "a method by which a firm . . . having or wanting a monopoly position trades a part of its monopoly profits . . . for a larger market share").

11. *Cf.* Areeda, *supra* note 5, at 1127 ("[T]he desire to encourage private enforcement and to penalize antitrust violations is no excuse for awarding damages that are non-existent, inconsistent with antitrust policy, or unconnected with the true rationale for imposing antitrust liability."); Baxter, *supra* note 2, at 816 ("The *Brunswick* decision . . . will force the federal courts, at least at the damages stage, to articulate with precision those respects in which the defendant's conduct is anticompetitive.") (citing *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477 (1977)).

12. *See* 1 P. AREEDA & D. TURNER, *supra* note 6, ¶¶ 103-13; R. BORK, *supra* note 2, at 81-89, W. BOWMAN, PATENT AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL 6-7 (1973); *cf.* R. POSNER, *supra* note 10, at 4, 10-11 (proper goal of antitrust law is efficiency; any other goal causes consumer demand to be satisfied at a higher cost than necessary).

13. *See* Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103, 119 (1979).

ing antitrust damages that would severely restrict the availability of such damages.

I. CONSUMER INJURY FROM EXPLOITATIVE BEHAVIOR

One way monopolies cause economic injury is by exploiting pre-existing market power. This part reviews the economics of exploitative behavior, examines the prevailing court-created right of consumers to competitive prices, and argues that a social welfare standard requires a countervailing right of producers to efficient exploitation of their monopoly power.

A. *The Economics of Exploitative Behavior*

A monopoly, or a cartel—whose members jointly simulate the pricing decisions of a monopoly—can exploit its market power¹⁴ to earn greater profits than would competitive firms. Because it lacks market power, a competitive firm must sell its goods at their marginal cost.¹⁵ A monopoly or cartel, on the other hand, can sell at a price above marginal cost. This departure from marginal-cost pricing has two consequences, one of which affects the monopoly's customers, and the other, society as a whole.

Monopolistic pricing decreases the welfare of the monopoly's customers because, unlike customers of competitive firms, a monopoly's customers pay more for a good than its marginal cost. If the monopoly charges a single price to all its customers, it will exact profits—called "monopoly rent"—that are equal to the difference between the price it charges for its good and the competitive price, multiplied by the number of goods the monopoly sells. The monopoly rent, then, is the amount that consumers pay for the monopoly's good in excess of a competitive price.¹⁶ It denotes the producer's usurpation of a part of the value that consumers attach to a good beyond its

14. See F. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 11 (2d ed. 1980). See also *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 274 n.12 (2d Cir. 1979), *cert. denied*, 444 U.S. 1093 (1980); Lerner, *The Concept of Monopoly and the Measurement of Monopoly Power*, 1 *REV. ECON. STUD.* 157 (1934).

15. Marginal cost measures "for small changes in output" the degree to which a firm's "total variable cost changes per unit change in output." M. FRIEDMAN, *PRICE THEORY* 114 (2d ed. 1976).

16. Rather than producing q_c and pricing competitively at p_c , which would equal marginal cost at that output, the monopoly or cartel restricts output to q_m , where marginal cost equals marginal revenue. Because demand is not perfectly elastic, production at q_m implies the higher price p_m .

price—the “consumer surplus.”¹⁷ By itself, this usurpation is not a social cost but simply a transfer of income from consumers to the producer.¹⁸

Monopolistic pricing affects society as a whole because, in order to raise prices and earn a monopoly rent, monopolies and cartels normally must produce fewer goods than competitive firms would. As a result, consumers who would have purchased the product at the competitive price but who value it less than the monopoly price will instead buy substitute goods whose costs of production exceed the marginal cost of the monopolist's product. Economists call this substitution of less efficiently produced goods for the monopolist's over-

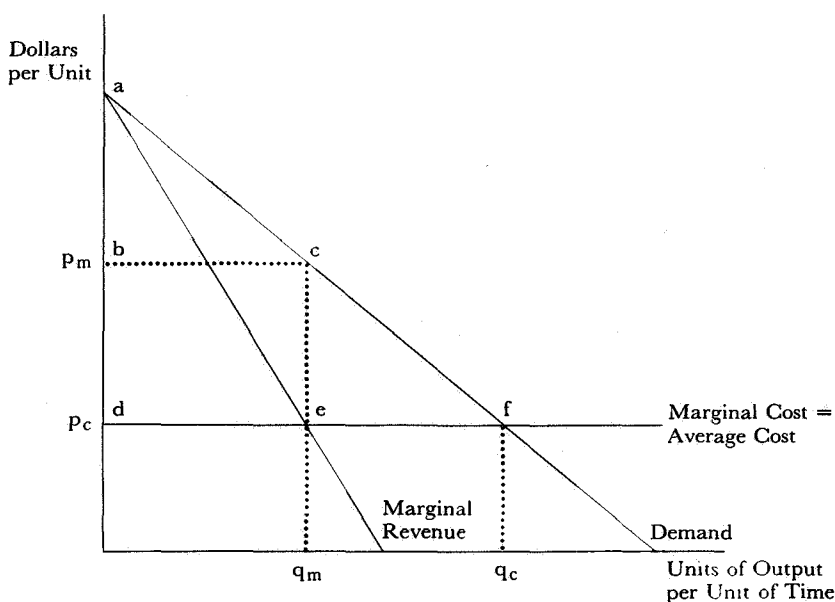


Figure 1

To simplify exposition, this note assumes constant average and marginal costs, as the flat, coincident cost schedules indicate. This assumption makes monopoly rent equal to monopoly profit, a condition that would not obtain if the average cost schedule were U-shaped or continually decreasing. See F. SCHERER, *supra* note 14, at 9-44 (theory of perfect and imperfect competition); Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267, 358-70 (1966) (concise review of same written for lawyers).

17. Alfred Marshall introduced the notion of consumer surplus, which corresponds to the area *adfb* in Figure 1, *supra* note 16. Marshall defined it as “[t]he excess of the price which [the consumer] would be willing to pay rather than go without [the product], over that which he actually does pay.” 1 A. MARSHALL, *PRINCIPLES OF ECONOMICS* 124 (9th ed. 1890).

18. It is not a social cost. The government could countervail it by imposing redistributive taxes or compensatory antitrust remedies.

priced product "deadweight loss."¹⁹ Unlike monopoly rent, deadweight loss is a true social cost. It denotes wasted resources and, thus, economic inefficiency.

Nonetheless, monopolies may benefit society overall. Unlike a cartel, a monopoly can usually produce goods at lower cost than a competitive firm because efficient production may require investment in plants or equipment on a scale that small firms cannot afford. Thus monopolies may create cost savings that exceed the deadweight loss created by monopolistic pricing.

Indeed, monopolies need not generate *any* deadweight loss. If, instead of charging all customers the same price, the monopoly can perfectly price discriminate—that is, charge each customer the maximum amount he or she is willing to pay for the product—then the monopoly will produce exactly the competitive level of output.²⁰ Although the monopoly still exacts a monopoly rent—and indeed captures all consumer surplus—it does not reduce its production and thus does not cause deadweight loss. Perfect price discrimination, then, does not reduce society's wealth. It harms consumers only in that they must pay the full value they attach to the monopolist's product.²¹ Therefore, a monopoly that creates cost savings that ex-

19. The measurement of deadweight loss has received considerable attention from economists, the pioneering work being Harberger, *Monopoly and Resource Allocation*, AM. ECON. REV., May 1954, at 77. Depicted graphically, deadweight loss as Harberger defined it, *id.* at 78, equals the triangle *cfe* in Figure 1, *supra* note 16. See also Hotelling, *The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates*, 6 ECONOMETRICA 242, 245 (1938).

A monopoly or cartel causes deadweight loss whenever it is constrained to charge only a single price and, consequently, can maximize profit only by creating an artificial scarcity to drive that price above marginal cost. See, e.g., Baxter, *supra* note 16, at 367-68.

20. See F. SCHERER, *supra* note 14, at 320-21; R. POSNER, *supra* note 10, at 242. Scherer would characterize such behavior as first-degree price discrimination. However, Scherer and Posner warn that perfect price discrimination is rare and that imperfect price discrimination does not necessarily produce the competitive level of output. F. SCHERER, *supra* note 14, at 320-21; Posner, *supra* note 2, at 934-35. For a mathematical analysis, see P. SAMUELSON, FOUNDATIONS OF ECONOMIC ANALYSIS 42-45 (1947). See generally J. ROBINSON, THE ECONOMICS OF IMPERFECT COMPETITION 190-94 (1933). Posner also notes that Dennis Carlton "has offered an independent reason for ascribing deadweight loss to discrimination[:]. . . . [T]he proper comparison is not between the total output under discriminating and under single-price monopoly, but between the sum of the [deadweight loss] welfare triangles under the former and the single such triangle under the latter; the sum under the former may well be greater even if the output is higher." Letter from Richard A. Posner to the author 2-3 (Feb. 11, 1980) (copy on file with *Stanford Law Review*).

21. Posner argues that under perfect price discrimination the entire area *afd* in Figure 1, *supra* note 16, becomes deadweight loss because firms in the expansionary phase, see notes 10-11 *supra* and accompanying text, have the perverse incentive to invest resources up to that amount in expectation of obtaining an exploitative monopoly. R. POSNER, *supra* note 10, at

ceed the deadweight loss caused by restricting output, or that practices perfect price discrimination, may be said to engage in *efficient exploitation*. On the whole, the monopoly's behavior increases the wealth of society.

B. *The Law of Exploitative Behavior*

1. *The damage rule.*

Courts have treated section 4 as a kind of tort remedy,²² but no court has defined the right that Congress intended the remedy to protect.²³ Justice Holmes offered the most elaborate and enduring description of the remedy itself in *Chattanooga Foundry & Pipe Works v. City of Atlanta*.²⁴ According to Holmes, a consumer who has paid "more than the worth"²⁵ of a product because of a price-fixing conspiracy is entitled to recover three times the quantity purchased at the collusive price, multiplied by "the difference between the price paid and the market or fair price . . . under natural conditions had

242-43. See also Tullock, *The Welfare Costs of Tariffs, Monopolies, and Theft*, 5 W. ECON. J. 224 (1967) (precursor to Posner's theory).

Baxter, however, contends that Posner exaggerates deadweight loss. Baxter argues that although a cartel member may have an incentive to invest an amount equal to the expected value of the monopoly rent, it also "has a strong incentive to spend no more than is necessary" to obtain exploitative power. Moreover, he asserts that such investment in better product quality—such as offering more frequent flights over a given airline route—creates "an altered product definition . . . having ambiguous welfare implications." Baxter, Book Review, 8 BELL J. ECON. 609, 610 (1977); accord, Demsetz, *Economics As a Guide to Antitrust Regulation*, 19 J.L. & ECON. 371, 381 (1976); Worcester, *Innovations in the Calculation of Welfare Loss to Monopoly*, 7 W. ECON. J. 234, 240-41 (1969). This note assumes that the area *cfe* in Figure 1, *supra* note 16, better approximates the deadweight loss from a single-price monopoly and that a relatively perfectly price-discriminating monopolist causes only a trivial deadweight loss.

Some consumers receive windfalls, not injuries, from price discrimination insofar as they pay lower prices than the price that would obtain if the monopolist charged a single price. See, e.g., Areeda, *supra* note 5, at 1137 n.50.

22 See, e.g., *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931), *Solomon v. Houston Corrugated Box Co.*, 526 F.2d 389, 392 n.4 (5th Cir. 1976). The Stigler Report also referred elusively to the "nonperformance" of a "legal duty." REPORT OF THE TASK FORCE ON PRODUCTIVITY AND COMPETITION, reprinted in ANTITRUST & TRADE REG. REP. (BNA) No. 413, at X-1, X-6 (June 10, 1969). Senator Teller also suggested a tort basis for the treble damage remedy when he described it as an attempt "to abate . . . a sort of public nuisance." 21 CONG. REC. 2612 (1890).

23. Even the rare economic discussion of this right has a tautological ring. See Blair, *Antitrust Penalties: Deterrence and Compensation*, 1980 UTAH L. REV. 57, 70 ("Collusive prices are illegal; the consumer, therefore, has a legal right to noncollusive prices."). The Supreme Court has been equally cryptic. See *Keogh v. Chicago & Nw. Ry.*, 260 U.S. 156, 163 (1922) (Brandeis, J.) ("Injury implies violation of a legal right.").

24. 203 U.S. 390 (1906).

25. *Id.* at 396.

the combination been out of the way."²⁶ In most cases, this measure amounts to three times the monopoly rent. Subsequent decisions²⁷ have applied the *Chattanooga Foundry* damage measure in horizontal minimum price-fixing cases but have ignored the underlying economic relationship between monopoly rent and deadweight loss.²⁸

2. *From damage rule to consumer right.*

The *Chattanooga Foundry* damage measure supports the inference that a consumer has the right to recapture consumer surplus when firms restrict output, but it also supports the conflicting inference that a consumer has the right to recapture that surplus whether or not firms restrict output. The first interpretation finds support in Holmes's reference to "natural conditions had the *combination* been out of the way."²⁹ Although Holmes may have used the term "combination" only because the defendants in *Chattanooga Foundry* were members of a cartel, it is plausible that Holmes understood that the classic trust would restrict output as would a single-firm monopoly,

26. *Id.* See also M. FORKOSCH, ANTITRUST AND THE CONSUMER (ENFORCEMENT) 283-86 (1956).

27. After 73 years, the Supreme Court confirmed the vitality of the *Chattanooga Foundry* damage rule but still failed to define the consumer's right or to acknowledge its current ambiguity. *Reiter v. Sonotone Corp.*, 442 U.S. 330 (1979). Writing for a unanimous Court, Chief Justice Burger held that "[a] consumer whose money has been diminished by reason of an antitrust violation has been injured 'in his . . . property' within the meaning of § 4." *Id.* at 339 (ellipsis in original). Burger rested his holding upon Holmes's statement that injury arises from paying "more than the worth" of a product, and upon Holmes's subsequent sentence: "A person whose property is diminished by a payment of money wrongfully induced is injured in his property." *Id.* at 340 (quoting *Chattanooga Foundry & Pipe Works v. City of Atlanta*, 203 U.S. 390, 396 (1906)).

28. That is, courts have awarded three times the rectangle *bced* in Figure 1, *supra* note 16, but have ignored the triangle *cef*. See R. POSNER, *supra* note 10, at 224, Hay, Book Review, 31 VAND. L. REV. 427, 433 (1978) (review of K. ELZINGA & W. BREIT, *THE ANTITRUST PENALTIES: A STUDY IN LAW AND ECONOMICS* (1976)). But cf. *In re Western Liquid Asphalt Cases*, 487 F.2d 191, 200 (9th Cir. 1973), *cert. denied*, 415 U.S. 919 (1974) ("[T]he amount of the overcharge is not necessarily the total amount of harm to plaintiffs. Purchasers may also have been damaged by being forced to turn to substitute goods, or to discontinue purchasing the price-fixed product.").

A court could easily extend this theory of damages to injuries to suppliers in cases of monopsony and oligopsony by considering downward departures from marginal-cost pricing that artificially expand output. See, e.g., *Mandeville Island Farms, Inc. v. American Crystal Sugar Co.*, 334 U.S. 219, 235 (1948); *Union Carbide & Carbon Corp. v. Nisley*, 300 F.2d 561, 567 (10th Cir. 1961), *cert. denied*, 371 U.S. 801 (1962); *In re Petroleum Prods. Antitrust Litigation*, 419 F. Supp. 712, 716 (Judicial Panel on Multidistrict Litigation 1976) (No. 150); *Bray v. Safeway Stores, Inc.*, 392 F. Supp. 851, 855 (N.D. Cal. 1975). See also J. HIRSHLEIFER, *PRICE THEORY AND APPLICATIONS* 529-30 (2d ed. 1980); J. ROBINSON, *supra* note 20, at 211-31.

29. 203 U.S. at 396 (emphasis added).

without offering any compensating reduction in cost from scale economies.³⁰ Thus, Holmes may have considered consumers entitled to their consumer surplus only when they had purchased a product whose price was fixed by a cartel rather than a monopoly—that is, only when the consumer had paid “more than the worth” of the product as the direct result of an output restriction by a “combination,” an artificial supply condition disturbing the “natural condition” of a competitive market.

The second, and prevailing,³¹ interpretation of *Chattanooga Foundry* gives the consumer the right to retain consumer surplus regardless of whether the producer has usurped that surplus efficiently or inefficiently. More precisely, this interpretation gives the consumer a right to retain the value he places on a product in excess of its marginal cost of production at the competitive output level. But the precise definition of this consumer right remains a neglected issue.

C. *A Proposed Right and Damage Rule to Enhance Allocative Efficiency*

An antitrust right predicated on allocative efficiency would embrace the first interpretation of Holmes's *Chattanooga Foundry* rule and grant the producer a *right to efficient exploitation*. This right allows the producer, first, to exact consumer surplus in a manner that does not restrict output. Second, it allows a producer to restrict output below

30 No doubt, when Holmes contemplated *Marshall* it was John, not Alfred. Yet Holmes was an early advocate of applying economics to legal problems. See Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 469, 474 (1897).

Congress showed particular concern for exploitation by cartels as opposed to single-firm monopolies. See 21 CONG. REC. 2457 (1890) (remarks of Sen. Sherman) (“The price to the consumer depends upon the supply, which can be reduced at pleasure by the combination The aim is always for the highest price that will not check the demand, and, for most of the necessities of life, that is perennial and perpetual”) (emphasis added), quoted in Brief for the United States as Amicus Curiae at 13, *Reiter v. Sonotone Corp.*, 442 U.S. 330 (1979).

31. An indication of the prevalence of the second interpretation is the judicial inclination to impose liability on the approximation of perfect price discrimination through tie-in sales. E.g., *International Salt Co. v. United States*, 332 U.S. 392 (1947); *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43 (9th Cir. 1971), cert. denied, 405 U.S. 955 (1972); see R. POSNER, *supra* note 10, at 173–74. Yet courts have not held that the exaction of consumer surplus by a seller alone violates the antitrust laws. See *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 274 n.12 (2d Cir. 1979) (Kaufman, C.J.), cert. denied, 444 U.S. 1093 (1980) (“lawful monopolist [is not] ordinarily precluded from charging as high a price for its product as the market will accept”).

The second interpretation may have descended from St. Thomas Aquinas's notion of the *just price*, see 2 T. AQUINAS, *SUMMA THEOLOGICA* quest. 77, at 1513 (Eng. Dominican Prov. trans. 1947), which the economic historian Joseph Schumpeter in turn has traced to Aristotle. J. SCHUMPETER, *HISTORY OF ECONOMIC ANALYSIS* 60–62 (1954).

the competitive level if cost savings from scale economies exceed the resulting deadweight loss.

This right enhances social welfare by making a loss in allocative efficiency a prerequisite to antitrust damages.³² A court would award damages in cases involving collusion among competitors, because, where horizontal minimum price fixing³³ and market division³⁴ are present, the colluding parties necessarily restrict output and cause deadweight loss. In the case of perfect price discrimination, however, the right to efficient exploitation would preclude damages. Price discrimination transfers income from consumer to producer, but it does not cause allocative inefficiency. Thus, a producer should be exempt from antitrust liability if it has engaged in perfect or nearly perfect price discrimination by using such devices as tie-in sales.³⁵ Similarly, a producer that reduces deadweight loss by

32. For the purposes of evaluating the rights and damage rules affecting exploitative market behavior, it is unnecessary to ask who the antitrust enforcer should be—either an injured consumer, a bounty-hunting class action lawyer, or a state attorney general suing as *parens patriae* on behalf of state consumers. For example, Justice Brennan has observed, in the context of horizontal minimum price fixing, that “from the deterrence standpoint, it is irrelevant to whom damages are paid.” *Illinois Brick Co. v. Illinois*, 431 U.S. 720, 760 (1977) (Brennan, J., dissenting), *cited by majority*, *id.* at 746 (White, J.); *cf.* *Lyons v. Westinghouse Elec. Corp.*, 222 F.2d 184, 189 (2d Cir.) (Hand, C.J.), *cert denied*, 350 U.S. 825 (1955) (treble damage action resembles “a *qui tam* action, except that the plaintiff keeps all the penalty, instead of sharing it with the sovereign”). *See also* H.R. 5103, 96th Cong., 1st Sess. (1979) (§ 3003 of proposed Small Business Judicial Access Act of 1979 would award bounty hunters a fixed percentage of damage award after government litigators take control of case); *Rewards for Information of Violation of Antitrust Laws: Hearing on H.R. 20194 Before the House Comm. of the Judiciary*, 62d Cong., 2d Sess. (1912); Schwartz, *An Overview of the Economics of Antitrust Enforcement*, 68 *GEO. L.J.* 1075, 1096–1100 (1980) (advocates bounty hunters).

Alternatively, it is arguable on economic and legal grounds that the parties most entitled to damages are consumers whose diverted purchases constituted the actual deadweight loss. But such a rule is barred by the Supreme Court ruling that indirect purchasers may not recover damages from antitrust violators. *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977). Furthermore, the need to identify not only indirect purchasers but also indirect *non*purchasers would exacerbate the problems of proof that the Court cited in justification of its ruling. *See id.* at 731–32, 740–41. *See generally* Landes & Posner, *Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws? An Economic Analysis of the Rule of Illinois Brick*, 46 *U. CHI. L. REV.* 602 (1979).

33. *E.g.*, *United States v. Trenton Potteries Co.*, 273 U.S. 392 (1927).

34. *E.g.*, *Timken Roller Bearing Co. v. United States*, 341 U.S. 593 (1951); *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899).

35. *See, e.g.*, *International Salt Co. v. United States*, 332 U.S. 392 (1947); *International Business Machs. Corp. v. United States*, 298 U.S. 131 (1936). *But cf.* 15 U.S.C. § 14 (1976) (prohibiting tie-in sales and exclusive dealing).

Many economists and lawyers believe that tie-in sales do not enable a producer to “leverage” monopoly power from one market to another. Rather, tie-in sales may enable the producer to meter consumers’ intensity of demand, and hence to price discriminate, by selling a product that is a complement to the tying product and is used in variable proportion to it.

engaging in some form of imperfect price discrimination, such as unilateral market division, should have a defense to antitrust damages to the extent of that reduction. Only the producer that engages in price discrimination without increasing output should have no defense, for such a producer captures consumer surplus without conferring a countervailing social benefit.

In the case of monopolistic pricing without price discrimination, courts must recognize that a producer may achieve productive efficiencies—usually scale economies—that countervail deadweight loss.³⁶ An antitrust right that yields damages when the producer confers a net social benefit is questionable law and unquestionably bad economics.³⁷ A producer that prices above marginal cost as a result of natural monopoly³⁸ or horizontal merger³⁹ should escape damages upon proving that its cost savings from scale economies⁴⁰ or other productive efficiencies exceed the deadweight loss caused by any accompanying output restriction.⁴¹ Consequently, the right to efficient exploitation should embrace not only pricing strategies that increase

For example, intensive users of a machine, who presumably value it more highly than occasional users, will effectively pay more for the machine if they must buy tied supplies from the manufacturer at a price greater than marginal cost. Thus, the producer of the machine is able to exact a higher price from high-use customers. See Bowman, *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 23-24 (1957); Director & Levi, *Law and the Future: Trade Regulation*, 51 NW. U.L. REV. 281, 291-92 (1956). See also Posner, *supra* note 2, at 934-36.

36. See note 3 *supra*. This note does not assume that larger firms are necessarily more productively efficient than smaller ones. However, if that is the case, a court seeking to deter future violations should consider cost savings in its determination of damages. For an exhaustive summary of the literature on concentration and economies of scale, see F. SCHERER, *supra* note 14, at 81-118, 280-92.

37. To borrow Bentham's expression, such a right would impose *unprofitable* punishment "the mischief it would produce would be greater than what it prevented." J. BENTHAM, *AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION* ch. 13, § 1 (New York 1948) (London 1789).

38. See generally R. SCHMALENSEE, *THE CONTROL OF NATURAL MONOPOLIES* (1979).

39. See R. BORK, *supra* note 2, at 198-224; R. POSNER, *supra* note 10, at 96-134. Private damage recoveries for horizontal mergers are unusual. See, e.g., *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977) (denying damages).

40. See, e.g., C. PRATTEN, *ECONOMIES OF SCALE IN MANUFACTURING INDUSTRY* (1971). The Supreme Court has not accepted countervailing productive efficiencies as a defense to illegality. E.g., *FTC v. Procter & Gamble Co.*, 386 U.S. 568, 580 (1967); see *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 371 (1963). But see *Broadcast Music, Inc. v. Columbia Broadcasting Sys., Inc.*, 441 U.S. 1, 20-21 (1979) (blanket license leads to "substantial lowering of costs" and is not per se illegal); *FTC v. Procter & Gamble Co.*, 386 U.S. 568, 604 (1963) (Harlan, J., concurring) (suggests that economies of scale may be a valid merger defense).

41. See R. BORK, *supra* note 2, at 106-10; Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 21-23 (1968). But see Williamson, *Economies as an Antitrust Defense Revisited*, 125 U. PA. L. REV. 699, 701-03 (1977).

output, like price discrimination, but also mergers or expansions that create cost savings in excess of deadweight loss.

To be consistent with the right of efficient exploitation, damages for exploitative injury should deter behavior only to the extent that the behavior reduces society's wealth by reducing allocative efficiency. In theory, a court should award damages that reduce the producer's monopoly rent to exactly the amount, minus one penny, that the producer would have earned if it had expanded output and lowered prices until the deadweight loss from pricing above marginal cost exactly equaled the gain in productive efficiency from the horizontal agreement.⁴² For example, the optimal damage award for horizontal minimum price fixing—which typically creates no productive efficiency to offset the deadweight loss that it causes⁴³—would be the entire monopoly rent. Only by confiscating that amount can a court nudge producers toward the price and output combination at which extraction of consumer surplus does not entail a net reduction in society's wealth. Of course, if the producer's inefficient behavior can be concealed, the court should divide optimal damages by its subjective estimate of the probability of detection, a process that may yield a final damage award larger or smaller than triple damages.⁴⁴

42. See Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18 (1968). The motivation for imposing antitrust damages certainly should be to rectify injuries to society, but the proper means to prevent that social harm is to deter the producer by confiscating its gain to the extent that the gain results from inefficient exploitation. Consequently, antitrust damages for inefficient exploitative behavior should also deviate from tort law's objective of restoring the plaintiff to the status quo ante and should place the defendant in a position inferior to its status quo ante whenever the defendant benefits from engaging in behavior that imposes a net social cost. Therefore, optimal damages should not aim to prevent the transfer of income from consumers to exploitative monopolists, but to direct firms with market power to the form of exploitative behavior, such as perfect price discrimination, that causes the least deadweight loss. Part III, *infra*, develops this damage calculus more rigorously.

43. Firms in a cartel may have higher average costs because of the expense of enforcing the anticompetitive agreement. See *Commonwealth Edison Co. v. Allis-Chalmers Mfg. Co.*, 40 F.R.D. 96, 104-05 (N.D. Ill. 1966); Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44 (1964).

44. When a firm conceals an antitrust violation, as it must when fixing prices with competitors, it reduces the probability of detection and, hence, the expected cost of the sanction assigned to that violation. Trebling the damage basis roughly offsets this effect of concealment and assuages Senator Sherman's concern that "damages should be commensurate with the difficulty of maintaining a private suit against a combination." 21 CONG. REC. 2456 (1890) (emphasis added). See R. POSNER, *supra* note 10, at 226-27; Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 199 n.55 (1968). Because computing the probability of detection would be complicated, see R. POSNER, *supra* note 10, at 226, courts should presume treble damages to be appropriate unless, by a preponderance of the evidence, the de-

II. COMPETITOR INJURY FROM EXPANSIONARY BEHAVIOR

A firm in the expansionary phase directs its attention to competitors, not consumers. Instead of pricing above marginal cost, the firm seeks to increase its market share and reduce its product's price elas-

fendant proves that the probability of detection exceeded one-third or the plaintiff proves that the probability was less than one-third. This evidentiary presumption would encourage producers to reduce their possible damage exposure by increasing the visibility of their joint actions, especially if the legality of that horizontal behavior were either unresolved or subject to prosecutorial or judicial mischaracterization. The one-third figure is proposed merely to minimize judicial or legislative objection to discretionary multiple damages.

However, economists warn that undesirable risk bearing will result if courts impose exceedingly large multiple damage awards to compensate for increasingly low probabilities of detection. See Block & Sidak, *The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?*, 68 GEO. L.J. 1131, 1135-39 (1980), Polinsky & Shavell, *The Optimal Tradeoff Between the Probability and Magnitude of Fines*, 69 AM ECON. REV. 880 (1979).

Of course, triple damages have no particular significance. It is unsurprising, then, that legislators and commentators have advocated discretionary trebling. In 1953, Representative Reed introduced into Congress a bill that would have amended § 4 to allow the plaintiff to recover "the damages by him sustained . . . and, in the discretion of the court, an additional amount of [sic] not to exceed twofold his actual damages." H.R. 4597, 83d Cong., 1st Sess. (1953). The bill's author envisioned discretionary single damages when the defendant inadvertently violated the antitrust laws, particularly the Robinson-Patman Act. See *Discretionary Treble Damages in Private Antitrust Suits: Hearings on H.R. 4597 Before Subcomm. No. 3 of the House Comm. on the Judiciary*, 83d Cong., 1st Sess. 2-5 (1953) (remarks of Rep. Reed). Subsequent sessions have considered similar bills. See H.R. 190, 87th Cong., 1st Sess. (1961); H.R. 1184, 86th Cong., 1st Sess. (1959); H.R. 978, 85th Cong., 1st Sess. (1957); H.R. 4958, 84th Cong., 1st Sess. (1955). See also U.S. ATTORNEY GENERAL'S NATIONAL COMMITTEE TO STUDY THE ANTITRUST LAWS, REPORT 378-79 (1955). More recent commentators have justified discretionary trebling on the grounds that the magnitude of mandatory treble damages shunts judges away from broader theories of liability and encourages excessive private enforcement. See 2 P. AREEDA & D. TURNER, *supra* note 6, ¶ 331b, at 150; Note, *Private Treble Damage Antitrust Suits: Measure of Damages for Destruction of All or Part of a Business*, 80 HARV. L. REV. 1566, 1568-71 (1967), *cf.* R. POSNER, *supra* note 10, at 226-27, 231 (advocates limiting treble damages to instances where violators can conceal illegal behavior easily); H.R. 19745, 60th Cong., 1st Sess. (1908) (proposal to amend Sherman Act to allow only single damages).

If the probability of detection were one, confiscation of an amount equal to the price fixer's private benefit—plus one penny—would be the minimum amount necessary and sufficient to prevent a net loss in society's wealth. However, § 4 awards the plaintiff "threefold the damages by him sustained," not threefold the price fixer's benefit. 15 U.S.C. § 15 (1976) (emphasis added). Therefore, only when every customer of the cartel sues for its private harm will actual damages under § 4 equal the price fixer's private benefit.

Even though the probability of detection would often fall below one and courts would therefore award multiple damages, it is not captious to debate whether consumer harm or producer benefit should be the damage basis. The transaction costs of proving the injury to each customer of a cartel almost certainly would exceed the transaction costs of simply confiscating the cartel's monopoly rent. Consequently, the more efficient method to achieve a given level of deterrence is to define the damage basis as the monopoly rent and then multiply this amount by a damage multiple to compute the total award. *Cf.* *Mid-West Paper Prods. Co. v. Continental Group, Inc.*, 596 F.2d 573, 585 & n.47 (3d Cir. 1979) ("*Illinois Brick* represents in effect the proposition that when defendants have fixed prices above the competitive market price, where the benefit derived by them is readily ascertainable, the objectives of the

ticity of demand⁴⁵ so that it can exploit the product's subsequent demand inelasticity by exacting monopoly profits. This part reviews the economics of expansionary behavior, analyzes current restrictions on expansionary behavior, and argues that the principle of social wealth maximization requires that courts grant producers a right to efficient expansion.

A. *The Economics of Expansionary Behavior*

A firm can reduce the price elasticity of its product by engaging in predatory pricing,⁴⁶ but predatory pricing is rarely a profitable long-run strategy.⁴⁷ Consequently, to reduce price elasticity in the long run, a firm must resort to other expansionary strategies that increase the demand for the product or decrease the demand for, or supply of, substitute products. The firm can increase the demand for its own product relative to the demand for substitutes⁴⁸ either by underpricing its competitors and expanding output (if the firm is a lower-cost producer),⁴⁹ or by offering superior nonprice attrib-

treble damage action are fulfilled when the defendants are required to pay the direct purchasers three times the overcharge.") (construing *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977)), 15 U.S.C. § 15d (Supp. IV 1980) (parens patriae damages "may be proved in aggregate by computation of illegal overcharges").

45. A product's price elasticity of demand equals the percentage change in the quantity demanded divided by the percentage change in its own price. See, e.g., G. STIGLER, *THE THEORY OF PRICE* 21-31 (3d ed. 1966).

46. See Areeda & Turner, *Predatory Pricing and Related Practices under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697 (1975). See also Joskow & Klevorick, *A Framework for Analyzing Predatory Pricing Policy*, 89 YALE L.J. 213, 213 n.1 (1979) (bibliography of responses to Areeda & Turner, *supra*). The price elasticity of demand continuously decreases as a firm prices farther down a linear demand curve. However, the price elasticity may increase as the firm prices farther down the demand curve if the demand curve is extremely convex toward the origin.

47. See R. BORK, *supra* note 2, at 144-48; R. POSNER, *supra* note 10, at 184-87.

48. Assuming for simplicity that the industry's total demand is constant.

49. By this strategy a firm attempts to price farther down the price-elastic portion of the demand curve for its product than is profitable for competitors with higher marginal costs. One method is to avoid necessary marginal costs of production or promotion by misappropriating—or "free riding" on—a competitor's intellectual property. In the case of production costs, this misappropriation usually would result in an action for trade secret or process patent infringement. But in the case of promotion costs, this misappropriation would probably result in an action for unfair competition or trademark infringement.

Market expansion by misappropriation of intellectual property is unlikely to lead to monopolization for two reasons. First, the innovator and the thief alike will disregard the *sunk* costs of research and development and will price according to *marginal* cost. Consequently, a misappropriating firm can underprice its more innovative competitor only if it steals ideas that reduce the marginal cost—and not simply the average total cost—of production or promotion. Second, at least in a static sense, misappropriation lowers the product's price and expands its total output because the innovator's demand and marginal revenue schedules

utes.⁵⁰ Or the firm can decrease the current or potential supply of substitute products by imposing additional production or entry costs on its competitors.⁵¹

Society benefits from an expansionary strategy that expands output or increases demand because consumers either receive better products or avoid purchasing substitutes that cost more to produce. But an expansionary strategy that reduces the current or potential supply of substitute products generates inefficiency because it increases the average total cost to society of producing a unit of the industry's output.

become flatter as the misappropriating competitor begins to market a substitute. Of course, in a dynamic sense the failure to protect a producer's right to its productive or promotional investments will dull incentives to develop and market new products.

A strategy of using superior productive efficiency to underprice competitors differs from strategic short-run predatory sales below cost because a firm would go bankrupt if it consistently incurred losses to underprice competitors. This strategy is thus a long-run compromise between exploitative and expansionary behavior that Baumol calls stationary limit pricing. Baumol, *Quasi-Permanence of Price Reductions: A Policy for Prevention of Predatory Pricing*, 89 YALE L.J. 1, 18-26 (1979).

50. The firm can pursue this strategy through its own product innovation, or through misappropriation of trade secrets, patents, or goodwill underlying a competitor's product. Alternatively, a firm can reduce the demand for its competitor's product by disparaging its quality. See generally Note, *The Law of Comparative Advertising: How Much Worse is "Better" Than "Great"*, 76 COLUM. L. REV. 80 (1976). However, this fraudulent expansionary strategy does not violate a right under antitrust law unless it involves monopolization. Cf. *Outboard Marine Corp. v. Pezetel*, 474 F. Supp. 168, 172 (D. Del. 1979) (disparagement of rival actionable under Sherman Act when accompanied by submission of false information to government agency).

51. This strategy is an attempt to reduce supply substitutability—that is, to impose additional costs on a rival firm as it begins or continues to produce a substitute product. See, e.g., Note, *An Economic and Legal Analysis of Physical Tie-Ins*, 89 YALE L.J. 769 (1980). See also 2 P. AREEDA & D. TURNER, *supra* note 6, ¶ 526; R. POSNER, *supra* note 10, at 126-27; Note, *The Role of Supply Substitutability in Defining the Relevant Product Market*, 65 VA. L. REV. 129 (1979).

More specifically, this strategy is an attempt either to increase a competitor's marginal cost of production or to cause it operating losses by imposing unnecessary fixed costs greater than its revenue. Baxter's immoderate example of the latter is bombing a competitor's plant. Baxter, *supra* note 21, at 610. A more discreet example illustrating the former is vexatious litigation. See, e.g., *California Motor Transp. Co. v. Trucking Unlimited*, 404 U.S. 508 (1972). Equally genteel are legal proceedings that Bork calls "predation through governmental process." R. BORK, *supra* note 2, at 347-64; see, e.g., *United Mine Workers v. Pennington*, 381 U.S. 657 (1965). However, some varieties of this predation have been less genteel. E.g., *Timberlane Lumber Co. v. Bank of America*, 549 F.2d 597, 605 (9th Cir. 1976) ("guards and troops . . . used to cripple and . . . shut down . . . operation"). For a new entrant, either the fixed or marginal cost that this strategy imposes is identical to Stigler's narrow definition of a barrier to entry: "a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry." G. STIGLER, *THE ORGANIZATION OF INDUSTRY* 67 (1968).

B. *The Law of Expansionary Behavior*

1. *The damage rule.*

A competitor injured by expansionary behavior may recover both retrospective and prospective damages. Retrospective damages consist of three times the lost profits for the period of the violation—computed either by comparing the competitor's profitability before and during the period of the expansionary behavior or, particularly in the case of a new entrant, by using the profitability of a comparable firm during the same period as a yardstick.⁵² Prospective damages consist of either three times the present value of lost future net profits after the violation or, as a theoretical equivalent, three times the diminution in the market value of the competitor's business as a result of the proscribed conduct.⁵³

2. *From damage rule to producer right.*

In awarding damages to an injured competitor, courts have focused on preserving the competitor's expectation of profitability, and have ignored the option of frustrating the defendant's attempt to obtain market power by restoring the competitor's ability to stay in business and supply a substitute for the defendant's product.⁵⁴ This suggests that a competitor has a *right to expected profitability*.⁵⁵

52. See *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 561 (1931). An antitrust plaintiff bears the burden of proving the existence, but not the extent, of its injury. See *id.* at 562; *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251, 264 (1946).

53. *E.g.*, *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 567 (1931) (diminution in market value); *Terrell v. Household Goods Carriers' Bureau*, 494 F.2d 16, 22-23 & n.12 (5th Cir. 1974) (lost future net profits). Prospective damages may not include both measures because with relatively efficient capital markets the market value of a business will reflect expected future profitability, and an award of both measures would twice compensate a single injury. See *Albrecht v. Herald Co.*, 452 F.2d 124, 126-31 (8th Cir. 1971); *Farmington Dowel Prods. Co. v. Forster Mfg. Co.*, 421 F.2d 61, 82 (1st Cir. 1969).

54. Yet, if antitrust injuries are truly torts, see note 22 *supra*, then antitrust damages should restore the injured competitor to the status quo ante. The current damage rule restores the injured competitor to its original position in the sense that the competitor receives the discounted value of its expected profits. But because the rule also has the effect of reducing ex post the variance of the competitor's expected rate of return, the damage rule places the competitor in a better risk-return position than it occupied ex ante. The current rule, therefore, acts to reduce a competitor's entrepreneurial risk rather than frustrate its rival's attempt to reduce the demand elasticity of the rival's product.

55. See Note, *supra* note 44, at 1586 (damages measures evaluated on the basis of which "would be more likely to ensure the return of plaintiff's expectancy"). To entitle the competitor to an expectation of profitability is to entitle the competitor to something that does not yet exist. Consequently, when another firm destroys that expectation, the competitor receives as a result of its violated right something that a court cannot restore, but rather something that a court must have decided as a matter of distributive justice that the competitor *ought to have*.

C. *A Proposed Right and Damage Rule to Protect Productive Efficiency*1. *The producer's right to efficient expansion.*

Rather than focusing on the injured competitor, courts should recognize the producer's *right to efficient expansion*. This right would permit a producer to decrease the elasticity of demand for its product and acquire exploitative market power by any expansionary strategy that does not impose useless costs on a competitor or destroy a competitor's tangible or intangible assets. The right comports with traditional tort theory⁵⁶ and with the goal of maximizing society's wealth—not by ensuring the competitor's expectation of profitability, but by protecting the competitor's original level of productive efficiency. By preserving the competitor's ability to produce a competitively priced substitute, the right renders futile any attempt to reduce supply substitutability. At the same time, it constrains the expansionary producer to reduce the demand elasticity of its own product only by expanding output or increasing the demand for its own product.

2. *A proposed damage rule for expansionary injury.*

Damages for inefficient behavior have two purposes. First, they deter the producer from imposing unnecessary costs on a competitor and from destroying or misappropriating the value of a competitor's productive or promotional assets. Second, they restore the competitor's ability to produce a competitively priced substitute.

Damages equal to the producer's gain from inefficient expansion would deter other producers from employing similar inefficient strategies. But such a measure is impractical because of the difficulty of identifying precisely the benefits that the producer received as a result of the competitor's diminished profitability.⁵⁷ Instead, the measure of damages should be the loss to the competitor. These prospective compensatory damages would be simpler to measure. More important, they would "rehabilitate the market" by keeping

Cf. *Transamerica Computer Co. v. International Business Machs. Corp.*, 481 F. Supp. 965, 1010-21 (N.D. Cal. 1979) (court denied lost profits and criticized plaintiff for having embarked on business venture with unrealistic expectations of profitability); Fuller & Perdue, *supra* note 1, at 54 (expectation interest in contract damages).

56. A tort, or nuisance, foundation of antitrust rights reinforces the notion that a court should award damages only when the defendant's actions have reduced society's wealth. See Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103 (1979).

57. By contrast, the producer in the exploitative case receives a benefit equal to the sum of all the overcharges it extracts from consumers.

the competitor in business as an obstacle to the producer's acquisition of exploitative market power.

Of course, the producer's expected profits may exceed the competitor's loss. In this case, compensatory damages will not adequately deter inefficient expansionary behavior.⁵⁸ Instead, the competitor should receive damages equal to the producer's gain,⁵⁹ divided, of course, by the probability of detection.

III. A JUDICIAL TEST FOR IMPOSING ANTITRUST DAMAGES

The rights of efficient exploitation and efficient expansion together outline a theory of antitrust damages consistent with the Supreme Court's recent rethinking of antitrust liability.⁶⁰ To make the theory practical and specific, this part proposes a judicial damage test consonant with those rights.

In determining appropriate antitrust damages, a court should first identify whether the plaintiff's injury resulted from the producer's exploitation of existing market power or from expansion aimed at acquiring that market power. If the injury is exploitative, the court must employ a damage formula that forces the producer to produce at a price and output level where deadweight loss does not exceed cost savings. If, on the other hand, the injury is expansionary, the court must focus not on the producer's expected gain but on the extent of the competitor's injury. Thus, expansionary injury should lead to awards of compensatory damages in most cases.

58. *But cf.* Page, *supra* note 1, at 486-87 ("quantum of [competitor's injury] is related to the size of the monopoly profits that the would-be predator expects to gain").

59. *Cf.* *Mathey v. United Shoe Mach. Corp.*, 54 F. Supp. 694, 697 (D. Mass. 1944) (plaintiff in patent infringement case must elect to recover his own damages or defendant's profits), 15 U.S.C. § 1117 (1976) (plaintiff in trademark infringement case may recover his own damages and defendant's profits, subject to adjustment by the court if "either inadequate or excessive"); 17 U.S.C. § 504 (1976) ("copyright owner is entitled to recover the actual damages suffered by him or her as a result of the infringement, and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages").

Arguably, compensatory damages for expansionary injury should acquire a flavor of specific performance so as to perform a market-rehabilitation function. If the plaintiff and defendant had sufficient market power that they could not have legally merged, then the court should not allow the plaintiff to take its damage award, liquidate its business, and exit the market. Rather, the court should require the plaintiff to use its damage award solely to regain or maintain its prior level of productive efficiency and its prior market power. But if the plaintiff and defendant had so little market power that they could have legally merged, then the court should not prevent the managers of the plaintiff firm from liquidating the firm.

60. See notes 2-3 *supra* and accompanying text.

A. *Exploitative Behavior*

If the producer's behavior is exploitative, then the court should determine whether the producer restricted output. If the producer did not restrict output, damages are unnecessary because the producer's behavior could not have caused deadweight loss. Consequently, the existence of perfect or nearly perfect price discrimination would preclude damages.⁶¹ If, however, the producer did restrict output, then the court should determine the optimal amount of damages in light of any cost savings that attend the exploitative behavior.

Figure 2 depicts the process of determining the optimal damage measure. Suppose several competitors participate in a joint venture that reduces average cost from A_1 to A_2 , but creates enough market power for the firms to be able to price at p_m by restricting their joint output from q_c to q_m . Because the competitive price in the absence of the scale economies would be $p_c = A_1$, the deadweight loss from the output restriction (L) is $\frac{1}{2}(p_m - A_1)(q_c - q_m)$. Consequently, whether the joint venture has benefited or injured social welfare depends on whether the cost savings (S), equal to $(A_1 - A_2)q_m$, is greater or lesser than L .

Because the primary goal of damages for exploitative injury should be to deter inefficient exploitation, the court should impose damages that, before trebling, would disgorge any incremental gain in monopoly rent $((p_m - p^*) q_m)$ from reducing production below the output level q^* at which the gains in productive efficiency from the exploitative behavior $((A_1 - A_2)q^*)$ just equal the losses in allocative efficiency from the output restriction $(\frac{1}{2}(p^* - A_1)(q_c - q^*))$. In the simplest case, the producer's behavior improves productive efficiency more than it injures allocative efficiency—that is, $S > L$ —and the optimal magnitude of damages is zero. But if allocative efficiency declines more than productive efficiency increases, damages are necessary. The more the loss in allocative efficiency exceeds the gain in productive efficiency, the greater the portion of the producer's monopoly rent that the optimal damage award must disgorge. When, as in the case of horizontal minimum price fixing, the producer causes a loss in allocative efficiency with no offsetting gain in productive effi-

61. However, damages would be appropriate if the producer resorted to a form of imperfect price discrimination that caused greater deadweight loss than the deadweight loss accompanying a single monopoly price. See note 20 *supra*. Damages also would be appropriate if the producer incurred transaction costs to enforce perfect price discrimination (by metering demand and preventing arbitrage) that exceeded the deadweight loss that the price discrimination recouped relative to a single-price strategy.

ciency—that is, when $L > 0 \geq S$ —damages should equal the entire monopoly rent (M), equal to $(p_m - A_1)q_m$.

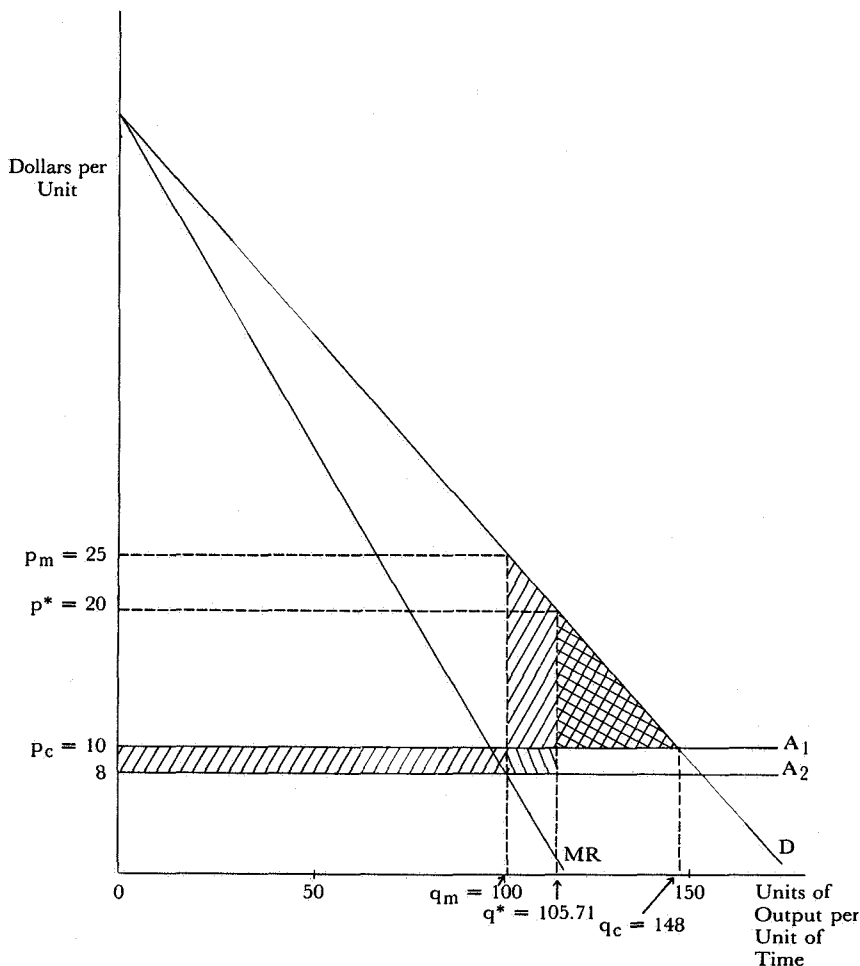


Figure 2

A joint venture generating cost savings less than deadweight loss—that is, when $L > S > 0$ —is the most difficult case. The court then must compute the optimal damage basis—an amount greater than zero but less than the full monopoly rent—such that the defendants will face no incentive to price in a manner that inflicts a net social welfare loss. The court's damage computation should follow several specific steps:

(1) The court should presume that average cost is constant, and has attained its minimum value, over the relevant output range such

that the competitive price equals average cost (absent scale economies)—that is, $p_c = A_1$.

(2) Incorporating the presumption in (1) into the definition of the price elasticity of demand (E) yields the competitive output level q_c .⁶²

$$\begin{aligned} E &= \frac{q_m - q_c}{p_m - p_c} \frac{p_m}{q_m} = \frac{q_m - q_c}{p_m - A_1} \frac{p_m}{q_m} \\ q_c &= \frac{-q_m E (p_m - A_1)}{p_m} + q_m \\ &= q_m \left[1 - E \left(1 - \frac{A_1}{p_m} \right) \right]. \end{aligned}$$

(3) As a corollary to the presumptions in (1) and (2), the court should presume that the demand schedule is linear over the relevant output range such that deadweight loss is

$$\begin{aligned} L &= \frac{1}{2} (p_m - A_1) (q_c - q_m) \\ &= -\frac{1}{2} (p_m - A_1) \left[q_m E \left(1 - \frac{A_1}{p_m} \right) \right] \\ &= -\frac{1}{2} p_m q_m E \left(1 - \frac{A_1}{p_m} \right)^2. \end{aligned}$$

(4) The court should allow the defendants to prove cost savings, over q_m units of output, equal to $S = (A_1 - A_2)q_m$.

(5) If $L > S > 0$, then the court should define the damage basis to be $(p_m - p^*)q_m$, where p^* is the price at which the net social cost of the joint venture is zero, that is, where $L = S$, or

$$\begin{aligned} -\frac{1}{2} p^* q^* E \left(1 - \frac{A_1}{p^*} \right)^2 &= (A_1 - A_2) q^* \\ p^* \left[1 - \frac{2A_1}{p^*} + \frac{A_1^2}{p^{*2}} \right] &= -\frac{2(A_1 - A_2)}{E} \\ p^{*2} + 2 \left[\frac{(A_1 - A_2)}{E} - A_1 \right] p^* + A_1^2 &= 0. \end{aligned}$$

The quadratic formula yields as the solution for p^* :

62. In econometric terms, this equation is not the reduced-form equation for q_c because E is itself partly a function of q_c . See J. JOHNSTON, *ECONOMETRIC METHODS* 4 (2d ed. 1972). However, this is not a serious problem if, as this note assumes, econometric estimates of the relevant demand elasticities already exist. See, e.g., H. HOUTHAKKER & L. TAYLOR, *CONSUMER DEMAND IN THE UNITED STATES, 1929-1970* (2d ed. 1970).

$$p^* = \frac{-2 \left[\frac{(A_1 - A_2)}{E} - A_1 \right] \pm \left[\left\{ 2 \left[\frac{(A_1 - A_2)}{E} - A_1 \right] \right\}^2 - 4A_1^2 \right]^{1/2}}{2}$$

$$= -\frac{(A_1 - A_2)}{E} + A_1 \pm \left\{ \left[\frac{(A_1 - A_2)}{E} - A_1 \right]^2 - A_1^2 \right\}^{1/2},$$

which litigants could readily estimate, given values of A_1 , A_2 , and E .

Suppose, for example, that $q_m=100$, $p_m=25$, $A_1=10$, $A_2=8$, and $E=-0.8$. Under the *Chattanooga Foundry* rule, the damage basis would be $(p_m - A_2)q_m$, or $(25-8)100=1700$. But under a social welfare standard, damages would be considerably less. Evaluated numerically, p^* would have the value

$$p^* = -\frac{(10 - 8)}{-.8} + 10 \pm \left\{ \left[\frac{(10 - 8)}{-.8} - 10 \right]^2 - (10)^2 \right\}^{1/2}$$

$$= 12.5 \pm [156.25 - 100]^{1/2}$$

$$= 12.5 \pm 7.5 = (20, 5).$$

The value $p^*=5$ is discarded as an infeasible solution because it would require the firm to operate at a loss. Thus, $p^*=20$ yields the optimal damage basis of $(p_m - p^*)q_m$, or $(25-20)100 = 500$,⁶³ which the court would then divide by the probability of detection to compute the optimal damage award.⁶⁴

This damage test would be complex and costly to administer.⁶⁵ Still, it is an improvement over present law because it eliminates the

63. It is possible to verify that $p^*=20$ yields the optimal damage basis. Substituting $p_m=25$ and $q_m=100$ into presumption (2) yields the solution for the competitive output level $q_c=148$. From presumption (2) it also follows that

$$q_c = q^* \left[1 - E \left(1 - \frac{A_1}{p^*} \right) \right]$$

$$148 = q^* \left[1 - (-.8) \left(1 - \frac{10}{20} \right) \right]$$

$$q^* = \frac{148}{1.4} = 105.71.$$

From presumption (3) the deadweight loss is

$$L = \frac{1}{2} (p^* - A_1) (q_c - q^*)$$

$$= \frac{1}{2} (20 - 10) (148 - 105.71) = 211.45.$$

Similarly, the cost savings at $p^* = 20$, $q^* = 105.71$ is

$$S^* = (A_1 - A_2) q^* = (10 - 8) 105.71 = 211.42.$$

Hence, $S^* - L^* \cong 0$

64. See text accompanying note 44 *supra*.

65. Landes and Posner question whether "the sorts of elasticity estimates made in the academic economic literature could be readily duplicated in antitrust litigation" because they are unaware of "a single case in which an antitrust court has attempted to estimate an elasticity of demand or supply." Landes & Posner, *supra* note 32, at 619 n.38. Of course, adoption

ambiguity of *Chattanooga Foundry* in a manner that enhances the wealth of society.⁶⁶

B. *Expansionary Behavior*

If the producer's behavior is expansionary, then the court's decision to award damages should depend on whether or not the behavior reduced the present or potential supply of substitute products. The court should award no damages if the producer expanded its market power either by expanding output and reducing price or by increasing demand for its product relative to the demand for a competitor's product. But if the producer's behavior imposed costs on its competitor that reduced the current or potential supply of substi-

of this proposal would encourage defendants to present rigorous econometric estimates so as to reduce the damage basis.

66. The Supreme Court needs no further congressional authorization to adopt this proposed test. First, even if one characterizes the social welfare test as a radical departure from existing precedents, the Court still has the congressionally delegated authority to construct a body of antitrust common law. See note 6 *supra*. Second, the social welfare test is entirely compatible with—and, moreover, adds greater content to—the Court's holding in *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477 (1977), that an antitrust damage recovery requires proof of "antitrust injury, which is to say injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants' acts unlawful." *Id.* at 489 (emphasis in original). See also Page, *supra* note 1. When read in conjunction with the Court's quotation of Bork in *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (quoting R. BORK, *supra* note 2, at 66), that "Congress designed the Sherman Act as a 'consumer welfare prescription,'" the *Brunswick* holding resembles the test proposed here, because Bork's definition of consumer welfare unambiguously envisions a tradeoff between cost savings and dead-weight loss. See R. BORK, *supra* note 2, at 107-10. Finally, the Court could find implicit congressional support for the social welfare test in recent legislation that weighs public benefits against anticompetitive effects. *E.g.*, Airline Deregulation Act of 1978, 49 U.S.C. § 1382(c)(2)(A)(i) (Supp. III 1979).

Nonetheless, Congress could assist the Supreme Court in redrafting the law of antitrust damages by amending § 4 in two ways. First, the plaintiff should be entitled to recover the defendant's illegal profits. Second, courts should have the discretion to award multiple damages, larger or smaller than treble damages, according to the concealability of the illegal behavior. As redrafted, with deletions bracketed and amendments italicized, § 4 would read:

Any person who shall be injured in his business or property by reason of anything in the antitrust laws may sue therefor . . . without regard to the amount in controversy, and shall recover [threefold the damages by him sustained] *the larger of either*

(a) *the defendant's profits attributable to the antitrust violation, divided by the court's estimate of the probability that the violation would be detected, or*

(b) *the plaintiff's actual injury,*

and the cost of suit, including a reasonable attorney's fee. *The court shall rebuttably presume the probability of detection to be one-third.*

Congress could create a first-in-time, first-in-right bounty-hunter procedure for antitrust enforcement simply by drafting § 4(a) to read instead: "the defendant's *entire* profits attributable to the antitrust violation."

tutes,⁶⁷ then the court should award damages that restore the competitor's prior level of productive efficiency.

Specifying the method for measuring the damage basis for expansionary behavior is extremely difficult. The simplest case arises when the producer imposes additional fixed costs on a competitor. A court can prevent the producer from acquiring exploitative power in this manner simply by awarding damages equal to the increase in the competitor's total costs. The harder case arises when the producer imposes additional marginal costs on its competitor. Then the court must award damages that will enable the competitor to acquire new production processes to lower its marginal costs to the prior level. Because the cost of these new processes bears no necessary relationship to the size of the competitor's injury, the calculation of damages in this case cannot be accomplished in a systematic fashion.

IV. CONCLUSION

By articulating the economic foundation for antitrust damages, the Supreme Court can reconcile the law of antitrust damages with the law of antitrust liability, thereby producing a unified theory of competitive rights whose purpose and effect is to enhance the wealth of society. The Court specifically should recognize that a producer has the right to exploit or expand its market power in any manner that does not produce a net loss in allocative or productive efficiency. When the producer exercises this right, the injured consumer or competitor should go uncompensated. A theory of antitrust damages predicated on this right will ensure that the antitrust laws no longer serve the irrational goal of deterring producer behavior that increases the nation's wealth.

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67. See note 52 *supra*.