

Predatory Pricing and Related Practices under Section 2 of the Sherman Act

Author(s): Phillip Areeda and Donald F. Turner

Source: *Harvard Law Review*, Vol. 88, No. 4 (Feb., 1975), pp. 697-733

Published by: The Harvard Law Review Association

Stable URL: <http://www.jstor.org/stable/1340237>

Accessed: 06/07/2009 16:43

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=harvardlaw>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.



The Harvard Law Review Association is collaborating with JSTOR to digitize, preserve and extend access to Harvard Law Review.

PREDATORY PRICING AND RELATED PRACTICES
UNDER SECTION 2
OF THE SHERMAN ACT †

Phillip Areeda* and Donald F. Turner**

A firm may reduce its prices in an attempt to destroy its rivals or to deter new entry. Although the Sherman Act has long been construed to prohibit this practice, the case law on predatory pricing has been characterized by vagueness and a paucity of economic analysis. In this Article, Professors Areeda and Turner analyze the predatory pricing offense in terms of its economic underpinnings. After briefly reviewing the fundamental economic concepts of cost-measurement and profit-maximization, the authors examine the relationship between a firm's prices and its costs in order to define a rational dividing line between legitimately competitive prices and prices that are properly regarded as predatory. They then apply their analytical framework to possible techniques of predation other than general price reductions.

ALTHOUGH antitrust law is not usually concerned with setting a limit on price competition, under certain conditions low prices may have anticompetitive effects. A firm which drives out or excludes rivals by selling at unremunerative prices is not competing on the merits, but engaging in behavior that may properly be called predatory. There is, therefore, good reason for including a "predatory pricing" antitrust offense within the prescription of monopolization or attempts to monopolize in section 2 of the Sherman Act.¹

Treatment of predatory pricing in the cases and the literature,

† Copyright 1975 by Phillip Areeda and Donald F. Turner. This Article is an adaptation of part of a treatise on antitrust law that is being prepared for publication by the authors.

* Professor of Law, Harvard University (on leave). A.B., Harvard, 1951; LL.B. 1954. Professor Areeda is currently Counsel to the President of the United States. This Article was drafted before he became associated with the federal government and does not reflect the views of any government agency.

** Professor of Law, Harvard University. B.A., Northwestern University, 1941; Ph.D., Harvard University, 1947; LL.B., Yale University, 1950.

¹ 15 U.S.C. § 2 (1970); see, e.g., *United States v. American Tobacco Co.*, 221 U.S. 106, 182 (1911); *Standard Oil Co. v. United States*, 221 U.S. 1, 43 (1910). The Clayton Act, as amended by the Robinson-Patman Act, also provides a safeguard against predation in its prohibition of price discrimination. 15 U.S.C. § 13 (1970); see, e.g., *Moore v. Mead's Fine Bread Co.*, 348 U.S. 115 (1954); *Porto Rican American Tobacco Co. v. American Tobacco Co.*, 30 F.2d 234 (2d Cir.), cert. denied, 279 U.S. 858 (1929). See also 15 U.S.C. § 13a (1970) (unlawful to "sell . . . at unreasonably low prices for the purpose of destroying competition or eliminating a competitor"). Although most of our discussion will be based on the reach of the Sherman Act, § 2, the issues are substantially the same under the Clayton Act insofar as that statute is concerned with predatory pricing. See pp. 724-28 *infra*.

however, has commonly suffered from two interrelated defects: failure to delineate clearly and correctly what practices should constitute the offense,² and exaggerated fears that large firms will be inclined to engage in it.³ Unhappy rivals may automatically assume predation when a competitor's price is below their costs, disregarding the possibility that the alleged predator's cost is well below theirs and more than covered by his price. Moreover, "selling at a loss" might be viewed as improper even though the seller would incur greater losses if it attempted to charge a higher price or if it ceased production altogether.⁴

These vague formulations of the offense overlook the fact that predation in any meaningful sense cannot exist unless there is a temporary sacrifice of net revenues in the expectation of greater future gains. Indeed, the classically-feared case of predation has been the deliberate sacrifice of present revenues for the purpose of driving rivals out of the market and then recouping the losses through higher profits earned in the absence of competition.⁵ Thus, predatory pricing would make little economic sense to a potential predator unless he had (1) greater financial staying power than his rivals, and (2) a very substantial prospect that the losses he incurs in the predatory campaign will be exceeded by the profits to be earned after his rivals have been destroyed.

As for the first prerequisite, it should, of course, be recognized that predation cannot be successful, and therefore is unlikely to occur, when the predators' rivals possess resources comparable to his own. Even when an alleged predator has greater staying power, however, attention must also be given to the second prerequisite, which is less likely to occur. Although a predator may drive competitors into bankruptcy, their durable assets may remain in the market in the hands of others. Moreover, a firm can anticipate monopoly profits for only so long as its monopoly prices

² See, e.g., *Atlas Bldg. Prod. Co. v. Diamond Block & Gravel Co.*, 269 F.2d 950 (10th Cir. 1959), cert. denied, 363 U.S. 843 (1960); *Maryland Baking Co. v. FTC*, 243 F.2d 716 (4th Cir. 1957).

³ See, e.g., *Reynolds Metal Co. v. FTC*, 309 F.2d 223, 229-30 (D.C. Cir. 1962); *Foremost Dairies, Inc.*, 60 F.T.C. 944, 1083-84 (1962); MacIntyre & Volhard, *Predatory Pricing Legislation — Is It Necessary?*, 14 B.C. IND. & COM. L. REV. 1 (1972). One commentator has suggested that predatory pricing is likely to be used in combination with attempts to merge or with cartelization, but includes all pricing that is not profit-maximizing in his definition of "predatory." See Yamey, *Predatory Price Cutting: Notes & Comments*, 15 J. L. & ECON. 129 (1972).

⁴ See note 20 *infra*.

⁵ A large firm may also "sell at a loss" for the purpose of disciplining smaller rivals for undercutting its monopoly price. Although this practice may not drive rivals out of the market, it does enable the disciplining firm, if successful, to regain losses it incurred during the period of discipline. See pp. 706-09 *infra*; note 35 *infra*.

do not attract new entry. Losses incurred through predation could be regained in markets with very high barriers to entry. In many markets, however, and especially in those having a number of small rivals, entry barriers may be nonexistent or at least too low to preclude entry. Admittedly, a demonstrated willingness to indulge in predatory pricing might itself deter some smaller potential entrants, but it is unlikely to inhibit firms with resources comparable to those of the predator. Repeated predation in the same market, moreover, is not only costly but is likely to be easily detectable and thus the occasion for severe antitrust sanctions. The prospects of an adequate future payoff, therefore, will seldom be sufficient to motivate predation.⁶ Indeed, proven cases of predatory pricing have been extremely rare.⁷

That predatory pricing seems highly unlikely does not necessarily mean that there should be no antitrust rules against it. But it does suggest that extreme care be taken in formulating such rules, lest the threat of litigation, particularly by private parties, materially deter legitimate, competitive pricing. Courts in predatory pricing cases have generally turned to such empty formulae as "below cost" pricing,⁸ ruinous competition,⁹ or predatory intent¹⁰ in adjudicating liability. These standards provide little, if any, basis for analyzing the predatory pricing offense. In this Article we will attempt to formulate meaningful and workable tests for distinguishing between predatory and competitive pricing by examining the relationship between a firm's costs and its

⁶ It has also been argued that predatory pricing to drive out rivals is unlikely because the alternatives of acquiring rivals by merger or forming a price cartel are less costly. See McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J. L. & ECON. 137, 138-43 (1958); Telsler, *Cutthroat Competition and the Long Purse*, 9 J. L. & ECON. 259 (1966). In the early years of the Sherman Act predatory pricing was used to coerce rivals into merger with the predator or into joining a price cartel. See, e.g., *Standard Oil Co. v. United States*, 221 U.S. 1 (1910); *United States v. E.I. du Pont de Nemours & Co.*, 188 F. 127, 140 (Cir. Ct. Del. 1911). When these alternatives are also illegal and either more visible or more difficult to effect, however, the argument that they will supplant predatory pricing is unpersuasive.

⁷ See Koller, *The Myth of Predatory Pricing—An Empirical Study*, 4 ANTI-TRUST L. & ECON. REV. 105 (Summer 1971).

⁸ See, e.g., *National Dairy Prod. Corp. v. United States*, 350 F.2d 321, 327 (8th Cir. 1965), *vacated and remanded on other grounds*, 384 U.S. 883 (1966); *Forster Mfg. Co. v. FTC*, 335 F.2d 47, 53 (1st Cir. 1964), *cert. denied*, 380 U.S. 906 (1965); *E. B. Muller Co. v. FTC*, 142 F.2d 511, 517 (6th Cir. 1944).

⁹ *Porto Rican American Tobacco Co. v. American Tobacco Co.*, 30 F.2d 234, 236 (2d Cir.), *cert. denied*, 279 U.S. 858 (1929).

¹⁰ See, e.g., *Moore v. Mead's Fine Bread Co.*, 348 U.S. 115, 118 (1954); *Forster Mfg. Co. v. FTC*, 335 F.2d 47, 52 (1st Cir. 1964), *cert. denied*, 380 U.S. 906 (1965); *Maryland Baking Co. v. FTC*, 243 F.2d 716, 718 (4th Cir. 1957); *E. B. Muller & Co. v. FTC*, 142 F.2d 511, 517 (6th Cir. 1944).

prices. We will first review some rudimentary economic distinctions among various measures of cost and their relevance to profit-maximization. We will then discuss which measurements of cost should be used to determine when a firm is engaging in predatory pricing. Finally we will examine predatory devices other than general price reductions.¹¹

I. ALTERNATIVE MEASURES OF COST¹²

The economic costs facing a firm differ in an important respect: some are "fixed," and others are "variable." Fixed costs are costs that do not vary with changes in output. They typically include most management expenses, interest on bonded debt, depreciation (to the extent that equipment is not consumed by using it), property taxes, and other irreducible overhead. And though not an accounting cost, fixed costs should be deemed to include the return on investment that would currently be necessary to attract capital to the firm — what the economist refers to as the opportunity cost to the owners of the firm. In short, it is reasonably accurate to say that fixed costs are costs that would continue even if the firm produced no output at all.

Variable costs, as the name implies, are costs that vary with changes in output. They typically include such items as materials, fuel, labor directly used to produce the product, indirect labor such as foremen, clerks, and custodial help, utilities, repair and maintenance, and per unit royalties and license fees. The average variable cost is the sum of all variable costs divided by output.

Marginal cost is the increment to total cost that results from producing an additional increment of output. It is a function solely of variable costs, since fixed costs, by definition, are costs unaffected by changes in output. Marginal cost usually decreases over low levels of output and increases as production approaches plant capacity.¹³

Average cost is the sum of fixed cost and total variable cost, divided by output. It is, by definition, higher than average variable

¹¹ The bulk of our analysis focuses on what should be deemed to be a predatory practice by a monopolist, since that is the "worst case." Practices acceptable for the monopolist are a fortiori acceptable for firms with less market power. However, we shall also indicate the respects in which nonmonopoly firms should have wider latitude.

¹² See generally R. DORFMAN, *PRICES AND MARKETS* (2d ed. 1972).

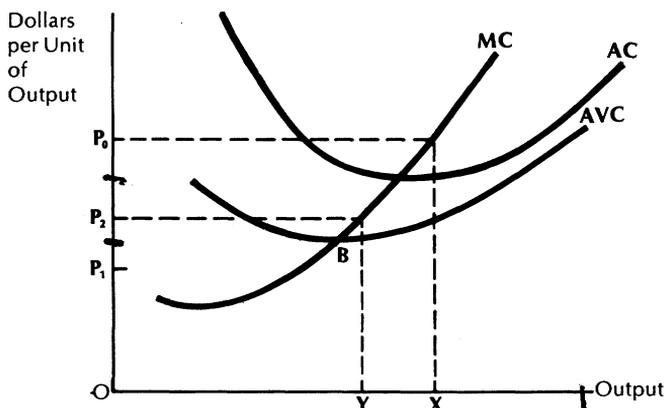
¹³ If variable costs are strictly proportional to output, marginal cost will equal average variable cost at all outputs. If not, marginal cost will be lower than average variable cost at some (usually low) outputs and higher at other (usually high) outputs.

cost at all outputs, but will typically be below marginal cost at very high levels of output, when the plant is strained beyond efficient operating capacity.¹⁴

Which costs are fixed and which are variable (and hence marginal) is a function of both (1) the magnitude of the contemplated change in output, and (2) time. Virtually all costs are variable when a firm, operating at capacity, plans to double its output by constructing new plants and purchasing new equipment. Moreover, more costs become variable as the time period increases. The variable costs described above are those incurred in what is usually termed the "short run," namely, the period in which the firm cannot replace or increase plant or equipment. Conversely, in the "long run" the firm can vary quantities of *all* inputs (plant and equipment as well as shortrun variable inputs); thus, all costs are variable over the long run.¹⁵

In order to determine which of these various costs is relevant to predatory, "below cost," selling, we must first ask what costs are relevant to the firm which is seeking to maximize profits or minimize losses, since a firm which seeks to do so is normally responding to acceptable economic incentives and thus is not engaging in predatory behavior. The profit-maximizing or loss-minimizing output for any firm, whether competitive or monopolistic, is that where any increase in output would add more to costs than to revenues and any decrease in output would reduce revenues more than costs. In short, in deciding whether it would increase or decrease output, the firm looks to the *incremental*

¹⁴ The different categories of cost and their relationship can be portrayed by the following classic diagram:



Marginal cost (MC) is equal to average variable cost (AVC) when AVC is at a minimum and is equal to average cost (AC) when AC is at a minimum.

¹⁵ There is, of course, no single time period that determines the short or long run. As the time period lengthens, more fixed costs become variable.

effects on revenues and costs. Thus, the relevant cost is marginal cost.¹⁶

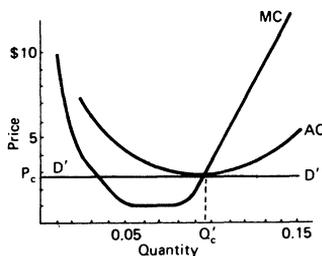
Under conditions of perfect competition, a firm always maximizes profits (or minimizes losses) by producing that output at which its marginal cost equals the market price.¹⁷ This occurs because the perfectly competitive firm accepts the market price as given since it is, by definition, too small to affect market price by any variations in output. Accordingly, its incremental or marginal revenue from selling any additional unit of output is equal to the market price itself. Thus, when price is equal to marginal cost, changes in output will reduce profits. This solution in the perfectly competitive world also produces an efficient allocation of resources: market price reflects what consumers are willing to pay for the last unit of output; marginal cost reflects the full current cost of resources needed to produce it; a higher price would result in a reduction in output and thus deprive some buyers of a commodity for which they were willing to pay the cost of production.¹⁸

The firm with monopoly power, however, has, by definition, captured a sufficiently large part of a market to determine market

¹⁶ Since fixed costs do not vary with changes in output, they are irrelevant to a determination of the profit-maximizing or loss-minimizing output. The size of the fixed costs determines only whether, at the best output, the firm will earn excess, normal, or below-normal returns. Of course, if the firm can at best make below-normal returns, and the prospects remain the same when the time comes for plant or equipment to be replaced, the rational firm would not make the reinvestment and its output would decline or cease. But at the time that such a decision is made, the fixed costs would no longer be fixed but would have become a part of variable cost, since they would then be affected by variations in output.

¹⁷ If, however, price is below average variable cost at all levels of output, the firm can minimize losses only by ceasing operations. Since the average cost of production of each unit is greater than the revenue realized from its sale, any output greater than zero increases the firm's losses. At price P_1 on the diagram in note 14 *supra*, the loss-minimizing firm will shut down.

¹⁸ The following diagram shows the profit-maximizing price for the perfectly competitive firm:



Since the firm is unable to affect price by changes in its output, it faces a horizontal demand curve. The firm maximizes profit when price (P_c) is equal to marginal cost (MC).

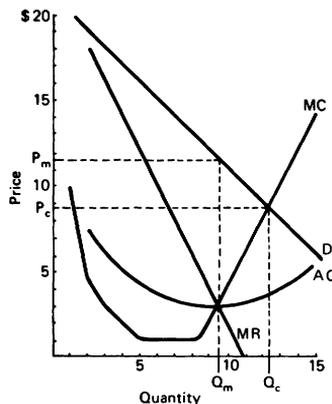
price by varying its output. For the monopolist facing the usual "downward sloping" demand curve (and unable to engage in significant price discrimination), an increase in output will reduce the market price. Thus, the incremental revenue to the monopolist from selling an additional unit is the lower price received for that unit, minus the revenue lost from selling all other units at the lower price. For him, therefore, marginal revenue is always below price, with the result that the output at which marginal cost equals marginal revenue will generate a price that exceeds marginal cost.¹⁹ The monopolist's price is thus higher, and its output lower, than the social optimum; any higher output and lower price would be an improvement in resource use up to the point where, as in a competitive market, price equals marginal cost.

II. PREDATORY PRICING IN GENERAL

A. *The Problem*

We are now able to characterize more precisely the predatory pricing problem. We would normally expect a profit-maximizing firm, within the limits of data and convenience, to attempt to maximize profits or minimize losses in the short run — the competitive firm by producing where marginal cost equals price, and the monopolist by producing where marginal cost equals marginal revenue. The firm that is selling at a shortrun profit-maximizing (or loss-minimizing) price is clearly not a predator. A necessary, but, as we will subsequently argue, not sufficient condition of predation is the sacrifice of shortrun profits.

¹⁹ Because the monopolist can affect market price by varying its output, it faces a downward sloping demand curve (D):



The monopolist maximizes profit when marginal revenue (MR) is equal to marginal cost (MC). Thus, in the illustration, the profit-maximizing monopolist will produce quantity Q_m and sell at price P_m , which is higher than marginal cost.

Shortrun profit-maximizing may adversely affect profitability in the longer run. A firm may correctly calculate that shortrun losses will be more than repaid by the higher monopoly prices that can be charged after competitors have been driven out. Accordingly, longrun profit-maximizing should not be an absolute or automatic defense to allegedly predatory, shortrun profit-sacrificing. However, not all deliberate sacrificing of shortrun profits is illegitimate. A firm may voluntarily assume shortrun losses in situations where monopoly is neither sought nor possible, and where, as in the case of a new entrant seeking to become established in a market, such action promotes rather than retards competition. Thus, a standard based upon shortrun profit-maximizing is not an adequate means of defining the legitimate price floor for firms in general. Indeed, even for a monopolist, a profit-maximization standard is inappropriate. Definition of a proper price floor requires an understanding of the relationship between a firm's prices and various measures of cost.

B. *Prices At or Above Average Cost*

When price is equal to average cost, the firm is at the "break even" point — that is, total revenues just cover total costs, including normal returns on investment. The relationship between price and average cost does not, however, determine whether a firm is profit-maximizing; it shows only whether the firm is making excess, normal, or below-normal returns.

When a monopolist sells at a price at or above average cost, but could earn higher shortrun profits at a higher price, the necessary element of predation is presumably present.²⁰ Unless acting irrationally or out of ignorance, the firm is likely to be charging the lower price in order to preserve or enhance its market share by deterring rivals.²¹ Such pricing may take two forms: (1) the

²⁰ When a firm sells at a price *below* average cost it is incurring a loss. The mere fact that the firm is not recovering full costs, however, is not grounds for concluding that its price is predatory. Losses are sometimes inevitable; demand conditions may dictate that a firm earn its maximum net revenue over variable costs at a price below average cost. For example, in the diagram in note 14 *supra*, a firm may be loss-minimizing at price P₂. While not recovering full fixed costs, such a firm is not sacrificing available present returns for any anti-competitive objective. The shortrun, loss-minimizing price cannot, therefore, be considered predatory or otherwise objectionable by antitrust law.

This proposition will not resolve many real cases. It will be exceedingly difficult to know what is or is not a loss-minimizing price. Nevertheless, the proposition is an important one in principle, for it serves to remind us that the defendant's failure to earn profits or even to recover his full cost is not necessarily objectionable.

²¹ The firm may also be keeping price down to reasonable levels during periods of high demand in order to preserve customer goodwill.

firm may permanently charge less than a profit-maximizing price in order to deter entry or to destroy rivals; or (2) it may first charge a profit-maximizing price, lower the price when rivals appear, and then raise the price when the rivals are extinguished. However, in both instances, we conclude that such pricing behavior should be deemed non-predatory so long as the prices equal or exceed average total cost. Our analysis of each variation follows. In each instance we assume that the price is equal to or greater than both average cost and marginal cost.²²

1. *Limit Pricing.* — A monopolist protected by an insurmountable barrier to the entry of others can charge whatever price will maximize his profit. The ability of other firms to overcome entry barriers may, however, affect the monopolist's price. To oversimplify a bit, suppose that the monopolist's profit-maximizing price is \$100 per unit, but a \$100 price would attract entry while a \$90 price would not. Average total costs (including a normal return on investment) at an efficient scale of output might be \$80 to the monopolist but \$91 for newcomers. In that event, the monopolist will have to choose between inducing entry at the profit-maximizing price of \$100 and retaining the entire market at the \$90 price. If the discounted income stream at the lower price exceeds that from sharing the market at the higher price, the monopolist will charge the lower price. Although the lower price would thus be the longrun, profit-maximizing price, it is usually called a "limit price" and contrasted with the higher, shortrun, profit-maximizing price determined without reference to possible entry.²³

The limit price is intended by the monopolist to impair the opportunities of rivals, and, if successful, it does prevent competition from arising. In the absence of limit pricing, competition might arise and force the price down to the former limit price or even lower, if the presence of additional firms induces cost paring, reduction of "slack," and, in the long run, more efficient production. Without limit pricing other benefits of competition may also arise. More firms in the market might, for example, lead to more invention and innovation and a quicker dispersion of existing innovations throughout the economy.

We do not, however, believe that these arguments justify a prohibition against limit pricing. Superior products or service, successful innovation, or other effective competition on the merits always tends to exclude rivals. Without them, more competitors might arise and eventually achieve comparable or better results,

²² The unusual case where price equals or exceeds average cost but is less than marginal cost is discussed at pages 712-13 *infra*.

²³ See generally J. BAIN, *INDUSTRIAL ORGANIZATION* 269-76 (2d ed. 1968).

but we do not accept such speculative possibilities in exchange for the present benefits of superior competitive performance. Exclusion by charging prices equal to average cost is also competition on the merits — only those potential entrants who cannot survive at the efficiency-related price are kept out.²⁴ And the lower prices, higher output, and fuller use of the monopolist's productive capacity are, of course, socially beneficial.

In sum, without even considering the formidable administrative problems which supervising a monopolist's pricing policies would impose,²⁵ we conclude that more-or-less permanently "low" prices are competition on the merits and not an abuse of power or exclusionary behavior for the purposes of section two of the Sherman Act.²⁶

2. *Temporary Price Reduction to Average Cost.* — Where entry is easy and relatively costless, the monopolist would have to maintain the lower price to forestall renewed entry. But where a new entrant must make a large investment in facilities, personnel training, distribution development, or product promotion, he will not enter without the prospect of survival for a period sufficiently long to recover at least those initial costs. The potential entrant who cannot survive at a price covering the monopolist's costs will not, therefore, enter when he thinks it probable that the monopolist will adopt that lower price in response to entry. If the monopolist reduces his price once or twice, he will discourage future entry. In such circumstances, monopoly may be maintained without a permanent price reduction, and thus consumers will not receive the long-term benefit of the higher output at lower price by which rivalry was destroyed or prevented. This result is certainly not a happy one.

Nevertheless, despite the loss of long-term benefits to consumers, this case is analytically indistinguishable from the preceding case. Temporary price reductions are no more exclusionary than permanent low prices, and may be even less so since some entrants may have the staying power to meet the monopolist's temporary, low price. In either case, the low price at or above

²⁴ Similarly, only less efficient, existing rivals will be eliminated by the monopolist's limit price.

²⁵ See pp. 707-09, 711 *infra*.

²⁶ Our conclusion that it makes no legal sense to compel a monopolist to invite entry by exploiting consumers, or to force a firm to forego price competition on the merits with existing rivals is no less applicable when a firm permanently reduces an earlier and higher price to a price at or above average cost even though he would earn larger, shortrun profits at the higher price. The fact that a firm once restricted output or exploited buyers, generates no social interest in continued exploitation. Moreover, the fact that the lower price is relatively permanent provides some assurance that the firm is making a normal return, since otherwise it would be unlikely to maintain the lower price.

average cost is competition on the merits and excludes only less efficient rivals. Even if this were not fully convincing we would still conclude that temporary price reductions in response to rivalry or threatened rivalry should not be judged unlawfully exclusionary under the Sherman Act because of the formidable administrative problems in attempting to control such temporary price reductions adequately, efficiently, and without interfering unduly with desirable pricing behavior.

We see no satisfactory method of control. One might try to forbid the high monopoly price and thereby assure that consumers always have the benefit of competitive prices. There are, however, serious theoretical and practical difficulties in determining what is a "reasonable" (nonmonopoly) price, as the history of public ratemaking makes painfully manifest. Determination of a reasonable price would require continuing supervision as cost, demand, and technological functions change. Antitrust courts have rightly resisted undertaking the heavy, continuous, and unguided burden of supervising the economic performance of business firms.²⁷ Moreover, a monopolist whose power was legitimately acquired by patents cannot be denied monopoly profits without subverting the purpose of the patent laws. Similarly, denying monopoly profits to those whose power was obtained by superior skill, foresight, and industry could eliminate the primary incentive to develop such competitive skill. Finally, price restrictions would have perverse effects on the efficiency and innovation aspects of a monopolist's on-going performance by eliminating the reward.²⁸

Alternatively, one might try to forbid a monopolist from lowering his price below the price charged by a rival or announced by

²⁷ The conclusions of the Supreme Court in rejecting a "reasonable price" defense to a price-fixing agreement are equally apposite here:

The reasonable price fixed today may through economic and business changes become the unreasonable price of tomorrow. Once established, it may be maintained unchanged because of the absence of competition secured by the agreement for a price reasonable when fixed. Agreements which create such potential power may well be held to be in themselves unreasonable or unlawful restraints, without the necessity of minute inquiry whether a particular price is reasonable or unreasonable as fixed and without placing on the government in enforcing the Sherman Law the burden of ascertaining from day to day whether it has become unreasonable through the mere variation of economic conditions. Moreover, in the absence of express legislation requiring it, we should hesitate to adopt a construction making the difference between legal and illegal conduct in the field of business relations depend upon so uncertain a test as whether prices are reasonable — a determination which can be satisfactorily made only after a complete survey of our economic organization and a choice between rival philosophies.

United States v. Trenton Potteries Co., 273 U.S. 392, 397-98 (1927).

²⁸ For a discussion of the relationship between monopoly and innovation see F. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 363-77 (1970).

an entrant. This would guarantee the entrant or the rival protection from any competitive price initiatives on the part of the monopolist. The administrative problems with this method, however, are also substantial. Relative qualities and consumer preferences have to be assessed in order to determine when a particular price in fact merely meets rather than effectively undercuts the rival's price.²⁹ Moreover, a time limit would have to be placed on the constraint, since otherwise new entrants would be motivated to maintain monopoly prices and the constraint itself would have an anticompetitive effect. The constraint might last only until new entrants recover start-up costs, thereby assuring the survival of entrants able to produce as efficiently as the firm with monopoly power. It would, however, be difficult to determine the time needed for recovery of start-up costs, and the longer the constraint lasts the more likely that it will encourage waste by the new entrants. Moreover, even a temporary imposition of a price floor could encourage entry of inefficient firms.³⁰

Finally, one might forbid the reversal of a price decrease and thereby either discourage temporary price reductions from the outset or at least give consumers the permanent benefit of the lower prices by which a monopolist destroyed his rivals or prevented their entry. Although this method is perhaps the most feasible, we feel that it should be rejected for a number of reasons. First, forbidding reversal of a price decrease would greatly increase the likelihood that a monopolist would elect to forego the price reduction and maximize his monopoly profits until such time as entry or expansion of rivals eliminates them. Foregoing the reduction would encourage the entry of less efficient rivals.

Second, enforcement of such a rule would require adjustments to cope with subsequent changes in costs or demand. Most obviously, the price ceiling would have to be raised with an increase in such factor costs as wage rates or materials, or with an increase in demand that could only be met at marginal costs above the price ceiling. In such events, failure to raise the ceiling would result either in (1) uneconomically high output (where price is less than marginal cost) or (2) insufficient output to meet the demand at the ceiling price, which would in turn lead to private rationing or a "gray" market in which resales took place at higher prices.

²⁹ See p. 716 & note 41 *infra*.

³⁰ Alternatively, the pricing constraint on the monopolist might be maintained until new entrants or rivals had acquired a specified market share. Such a limit, however, would not only encourage entry of less efficient firms seeking to take advantage of a guaranteed market share, but would also provide an incentive for rivals to restrict output just short of the specified share in order to maintain high prices.

Moreover, enforcing a price ceiling would raise the problem of reduced profits or even losses for the monopolist in the event of a decrease in demand. Theory might suggest no relief or even a price reduction, on the ground that if competition had not been excluded the same result would have obtained. But it is at least doubtful that so ruthless an approach would be acceptable even under legislatively authorized "public utility" regulation. And such a policy would further discourage a monopolist from making any price reductions.

In sum, a rule forbidding reversal of a price reduction would impose on enforcement agencies and the courts administrative burdens that are not justified by the speculative benefits such a rule might bring. Accordingly, we conclude that a price at or above average cost should be deemed non-predatory, and not in law exclusionary, whether permanent or not.

We are under no illusions that a rule permitting prices at or above average cost is easily applied. Average cost includes a "normal" return on investment, a figure usually not determinable with any precision. But the principle that average-cost pricing is legitimately competitive is an important one and may serve to dispose quickly of cases in which the alleged predator's rate of return is normal by any reasonable test.³¹

C. *Marginal-Cost Pricing*

In the previous Section we considered the threat to rivals and new entrants posed by a price that is profitable to the monopolist but not to the rival. In some instances, however, the monopolist's price may both generate below-normal returns — that is, it may be below average cost — and be below the loss-minimizing price. Because such a price yields less than the normal return on capital, it can threaten the survival of equally efficient rivals with less staying power than the monopolist enjoys. We will consider these loss-producing prices in two categories: (1) those equal to or greater than marginal cost and (2) those less than marginal cost.

1. *Prices At or Above Marginal Cost.* — At the outset we can eliminate from our consideration situations in which the monopolist is producing beyond the output at which his plant functions most efficiently, since at such high levels of production, marginal cost will exceed average cost. In such cases, pricing at or above marginal cost will not eliminate equally efficient rivals or potential

³¹ The district court in *Telex Corp. v. IBM*, 367 F. Supp. 258 (N.D. Okla. 1973), apparently failed to recognize this principle. Despite a lack of evidence that IBM reduced prices below cost and a reasonable profit, and despite IBM's anticipation of returns "in excess of 20%," the court found that IBM had engaged in predatory pricing. *Id.* at 306.

entrants, who may freely restrict their output to efficient levels, and thus make substantial profits at the monopolist's price.

We need consider, then, only instances when marginal cost is below average cost, a situation which will not occur unless the monopolist possesses "excess capacity."³² Only then will the monopolist's marginal cost price deprive equally efficient rivals, actual or potential, of "normal" returns on their capital.³³

Although narrowed, the problem remains: the equally efficient rival might be destroyed or dissuaded from entering not because he is less efficient but because he has less capital. Consider two illustrations. First, suppose that the monopolist occupies an entire market by himself and that his plant has excess capacity. Suppose further that the monopolist could maximize profits at a price exceeding average cost but chooses to dissuade entry by pricing at marginal cost, which is now below average cost. Although it may preserve a monopoly, this price seems socially appropriate, because the construction of additional capacity where excess capacity already exists would waste social resources. Indeed, a price higher than marginal cost would yield a smaller output and would waste present resources. Existing capacity, that could be used to produce at a cost less than the added value to consumers, would be idled.

Second, suppose that (1) a monopolist and his smaller rival have identical cost curves, (2) both have been producing at full capacity and earning significant profits, (3) demand falls during a temporary, two-year recession, (4) the monopolist would maximize profits at a price above average cost, (5) the monopolist chooses to price at marginal cost, which is now below average cost, (6) the rival has insufficient liquid resources or access to new capital to cover his losses and service his capital debt, (7) the rival thereby expires, (8) his assets and business are withdrawn from the market, and (9) subsequent new entry is difficult. In this set of circumstances, marginal-cost pricing by the monopolist does not merely discourage the addition of immediately redundant capacity, but has the effect of destroying an equally efficient rival.³⁴

³² A firm has excess capacity (and marginal cost is below average cost) when the demand curve intersects the average cost curve to the left of minimum average cost, *i.e.*, prior to the point where marginal cost equals average cost.

³³ We also do not consider here loss-minimizing prices below average cost. As we have noted, *see* note 20 *supra*, such prices lack the predatory element of sacrificing current revenues.

³⁴ This illustration is not meant to suggest that facts number four and number five will actually occur with any frequency; nor is it inevitable that the rival will fail to ride out the recession, that his assets will in fact be withdrawn from the

Nevertheless, we conclude that prices at or above marginal cost, even though they are not profit-maximizing, should not be considered predatory. If a monopolist produces to a point where price equals marginal cost, only less efficient firms will suffer larger losses per unit of output; more efficient firms will be losing less or even operating profitably. Admittedly, the destruction of an equally efficient rival, and the deterrence of entry of firms which are equally efficient, poses some threat to competition in the long run; if demand increases to its former level, only the monopolist will occupy the market which he formerly shared with the rival. However, we see no satisfactory method of eliminating this risk. Establishing a price floor above marginal cost would permit survival not only of equally efficient firms, but less efficient ones as well. And in the short run, at least, entry even by equally efficient firms will be undesirable since excess capacity already exists.

Furthermore, to force the firm to charge a higher price would reduce industry output and waste economic resources in the short run. Output that could be produced at a cost lower than its value to consumers would be eliminated. Thus, pricing at marginal cost is the competitive and socially optimal result.

Finally, enforcement of a prohibition against marginal-cost pricing would create serious administrative problems. If the monopolist were prohibited from dropping his price down to marginal cost, then some price floor above marginal cost would be required. Such a floor should be set no higher than a monopolist's loss-minimizing price since a higher price is not predatory and would require the monopolist to incur greater losses. Yet, a floor so defined would be more difficult to administer or comply with than a marginal-cost floor. Difficult as it may be for a firm to calculate marginal cost, it is vastly more difficult to calculate in advance what the loss-minimizing price would be. In addition to marginal costs, the firm would have to estimate what the shape and position of its demand curve will be, which would in turn require an estimate, among other things, of the price and output responses of rivals to various prices it might charge. To hold the monopolist responsible, after-the-fact, for reasonable miscalculations would be an intolerable burden, and encourage a high-price policy in order to be safe. And it is likely to be nearly as difficult to make after-the-fact determinations of what would have been the loss-minimizing price as it was to make them a priori.

Thus, we conclude that a prohibition of marginal-cost pricing

industry, or that reentry will be difficult. Nevertheless, we are posing a testing case in order to examine the principle that marginal-cost pricing should be considered lawful.

cannot be justified either by economic theory or administrative convenience.³⁵

2. *Prices Below Marginal Cost.* — By definition, a firm producing at an output where marginal cost exceeds price is selling at least part of that output at an out-of-pocket loss. It could eliminate that loss by reducing its output or, where the highest obtainable price is below average variable cost at all levels of output, by ceasing operations altogether.³⁶

We have concluded above that marginal-cost pricing by a monopolist should be tolerated even though losses could be minimized or profits increased at a lower output and higher price, for the reasons, among others, that marginal-cost pricing leads to a proper resource allocation and is consistent with competition on the merits. Neither reason obtains when the monopolist prices below marginal cost. The monopolist is not only incurring private losses but wasting social resources when marginal costs exceed the value of what is produced. And pricing below marginal cost greatly increases the possibility that rivalry will be extinguished or prevented for reasons unrelated to the efficiency of the monopolist. Accordingly, a monopolist pricing below marginal cost should be presumed to have engaged in a predatory or exclusionary practice.³⁷

We would make one exception to this rule, namely, when the price, though below marginal cost, is at or above average cost.

³⁵ It is possible that a firm may temporarily reduce its price to marginal cost in order to punish competitors for shading its higher price. If the firm's marginal-cost price merely meets that of its competitors, we see no justification for finding a predatory offense. Meeting a rival's price with a price above marginal cost is competition on the merits and prohibition of that practice would coerce a firm into giving up a portion of its market share whenever rivals choose to cut their prices.

Price reductions below that of a rival are more objectionable, but even here identification of the violation will be difficult in many instances. In an oligopoly situation it would be difficult if not impossible to distinguish "disciplinary" price-cutting from an outbreak of competitive pricing under the pressures of excess capacity. It would be plainly perverse to impose a constraint on competitive pricing, and thus reinforce the innate tendencies of oligopolists to maintain non-competitive prices by cooperation or collusion.

When a monopolist engages in temporary marginal-cost pricing to discipline small rivals, predation is more easily inferred. Nevertheless, because of the difficulties of drawing the lines between monopoly and oligopoly and between "meeting" and "beating" a rival's price, *see* note 41 *infra*, and because of the administrative problems inherent in setting any price floor above marginal cost, we conclude that disciplinary price cuts to levels above marginal cost should be disregarded.

³⁶ *See* note 17 *supra*.

³⁷ Because of the substantial problems involved in determining a firm's marginal cost, we suggest below that average variable cost be used as a surrogate for marginal cost in distinguishing between predatory and non-predatory prices. *See* pp. 716-18 *infra*.

This is not justifiable "on principle," since production to the point where marginal cost exceeds price is wasteful whether or not price exceeds average cost. Nevertheless, practical reasons suggest that the case can be disregarded, for it seems unlikely to have any significant anticompetitive consequences. The case could occur, by definition, only when demand exceeds what the firm can produce at minimum average cost. If the excess demand is temporary, there is little need for new entry. If permanent, pricing below marginal cost, with its consequent high output, may have some deterrent effect on new entry and some adverse effect on existing rivals. The harmful effect, however, will be minimal, since the price is higher than the monopolist's average cost at most efficient levels of output, and equally efficient rivals or entrants would be making above-normal profits at that price.³⁸ Thus, it is unlikely that the monopolist would continue that pricing policy for any substantial length of time, because the prospects of recovering profits lost through attempted predation would be dim.

Pricing above average cost is, however, the only exception we would make to a prohibition of below-marginal-cost prices. A monopolist may attempt to justify prices below marginal cost by claiming either that the price is being used for promotional purposes or that he is simply meeting an equally low price of a rival. We conclude, however, that these justifications are either so rarely applicable or of such dubious merit for a monopolist that the presumption of illegality for prices below both marginal and average cost should be conclusive.

(a) *Promotional Pricing.* — A promotional price is a temporary, low price designed to induce patronage with the expectation that the customer will continue purchasing the product in the future at a higher price. The promotional price may be below cost and is most easily illustrated by the seller who gives his product away without charge to some or all would-be customers.

Unless continued over a long period of time, in which case it is no longer promotional, promotional pricing by new entrants or small firms without monopoly power threatens little or no harm. Promotional pricing can facilitate new entry or the expansion of small rivals in an industry dominated by one or a few large firms. Entrenched consumer loyalties to established brands constitute barriers to entry and to a small firm's growth. For new or even established firms, promotional pricing serves the purely informational function of advertising by alerting consumers to the existence of new products. The low promotional price is preferable to advertising, for it gives the consumer a better buy during

³⁸ See pp. 709-10 *supra*.

the period of promotion and allows him to judge the product on its merits. Of course, the promotion may on occasion temporarily divert demand from better products or more efficient producers, but the diversion will last only long enough for consumers to judge and reject the inferior, promoted product.³⁹

The monopolist can make no such case for promotional pricing. His promotion would not usually intensify competition but would only decrease it — existing rivals will be damaged or driven out, and new entry deterred. In contrast to new entrants or small rivals, he has little need to resort to extreme price reductions to acquaint existing consumers with the merits of his brand.⁴⁰

The only other apparent arguments a monopolist could make are (1) that pricing below marginal cost is necessary to raise the overall market demand by attracting new customers who have not heretofore known or been interested in the product or (2) that it is necessary to enable a firm with declining costs to move to a more efficient level of output. The arguments might be held to justify selective reductions to new customers or in new geographical markets, but as a defense to a general price reduction to present as well as new customers, we find these arguments unpersuasive.

As to the first argument, it is possible but seems highly improbable that an established monopolist would find a general price reduction below marginal cost worthwhile solely because it attracts new customers to the market and thus generates a permanent increase in market demand. The monopolist has a number of alternatives for achieving this goal besides pricing below marginal cost. First, a marginal-cost price itself would ordinarily be a substantial reduction below the shortrun profit-maximizing price for any firm with significant monopoly power, and would thus have a substantial promotional effect. Second, the monopolist may be able to make selective price reductions to marginal cost to new customers or in new geographical areas and thus minimize his shortrun losses from the promotion. Finally, there are the alternatives of selective advertising or other sales efforts. The general price-cut will inevitably draw customers away from rivals as well as attract new buyers, and the effect on those rivals and on new entry will be more severe than any of the alternatives.

³⁹ After short-term promotion, a firm might eventually become so dominant as to obtain monopoly power, but it would have obtained its power because of competitive superiority, and the mere fact that the initial promotion got the firm going is no reason for condemning the promotion.

⁴⁰ It is conceivable that some consumers may have acquired strong loyalties to the brands of small rivals without ever having purchased the monopolist's product. In such event, promotional pricing by a monopolist might be thought defensible. But we consider the case too unlikely to warrant recognition given the risks of abuse that allowing the defense would entail.

We find the declining costs justification for promotional pricing equally unconvincing. Pricing below marginal cost might be rational for a brief period of time for a new producer of an existing product with a very large and much more efficient plant that could supply the entire market at an average cost well below those of existing producers. Similarly, a new producer with a monopoly on an entirely new product might also find it rational to set an initial price below the high marginal costs incurred at early low outputs. But no defense is needed for these declining cost cases. They can be taken care of by a sensible interpretation of the rule that a monopolist is entitled to price at or above *reasonably anticipated* marginal costs. In other words, to establish predatory pricing, it should be necessary to show that a monopolist has priced both below immediate marginal cost and below the marginal cost at the output which he reasonably anticipated he would attain within a reasonable period of time.

(b) *Meeting Competition as a Defense.* — We would not permit a monopolist to price below marginal cost in order to meet the lawful price of a rival. Although there are grounds for permitting him to price below marginal cost in order to meet a rival's unlawful price, the administrative difficulties presented by the necessity of distinguishing the two cases are so great as to lead us to reject the defense altogether.

The first proposition, although questionable, seems correct, particularly where the rival is a new entrant. The fact that the rival's low price may be legitimately promotional, and hence a proper competitive tactic, does not make legitimate the response of a monopolist whose product is already well known. The monopolist who goes below marginal cost to meet a rival's promotion is not competing on the merits; the response will destroy or greatly reduce the effects of the rival's promotional effort, a result likely to be particularly serious for the new entrant, whose usual problem is precisely that of obtaining a profitable volume quickly enough to make start-up losses bearable.

The monopolist might attempt to justify a below-marginal-cost price to meet a rival by claiming that he believed he could rapidly reduce his costs to or below those of his rival, and that it would cost him less to hold his organization and patronage intact than to recover them in the future. This contention, however, would be made in every case, and it would be difficult for the monopolist to know or the court to determine that the monopolist could achieve cost parity, that it would be less expensive to suffer such interim out-of-pocket losses than to bear the future costs of rebuilding his organization and recovering lost patronage, or indeed, that there would be any such future costs at all. Furthermore, the complex problems of defining meeting-rather-than-beat-

ing the rival's price would have to be faced.⁴¹ Courts would have to undertake the difficult task of assessing differences in product quality and thus become involved in speculation about consumer preferences.

There is some basis for allowing a monopolist to meet a rival's unlawful price. The rival's unlawful price is not competition on the merits, and there is no strong reason for denying even a monopolist the opportunity to defend himself from predatory attack. Retaliation may possibly increase the waste of productive resources in the short run, but it is likely to serve the useful purpose of bringing the predator's unlawful pricing to a quicker end. Nevertheless, we would reject even this limited defense for the monopolist when his price is below marginal cost. The administrative problems of defining a price that meets the rival would be further compounded by the need to determine whether the rival's price were indeed unlawful. There is, after all, consolation for the monopolist in his relative security from serious injury at the hands of a smaller rival unlawfully pricing below marginal cost, in the relative infrequency of that challenge to him, and in his ability to bring a private antitrust suit for injunction or damages.

D. Average Variable Cost as a Surrogate for Marginal Cost

In our analysis of predatory pricing we have concluded that marginal-cost pricing is the economically sound division between acceptable, competitive behavior and "below-cost" predation. Thus, we have suggested a prohibition of prices below marginal cost. The primary administrative impediment to enforcing that prohibition is the difficulty of ascertaining a firm's marginal cost. The incremental cost of making and selling the last unit cannot readily be inferred from conventional business accounts, which typically go no further than showing observed average variable cost. Consequently, it may well be necessary to use the latter as an indicator of marginal cost.

An average variable cost rule, like a marginal cost rule, should be flexible enough to allow a defendant to demonstrate that its price was equal to or above a reasonably anticipated average variable cost. A firm may legitimately determine its price and output levels according to expected future costs rather than historical accounting costs. Of course, historical costs may be the

⁴¹ For a discussion of the difficulties encountered by the courts in applying the "meeting competition" defense of the Robinson-Patman Act, 15 U.S.C. § 13(b) (1970), see F. ROWE, PRICE DISCRIMINATION UNDER THE ROBINSON-PATMAN ACT 207-64 (1962).

best approximation of costs for the near future, but a defendant should be permitted to show why it anticipated lower costs in the future.

The consequences of substituting average variable cost for marginal cost depend on the relationship between the two cost measurements. Marginal cost may be equal to, below, or above average variable cost: marginal cost will be equal to average variable cost when the latter is constant, less when it is declining, and greater when it is rising. By reference to the marginal-cost standard, accordingly, reliance on average variable cost may be identical, more prohibitive, or more permissive.

There is no a priori reason to expect any particular firm to be operating at the point where marginal cost equals average variable cost,⁴² but when the two costs measures are identical over the relevant range of output, employing one as a proxy for the other plainly raises no difficulties.

Whenever unit variable cost declines as output expands, the marginal or incremental variable cost of the next unit is necessarily less than the average of the preceding units. Thus, whenever a firm can reduce unit variable cost by expanding output, a price at average variable cost must exceed marginal cost.⁴³ Although an average variable cost standard is more prohibitive in these circumstances, it is the correct test on principle, since a firm that sells below its average variable cost is clearly not loss-minimizing. At a price less than average variable cost the firm is earning no return and could incur fewer losses by ceasing operations.⁴⁴ The primary nonpredatory justification for prices below

⁴² For the usual firm, average variable cost falls and then ultimately rises as output expands. At its low point, the average variable cost curve will be intersected by marginal cost. At that output or range of outputs, the two will be identical. A firm might experience constant variable costs over the full output range, or over the range beyond some minimum efficient scale, or only over the wide or narrow range lying between the realization of scale economies and diseconomies. There is some evidence of relatively constant variable costs over wide ranges of intermediate outputs for many industries. See J. JOHNSTON, *STATISTICAL COST ANALYSIS* 13, 73, 96, 168 (1960); Scitovsky, *Economic Theory and the Measurement of Concentration*, in *BUSINESS CONCENTRATION AND PRICE POLICY*, 105 (1955).

⁴³ This might occur (a) over the entire range of outputs in declining cost industries or (b) over that portion of a firm's output preceding the full realization of those economies of scale implicit in its plant in the short run or in industry technology over the long run. The first case is the "natural monopoly" and is relatively rare. The second situation may describe a firm opening a new plant that has not yet won its way in the market. It may also describe a firm with declining demand that has forced production to be cut back well below the efficient scale at which it previously operated. In sum, average variable cost will typically exceed marginal cost only when a plant is operating below efficient use of capacity.

⁴⁴ See note 17 *supra*.

average variable cost is that the firm is just starting up and has not yet reached expected production levels. Firms in this situation, however, will not be in violation of a rule that prohibits prices below reasonably anticipated average variable cost.

When marginal cost exceeds average variable cost, adopting the latter as the standard runs the risk of allowing a firm to sell at a price below marginal cost while meeting the average variable cost standard. Thus, the surrogate is even more permissive than our exception from marginal cost pricing when the price is at or above average cost.⁴⁵ Nevertheless, a permissive exception is justified for similar reasons. Marginal cost is likely to be higher than average variable cost only when output nears the firm's optimum.⁴⁶ When capacity is thus strained, predation is especially unlikely, since the loss of profits would be most severe and new demand could not be easily absorbed by the predator. Moreover, given the relatively rare occurrence of predatory pricing, we believe that a slightly permissive rule is acceptable since the threat of litigation under any rule on predatory pricing is more likely to discourage proper pricing than predation, and the benefit of any doubts should go toward protecting the seller, instead of increasing his vulnerability.

In sum, despite the possibility that average variable cost will differ from marginal cost, it is a useful surrogate for predatory pricing analysis.

E. Predatory Investment in the Monopoly Market

In theory, the principles applied to define shortrun predatory pricing are applicable to the longer run when funds are invested or reinvested in plant and equipment and hence become part of marginal cost. If it is appropriate to permit a monopolist to expand output in the short run to the point where marginal cost equals price, it should be equally appropriate to permit him to expand capacity to the point where longrun marginal cost equals price, even though that expansion reduces his overall rate of return and even though it limits or forecloses the opportunities of rivals or new entrants. Similarly, if it is appropriate to condemn a monopolist for pricing below marginal cost in the short run, it would seem equally appropriate to condemn him for adding new facilities when he anticipates that the revenue to be obtained from

⁴⁵ See pp. 712-13 *supra*.

⁴⁶ Whenever unit variable cost increases as output expands, the marginal or incremental variable cost of the next unit is necessarily more than the average of the preceding units. This occurs when output nears the optimum for which the plant was designed, thus requiring the use of less efficient manpower or other resources, or exerting upward pressure on factor prices (*e.g.*, the payment of overtime wage rates).

them over their useful life will not cover all costs, including a normal rate of return.

Nevertheless, while we adhere to the first proposition, we reject the second and believe that antitrust law should ignore the possibility of predatory investment in a monopolized product. Our reasons are two. First, construction and perpetuation of excess capacity would be extremely costly, particularly if it fails to deter new entry or expansion of rivals. Investment for predatory purposes is thus an extremely unlikely possibility. Second, the practical difficulties of attempting to distinguish between innocent and predatory expansion are much more severe than those of evaluating shortrun pricing.

Our suggested test for shortrun predation is pricing below reasonably anticipated average variable cost. The firm knows the price it is currently charging; and though "reasonable anticipation" is not precise, it should not pose serious difficulties in application. The firm knows its recent variable costs and should become quickly aware of any substantial changes in such cost elements as wages or materials. However, when a firm is attempting to determine its probable return on new facilities over their useful life, it faces uncertainties of a much higher order. It cannot be sure as to the long-term future course of wage, material, and other variable costs. Nor can it be certain of the prices it will be able to charge over the life of the new facility; accurate estimates of future market-wide demand for its product are difficult, if not impossible, to make with precision, and the firm has no control over, or perhaps even knowledge of, construction or expansion of capacity by others or the development of new substitutes for its product. Thus, there is little basis for inferring predation from the fact that a monopolist has invested in new facilities which later turn out to be unprofitable.

When a monopolist does have excess capacity, it is almost certain to have innocent explanations: (1) new capacity becoming operational sooner than expected; (2) failure of demand to grow as much as anticipated; (3) unanticipated declines in demand attributable to general economic fluctuations or to unexpectedly serious competition from producers of the same or substitute products; (4) increased variable costs; or (5) modernization that substitutes new, lower-cost capacity for old facilities that are worth maintaining for peak demands or as break-down reserve. We can see no workable rule that will satisfactorily distinguish between these legitimate cases of excess capacity and cases of predatory investment. Even a narrow prohibition, requiring clear proof of a deliberate choice to invest despite the anticipation of losses, would subject innocent firms to the threat of baseless but

costly litigation. We do not believe that the slight possibility of predation justifies the potential abuse of a rule against predatory investment.

To conclude that there should be a rule against predatory pricing but not against predatory investment requires that a workable line be drawn between the short run and the long run. In theory this is difficult since fixed costs become variable over a continuum,⁴⁷ but we think that the issue is practically resolvable. Since the offense is limited to predatory pricing, the relevant question is which costs were variable during the period of alleged predation. Normal accounting procedures will usually supply the answer: costs charged as a direct expense should be treated as variable; costs charged as an investment for depreciation and tax purposes should be treated as fixed. A firm is not likely to alter its accounting procedures in order to validate shortrun predatory pricing. And if it does, or if it has unusual accounting procedures well before the period of alleged predation, it would have a heavy burden of explanation.⁴⁸

III. PREDATION IN OTHER CONTEXTS

Our discussion in Part II has focused on the problem of predation in a firm's general pricing policy. Devices other than a general price-cut may, however, be the subject of suits for predation. A firm may cut its prices on only selected products or in a few geographical markets. Or a firm may engage in practices that force rivals to raise costs above price in order to maintain their market shares. In this Part we will examine four possibly predatory practices: earning differential returns (including "predatory investment" in new products), price discrimination, excessive promotional spending, and excessive product variation. Despite the different forms of these practices, in most instances the analytical framework developed in Parts I and II will serve to distinguish between predatory and nonpredatory behavior.

A. *Differential Returns on Different Products*

When a firm earns a different return on its investment in different product lines there may be some concern that the lower rate of return reflects predatory pricing in that product line. Two separate situations are relevant here: (1) different rates of return

⁴⁷ See p. 701 & note 15 *supra*.

⁴⁸ There are, of course, situations in which proper accounting procedures are in reasonable dispute; treatment of advertising, as we later note, see pp. 728-729 *infra*, is one example. Nevertheless, it seems highly unlikely that a firm will significantly distort its accounting practices over time in anticipation of defending against a charge of predatory pricing.

in the short run, that is, where investment in plant and facilities has already been made, and (2) so-called "predatory investment," namely, new investment that produces or is expected to produce a rate of return lower than the firm is earning from its existing plants and facilities.

1. *Different Rates of Return in the Short Run.* — The easiest shortrun case is that of differential returns on unrelated products. This might occur in the conglomerate firm situation, in which the subsidiaries or divisions of a single firm produce a number of unrelated products. One would not expect all divisions of a firm to be earning the same return at any particular time; temporary variations in demand and costs in different industries will most likely result in some differences in returns. Moreover, when the firm has a monopoly in one of the products, it is not unusual for it to earn substantially more on that product than on those it sells in competitive markets. Thus, the mere fact of differential returns proves nothing of any antitrust significance regarding the firm's pricing policy.

Of course, to use the common but usually misapplied description, a firm may be "subsidizing" low returns in a competitive market with higher returns on a monopolized product. But as long as a firm is turning a profit on each additional sale, a subsidy is not necessary. Thus, just as in the case of the single-product monopolist, illicit pricing can be established only by showing that in the competitive market the firm is pricing below marginal cost or the "surrogate" average variable cost.

Even when it appears that the monopolist has priced below average variable cost in the competitive market for an unrelated product, he should be entitled to any defenses — such as "promotional" pricing — to which a nonmonopolist would be entitled. The monopolist, using revenues from the monopolized product, might be thought more likely to indulge in "excessive" promotional pricing than a single-product producer. But revenues from monopoly are no different from superior resources derived from any other source and their existence should not affect the determination of whether the below-marginal-cost price is indeed promotional.

The more difficult case of shortrun differential returns arises when the product earning a lower return is related to a product on which the firm has a monopoly. The products may be related in that they are produced with some common facilities, are sold to and used together by the same consumers, or both. In this situation marginal-cost pricing on the competitive product may adversely affect firms that are the most likely potential rivals in the monopolized-product market. By applying pressure through

marginal-cost pricing on the firms in the competitive market, entry into the monopoly market may be deferred or completely discouraged.

Yet this raises no issues that we have not already covered. If the related-product market is competitive, marginal-cost pricing is the norm and should not be discouraged. If the firm has monopoly power in the related-product market, the question is the same as that raised by marginal-cost pricing by any monopolist — whether possible gains from an umbrella price are worth the shortrun economic costs of under-utilization of resources and the severe administrative difficulties of applying a test other than marginal (or average variable) cost.⁴⁹

2. “*Predatory Investment*” in *New Product Lines*. — To this point, we have been discussing differential returns on different products in the short run, that is, where the monopolist has already invested in plant and equipment. Suppose the monopolist invests or reinvests in facilities in the “competitive” line in expectation of earning an aftertax return of, say, ten percent as compared to the twenty percent he has been earning in the monopoly line. In so doing, he may have an exclusionary purpose, namely to impair the capacity of potential rivals to enter the monopoly field by keeping them under competitive pressure in their particular line. But what may appropriately be deemed illegally “exclusionary” is neither easy to specify nor easy to prove. The difficulties with a predatory investment rule that we discussed earlier in connection with investment in the monopoly line⁵⁰ are applicable here and are, we believe, dispositive. But there are other problems as well.

The monopolist may have nonexclusionary reasons for making the new investment. Notwithstanding the past profit rate in the monopolized product, investment in the competitive line might be an equally or more profitable choice quite apart from any exclusionary effects. Additional investment and output in the monopoly may so reduce prices and profits that the marginal return on the new investment would be ten percent or less. Moreover, investment in the competitive line might contribute more to profits than is shown by the estimated revenue-cost relationship on that line only. The ability to offer a fuller line of complementary products may increase the sales of each, either because consumers prefer to deal with a single seller or because the fuller line enhances the seller’s image. Finally, even though the new investment might appear to be less profitable than additional investment in the monopoly line, it is possible that it is rational when the two antici-

⁴⁹ See pp. 709–16 *supra*.

⁵⁰ See pp. 718–20 *supra*.

pated rates of return are discounted for risks. The monopolist may stand to lose more from possible invasion of his monopoly line than he would from adverse developments in the competitive line, or adverse developments may be more likely in the former.

Even if the new investment would appear to be less profitable after taking risks into account, it should not be deemed predatory so long as the expected return equals or exceeds the "normal" return for the product line concerned. To be sure, the "opportunity" cost of the monopolist's capital is measured by the rate of return, say fifteen percent, that could be earned on an alternative investment in the monopoly line. And, unlike the case of the monopolist engaged in shortrun marginal-cost (or below profit-maximizing) pricing, which leads to a better use of resources, it would appear to be a misuse of *capital* resources to devote them to a less profitable pursuit. But it simply makes no sense to adopt a rule forcing a monopolist to invest further in production of the monopolized product merely because the rate of return exceeds the expected return on alternative product-line investments. Such a rule would have the effect of forcing profits on the monopolized product down toward a competitive rate of return, like the maximum price constraint we have earlier rejected;⁵¹ or it would eliminate monopolists as potential entrants in other product lines, which would in turn protect high profits and restricted output in those lines. Moreover, prohibiting the monopolist from investing in alternative product lines would be inefficient when there are economies in product integration.

If the monopolist can earn a normal or higher return on the new investment: (1) the rivals are earning supranormal profits (or would be if he did not invest); (2) he is more efficient than they; or (3) his continued presence or new entry is on too small a scale to have any effect on them. If the monopolist's entry would have no effect, there is no reason to stop him. If he is more efficient, his entry is to be encouraged. If rivals in the competitive line are earning high returns and capital markets are imperfect, they might more easily enter the monopoly product line, but it is not at all clear that the possibility of competition in the monopoly line outweighs the disadvantages of protectionism in the competitive line.

The case against a monopolist's investment which is expected to generate below-normal returns is stronger. Logically it is as predatory for a monopolist to invest in a competitive line in the expectation of receiving below-normal returns as it is for him to engage in shortrun pricing below marginal cost. Prohibition of such a practice, however, would be hindered by all the difficulties

⁵¹ See p. 707 *supra*.

we noted in our discussion of investment in the monopoly product line.⁵² In light of these difficulties, we are inclined to reject a "predatory investment" rule. The possibility that anyone, even a monopolist, would make such an investment seems far too remote to warrant the ill-founded litigation that a protective rule would promote.

B. Price Discrimination

Price discrimination involves charging different prices on different sales of the same product despite identical costs.⁵³ The monopolist may discriminate in price between different markets or between different customers in the same market. In either case price discrimination might be thought to increase the likelihood of predation by risking only a portion of the defendant's business while threatening the entire business of smaller rivals who are confined to the geographic area in which the selective price cut was made or who serve primarily those customers who will benefit from the price reduction. Thus, in cases of price discrimination the predation requirement of greater staying power may more frequently be met.

1. *Price Discrimination Between Different Geographic Markets.* — Oversimplifying somewhat, there are two situations: (1) where the monopolist supplies each geographic market from a separate plant; and (2) where he supplies all markets from the same plant.

Where the monopolist supplies different markets from different plants, we would ordinarily expect different prices in markets with different demands, costs, and degrees of competitiveness. This case is virtually indistinguishable from that of the monopolist who earns higher returns in the monopoly-product market than in one or more competitive-product markets. Indeed, but for the accident of common ownership of plants in several markets, the term "price discrimination" would not even be used. Thus, here too, the low price in one market should be considered predatory only if below marginal cost, and in the competitive markets the monopolist should be entitled to any defenses available to any other seller.

Where a firm that monopolizes one geographic market supplies other geographic markets from the same plant, the analysis is

⁵² See pp. 718-20 *supra*.

⁵³ In economic terms, intraproduct discrimination also includes charging the same price on all sales despite variations in cost (usually distribution costs), or, more generally, any variation in price-cost relationships. The analysis is the same regardless of the form. To simplify the discussion we deal only with price differentials where costs are identical.

more complex and the outcome perhaps more debatable. Suppose *M* has a plant in market *A* and a monopoly there. At his profit-maximizing price and output in that market (where marginal revenue is equal to marginal cost), he has excess capacity. Any further sales in that market would, by definition, reduce his net returns, but sales in another, more competitive market would increase his net returns up to the point where the price in that market equals marginal cost. *M* therefore may sell in market *B* at some price substantially below his monopoly price in market *A*.

This is clearly price discrimination; if anything, costs on sales in market *B* are likely to be higher because of transportation costs, so that the price difference understates the amount of discrimination. As with general price-cuts, however, the low price lacks the necessary element of predation except where *M*'s price is lower than his shortrun, profit-maximizing price in market *B*. And even when the monopolist is not profit-maximizing, we see no good reason to depart from a marginal (or average variable) cost test. Price discrimination will not always have adverse effects in market *B*. The discrimination will have beneficial effects if, because of a shortage in capacity, the firms in *B* are earning abnormally high profits and *M*'s sales merely bring the *B* price down toward a competitive level. Even when profits are at a competitive level in market *B*, discrimination will have no adverse effects if *M*'s sales in market *B* are of insufficient volume to significantly affect the price, or if discrimination leads to the displacement of only one or two of an ample number of competitors. If *M*'s sales do affect the price in market *B* and drive out enough rivals to give *M* a monopoly in that market, there still must be barriers to entry in order for *M* to reap the benefits of any alleged predation.

We would, therefore, adhere to the general rule permitting pricing at or above reasonably anticipated average variable cost, and permitting any defenses (such as promotional) available to any seller. The deterrent effect of a more severe constraint would, we conclude, be likely to cause more economic harm than good.

2. *Price Discrimination in the Same Geographic Market.*—If, as we have contended, a monopolist should be permitted to make a general price reduction so long as his price equals or exceeds marginal cost, we are unable to see a persuasive case for prohibiting selective price-cutting to retain or obtain particular customers. Selective price-cutting cannot possibly be more harmful to small competitors than a general price reduction to the same level.⁵⁴ And since any additional sale at a price at or above

⁵⁴ Selective price-cutting might, however, be more likely to occur than general price-cuts, since the monopolist's losses on selective reductions would be smaller.

marginal cost does not decrease shortrun net returns, the necessary element of predation is missing.

The only possible argument for an antidiscrimination rule is a pragmatic one. Such a rule would confront the monopolist facing price-cuts by small competitors with two choices: (1) a general price-cut, which would preserve his market share but at a heavy cost in profits; (2) maintaining his price, which would preserve high profits on his sales but lead to a smaller market share. Faced with that choice, the monopolist, at least up to a point, would often elect to maintain his price, thus facilitating the growth of competitors and the erosion of his monopoly. But this is simply an argument for inducing umbrella pricing by the monopolist, an approach we have rejected for reasons earlier explained.⁵⁵

3. *The Relevance of the Robinson-Patman Act.*— Subject to affirmative defenses of cost justification and meeting competition, the Robinson-Patman Act prohibits price discrimination in sales of the same product⁵⁶

where the effect . . . may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them

The only Robinson-Patman Act issue relevant to our discussion is that of primary-line injury, that is, injury to competition between the discriminating seller and his competitors. While there have been relatively few Robinson-Patman Act cases dealing with primary-line injury, they suggest a far broader prohibition of discriminatorily low prices than the marginal-cost test we have defended here. In some cases, it has been held that the requisite "injury to competition" is established merely by proof that the lower price diverted a substantial number of sales from competitors.⁵⁷ And in *Utah Pie Co. v. Continental Baking Co.*,⁵⁸ the Supreme Court found rather brief local price-cutting by three

⁵⁵ See p. 711 *supra*. The administrative difficulties with a prohibition of selective price-cuts are not as severe as those involved in prohibiting nondiscriminatory price-cuts, since the proscription would focus on discrimination in pricing rather than absolute price levels. However, a cost defense, essential to any rational antidiscrimination rule, raises complex problems of proof, as litigation under the Robinson-Patman Act has shown. See generally F. ROWE, *supra* note 41, at 273-312.

⁵⁶ 15 U.S.C. § 13(a) (1970).

⁵⁷ See, e.g., *Samuel H. Moss, Inc. v. FTC*, 148 F.2d 378 (2d Cir.), *cert. denied*, 326 U.S. 734 (1945). *But see* *Anheuser-Busch, Inc. v. FTC*, 289 F.2d 835 (7th Cir. 1961).

⁵⁸ 386 U.S. 685 (1967).

"large" national firms to be a violation despite the fact that the plaintiff, a "small" local firm, held the bulk of the market, enjoyed substantially increasing sales, and earned substantial profits throughout the period covered by the complaint. Two of the firms were found to have sold "below cost," but apparently only below average cost.⁵⁹ They were also vaguely condemned for having contributed to a "deteriorating price structure."⁶⁰

We respectfully suggest that in these cases the courts have failed to focus on the important issues. The basic substantive issues raised by the Robinson-Patman Act's concern with primary-line injury to competition and by the Sherman Act's concern with predatory pricing are identical. If the Sherman Act is properly interpreted to permit a monopolist to discriminate in price so long as his lower price equals or exceeds marginal cost, such discrimination is a fortiori permissible for firms with lesser degrees of market power, and the Robinson-Patman Act should be interpreted no differently in primary-line cases unless the statutory language or compelling legislative history dictates otherwise.

Without fully elucidating the point, we see nothing that compels a more restrictive substantive interpretation of the Robinson-Patman Act. The phrase "where the effect may be substantially to lessen competition" does not; if marginal-cost pricing cannot reasonably be construed as a "lessening of competition," the "may be" issue is never reached. The original Clayton Act was indeed primarily a response to fears of predatory pricing and primary-line effects;⁶¹ but the original language referred to effects on "competition" only, not individual competitors.⁶² The concern expressed in the legislative history of the Robinson-Patman Act for the fate of individual competitors was primarily, if not exclusively, directed to secondary-line competition.⁶³ Nor does the intent of Congress in passing the original Clayton Act to go beyond the Sherman Act have any great significance, given that no one knew what the Sherman Act rule on predatory pricing was or would come to be and that Congress may well have been operating on pessimistic assumptions.

⁵⁹ The Court was unclear on which cost measurement it used to find "below-cost" pricing. In one instance it referred to direct cost plus allocated overhead, apparently a measure of average cost. *Id.* at 698.

⁶⁰ *Id.* at 690.

⁶¹ See *FTC v. Anheuser-Busch, Inc.*, 363 U.S. 536, 543 & n.6 (1960); H.R. REP. No. 627, 63d Cong., 2d Sess. 89 (1914).

⁶² Clayton Act, ch. 323, § 2, 38 Stat. 730 (1914).

⁶³ F.T.C., CHAIN STORES, FINAL REPORT ON THE CHAIN-STORE INVESTIGATION, S. Doc. No. 4, 74th Cong., 1st Sess. 85-86 (1935). See generally F. ROWE, *supra* note 41, at 11-23.

There is superficial merit in the argument that effective enforcement of the Robinson-Patman Act requires a more readily determinable test than "marginal cost." We have suggested the use of average variable cost as a surrogate for marginal cost to mitigate the administrative difficulties of enforcement.⁶⁴ But even though determinations of cost may remain a substantial problem, it seems clear to us that in this instance it is unavoidable. In the vast majority of situations, discriminatory price-cutting — insofar as primary-line competition is concerned — will be profitable to the firm concerned and pro-competitive. Thus any such simple test as "diversion" or "deteriorating price structure" would be wrong most of the time. We should not pay that price for administrative simplicity.

C. "Excessive" Promotional Spending

1. *Predatory Spending.* — Rather than cutting its price, a firm may undertake advertising campaigns or provide special services and conveniences to consumers with no price increase. These expenditures, of course, increase the firm's costs. The expenditures may impose a burden too great for smaller rivals to maintain and thus result in diminishing their market share or completely driving them out of the market. In theory, the principles we have proposed for defining and dealing with predatory pricing and predatory investment should also apply to "excessive" advertising and other promotional expenditures. If the additional promotional costs raise the firm's average variable cost above its price, then the promotional spending is predatory. There are, however, additional conceptual and practical difficulties in policing excessive promotional spending.

Conceptually, it is extremely difficult to determine whether any given advertising expenditure should be classified as a current expense attributable to current sales, or as a capital investment in goodwill designed to maintain or increase the level of sales over some longer period. Usually, it will or was designed to do both. The problem of allocating advertising and promotional expenditures between fixed and variable costs is not peculiar to instances of "excessive" promotional spending. Application of our average variable cost test requires that some allocation be made for all of the firm's advertising expenditures. For the usual and continuing expenditures, however, the firm's past accounting practices should provide an adequate basis for allocation. It is unlikely that over a long period of time a firm will bias its treatment of normal advertising costs in anticipation of defending itself against allegations of predation.

⁶⁴ See pp. 716-18 *supra*.

The relatively rare, large promotional expenditure is, however, more problematic. A firm may have no established accounting practice for such expenditures and may choose to capitalize the costs of one-time promotional campaigns, either because it views the promotion as a legitimate investment in goodwill or because it seeks to avoid a suit for predatory spending. Moreover, as a practical matter, it may be difficult to determine whether the monopolist could have "reasonably anticipated" that the increased advertising or other promotional expenditure would lower his net revenues in whatever shortrun period is thought to be appropriate. The probable consequence of pricing below anticipated marginal cost (or average variable cost) is clear — it will lower net returns. The probable consequence of a stepped-up promotional campaign will usually be much more speculative, and in all but clear cases, a judicial determination would involve speculation about speculation.

The ambiguous character of short-term promotional expenditures and the uncertainty of their effect prevents relying solely on our variable cost analysis. Accordingly, decisions in cases involving substantial shortrun increases in promotional spending would have to incorporate at least one additional consideration, namely timing. The timing of the promotion suggests the possibility of predation if the campaign begins with the appearance of an entrant (or coincides with a rival's promotion) and terminates when the entrant leaves the market (or the rival's efforts cease). In such cases, it seems reasonable to us to consider all the increased expenses as part of variable costs, and to conclude presumptively that predation has occurred if average variable costs, during the period of the promotion, exceed price.⁶⁵ Needless to say, predation is negated when the promotion yields a substantial increase in net revenues, or even leaves them unaffected.

We are not wholly satisfied with this solution, but are reluctant to reach the only other plausible conclusion, which is to impose no legal check on predatory spending.

2. *Nonpredatory Spending.* — It could be argued that "excessive" promotional expenditures should be deemed unlawfully exclusionary though they yield an increase in net revenues. We reject the argument because of severe theoretical and practical difficulties.

We assume that heavy promotional expenditures by a monopolist may impair the ability of small rivals to compete. We

⁶⁵ As in the case of alleged predatory pricing, the presumption would be rebuttable on a showing that average variable costs exceeded what was reasonably anticipated. See pp. 716-17 *supra*.

also assume that they may in some cases discourage entry by building up durable consumer preferences that can only be broken down by a very large initial investment in counterpromotion.⁶⁶ But if the expenditures are nonpredatory — if they increase net revenues over the appropriate timespan for making that determination — we find no basis for making them an antitrust offense.

While one might believe that “persuasive” as distinct from “informative” advertising is a waste of economic resources, such a judgment in all but exceptional cases must rest on a noneconomic value judgment. To the extent that promotional expenditures cause consumers to pay a higher price for a product or buy more of it at the same price, the product is worth that much more to them and the increase in worth is economically indistinguishable from an increase attributable to product improvement. One might judge that consumers should not be so “deluded,” but no such legislative judgment has been made for products generally, apart from the prohibition of false and misleading representations⁶⁷ — a category that covers but a fraction of “persuasive” advertising. It seems wholly inappropriate to make such a disputable judgment in an antitrust case.

Moreover, there would be insurmountable problems in implementing it: “informational” and “persuasive” elements in advertising are usually inextricably mixed. Nor is there any evident satisfactory standard for determining when nonpredatory promotional expenditures are “excessive.” The number of variables seems far too large and nonquantifiable to enable one to find a “similar” market to use as a benchmark. And without such a benchmark, the issue becomes almost wholly subjective.

The deficiencies of advertising — that it supplies inadequate information and may contribute to monopoly problems — may call for some solution: neutral sources of accurate and complete information is a possible one. But apart from predatory spending, antitrust law should ignore the problem.

D. “Excessive” Product Variation

Like excessive promotional expenditures, excessive product variation may increase the difficulties of smaller rivals or newcomers and thereby reduce competition. Such variations might exceed what consumers would truly desire if they were fully

⁶⁶ See J. BAIN, BARRIERS TO NEW COMPETITION 114-17 (1956).

⁶⁷ False and misleading representations are prohibited as “unfair methods of competition” under the Federal Trade Commission Act, § 5(a)(1), 15 U.S.C. § 45(a)(1) (1970). See, e.g., *Continental Wax Corp. v. FTC*, 330 F.2d 475 (2d Cir. 1964); *Giant Food, Inc. v. FTC*, 322 F.2d 977 (D.C. Cir. 1963), cert. dismissed, 376 U.S. 967 (1964); *Bakers Franchise Corp. v. FTC*, 302 F.2d 258 (3d Cir. 1962).

aware of the consequences of their purchasing decisions. Although legislation can explicitly substitute a social judgment for that of the marketplace, antitrust law is not the appropriate vehicle for such a substitution and should accept marketplace decisions as the expression of consumer preference. Accordingly, product variations should be ignored in the search for "exclusionary" behavior. Our reasons follow.

1. *Multiple Product Variations.* — A large firm might attempt to destroy its rivals by offering variations on a basic product. To operate at equivalent costs, smaller rivals may have to concentrate their entire output on one subtype. For example, stamping machines may be too specialized to permit production of more than one product type, and a firm with a small output may be unable to operate two or more machines at full capacity. Thus, if the smaller firm were to produce more product types its operation would be more costly than that of the large firm.

It is also true, however, that product diversity could create more opportunities for the success of smaller rivals or newcomers who could satisfy some corner of the market without provoking competitive retaliation from the dominant firm. Such rivals may succeed under the dominant firm's "price umbrella" and ultimately grow strong, branch out, and vitalize competition in widening portions of the market.

On the other hand, small rivals suffer if a full line confers important advantages. Consumers who are uncertain of which product subtype best serves their needs may prefer to consult with the broad-line supplier. While independent dealers might serve that function, they might choose to deal exclusively in one manufacturer's product, and such dealers would prefer the full-line supplier. But even if product diversity reduces the intensity of competition and perhaps discourages entry by those unable to offer similar diversity, that result may merely reveal the importance consumers attach to product variety. It is possible that buyers never "voted" between diversity and greater competition; that is, buyers might prefer diversity to uniformity when other things are equal, but not at the expense of market dominance with little price competition. Buyers may not necessarily realize that indulging a preference for diversity may discourage an outsider from entering at all. And concern about lack of genuine consumer choice may be strongest where the variations seem to be of little intrinsic importance, as in mere style variations.

Yet, we know that many consumers with a true choice between cheaper uniformity and more costly style variations do in fact choose the latter, and this may well be the usual case. Thus, although we may question whether the market reflects informed

consumer choice, we cannot assume that consumers would surrender diversity in order to enjoy the benefits of a larger number of competing suppliers. Accordingly, we cannot condemn a monopolist who succeeds in varying his product in ways that buyers, whether well-advised or not, find desirable.

2. *Frequent Product Changes.*—The vitality of rivals can also be impaired by frequent product changes, whether functional or merely style changes. The design, engineering, and retooling costs of any particular variation will obviously be less costly per unit when spread over a larger volume of production. The larger the output, moreover, the sooner certain machines or dies will wear out. If those replaced in a style or other variation are nearly worn out anyway, the incremental cost of the alteration will be less than for a smaller volume producer whose machines and dies are nowhere near retirement.

Yet the disadvantages from which small rivals may suffer do not warrant antitrust attack on the monopolist who exploits them. The small-volume producer has the option of maintaining an unchanged product while offering buyers the benefit of the costs saved by avoiding changeovers. If the cost savings are negligible as compared to costs of the large producer who does changeover, the small rival is simply the victim of economies of scale. And if buyers prefer the variation to the cost saving, consumer welfare is presumably being served by the frequent changes. Although, as in the case of multiple product variations, the market judgment may reflect inadequate knowledge of the consequences of reduced competition, and although we may doubt the wisdom of preferring “insubstantial” variations to incremental competition, we cannot determine or even assert the impropriety of the practice with sufficient clarity to hold it exclusionary for section two purposes.⁶⁸

IV. CONCLUSIONS

We reach the following conclusions regarding a monopolist's general (nondiscriminatory) pricing in the market in which he has monopoly power:

- i. On principle, we conclude that:
 - (a) A shortrun profit-maximizing (or loss-minimizing) price is nonpredatory even though below average cost.
 - (b) A price at or above average cost should be deemed non-

⁶⁸ For the reasons given, we are quite unpersuaded by the arguments in Note, *Annual Style Change in the Automobile Industry as an Unfair Method of Competition*, 80 YALE L.J. 567 (1971). See also Selander, *Is Annual Style Change in the Automobile Industry an Unfair Method of Competition? A Rebuttal*, 82 YALE L.J. 691 (1973).

predatory even though not profit-maximizing in the short run.

- (c) A price at or above reasonably anticipated shortrun marginal and average variable costs should be deemed non-predatory even though not loss-minimizing in the short run.
 - (d) Unless at or above average cost, a price below reasonably anticipated (1) shortrun marginal costs or (2) average variable costs should be deemed predatory, and the monopolist may not defend on the grounds that his price was "promotional" or merely met an equally low price of a competitor.
2. Recognizing that marginal cost data are typically unavailable, we conclude that:
- (a) A price at or above reasonably anticipated average variable cost should be conclusively presumed lawful.
 - (b) A price below reasonably anticipated average variable cost should be conclusively presumed unlawful.

As to "predatory" devices other than general price reductions we conclude that:

- 3. The above conclusions apply to differential returns on different products and to price discrimination, whether between different geographic markets or in the same market, except that a monopolist should have the benefit of any defenses — such as "promotional" pricing or "meeting competition" — available to other sellers in any market in which he lacks monopoly power.
- 4. There should be no prohibition of investment whether in a new product line or in the monopoly product line.
- 5. Promotional spending should be deemed predatory when timed to coincide with entry or promotion by a rival, and when average variable cost, including the promotional expenditure, exceeds price.
- 6. There should be no prohibition of nonpredatory spending or of product variation.