Barriers to Entry

by

Harold Demsetz*

Department of Economics
UCLA
Discussion Paper # 192

January 1981

Barriers to Entry

by

Harold Demsetz*

The notion of "barriers to entry" plays an important role in both economic theory and in the practical economics of antitrust litigation. The ratio of an index of the importance of this notion to an index measuring its clarity is extremely large, and to an index measuring its objectivity is infinite. The substantial problems inherent in this notion are not fully appreciated. Much existing discussion of barriers hardly pauses to recognize these difficulties, and even more careful treatments of the subject proceed as if the definition of barriers can be tied quite easily to some purely objective measure of the cost of doing business. The burden of this paper is to demonstrate that this is not so.

I. Prevailing Ambiguities

The lack of agreement about the content of the barriers to entry notion is fully revealed by the definitions given by Bain (1968), Stigler (1968), and Ferguson (1974). Bain defines the conditions of entry as "the extent to which, in the long run, established firms can elevate their selling prices above the minimal average costs of production and distribution ... without inducing potential entrants to enter the industry." Bain includes among the important sources of barriers to entry product differentiation, large capital requirements, and economies of scale.

None of these necessarily qualify as sources of barriers according to Stiger's definition of barriers to entry "as a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry." If a new entrant faces the same cost <u>function</u> as existing firms, scale economies present him with no special disadvantage; similarly, if he faces the same risk adjusted cost of acquiring capital and the same price for promotional resources.

For Stigler, then, limit entry pricing cannot constitute a barrier to entry if insiders and outsiders both have access to the same cost function. Bain's definition, as well as his general discussion of the relevance of scale economies, implies that a limit entry pricing is a feasible real barrier to entry.

Ferguson defines barriers to entry as "factors that make entry unprofitable while permitting established firms to set prices above <u>marginal</u> cost, and to persistently earn monopoly returns." Bain's emphasis is on the

difference between price and average cost. Ferguson shifts it to the price, marginal cost relationship, and this allows him to avoid some potential difficulties in taking account of the phonomenon of economic rent. Even in a perfectly competitive industry price may be high enough to exceed average cost, exclusive of rent, for inframarginal firms. Sense can be made out of Bain's criterion by requiring the inclusion of economic rent in the definition of cost, so that unit cost must equal price in competitive industries.[1]

Bain's criterion seems to require the realization of profits by (some) firms in the industry, and Ferguson's explicitly does. Unlike Stigler's definition, this tendency to use profit as a criterion confuses the issue by substituting a possible outcome of barriers, high profit rates, for the actual barriers; these may or may not yield such an outcome. Thus, Bain and Ferguson both seem to deny that barriers exist in a Chamberlin type zero profit monopolistic competition tangency equilibrium or, indeed, in any monopoly equilibrium when profits are zero. By tying their definitions to profit rates they neglect "barriers" that simply are a source of negative slope of the demand curves facing firms.

Ferguson agrees with Bain about scale economies; these Ferguson views as a barrier because they cause a "high initial cost of producing any output, [so] the newcomer's average cost may lie everywhere to the right of the demand curve facing him after entry, indicating there is no rate of output he can sell at a price which covers his costs." Therefore, presumably, he will not enter, even though existing firms are earning extranormal profits.

Both Ferguson and Stigler would deny that capital costs and advertising expenditures necessarily constitute sources of cost differences between insiders and outsiders. Stigler because there is no reason to believe that

the existence of such expenditures implies that the inputs they purchase are more costly for potential rivals than for existing firms, and Ferguson because the evidence does not suggest that the use of the inputs purchased with such expenditures necessarily gives rise to relevant scale economies. But Bain and his students believe that these expenditures, at least when large, give rise to cost differentials between existing (profitable) firms and those that might seek to enter.

The profession's notions about barriers to entry certainly are confusing. The basic reason for this is the presumption that "barriers" can be linked to some objective phenomenon, whether that phenomenon be profits or costs. This is not true.

To show the inadequacy of these definitions, consider the barrier problem from a different perspective, from one in which there would seem to be little doubt that barriers exist -- legal restrictions on entry. Licensure, whenever effective, is an acknowledged barrier. The requirement that an official medallion be owned by operators of taxies in New York constitutes such a barrier. Suppose it were true that such licenses, which may be resold, must first be purchased from the city _at market determined prices_. There would be neither a cost advantage to insiders nor a monopoly profit. Insiders and outsiders face the same medallion price, one that eliminates profit, so none of the three definitions suggests the presence of a barrier to entering the taxi industry!

If it is assumed also that the pricing of taxi services is sufficiently rivalrous, no one taxi owner will have any power to affect market price. Each will take that price as given and operate his taxi (more intensely than in the absence of medallions) so as to equate marginal cost to price. Even

the first part of Ferguson's definition fails to identify the existence of a barrier to entry although one clearly exists if the number of medallions is held below the number of taxies that would operate in the absence of medallions.

Of course, what I have done is to use medallions as if they were scarce land, treating taxi owners as farmers who rent or buy "acres of" medallions from the city and/or other taxi owners. A claim can be made that there is a barrier to entry that is detectable by the above definition(s) -- the barrier to competitive production of medallions; this barrier keeps the price of medallions above the cost of producing them. Ah, but suppose the city decides (1) to require very costly to produce large, solid gold medallions, and then (2) to invite "free" entry into the medallion industry. Now the price of medallions would equal their cost, there would be no barrier to medallion production, but would there not still be a barrier to putting taxies on the street? The question raises some important hidden issues.

II. Entry Barriers and Value Judgments

In this licensure example it is obvious that what is barred is additional capacity; whether the barrier creates profits or relative cost advantages for those inside the industry is irrelevant and so also is the question of whether the blocked capacity would have been provided by those now outside the industry or by those already inside. Not so obvious but more to the point, licensure discourages certain mixes of output while it encourages others. Waiting times for taxies may be longer and prices higher because licensure is required. It may also be true that streets are less congested and that the quality of service in some dimensions may be improved, for example, by taxi owners who more honorably conduct their business for fear of losing their licenses. The real issue becomes more obvious if the barriers to entry were not solid gold medallions, but, instead, were air bag installations, minimum quality bumpers, and/or smog control devices. These, just as does the requirement to purchase a madallion, limit entry into the "pure" transport for hire business. Similarly, licensure of doctors discourages a mix of output containing more "basic" doctors, available at lower fees, while favoring better trained doctors at higher fees. (It is not at all clear, however, which of these combinations brings medical <u>treatment</u> to a higher quality, since high priced doctors encourage the use of substitutes for doctoring services.) The issue is not insiders vs. outsiders, nor profits, nor barriers per se, but alternative output mixes.

The policy or value judgment problem is not dependent on the barrier being some explicit regulation or licensure requirement, as might be suggested by this example. Licensure is one form of legal hurdle that must be

met by entrants, but there is no way of conceiving of the complete absence of legal hurdles. The operation of an unregulated market system presupposes the general recognition of property rights, but <u>the problem of defining ownership is precisely that of creating properly scaled legal barriers to entry</u>. The essence of ownership is the general recognition that costs must be borne to act in certain ways. These costs, like licensure, seat belts, etc., constitute hurdles that must be surmounted for entry to take place. An owner of resources may be denied by a property system from using (his) resources to enter an industry by occupying and operating the facilities of someone already in the industry unless he meets the cost hurdle of securing that person's permission. Similarly, he is barred from entering with a product that he represents to be his rival's product. But he may (or may not, depending on antitrust decisions) have the right to enter with a product priced below the price of his rivals' products. The decision as to which actions are violative of someone's rights implies a derivative decision as to which protective measures (trademark enforcement, price reductions, etc.) may be employed to defend against entry without their being identified as barriers to entry in the pejorative sense.

Ultimately such decisions rest on value judgments. These judgments may be more sensible when economic consequences are understood, but such consequences are not necessarily determinative. A prohibition against the protection of a market position by the device of burning down the factory of a rival, who has been attracting a larger share of the market, calls for a value judgment. The utility derived from such an act, not only by the person seeking to protect his market but also by those who enjoy watching large bonfires or who believe factories are eyesores, is insufficient to

offset the disutility of the act. Such a calculus is formidable, so strict injunctions are often avoided by defining "ownership" so as to allow voluntary consent to guide the use of resources. The factory "owner's" consent to the (controlled, safe) destruction of his factory is required before destructions (serving a legitimate purpose) can take place. But the consensus that establishes his right to bar destruction unless there is consent reflects a prior decision, in a world of positive transaction cost, about the mix of output (or actions) that are to be encouraged and the mix to be discouraged. Positive transaction cost assures that the mix of output will include less factory destruction with this property right definition than would be true if factory "owners" needed to pay rivals not to destroy the factory.

III. Traditional "Barriers" As Choices Among Output Mixes

The viewpoint offered by the output mix approach to the problem of barriers may be explored now in the context of such traditional "barriers" as brand promotion, capital requirements, and scale economies. I begin with the issue raised by the belief that firms now in an industry have built brand loyalty through past advertising.

Because of brand loyalty, new rivals, if they are to do as well as existing firms, must advertise more than existing firms (or offer some other special compensating advantage) even though new firms and old produce the "same" product. Advertising expenditures, at least those incurred earlier by existing firms, then constitute a source of "barriers" to entry. However, investments in advertising and promotion are worthwhile (for both old and new firms) only in the presence of significant information costs. Complete knowledge about products and firms would make brand loyalty useless from both consumer and seller viewpoints. Where advertising and promotion are used extensively, and, therefore, where good will and brand loyalty are assets, there must also exist real costs of resolving uncertainties. In the presence of such costs consumers will find it useful to rely on a firm's experience and reputation, more correctly, on its history, when purchasing a commodity. New firms and recent entrants by virture of their shorter histories (in particular product lines) cannot impart to consumers the same confidence as older firms without some compensating effort on the part of new firms. If new firms are to sell equal quantities at equal prices, they may need to incur higher costs of persuading and communicating than presently is required of older firms. In what sense, then, are advertising expenditures a barrier to entry? Entry by new firms would be more difficult if

such expenditures were disallowed because consumers would then be left with only a company's history to guide them. It is the combination of information costs and the creation of a reputable history, not advertising per se, that constitutes the "barrier." Without either, new firms would not need to enter at a "disadvantage."

Such histories must also play a role in the operation of capital markets. A large firm and a long history convey information about a firm's ability to weather unforseen risks. This information is not necessarily an overpowering determinant of risk of lending, since knowledge secured from other sources may indicate strongly an impending bankruptcy despite a brilliant history. But there is no reason to believe that such a history is irrelevant to the interest payment required by lenders, even if other factors are also taken into account. Larger, older firms generally will be able to borrow more cheaply than smaller, younger firms. It is not large capital "requirements," but better histories, in a world in which information is costly to acquire, that constitutes the source of such interest rate differentials.

Reputable histories are also the source of "barriers" that appear in the guise of scale economies. If each firm has available to it the same cost function for producing the physical product or service to be consumed by buyers, then old and new firms can compete for the market on equal terms, even if only a few (or one) win(s) such a competition, if histories are irrelevant to consumer confidence. Irrelevancy of a firm's historic record compells new and old firms to divide the market between them if their prices are equal, and, if not equal, to deliver to the firm with the lower price the entire market. Existing firms have an advantage only insofar as their

existence commands loyalty. Existence commands loyalty only if it reflects lower real cost of transacting or a good history, as, in general, it must, since long survival at least indicates that the firm is no fly-by-night operator. When the cost to consumers of overcoming uncertainty is taken into account, that is, when total system cost is gauged rather than some narrow definition of production cost, then long-lived firms can be seen to offer consumers a valuable service -- risk reduction.

Scale economies are not the basic source of barriers to entry to new firms. Barriers derive from consumer appreciation of the service value to them revealed by survivability of the firm. The role of scale economies is to make this risk reduction available without cost penalty to all consumers, so that entrants must compete for the entire market. With scale diseconomies, however, the benefits of this risk reduction can be extended to additional buyers only at rising marginal cost. Firms with less experience can gain a foothold when the price older firms would need to receive, if they are to increase their sales, rises sufficiently to offset the value to consumers of their longer experience. By the same token, any price advantage commandable by older firms is limited to the value to consumers of the risk reduction provided by the demonstrated viability of older firms, whether or not there are scale economies. A reputable history is an asset, both to the firm possessing it and to the buyer who relies on it, because information is not free. A property right system that affords patent, copyright, and trademark protection, and that makes antitrust divestiture difficult, encourages investment in "permanence" and discourages investment in "fly-by-night" operations. A property right system that weakens these legal protections, encourages investment in other means of information acquisition and transmission

and in other methods of reducing risk. These choices are obscured by viewing advertising expenditures, capital requirements, and scale economies as if they were the basic sources of barriers rather than the cost of information. The Federal Trade Commission's antitrust action against leading producers of ready-to-eat breakfast cereals, being tried at the time of writing, certainly seeks to reduce the value of the histories of these firm's as that value is measured in the market place.

In a similar vein, the barrier to entry literature obscures the important issue raised by the phenomenon of firms facing negatively sloped demand curves. For Bain and Ferguson, such negative slopes are identified as barbiers to entry if price exceeds unit cost, but not otherwise. For Stigler, the limiting factor is more properly viewed as demand than as one of cost advantages, so (probably) from his viewpoint no barrier is involved. However, there must be a barrier to the production of some mix of output if the demand curves facing existing firms (and, possibly, potential entrants) are negatively sloped, and this must be true whatever the relationship between price and unit cost. The demand facing a producer is negatively sloped because there are "natural" or "legal" obstacles (such as trademark protection) to <u>perfect</u> imitation (meaning an imposter who duplicates product contents, name, and packaging). Trademark privileges may reduce the quantities sold of an <u>existing</u> product, but they may also increase the number of new products enjoyed by customers and even make some products profitable to produce that would be unprofitable in the absence of such legal protection. The elimination of such legal protection might reduce prices and increase sales of existing products when it does not eliminate them altogether, but it also reduces incentives to develop new ones. Whether such a barrier to a particular mix

of output is desirable cannot be judged without explicit or implicit comparison of the values of alternative mixes of outcomes. The judgmental valuation of the class of equilibria implied by product differentiation basically turns on such a comparison, not primarily on notions of "excess capacity."

The degree to which it may be desirable to supplement "natural" barriers to imitation hinges on factual matters that vary from case to case. Considerable investment may be needed to develop a new product but little expenditure may be required to imitate it once someone else does the developing; here spillovers of knowledge beneficial to rivals are both significant and difficult to take into account through markets unaided by trademark, copyright, or patent; the case for legal barriers to imitation may be strong. Where such spillovers are slight the case for such protection is weakened.

These legal barriers define ownership and thereby facilitate the taking into account of the value of potential spillovers. The broader and more protective is the definition of ownership, the more likely it will be that _non_-spillovers will also be protected. Thus a very broad patent may give an inventor title to other inventions that benefit very little from knowledge of his. The less protective is the definition the more unlikely it will be that spillovers are accounted for, but the more likely it is that the incentive to invest in innovation will be undermined.

The problem of defining ownership is precisely that of creating properly scaled legal barriers to entry. An appropriate trademark law equates the marginal value of a more finely tuned market for inventions to the marginal value of additional units of already invented goods. The

equating of such marginal values may make it appear as if the product market is inefficient, because price may exceed the marginal cost of "producing" the good; but, of course, one element of the cost of expanding the output of already invented goods by reducing barriers to imitate them is not explicitly recorded -- the consequent cost of undermining the incentive to invent still other products. Because it is not recorded, the illusion is created that product price exceeds marginal cost. Whereas the existence of (appropriate) trademark protection may be a "barrier" to greater production of known products, the absence of (appropriate) trademark protection is a "barrier" to invention of new products. <u>It cannot be said there is a barrier in one case and not (the potential of) a barrier in the other case</u>.

IV. Predatory Pricing

Now, it would hardly seem serving of social purposes to establish legal rights requiring that the permission of one's rivals be obtained before a price reduction can be given to prospective buyers. The real costs of transacting and enforcing agreements that give such permission would be so great that most price reductions beneficial to buyers would be barred by legal rights of this sort. Yet, legislated or court made prohibitions on price cutting establish precisely such legal rights under the guise of prohibiting "predatory pricing." This legal stance identifies some instances of price cutting as (undesirable) barriers to entry. The analysis of predatory pricing, however, is no less superficial than for other barriers to entry.

In principle, an objective of the legal framework that underlies the operation of markets is the specification of legal prohibitions of competitive methods judged "socially" unproductive. This prohibition should tend to channel rivalrous behavior into directions more likely to benefit consumers, such as product innovation, quality improvement, and price reductions. Since legal methods of competing generally, or, at least, in principle, are those that transmit benefits to consumers, a practical policy problem of discrimination arises if a subset of generally beneficial methods may be used sometimes in ways believed to be inimical to consumer interests. Allegedly prominent among these is predatory pricing, pricing designed to monopolize a market by punishing rivals until they cooperate by leaving the industry, reducing output, or merging on favorable terms with the predator. Presumably, the harm to consumers arises later in the form of higher prices undeterred by actions from rivals who have been disciplined into cooperation

or into exiting the industry. The practical problem of an anti-predatory pricing policy obviously is to distinguish beneficial from harmful price reductions. The ability of one firm to charge a lower price than another (for given quality), or to outlast another in a price "war," generally will be correlated with its efficiency, so that the prevention of price wars may merely prevent consumers from enjoying long lasting benefits of truly competitive pricing.

The problem of separating beneficial from harmful competitive acts is not so difficult when acts of violence are used to punish rivals; there is no necessary correlation between the efficiency with which a firm uses violence and the efficiency with which it produces goods desired by consumers. Sharp pricing practices require more precise policy tools than acts of violence if the consumer is to be benefitted. A "barrier" to competitors may arise from the superior efficiency of existing firms, in which case their low prices are precisely what competitive markets are expected to bring forth. Rivals of such firms will be discouraged from producing simply because they cannot produce at low enough cost. The policy maker cannot simply look to the harm done to the interests of entrants when determining whether low prices are to be encouraged or discouraged. Because of these difficulties, as with policy toward other "barriers," a choice between alternative output mixes is involved. The attempt to reduce or to eliminate predatory pricing is also likely to reduce or eliminate competitive pricing beneficial to consumers.

It is thought that there is a clear way, at least in principle, to discriminate between these situations. A price that is below marginal cost is said to be predatory whereas a price above or equal to marginal cost is

not. Areeda and Turner (1975) take this position, although they seek to employ short-run average variable cost as a proxy for difficult to observe short-run marginal cost. The need for a proxy reveals the difficulty in measuring (ex ante!) marginal cost, but that is a matter I set aside here.[2] I also refrain from discussing in detail the issue raised by Posner (1976) with regard to whether short-run or long-run marginal cost is the relevant concept to use. (The relevant cost is the ex ante marginal cost of expanding output for whatever period and circumstances are expected to prevail during the pricing episode.) Both sides of the dispute fail to recognize more fundamental difficulties in the attempt to distinguish acceptable and unacceptable low prices.

Consider the situation when give-aways are used to attract potential customers. Drivers, when delivering milk to households, often give a free sample of milk to new residents. Price clearly <u>seems</u> below marginal cost. It does cost something to replace milk given away. Yet few would call this predatory pricing. Promotional pricing is the name accorded this unobjectionally low price. But the principle of price less than marginal cost, as this is interpreted by discussants of policy toward low prices, has been violated, and if the principle fails to stand in such a case it may also fail to stand in more difficult cases.

As an example of a more difficult case consider a firm that advertises its product but sells at a "price" below cost for a month or two, or even longer, in the hope that buyers at the low price will so like the product that they will return to buy later at a higher price. In both this case and the dairy case <u>price</u> is incorrectly measured by the economist or lawyer who relies on revenue per unit received at the time the below cost "prices"

prevail. In both situations, the correct price is approximately the discounted value of the future higher price that is the objective of promotional selling. Neither the owner of the dairy nor the advertiser would sell now at prices below marginal cost if he did not expect the future revenue stream to justify the promotion. Selling below cost now harms rivals, but in both cases the correctly perceived price exceeds marginal cost.

It is important to recognize that predatory pricing involves exactly the same prospect -- reducing "price" now, presumably below cost, with harm to rivals, in the hope of giving rise to a future stream of prices sufficient to make the "predatory promotion" worthwhile. There is no obvious way to use the marginal cost criterion to distinguish the two cases.

A second criterion for the presence of predatory behavior has emerged recently. Williamson (1977) argues that if entry prompts existing firms to expand output, then predation is involved, and, further, that public policy should prohibit such expansion in output by existing firms for a period up to twelve or eighteen months.

Again, the distinction between predatory and competitive prices is difficult to make. Suppose an existing firm begins from a monopoly situation, perhaps by virtue of being the first to produce a new product. An entrant adds its output to the market and more entrants are in the offing. Let the monopolist of yesterday now view his situation as competitive, so that he takes the new lower price as given. At the lower price, on the way to the new long-run equilibrium price, the output of this erstwhile monopolist, now behaving competitively, will be where price equals his marginal cost. This generally will yield a larger output than he had produced before entry, or before price rivalry, because marginal cost in the neighborhood of the

old monopoly price will be to the right of the previous output rate. Hence, purely competitive responses to entry can be expected to yield larger output rates from an existing firm until price has fallen enough to establish an equality with this firm's marginal cost to the left of its old monopoly rate of output. However, if scale economies prevail in the neighborhood of monopoly output, then even the final competitive equilibrium may call for an output from the erstwhile monopoly that exceeds its old monopoly rate of output. Only if the policy maker knew that price had reached the "long-run" competitive equilibrium, that it was not merely on its way down to that equilibrium, and, also, that scale economies were not present in the range of monopoly output, could he infer predatory behavior from the expansion of output by existing firms in response to entry.

A third test for predation, this one a legal rather than an economic discriminating criterion, centers on the <u>motivation</u> for the price cut. Did one firm cut price for the express purpose of harming its rivals? It is not clear to an economist why motivation matters at all. A price cut to obtain new customers imposes as much harm on rivals as a price cut whose objective is to harm them. The issue of motive arises in the legal mind not only because of the need for "evidence," but also because motive has played a role in the common law. However, it is not recognized that there are substantive differences between the predatory pricing problem and the "malice" sitautions in which intent seems relevant. The question of motive is clearly raised in the 1909 case of <u>Tuttle v. Buck</u> (107 Minn. 145, 119 N.W. 946). The plaintiff, a barber in a Minnesota village, claimed that the defendant, a local banker, attempted to run him out of business by subsidizing a new barber shop, and that the defendant did this maliciously for

personal gratification not because he intended to remain in the barbering business. Elliot, J., after stating these allegations in his opinion, puts the problem as follows:

> For generations there has been a practical agreement upon the proposition that competition in trade and business is desirable, and this idea has found expression in the decisions of the courts as well as in statutes. But it has led to grievous and manifold wrongs to individuals, and many courts have manifested an earnest desire to protect individuals from the evils which result from unrestrained business competition. The problem has been to so adjust matters as to preserve the principle of competition and yet guard against its abuse to the unnecessary injury to the individual. So the principle that a man may use his own property according to his own needs and desires, while true in the abstract, is subject to many limitations in the concrete . . . The purpose for which a man is using his own property may thus sometimes determine his rights.

It is desirable to consider the principle at issue in these allegations without regard to the facts or decision in this case. Suppose it true that the defendant disliked the plaintiff intensely, and that he was bent on destroying the plaintiff's economic opportunities in their home village. Should the pursuit of an otherwise unobjectionable act, say, the offer of free haircuts to all townspeople, be tolerated if this motive were known? Should the defendant be allowed to derive utility by harming plaintiff?

If the <u>only</u> effect from defendant's action was to harm the plaintiff, then there seems little difference between defendant's action in this case and the use of his financial resources to pay for the physical damage of plaintiff's barbershop. The Libertarian Anarchist might well claim there is a difference -- that physically destroying defendant's place of business "invades" his property rights, while giving haircuts away does not. But this position tautologically evades the real issue, which is that of

determining just what rights of use of property each party owns. Many judgers of this situation, I believe, would be disposed to deny defendant the right to personally gratify himself if the sole effect and means of his doing so is to harm the plaintiff. Since no results productive to third parties emerges in such cases, whether "spite fences" or free haircuts are at issue, motive would seem to matter. The defendant's act would seem more tolerable if he provided free haircuts because of his joy in the act of barbering rather than in the act of harming a personal enemy.

The question here is purely one of how a person may spend his wealth in consumption activity. Is defendant entitled to derive utility via the purchase of the harmful effects he imposes on plaintiff? The answer to this question frequently is no, but evidence is required as to whether this is the real source of utility. A person playing his radio outside while doing yardwork may really derive pleasure from annoying his neighbor and not from hearing the radio, but if the volume of the radio is not turned too high it will be difficult to identify this as the real source of enjoyment and so the law will tolerate his listening to music on the radio. The malicious harming of plaintiff is best viewed as a consumption activity, and for such an activity the relative wealth positions of plaintiff and defendants matter. The wealthier the defendant the more such consumption he can finance.

The considerations change in important ways if we consider a more typical situation of alleged predatory pricing. First, like listening to music on the radio, the large numbers of buyers that are receiving a good at a lower price is a "gain" that must be counted as an offset to whatever "loss" rivals bear from lower prices. The larger the number of recipients

of low prices, and the longer such prices are expected to prevail, the stronger is the case for legalizing the act of lowering prices, just as music played outside is easier to tolerate, even if played loudly, when it is servicing a large block party in which many derive benefit from the music.

Secondly, alleged predatory pricing is a business venture, not a consumption activity. The seeking of monopoly is motivated by the pursuit of profits; the magnitude of defendant's wealth relative to plaintiff's is neither here nor there in such a case because the capital markets stand ready to maintain the plaintiff in this price war if the prospect of profit is sufficient to cover the risk-determined cost of capital. The defendant pursuing his business interest also has no desire to lend his "own" capital to himself unless the prospect of profit is sufficient to cover the risk determined cost of capital. The two combatants are on equal footing if they represent the same risk to the capital markets. And if they do not represent equal risks, then one has cost advantages not possessed by the other. The motive to monopolize through predatory pricing is, therefore, difficult, if not impossible, to separate from real cost advantages of the kind that would lead to competitive (and "innocent") price reductions.

The use of motive by the courts is much safer in cases of personal malice than in cases of monopolization. In the former no real cost advantages need be present for success and no benefits need be conveyed to third parties, but in the case of monopolization they must. Before the era of modern antitrust, it was precisely the personally malicious variety of activity, not price cutting, that fared badly before common law courts.

The motive that was important was the highly personal one that might provide evidence that this tall fence really was a "spite" fence; it was a motive that could identify consumption activity. That a firm seeks to expand its market is hardly a motive of this sort, even when a letter written by some middle management person alleges that price should be cut in order to teach some rival a "lesson." The competitive forces that dictate price reductions often move through inter-firm rivalry, and the "lesson" that is taught today often becomes the equilibrium price of tomorrow.

The objection to a low price that is allegedly predatory arises because of the expectation that price will be driven to monopoly levels once rivals are forced out of business, so that the benefit to consumers of immediately low prices may be offset by monopolistically high future prices. If we assume that this possibility is real in general, not merely reflective of the pursuit of the narrow interests of the harmed rivals through the good offices of the FTC, a question of legal tactics arises. Is it best to attack the practice which might after all be merely competitive or futile, or attack the monopoly should the practice succeed? To put the question as I have is to answer it, but one of the reasons for this answer may not be apparent. It is alleged that pricing practices are worth attacking because they nip monopoly in the "bud;" it has always seemed to me that the incipiency argument is weak, not only because competition might also be nipped in the bud, but because penalizing monopoly already successful also discourages the attempt to monopolize; any penalizing of monopoly nips monopoly in the "bud" by reducing the expected profits of monopolizing.

The distinction between limit entry pricing and predatory pricing is only the difference in the level of price (relative to cost) that is assertedly necessary to bar entry. In the limit entry model, because of scale economies, price need not be reduced below the cost of the existing firm(s) in order to make entry appear unprofitable to outsiders. It is not necessary here to explore the nuances of the model, nor to relate the entry "barrier," supposedly based on scale economies, to its more logical source in firm history and existence. (See Section III, above.) All the objections raised to the attempt to tie predatory pricing to objective measures of cost apply even more strongly in this case, since existing firms need not experience even short-run loses in the limit entry model. It simply is impossible to distinguish such pricing from aggressive or promotional competitive pricing.

IV. Barriers and Policy

"Barriers" to entry are discussed in economic literature as if they are undesirable from the viewpoint of policy. It should be clear at this juncture that this position is not easily defended. Even with respect to "predatory" pricing, we know a price cut benefits present consumers, and that it may or may not harm consumers in the future. That is the mix that is received by allowing price cuts; disallowing price cuts certainly harms present consumers and may or may not benefit them in the future. A plausible policy is to take the bird in hand for there may be none in the bush.

Barriers produce more of some activities and less of others, much as friction facilitates traction even while it produces heat. I have said above that the problem of defining ownership is precisely that of creating properly scaled legal barriers to entry, or (if the phrasing is preferable) barriers to imitation. Licensure requirements, trademark, copyright, patent, entitlements to a past record, and pricing practices may or may not be desirable depending on how alternative mixes of outcomes are valued.

The valuation process must necessarily be one that is rich in intuition or faith and poor in discernable measurements. A person possessing a deep faith in the strength and beneficient effects of competitive imitation will value the implied trade-offs differently than a person possessing an equally deep faith in the process of "creative destruction." Valuations must be given to more taxi services v. less congestion, to more protection of new ideas and historic records v. more imitative competition, to more of competitive pricing v. less of predatory pricing, etc. There exist neither cost-benefit analyses nor market given prices by which to weigh benefits and costs in most of these trade-offs. If the concept of "barriers to

entry" is to be policy useful, it must be able to distinguish these cases and attach value weights to them. The entire problem of desirable and undesirable "frictions" in economic systems has resisted analysis when it has not been simply ignored. "Barriers" is a concept devoid of policy content; its frequent deployment constitutes a formidable bar to correctly perceiving the problem.

Footnotes

*Professor, UCLA, Economics Department.

[1]If accountants could do in their ledgers what economists do with chalk and eraser, economic rent could be handled without risk in practical applications. Unfortunately, accountants are unable, conceptually and practically, to impute such rents, so the application of barriers in the courtroom will often confuse rent with profit, thus suggesting policy relevant barriers when there are none.

[2]The issue is not only theoretical, but also of practical import. The writings of Areeda and Turner, and of others, provide the rationale through which courts reach verdicts about pricing practices. Cf. Janich Bros., Inc. v. American Distilling Co., 570 F. 2d 843 (1977).

References

Areeda and Turner, "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act," 88 Hav. L. Rev. 697 (1976).

Joe S. Bain, Industrial Organization (Wiley & Sons, N.Y. 1968).

James M. Ferguson, Advertising and Competition: Theory, Measurement, Fact (Ballinger, 1974).

R. Posner, Antitrust Law: An Economic Perspective (1976)

G. J. Stigler, The Organization of Industry (Irwin, 1968).

Williamson, O., "Predatory Pricing: A Strategic and Welfare Analysis," 87 Yale L. J., 1337 (1978).