Barriers To Entry

By HAROLD DEMSETZ*

Although the notion of "barriers to entry" plays an important role in economic theory and antitrust litigation, the substantial problems inherent in it are not fully appreciated. Much existing discussion of barriers hardly pauses to recognize the 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.[1] The burden of this paper is to demonstrate that this is not so.

The origin of the barriers concept is in the research custom of industrial organization economists during the post-World War II period. That custom was to seek monopoly explanations for data not obviously or directly implied by the perfect competition model. The perceived persistence of higher rates of return in some industries than in others was suggestive of barriers to entry, especially for industries exhibiting high levels of structural concentration. The equalization of profit rates through competition, however, is a proposition logically valid only with respect to investment on the *margin* of alternative economic activities. Only if all inputs are available in perfectly elastic supply does this imply equality between average profit rates. In addition, accounting profits are likely to be biased by the presence of uncapitalized assets, especially assets associated with advertising, research, and goodwill[2] (see Lester Telser; Leonard Weiss; my earlier article). But my purpose here is not to probe these measurement problems nor to compare the merits of these explanations, but to examine the usefulness of the concept of barriers. Accordingly, I will ignore the possibility that factors other than barriers may partly or wholly explain the phenomena that the barriers notion seeks to explain.

I. Prevailing Ambiguities

The discussion of barriers in economic literature hardly reflects concensus. Consider the definitions given by Joe Bain, George Stigler, and James Ferguson. 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" (p. 252). This suggests that the appropriate test is whether (long-run) price exceeds (long-run) average cost after entry has ceased. Ferguson defines barriers as "factors that make entry unprofitable while permitting established firms to set prices above *marginal* cost, and to persistently earn monopoly return" (p. 10). This adds to Bain's test of barriers a third condition, that price exceed marginal cost. Stigler defines barriers "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" (p. 67).

These differing definitions allow their authors to hold different opinions about specific sources of barriers. For Bain and Ferguson, economies of scale constitute a source of barriers, but not for Stigler so long as entrants have access to the same cost

*Professor, economics department, University of California-Los Angeles. I appreciate comments received from Benjamin Klein and George Stigler.

[1]Recent contributions to the barriers literature by Franklin Fisher and C. C. von Weizsacker substantially improve the subject's treatment. Fisher's treatment is in some respects similar to the present paper's discussion, but our coverage and basic approach differ enough to warrant some duplication.

[2]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.

function. Advertising and capital requirements create barriers for Bain because they seem correlated with high profit rates, but, so long as these inputs are available on equal terms to all who wish to employ them, they create no barriers for Stigler; while for Ferguson, they create no barriers if they are not a source of scale economies.

The use of profit as the litmus test for barriers in Bain's and Ferguson's definitions, unlike Stigler's, uses a possible outcome of barriers, high profit rates, to substitute for the actual barriers. Barriers may or may not yield high profit. Even a securely protected monopolist may fail to cover his cost. Barriers that simply are sources of negatively sloped demand curves are easily overlooked by Bain's and Ferguson's definition.

These three definitions do agree on one matter. All focus attention on the different opportunities facing insiders and outsiders. This not only diverts attention from other types of barriers, but also hides the value judgments implicit in the barriers notion. As an example of the difficulty these definitions confront in identifying other types of barriers, consider those created by legal restrictions. A requirement that an official medallion must be owned by operators of taxis is a barrier to entry if the number of medallions available is less than the number of taxis that would operate without such a requirement or if the medallion is costly to obtain. Suppose it were true that such licenses, which may be resold subsequently, also must be purchased first from the city *at market-determined prices*. Insiders and outsiders face the same cost, the medallion price plus automotive costs, so Stigler's definition fails to identify the barrier, and, since the price of the medallion must dissipate profit, so do Bain's and Ferguson's. In these circumstances, the insider-outsider distinction fails to indicate the presence of a barrier to entering the taxi industry!

The reader will have recognized that 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. It might be supposed that lurking behind the scene are conditions with respect to medallion production that would allow one or more of the above definitions to identify the regulatory situation as one with barriers to entry. It would appear that there must be an abnormal return to the production of medallions and that, therefore, there are outsiders to the medallion industry who are barred by the city from profitably producing medallions. But this need not be the case. Let the city allow free entry into the medallion industry; let the city allow as many medallions to be manufactured as is called for by profit opportunities. As long as there is a significant cost to manufacturing (say, solid gold) medallions, fewer cabs would be in the industry than in the absence of licensure requirements. Indeed, medallions and licensure are not needed to keep some types of resources out of the taxi industry. Requirements to equip taxis with airbags, seatbelts, and costly bumpers will do. Even if the price of safety equipment equals its cost, and even if there were no bar to producing such equipment, would there not still be a barrier to putting taxis on the street?

Surely, the answer is "yes," but the policy implications of that answer depend very much on value judgments regarding the consequences of such barriers. A barrier to the use of resources for criminal activity will be judged by many to be desirable and socially productive, but not so many would take the same view toward a barrier to the importation of foreign goods. Even a barrier to the provision of low-cost, low-quality taxi services might seem desirable to those concerned about street congestion and dishonest drivers; licensing will reduce the number of taxis and also offer a premium for honest service that would otherwise be absent (the retention of a valuable license).

The insider-outsider framework assumes that consumer sovereignty will be served by allowing resources into the high profit industry. This hides the difficult problem of assessing the broader implications for consumer interest of the barrier. The barrier may reduce the severity of some externality or it may bring about improved levels of competition in activities other than that of direct concern. If the broader social constraints are accepted as serving consumer interest, then the fact that they block the free flow of resources in some directions is policy irrelevant.

Even the operation of an unregulated market system presupposes the general recognition of property rights, but *the problem of defining ownership is precisely that of creating properly scaled legal barriers to entry.* The essence of ownership is the general recognition that costs are to be borne if a person is to act in certain ways. These costs, like licensure, seat belts, etc., constitute hurdles that must be surmounted for an action, such as entry, to take place. An owner of resources may be barred legally from using (his) resources simply to occupy and operate the facilities of someone already in the industry. He must first meet the cost hurdle of securing the "owner's" permission. Similarly, he is barred by trademark protection from selling a product that he represents to be the product of his rival. But he may (or may not, depending on antitrust decisions) have the right to enter by selling a product priced below those of his rivals. The decision as to which actions are violative of someone's rights implies a derivative decision about the protective measures (trademark enforcement, price reductions, etc.) socially sanctioned for defending against entry.

The denial of the right to burn down the factory of a rival implies a prior judgment about the utility derived from such an act, not only by the person protecting his market in this manner but also by those enjoying large bonfires or viewing factories as eyesores; their gains are deemed too small to offset the loss implied by a destroyed factory. Such a calculation may be so formidable that strict injunctions are avoided. Instead "ownership" is defined to allow voluntary consent to guide the use of resources. The factory owner's consent to the (controlled, safe) burning of his factory is required before its destruction (serving a legitimate purpose) can take place.

Positive transaction cost implies that these decisions about property rights influence the mix of output. The consensus that establishes his right to *bar* destruction, unless there is consent, reflects the implicit prior decision that the mix of output (or actions) encouraged is more desirable than the mix discouraged. Positive transaction cost implies that the encouraged mix will include less factory destruction than if factory owners were required to pay rivals not to destroy the factory.

When judging the social productivity of barriers, it may be useful to adopt the criterion of consumer sovereignty; but since the underlying property right system guides the operations of several industries, it is not possible to restrict the application of consumer sovereignty to the output of the specific industry. The broader question must be considered—how does a barrier which originates in and is justified by the right system affect consumer welfare generally? This question may be considered in the context of the traditional entry barriers.

II. Traditional Barriers as Choices Among Output Mixes

Traditional barriers are marshalled to explain industry profit rates that tend to be persistently high. Presumably, differences in cost between outsiders and insiders account for these high profit rates. These cost differences are described by Bain as deriving in some way from the use of advertising and/or capital, or from economies of scale. Industries using more advertising and capital, and those subject to scale economies, are seen as enjoying abnormal profits because of this protection from outsiders.

The right to promote one's product and the right to build appropriate factories, however, are legitimate exercises of the rights of ownership of resources, and scale economies remains a fact whether or not firms are allowed to produce relatively large rates of output. These uses of resources have not been treated as criminal by the evolving property right system. There is no obvious reason for believing that legally blocking or punishing the use of resources in these ways serves consumer interests. Prospective entrants must win buyers away from firms that have promoted and produced their products in ways that maximize profits in competition with other firms. Whether the mix of output that results is superior to one that would obtain in the absence of these rights cannot be inferred merely from the existence of either higher profit rates or lower costs for insiders. The fundamental consequences for the mix of goods require examination before the defeat of barriers can be judged.

Because of brand loyalty, new rivals, seeking to sell as much as existing firms, may need to advertise more than existing firms (or offer some other special compensating advantage). This may be required at the time of entry even though new and old firms produce the "same" product, and even though old firms may have had to advertise even more to promote a new product variety when they began to sell. Advertising expenditures, at least those incurred earlier by existing firms, may be called 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. Information costs are the more fundamental barrier to entry. These costs, not necessarily in identical amounts, constitute hurdles to all who would (and have) enter(ed) the industry. 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 goodwill 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, or more correctly, on its *history* or on the fact that it has made sizeable investments specific to this industry.[3] New firms and recent entrants by virtue of their shorter histories or absence of specific investments (in particular, product lines) may not be able to impart to consumers, without some compensating effort, the same confidence as has already been secured by older firms through past investments in good performance. 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 might be even more difficult if such expenditures were disallowed because consumers would then be left to rely on *only* a company's history. It is the combination of information costs, the creation of a reputable history, and the commitment of industry-specific investment, not advertising per se, that constitutes the barrier (if that is how we choose to designate it).

Such histories and investment commitments 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 and about its willingness to accept high risks. This information is not necessarily an overpowering determinant of risk of lending, since knowledge secured from other sources must also be taken into account, and these 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. Larger, older firms generally will be able to borrow more cheaply than smaller, younger firms. It is not large capital "requirements," but the histories of successful firms, in a world in which information is costly to acquire, that constitute the source of such interest rate differentials.

Less obvious, but perhaps more important, the same factors 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 identical products or services, and if information is costless, 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. Irrelevancy of a firm's historic record compels new and old firms to divide the market between them if their prices are equal, and, if not equal, compels delivery of the entire market to the firm with the lower price. Existing firms have an advantage only insofar as their existence commands loyalty. Existence commands loyalty only if it reflects lower real cost of transacting, industry-specific investments, or a reputable history, as, in general, it will. Long survival at least indicates that

[3] Consumer reliance on specific investments of sellers is discussed in Benjamin Klein and K. B. Leffler.

the firm has not been a 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 risk reduction. Any price advantage enjoyed by such 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. Scale economies make this risk reduction available at lower cost per unit as more consumers buy from one firm, so that entrants must compete for the entire market. With scale diseconomies, the benefits of risk reduction become available to additional buyers from a single firm 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.

A reputable history is an asset 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, is one that 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 values of specific advertising capital and of the histories of these firms.

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 both Bain and Ferguson, such negative slopes are identified as barriers 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 *perfect* imitation (meaning an imposter who duplicates product contents, name, and packaging). Trademark privileges may reduce the quantities sold of an *existing* 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. Elimination of such legal protection is likely to reduce prices and increase sales of products already produced, but it also reduces incentives to develop new ones. Whether these legal barriers are 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 of one type, 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 of legal barriers to imitation using the criterion for consumer sovereignty may be strong. Where such spillovers are slight, the case for such protection is weakened, again from the perspective of consumers.

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. A very broad patent right may give an inventor title to other inventions that benefit very little from knowledge of his. A much more limited patent tends to allow more spillover to be uncaptured by an inventor.

It bears repeating that 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, if greater imitation is tolerated, there is an element of the cost of increasing the output of already invented goods that 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 is a barrier to greater production of known products, the absence of (appropriate) trademark protection is a barrier to invention of new products. *It cannot be said there is a barrier in one case and not (the potential of) a barrier in the other case.*

III. 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 are generally, or, at least, are in principle, those that transmit benefits to consumers, a practical policy problem of identification arises if a subset of these 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 policymaker 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. Phillip Areeda and Donald Turner 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.[4] I also refrain from discussing in detail the issue raised by Richard Posner with regard to whether short- 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. Profit-maximizing firms never seek to lower the relevant price below their relevant marginal cost, so such a test must fail.

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 *seems* 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 would seem to have 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, *price* 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 (or equals) 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. Oliver Williamson 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

[4]The issue is not only of 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. Compare *Janich Bros. Inc. v. American Distilling Co.*

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 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 policymaker 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. The fact of entry does imply a downward shift in demand, and this in and of itself will tend to reduce the output of an existing firm, but entry also makes the existing firm's demand more elastic, tending to increase output.[5] The net effect is unclear unless the existing firm's unit cost is decreasing in the region of its old output rate, for then entry must force it to increase output.

A third test for predation, this one legal rather than economic, centers on the *motivation* 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" situations in which intent seems relevant. The question of motive is clearly raised in the 1909 case of *Tuttle v. Buck*. 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. Justice Elliot, 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. [p. 946]

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 *only* effect from defendant's action was to harm the plaintiff (i.e., ignoring the price consequences for purchasers of haircuts), then there seems little difference between defendant's action in this case and the use of his financial resources to pay for the

[5] For a more detailed criticism of Williamson's proposal and a general review of discussion about predatory pricing, see John McGee.

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 the 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 the 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 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. Again, a choice of mix of outcomes must be made. One that is subject to all the usual uncertainties. We know that toleration of price cuts will deliver benefits to present consumers, but that future consumers may or may not be harmed by such toleration. Blocking price cuts certainly harms present consumers, but may benefit future consumers. A plausible policy is to take the bird in hand now because none may be in the bush tomorrow.

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 II, 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. Concluding Comment

The issue faced by the attempt to implement a policy toward barriers is that of defining which costs of undertaking activities are socially desirable and which are not. There presently is much too narrow a view about these costs, one that focuses on the cost of producing the physical output of an existing firm or industry. It tends to treat as unproductive the costs that must be incurred to create and to maintain a good reputation, to bear risks of innovation, and to build a scale of operations appropriate to the economical servicing of consumer demands, and it tends to neglect the incentives that will face future decision makers as a result of today's policy. Licensure, trademark, copyright, patent, entitlement to the fruits of past investment, including the investment in an honorable long history, and the right to reduce price may or may not be desirable, depending on how these broad implications are valued.

The valuation process must necessarily be one that is rich in intuition and 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 tradeoffs differently than a person possessing an equally deep faith in the process of "creative destruction." There exist neither cost-benefit analyses nor market-given prices by which to weigh benefits and costs in most of these tradeoffs. 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.

All policy preferences, of course, ultimately derive from a view of the world combined with one's preferences. The taste component remains a personal matter, but the view of the world can be convincing to others or not. Opposition to a tariff because of its impact on consumers is based on a convincing view of the world (to economists anyway!) because of our agreement as to the correctness of the underlying analysis. No such analysis exists for the notion of barriers. Our utterances in this regard may be accorded the skepticism appropriate to fairly unadorned opinion.

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