William M. Landes and Richard Posner
"Trademark Law: An Economic Perspective"*
30 Journal of Law and Economics 265 (1987)

That the law of intellectual property, including trademark law, can be analyzed in economic terms is no longer an insight with any power to astonish or even to offend.2 What the literature thus far has lacked, however, and this article seeks to supply, is an analysis that formalizes the economics of trademarks, relates trademarks to other forms of property, brings to bear the nascent economics of language and communication, and discusses and interrelates the principal doctrines of trademark law.3

This is an essay in positive rather than normative "law and economics." We use economics to try to explain the structure of trademark law rather than to change that law. Our overall conclusion is that trademark law, like tort law in general (trademark law is part of the branch of tort law known as unfair competition), can best be explained on the hypothesis that the law is trying to promote economic efficiency.4

I. The Economic Theory of Property

The economics of property rights, on which our analysis of trademark law draws heavily, are well understood and can be summarized quite briefly.5 A property right is a legally enforceable power to exclude others from using a resource, without need to contract with them. So if A owns a pasture, he can forbid others to graze their cattle on it without having to negotiate an agreement for exclusive use. A property right confers two types of economic benefit, static and dynamic. The former is illustrated by a natural (that is, uncultivated) pasture. If the owner cannot exclude others from using his pasture, there will be overgrazing because users of the pasture will ignore the costs they impose on each other in reducing the cattle's weight by making the cattle expend more energy in grazing in order to find enough to eat. The dynamic benefit of a property right is the incentive that the right imparts to invest in the creation or improvement of a resource in period 1 (for example, planting a crop), given that no one else can appropriate the resource in period 2 (harvest time). For example, a firm is less likely to expend resources on developing a new product if competing firms that have not borne the expense of development can duplicate the product and produce it at the same marginal cost as the innovator; competition will drive price down to marginal cost, and the sunk costs of invention will not be recouped.6

The costs of property rights are fourfold, the first being the cost of transferring such rights. If this is too high, a property right may prevent optimal adjustments to changing values. Suppose a factory is assigned a property right to the use of a river that runs beside it because the river is more valuable as a sewer than for recreation, but as the years go by the relative values of these uses reverse. If the recreational users are numerous, the transaction costs of their buying the right to use the river from the factory may exceed the value of the right to them. In such a case, a liability rule would be better, whereby the factory could be induced to discontinue its use of the river by being made to pay damages equal to the costs of the pollution to recreational users. The rule would reallocate the use of the river in accordance with changed values, without requiring a transaction.

The second major cost of a property rights system is rent seeking to obtain a property right. Suppose that a ship has sunk and that it has a salvage value of $1 million, while the cost of salvage is only $100,000. The potential gain to the salvager, a form of economic rent, is $900,000 if a property right in the sunken ship can be acquired; and the competition to acquire it may eat up all or most of the potential rents, transforming them into social costs. This example assumes, of course, that the original owner of the ship abandoned it, so that it is unowned; if it has not been abandoned, the owner can simply auction off the right to salvage the ship to the highest bidder, and there will be no rent-seeking problem. Intellectual property sometimes creates serious problems of rent-seeking because the resource is continuously created or discovered rather than being already owned. It is waiting to be discovered or invented, just like the sunken ship whose owner has abandoned it.

The third cost of property rights, the cost of protection and enforcement, includes the costs incurred by police and courts in preventing trespass and theft. It also includes the cost of a fence used to mark boundary lines or the cost of a registry used to record land titles. Intellectual property tends to be particularly costly to protect. An idea cannot be seen in the way a piece of land can be. A piece of land might have been transferred by inheritance for many generations, but it is the same piece of land, recorded in the same land registry. It is harder to trace the descent of an idea. Moreover, the public-good character of intellectual property can make it costly to prevent misappropriation and exclude free riders in the absence of legal protection.

The final cost of property rights is the cost of restricting the use of property when it has a public-good character. In the case of farmland, whether cultivated or uncultivated, adding a user will impose costs on the existing user(s); so the fact that a fence keeps additional users out need not impose a net cost. But often, adding users will not impose

costs on previous users of intellectual property—not directly anyway (it may of course discourage investment by preventing the previous users from recouping their sunk costs).7 One farmer's using the idea of crop rotation does not preclude other farmers from using the same idea.8 When the marginal cost of using a resource is zero, excluding someone from using it creates a deadweight loss, in addition to the cost of enforcing exclusion. This loss is not significant in the case of most physical property, which lacks the public-good character of intellectual property.

Since intellectual property is a particularly costly form of property, we would expect (and we find) that it is limited in ways that physical property is not.9 For example, the requirement that an invention, to be patentable, should not be obvious excludes property rights in inventions where excessive rent seeking would be a serious problem if such rights were recognized. "Obviousness" implies a low cost of discovery and development and therefore a large potential gap between value and cost -- a large opportunity to obtain economic rents. The limited duration of patents limits rent seeking by putting a ceiling on the expected value of the patent. It also reflects the high cost of tracing an idea over a long period of time in which it may have become embodied in a great variety of inventions. As we shall see, property rights in trademarks are also limited -- for example, by generally refusing to allow exclusive rights to common descriptive terms and by requiring that a similar or identical mark to one already in use be shown to create a likelihood of confusion regarding the source of the goods for infringement to be found.

II. The Economics of Trademarks

A. Introduction

To oversimplify somewhat, a trademark is a word, symbol, or other signifier used to distinguish a good or service produced by one firm from the goods or services of other firms. Thus "Sanka" designates a decaffeinated coffee made by General Foods and "Xerox" the dry copiers made by Xerox Corporation. "Bib" - the "Michelin Man" - is the symbol of tires made by the Michelin Company. A stylized penguin is the symbol of a line of paperback books published by Penguin Books; a distinctively shaped green bottle is a trademark of the producer of Perrier bottled water; the color pink is a trademark for residential insulation manufactured by Owens-Corning.

1. Benefits of Trademarks

Suppose you like decaffeinated coffee made by General Foods. If General Foods's brand had no name, then to order it in a restaurant or grocery store you would have to ask for "the decaffeinated coffee made by General Foods." This takes longer to say, requires you to remember more, and requires the waiter or clerk to read and remember more than if you can just ask for "Sanka." The problem would be even more serious if General Foods made more than one brand of decaffeinated coffee, as in fact it does. The benefit of the brand name is analogous to that of designating individuals by last as well as first names, so that, instead of having to say "the Geoffrey who teaches constitutional law at the University of Chicago Law School - not the one who teaches corporations," you can say "Geoffrey Stone - not Geoffrey Miller."

To perform its economizing function a trademark or brand name (these are rough synonyms) must not be duplicated. To allow another maker of decaffeinated coffee to sell its coffee under the name "Sanka" would destroy the benefit of the name in identifying a brand of decaffeinated coffee made by General Foods (whether there might be offsetting benefits is considered later). It would be like allowing a second rancher to graze his cattle on a pasture the optimal use of which required that only one herd be allowed to graze. The failure to enforce trademarks would impose two distinct costs—one in the market for trademarked goods and the other in the distinct (and unconventional) market in language.

a) The Market for Trademarked Goods. The benefits of trademarks in reducing consumer search costs require that the producer of a trademarked good maintain a consistent quality over time and across consumers. Hence trademark protection encourages expenditures on quality. To see this, suppose a consumer has a favorable experience with brand X and wants to buy it again. Or suppose he wants to buy brand X because it has been recommended by a reliable source or because he has had a favorable experience with brand Y, another brand produced by the same producer. Rather than investigating the attributes of all goods to determine which one is brand X or is equivalent to X, the consumer may find it less costly to search by identifying the relevant trademark and purchasing the corresponding brand. For this strategy to be efficient, however, not only must it be cheaper to search for the right trademark than for the desired attributes of the good, but also past experience must be a good

predictor of the likely outcome of current consumption choices - that is, the brand must exhibit consistent quality. In short, a trademark conveys information that allows the consumer to say to himself, "I need not investigate the attributes of the brand I am about to purchase because the trademark is a shorthand way of telling me that the attributes are the same as that of the brand I enjoyed earlier."10

Less obviously, a firm's incentive to invest resources in developing and maintaining (as through advertising) a strong mark depends on its ability to maintain consistent product quality. In other words, trademarks have a self-enforcing feature. They are valuable because they denote consistent quality, and a firm has an incentive to develop a trademark only if it is able to maintain consistent quality. To see this, consider what happens when a brand's quality is inconsistent. Because consumers will learn that the trademark does not enable them to relate their past to future consumption experiences, the branded product will be like a good without a trademark. The trademark will not lower search costs, so consumers will be unwilling to pay more for the branded than for the unbranded good. As a result, the firm will not earn a sufficient return on its trademark promotional expenditures to justify making them. A similar argument shows that a firm with a valuable trademark would be reluctant to lower the quality of its brand because it would suffer a capital loss on its investment in the trademark.11

It should be apparent that the benefits of trademarks in lowering consumer search costs presuppose legal protection of trademarks. The value of a trademark is the saving in search costs made possible by the information or reputation that the trademark conveys or embodies about the brand (or the firm that produces the brand). Creating such a reputation requires expenditures on product quality, service, advertising, and so on. Once the reputation is created, the firm will obtain greater profits because repeat purchases and word-of-mouth references will generate higher sales and because consumers will be willing to pay higher prices for lower search costs and greater assurance of consistent quality. However, the cost of duplicating someone else's trademark is small - the cost of duplicating a label, design, or package where the required inputs are widely available. The incentive to incur this cost (in the absence of legal regulation) will be greater the stronger the trademark. The free-riding competitor will, at little cost, capture some of the profits associated with a strong trademark because some consumers will assume (at least in the short run) that the free rider's and the original trademark holder's brands are identical. If the law does not prevent it, free riding will eventually destroy the information capital embodied in a trademark, and the prospect of free riding may therefore eliminate the incentive to develop a valuable trademark in the first place.

b) The Market in Languages. An entirely different benefit of trademark protection derives from the incentives that such protection creates to invest resources not in maintaining quality but in inventing new words12 (or symbols or, less clearly, design features used as trademarks, such as the Perrier bottle -- but for the moment we confine our attention to words). Trademarks improve the language in three ways. They increase the stock of names of things, thus economizing on communication and information costs in the ways just suggested. They create new generic words -- words that denote entire products, not just individual brands ("aspirin," "brassiere," "cellophane," "thermos," "yo-yo," "dry ice," and a number of other names of common products were once trademarks-and, whatever courts might say, "Kleenex" and "Xerox" are widely used to denote entire products as well as particular brands).13 And they enrich the language, by creating words or phrases that people value for their intrinsic pleasingness as well as their information value ("Pheremon" perfume, "Swan's Down" cake mix). These benefits, however, are small. This point will later help us explain important features of trademark law -- such as the termination of trademark protection if the mark becomes generic -- that would be inexplicable if trademarks provided the same sort of intellectual enrichment that patents and copyrights do. To show this will require a brief look at the economics of language.14 The goal (to which language is central) of a communication system is to minimize the sum of the costs of avoiding misunderstanding and the costs of communicating. Suppose we have a word for snow and a word for falling, and now the question is, Should there be a new word, meaning "falling snow"? In favor of the new word is the fact that unless it is very long it will be shorter to speak, read, and write; against it is that people will have to learn and remember another word. The more common a term is, the more the benefits of having a single word are likely to outweigh the costs, not only because the gains from shortening the term will be greater, but also because the cost of learning and remembering a word is less if it is in common use. So we are not surprised to find that Eskimos have a single word for falling snow, though we do not.15 The use of a word rather than a periphrasis to name a brand illustrates the same point.

Both examples are closely related to a statistical observation made years ago: the length of words is inverse to their frequency.16 It might seem that, rather than frequently used words being shorter than infrequently used words, all words would be short in order to economize on communication costs. But length is an important dimension along which words vary, and this dimension would be lost if all words were short. It makes economic sense for the frequently used words to be short and the infrequently used ones to be long; then total length is

minimized without sacrificing distinctiveness, thereby increasing the number of errors (misunderstanding). More generally, the drive to make language simple is balanced by the desire to avoid ambiguities and confusions that result from lack of differentiation.17

Here are some other examples of efficient language rules.

1. Irregularities of grammar and spelling are more common in frequent than infrequent words.18 The more frequently used a word is, the easier it is to learn by rote, and hence the less important it is that people be able to construct the word by the application of a rule. Everyone knows that the past participle of the verb "to be" is "been"; but it is convenient to be able to construct the past participle of "excogitate" by rule rather than have to memorize it.

2. Pronunciation changes faster than spelling because changes in pronunciation do not reduce the intelligibility of existing reading matter, which represents a vast and valuable capital stock of knowledge.

3. Perfect synonyms are rare; they would increase learning costs without adding to the communication resources of the language (except that synonyms make it easier to write poetry that rhymes or has regular meter).

4. Pronouns, which in all languages known to us are short, are an ingenious device for economizing on the length of words.

Examples of the efficiency of language rules could be multiplied,19 but the most important thing for present purposes is to note that efficiency is achieved without a system of property rights in words, grammatical forms, and so on. Of course the costs of enforcement - the costs, for example, of a system under which the coiner of a word (such as Jeremy Bentham, who coined "codification," "minimize," and several other words still in common use) obtained a property right in it -- would be immense. This may be a sufficient explanation for why there is no such system. Yet it seems (though this is no better than a guess) that even without property rights the language has attained a reasonable degree of efficiency. Of particular relevance to trademarks is the fact that the creation of new words for new things seems not to be retarded by the fact that the coiner of a word can obtain no property right. Either the costs of thinking up new words are slight, or the incentives to do so, independent of any direct compensation, are great. The former seems important for proper names (naming a baby, for example) and for terms of art (we have created a few ourselves, such as "joint care"),20 the latter for trademarks -- if a producer wants to market a new brand effectively, he needs a distinctive name -- unless of course he is trying to pass off his brand as someone else's.

This analysis suggests that we do not need trademark protection just to be sure of having enough words, though we may need patent protection to be sure of having enough inventions or copyright protection to be sure of having enough books, movies, and musical compositions. Computer operating systems, which are a form of language, are copyrightable; maybe any invented language, such as Esperanto, would be. But the investment required to create a whole new language is much greater than that required to create a single new word, so the case for property rights is much stronger in the former instance than in the latter.
Our analysis also suggests that the universe from which trademarks are picked is very large. The availability of alternative words, symbols, and so on to those appropriated for use as particular trademarks will play an important role in our formal analysis, where we refer to it as "W." It turns out that a high W is a precondition to a system of trademarks that is effective in lowering consumer search costs.

2. The Costs of Legally Enforceable Trademarks

These costs are modest, at least in the simple care of the "fanciful" mark, such as "Exxon" and "Kodak," which has no information content except to denote a specific producer or brand. Since the mark "goes with" the brand (in a sense explained later), the transfer of the mark is automatically effected by a transfer of the rights to make the branded product, as by a sale, or licensing, of production rights or assets. Quite unlike our case of the sunken ship in Section I, rent seeking to stake out a trademark is not much of a problem either.21 Prior to establishing a trademark, the distinctive yet pronounceable combinations of letters to form words that will serve as a suitable trademark are as a practical matter infinite, implying a high degree of substitutability and hence a slight value in exchange. Finally, the costs of enforcement, though not trivial (especially where there is a danger of a brand name's becoming a generic name), are modest and (again putting aside the generic problem) do not include the cost in inefficient resource allocation from driving a wedge between price and marginal cost. A proper trademark

is not a public good; it has social value only when used to designate a single brand.

We may seem to be ignoring the possibility that, by fostering product differentiation, trademarks may create deadweight costs, whether of monopoly or (excessive) competition. We have assumed that a trademark induces its owner to invest in maintaining uniform product quality, but another interpretation is that it induces the owner to spend money on creating, through advertising and promotion, a spurious image of high quality that enables monopoly rents to be obtained by deflecting consumers from lower-price substitutes of equal or even higher quality. In the case of products that are produced according to an identical formula, such as aspirin or household liquid bleach, the ability of name-brand goods (Bayer aspirin, Clorox bleach) to command higher prices than generic (nonbranded) goods has seemed to some economists and more lawyers an example of the power of brand advertising to bamboozle the public and thereby promote monopoly;22 and brand advertising presupposes trademarks - they are what enable a producer readily to identify his brand to the consumer. Besides the possibility of creating monopoly rents, trademarks may transform rents into costs, as one firm's expenditure on promoting its mark cancels out that of another firm. Although no monopoly profits are created, consumers may pay higher prices, and resources may be wasted in a sterile competition.

The short answer to these arguments is that they have gained no foothold at all in trademark law, as distinct from antitrust law. The implicit economic model of trademarks that is used in that law is our model, in which trademarks lower search costs and foster quality control rather than create social waste and consumer deception. A longer answer, which we shall merely sketch, is that the hostile view of brand advertising has been largely and we think correctly rejected by economists.23 The fact that two goods have the same chemical formula does not make them of equal quality to even the most coolly rational consumer. That consumer will be interested not in the formula but in the manufactured product and may therefore be willing to pay a premium for greater assurance that the good will actually be manufactured to the specifications of the formula. Trademarks enable the consumer to economize on a real cost because he spends less time searching to get the quality he wants. If this analysis is correct, the rejection by trademark law of a monopoly theory of trademarks is actually a mark in favor of the economic rationality of that law.

[Click here to see the authors' presentation of a formal model embodying the foregoing analysis.]

III. The Economics of Specific Trademark Doctrines

A. The Acquisition, Transfer, and Duration of Trademarks

1. How Trademarks Are Acquired

One of the costs of a property rights system - the transformation of the rents flowing from possession of a valuable right into costs of acquiring the right in the first place - is a potential problem with trademarks. There are three systems in use for regulating the acquisition of trademarks. One is registration. It resembles the systems used for acquiring patents and copyrights and is in use in most of the world outside the United States. The second system, which is the traditional approach of the common law is a type of "first possession" rule and is thus analogous to the system for acquiring property rights in wild animals, oil and gas, and certain other resources (including, in some states, water). The third system is the current American system, which is a mixture of registration and first possession.

Under the common-law approach, the possession that confers ownership of a trademark is defined as use in commerce, which means sale to intended customers (typically, the public).28 There are several advantages of a first-possession rule.

a) It minimizes rent seeking. A firm allowed to register trademarks without using them might invest substantial resources in thinking up plausible new brand names. For even if, as we have suggested, the elasticity of supply of such names is very high, the ownership of a vast number of them, and the aggregate licensing revenues that such ownership would command, would be a magnet drawing resources into the activity of creating brand names, probably beyond the optimal level of such investment. Apparently the "banking" of trademarks in countries such as Japan that have a pure registration system does occur and has made it more costly to enter markets in those countries.

b) First possession reduces administrative costs compared to deciding who first thought of or invented the trademark. Since trademarks often consist of common words, shapes, colors, and so on, it would be costly to

figure out which party to a trademark dispute had invented the mark first. A cheaper (we do not suggest costless) alternative is to determine who used it first. An even cheaper alternative is who registered it first, but it leads to the problem discussed in the preceding paragraph.

c) Use in commerce means sale of the good, with the trademark attached, to the public. Thus, a potential second comer will be on notice not to invest resources in developing a mark similar or identical to one already in use. Potential duplication costs are not avoided completely because, as we shall see in a moment, there will be an interval between developing and fully exploiting the mark during which another person (the "junior user") may be developing the same mark unaware of the first ("senior user").29 But the costs probably are lower, on the average at least, than in the case of patents because the cost of adopting a new trademark is normally less than that of inventing a new product or process.30

d) Basing the property right on use fits in with the social function of trademarks in identifying and distinguishing goods. If the good is not available for sale, the trademark confers no benefit. Thus, conditioning trademark rights on use is a way of limiting the use of scarce enforcement resources to situations in which the rights in question are likely to yield net social benefits. The solution is not ideal; it could lead to the premature development and marketing of goods by a firm eager to establish a right in a nifty trademark. But if the elasticity of supply of brand names is as high as we believe, very few individual trademarks will be so valuable apart from the products that they name that a firm will distort its marketing decisions in order to appropriate a particular name.

The current American system of establishing trademark rights is a mixture of state common-law rights and an optional federal registration system (itself a mixture of registration and first-possession principles) under the Lanham Act.31 Registration under the Lanham Act does not confer a property right without use, but less use is required than at common law; a token sole or single shipment will often be sufficient.32 The principal social benefit of a federal registration system is that notice is likely to be more widespread, so that inadvertent duplication is less likely; hence, use becomes a less important method of preventing duplication. But the federal registration system involves significant costs. Like a pure registration system, it may enable firms to "bank" trademarks, provided the use requirement is minimal. If the sale of trademarks apart from the goods they denote is forbidden (which it is, as we shall see in the next section), "banking" trademarks could also impose costs by requiring competitors to adopt less efficient trademarks (those yielding a higher H in our model) since they could not buy them from the "bank."

The biggest problem with a first-possession rule for intellectual property, and the strongest argument therefore for a system of paper titles (the trademark registry, corresponding, as we have noted, to the patent registry), is that the thing possessed has no definite physical locus. Suppose that producer A, who makes brand X desk lamps, is at present selling only in New York State, but he has plans to sell eventually throughout the country. Can producer B, who operates only in California, sell the desk lamps under the X name, on the theory that A is not using the trademark in California? Or if A is selling throughout the country a hammer under the name X but plans eventually to sell a full line of tools under the name, can B affix the name to his own brand of screwdriver? If A eventually begins to sell desk lamps in California or eventually begins to produce screwdrivers as well as hammers, who owns the X trademark-A or B?

The courts resolve these issues in a way that seems calculated to minimize the costs arising from duplication of trademarks but is itself rather costly and uncertain to administer. Assuming that the goods sold by A and B (if and when A completes his plans of expansion, whether geographic or product, as the case may be) will be too similar to share the same name without unduly confusing the consumer, the courts consider primarily the closeness between A's original and expansion uses, A's unreasonable delay, if any, in enforcing his trademark against B (A's "laches," as it is called), and B's good or bad faith - whether he knew about A's trademark and was copying it or whether it was a coincidence that he began using the same mark.33 The closer A's original and expansion uses are, the costlier it will be for A and its customers if A is forced to use a different mark in the expansion uses. Given the mobility of consumers,34 they will be confused to find that the same brand is called one thing in one state and another thing in another. That is why Standard Oil Company of New Jersey came up with a new mark, "Exxon," to replace the Esso, Humble, Standard, and Enco marks that it had used for the identical products in different states. Consumers may also be confused if complementary goods, such as a hammer and a screwdriver, made by the same producer are sold under different names. Hence, if A is denied the use of his trademark in his expansion markets, geographic or product, he may, like Standard Oil of New Jersey, be forced to adopt a wholly new trademark, thus sacrificing some reputation capital associated with the original mark.

A doctrine of laches (unreasonable delay) forces A to internalize B's cost of duplication. If A has reason to know

that B is proceeding to develop a duplicative mark in ignorance of A's prior use, A must, on pain of not being able to use his mark in his expansion markets, warn B off. If, however, B, far from proceeding in ignorance of A's prior use, has deliberately copied that mark (bad faith), the costs of duplication are self-imposed, and he is entitled to less consideration.

The Lanham Act has eased the problem of geographic overlap, thanks to imaginative judicial interpretation. The courts have interpreted the act to eliminate any good-faith defense for a firm using a trademark listed in the federal registry on the same product.35 The idea is that, before beginning to use a mark, the firm should check the registry, and if it finds that the mark is being used on the same product, it cannot later claim good faith when sued for infringement. If the products are different (our hammer and screwdriver example), the defense is not automatically extinguished, because the path of expansion into different, though related, products is inherently uncertain. The same can be said for geographic expansion, but there is a critical difference. Even if the firm that is using a trademark in one part of the country never expands to other parts, consumers are not fixed in one place, and in traveling around the country or in moving from one part of the country to another they may be confused if different brands of the same product are sold under the same name. They are apt to assume that every desk lamp sold under a particular brand name is the same brand, that is, is produced by the same producer. The courts have eliminated this source of confusion for registered marks.

[Click here to see the authors' application of the model to the law governing the sale and duration of trademarks.]

B. The Requirement of Distinctiveness

1. Introduction

Trademark protection is available only for a word or other signifier that identifies the underlying good (or service) and distinguishes it from that of other producers. Lack of distinctiveness would make the mark incapable of identifying the good and recalling to a consumer the information (on the basis of previous experience with the good by him or other consumers) that lowers his search costs and enables the producer to charge a higher price. But even without a distinctive mark, T may reduce search costs somewhat, so that H(T) would be minimally lower than if there is no trademark at all.

What would be wrong with trademark protection for nondistinctive signifiers? Such protection might be unnecessary because no one would want to free ride on a nondistinctive signifier; the incentive to free ride depends on the difference between the profits generated by the mark -- which by assumption are close to zero in the nondistinctive case -- and the costs of duplication. Protection would impose other costs, above and beyond enforcement costs. Since a mark that does not distinguish one brand from another probably uses words, symbols, shapes, or colors that are common to those used by other producers of X, the protection of such a mark might prevent others from continuing to use words that they require to compete effectively. ***

2. The Types of Trademark

The law could deal with the problem of the undistinctive mark by requiring in every case an inquiry into the economic effects of allowing an exclusive right. The effect, however, would be to make a trademark case very much like an antitrust case. Antitrust cases governed by the Rule of Reason are very costly to try (or even to settle), and the only thing that makes these costs (sometimes) worthwhile, both privately and socially, is the large private and social costs that some antitrust violations impose. Since the allocative effects of individual trademark abuses are pretty much limited to raising consumer search costs, the potential misallocations are much smaller than in most antitrust cases. It therefore would not pay, privately or socially, to conduct an antitrust-type analysis in most trademark cases. Instead, the law has classified potential marks by distinctiveness in a few broad categories and has made classification determinative of legality - much as in antitrust cases governed by per se rules. The result is sometimes criticized for its crudeness,44 but there are potentially offsetting reductions in administrative costs.

Let us consider the categories.45 The so-called fanciful mark - the made-up name that resembles no other word, such as "Exxon" or "Kodak" - is the economically (and legally) least problematic. Much like a fanciful mark in their economic properties are arbitrary and suggestive marks. The former term refers to a word in common use that has no meaning related to the product that it is used to name; "Apple Computer" and "Black & White Scotch" are examples. The elasticity of supply (W in our formal model) of such terms is very high. There are 450,000 words in Webster's Third New International Dictionary, and although they are not freely substitutable if one is

trying to say something that will be understood, they are freely substitutable if one is uninterested in meaning.

Somewhat more problematic are suggestive marks—words that imply characteristics of the goods they are used to name but do not describe them. A good example is "Business Week." The elasticity of supply of suggestive marks is less, but not much less when one considers substitution between trademark categories. "Business Week" competes with "Forbes" and "Barron's" (arbitrary marks) as well as with the "Wall Street Journal"—the last also an example of a suggestive mark.

Next in decreasing order of substitutability is the descriptive mark, such as "All Bran" or "Holiday Inn." Here, trademark protection is allowed only on proof of "secondary meaning," which means proof that the consuming public understands the word or phrase to name the brand.46 A given product has only so many attributes that interest buyers. So if one producer is allowed to appropriate the word that describes that attribute, he will obtain rents measured by the higher price he receives for his brand because it is so costly for his rivals to inform their customers of the attributes of their brands without using the descriptive word that has been appropriated (Z in eq. (10)). Over time, however, the dictionary meaning of the word may go out of common use, and the word may come to signify for most people just the name of the brand; "All Bran" has come to mean not any all-bran cereal but a particular brand of all-bran cereal. Once this happens, allowing the word or expression to be appropriated may create consumer benefits, by reducing confusion and search costs by more than the costs to rivals of being forbidden to use the same word.

Just as words can be classified into different types of trademarks, so can shapes and other signifiers. Similar to fanciful and arbitrary words are unusual symbols and shapes or combinations of well-known symbols, shapes, and colors. No problem arises when a firm appropriates such a signifier as its trademark. They are distinctive, so there is no question whether they are capable of providing source information; and their supply is virtually unlimited, so a competitor is not at a cost disadvantage in choosing another signifier as a trademark. Closely analogous to descriptive marks are common symbols (circles, squares, or hearts) and individual colors (particularly primary colors).*** To allow a firm to appropriate one of these potential signifiers as its trademark creates the danger that, after several firms do this, the limited number of attractive symbols and colors will all be used, making it more costly for other firms to compete.*** Still, there may come a time, particularly if the symbol or color in question has been used exclusively over a period of years, when the common signifier denotes the producer's brand. The symbol or color now primarily provides source information; in trademark jargon it has acquired secondary meaning. Not to allow exclusive use in these circumstances would destroy information capital should other producers start using the same signifier. Not surprisingly, the law allows appropriation in this case.

An interesting example is the trademarking of common shapes and colors of pills sold as prescription drugs. After a patent on a drug expires, other firms may begin selling the "same" drug under a different brand name or under its generic name while copying the shape and color of the original manufacturer's pill. Notwithstanding the lower price charged by the new entrants, many consumers may prefer to stick with the original manufacturer; maybe they had good experience with the drug and are reluctant to believe claims that the substitute is identical in all material respects. Since a consumer is unlikely to read the fine print on the pill that identifies the manufacturer (and it really is fine print), he may rely on the only accessible signifiers - its shape and color - to indicate that he is using the pill he wants. So if entrants are allowed to use the same size, shape, and color, this may lead to deliberate substitution by the druggist (because the manufacturer of the generic substitute charges the druggist a lower price or because the druggist is temporarily out of the original manufacturer's drug) or to inadvertent substitution because of the druggist's carelessness. In these circumstances, where there are large benefits from source identification and high costs of using means other than size, shape, and color to identify, we would expect, and we find, that courts grant trademark protection to common sizes, shapes, and colors of prescription drugs,47 although they would not do this with other products. Nonprescription drugs are an example: the manufacturer can display the brand name predominantly on the container and packaging and therefore does not require size, shape, and color for source identification.

[Application of the model to a variety of other trademark doctrines is omitted.]