EXTENDING THE BOUNDARIES
OF STRICT PRODUCTS LIABILITY: IMPLICATIONS OF
THE THEORY OF THE SECOND BEST

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Courts in recent years have extended the boundaries of strict products liability beyond manufacturers and commercial sellers of new products to include a broad range of commercial suppliers of products and product-related services. Some of these extensions have become settled doctrine; a number are the subject of continuing controversy. Courts and commentators have disagreed regarding the criteria to be used in deciding which categories of suppliers to include in extensions of the boundaries. Instead of siding with any of the traditional views in this regard, this Article suggests that an additional factor, derived from the Theory of the Second Best, should be weighed in considering whether to extend strict liability into new areas.

In order to appreciate the relevance of this additional factor, it will be necessary to relate it to the underlying objectives of

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1 As used in this Article, the phrase "strict products liability" means liability in tort, imposed without regard to the defendant's fault, for harm caused by defective products or product-related services. It includes strict liability based on a fairly wide range of warranties implied in law, including implied warranties of merchantability and wholesomeness. It does not include strict liability based upon contract, express warranty, implied warranty of fitness for particular purpose, misrepresentation, or any other form of strict liability based upon special communications between the defendant and other persons. The policy analysis in this Article focuses upon the problem of identifying the categories of activities upon which to impose strict products liability. Most frequently, the issue is whether to extend strict liability to a category of suppliers of products or product-related services hitherto held liable in tort only on the basis of a showing of fault. Occasionally, the issue is whether to extend strict liability to a broader range of the activities of suppliers already held strictly liable on a more limited basis. This Article does not address the questions of who should be allowed to recover and what is the proper definition of "defect."

products liability law. This Article accepts as a premise that consumers, unlike producers, generally underassess the accident costs associated with various product-related activities, leading to market distortions in the form of overconsumption of products in general, and of riskier products in particular.\(^3\) Borrowing from traditional economic analyses of strict products liability, this Article agrees that the "first best" solution to the waste and inefficiency associated with these distortions is to reflect defect-related accident costs generally in the prices consumers pay for commercially supplied products. Consumers would thereby be forced more adequately to consider safety when deciding which products to purchase and use.\(^4\) Recognizing, however, that some product-related activities are beyond the effective reach of strict products liability, the Article suggests that under these circumstances the "second best" solution may not necessarily be to reach all those commercial products sources that strict liability could reach.

Although somewhat counterintuitive, this conclusion appears unavoidable once it is recognized that some proposed extensions of strict products liability establish boundaries that distinguish legally among product-related activities that are, from the consumer's viewpoint, substantially substitutable. Whenever a proposed boundary extension distinguishes among substitutable activities, consumers at the margin\(^5\) will move away from the product-related activities included within the boundaries of strict liability, the prices of which more adequately reflect their true acci-

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\(^3\) It is reasonable to assume that if consumers generally were able to assess defect-related risks, producers would emphasize safety in promoting products. The National Commission on Product Safety reached the following conclusion in its 1970 final report: "It is difficult to underestimate the knowledge of most consumers about product safety." \textit{National Commission on Product Safety, Final Report 63} (1970).


\(^5\) Shifts in consumption occurring "at the margin" refer to the behavior of those consumers for whom the choice between the two alternatives in question is relatively close—that is, those consumers for whom a relatively small difference in price will be significant. Obviously, given less-than-perfect substitutability, all consumers are not "at the margin" in the sense intended here, and therefore not all will change their behavior in response to price changes. It is reasonable to assume, however, that some percentage will shift and that the size of that percentage will be proportional to the products' relative substitutability—their cross elasticity of demand—and to the extent of the price change. See E. Mansfield, supra note 2, at 118-21.
dent costs, and toward the excluded substitutes, the prices of which do not. Of course, these shifts at the margin will be of relatively little concern to torts scholars if the excluded substitutes are generally safer than the activities that rely upon products and services to which strict liability applies.\(^6\) If, however, the excluded activities to which consumers are marginally driven are riskier than their included counterparts, the imposition of strict liability will exacerbate a problem of primary concern to torts scholars—over-engagement in relatively risky activities.\(^7\) In that circumstance, the following analysis suggests that overall safety may be enhanced by refusing to extend, rather than by extending, the boundaries of strict products liability. Policymakers may nevertheless decide that the social benefits to be derived from extending those boundaries outweigh the resulting decreases in consumer safety,\(^8\) but they should not be ignorant of those effects in reaching intelligent policy decisions.

Part I of the Article includes a brief summary of traditional policy justifications for strict products liability, together with a description of those areas in which consensus exists regarding the applicability and nonapplicability of strict liability. This part also describes areas in which the applicability of strict liability is in dispute. Part II begins with a brief exposition of the Theory of the Second Best. That theory's relevance to policy analysis in the field of products liability is demonstrated by using the theory to help explain both the original move from negligence to strict liability and the subsequent extensions of strict liability that have become settled doctrine. Finally, an approach to future boundary

\(^6\) Overconsumption of safer substitutes also distorts the market, but in the opposite direction from that of primary concern in this Article: instead of accident costs being too high, avoidance costs are too high. Although avoidance costs are taken into account in determining whether an actor has been negligent, see, e.g., Judge Hand's famous calculus in United States v. Carroll Towing, 159 F.2d 169, 173 (2d Cir. 1947), and although commentators have discussed avoidance costs in their policy analyses of tort law, see note 21 infra & accompanying text, tort law has traditionally aimed at discouraging conduct that is too risky, rather than too safe.

\(^7\) Clearly, the writers applying economic analysis accept accident cost reduction as a primary goal. See authorities cited in note 4 supra. And even those torts writers who do not explicitly rely on economic analysis recognize accident cost reduction as an aim of tort law. See, e.g., 2 F. HARP\^ER & F. JAMES, THE LAW OF TORTS § 12.4 (1956); C. MORRIS, MORRIS ON TORTS 246-53 (1953); W. PROSSER, LAW OF TORTS 148-49, 659-60 (4th ed. 1971).

\(^8\) A policymaker might, for example, tolerate a higher overall accident rate in return for the benefits derived from spreading the accident costs among a larger number of consumers, thereby preventing ruinous consequences for consumers who would not otherwise be protected. See note 17 infra & accompanying text. Moreover, notions of fairness frequently justify resource allocations that are inefficient. See generally C. CALABRESE, supra note 2, at 18-21.
extensions, consistent with the implications of Second Best Theory, is prescribed.

I. EXTENDING THE BOUNDARIES OF STRICT PRODUCTS LIABILITY

A. Traditional Policy Justifications

For purposes of this Article, the specific content of the social policies that have prompted courts to begin imposing strict liability upon suppliers of products and product-related services is less significant than the fact that some set of policy considerations has prompted such a beginning. Once strict liability was initially imposed, the task of reviewing and periodically revising its boundaries was unavoidable; because the following analysis is uniquely concerned with the effects of setting boundaries as such, it is important irrespective of the policies supporting strict products liability.\(^9\) Appreciation of the underlying policies will, however, help to place the following analysis in its proper perspective.

Among the justifications traditionally advanced in support of strict products liability are the following: \(^{10}\) (1) because commercial suppliers of products and product-related services presumably profit from their activities, notions of fairness require them to compensate innocent victims injured by defective products and services regardless of supplier fault; \(^{11}\) (2) because defective

\(^{9}\) Even the initial decision to impose strict products liability on new products manufacturers may be viewed as a boundary decision, however. And as text accompanying notes 167-81 infra indicates, that decision also minimizes the distortion effects with which this analysis is concerned.

\(^{10}\) Justifications for imposing strict liability have been advanced in terms other than those employed in the text following this note. For example, statements such as "[n]othing will protect [consumers] effectively but wholesome [products]," Cushing v. Rodman, 82 F.2d 864, 869 (D.C. Cir. 1936), are occasionally encountered in appellate opinions. Such observations are obviously in error insofar as they suggest that a defect-free world is either attainable or desirable. Avoidance costs would increase enormously, and unacceptably, as zero defect rates were approached. See generally note 6 supra and note 21 infra & accompanying text. Rephrased to suggest that failure to meet consumer expectations justifies the imposition of liability, however, such assertions become merely different ways of stating one or more of the justifications described in the text.

products and product-related services present extraordinary risks, it is only fair that the suppliers of such risky products and services compensate their innocent victims;\(^\text{12}\) (3) because consumers rely on suppliers for adequate protection, they should be allowed to recover when that protection is not provided;\(^\text{13}\) (4) although negligence law theoretically forces suppliers of products and services to achieve socially optimal defect rates,\(^\text{14}\) in practice these suppliers escape a portion of negligence-based liability due to the problems of proof encountered by plaintiffs; strict liability forces these more efficient cost minimizers to come closer to optimal defect rates;\(^\text{15}\) (5) unlike producers, consumers generally underassess the accident costs associated with defective products and services, leading to overconsumption of products in general and of relatively risky products in particular; by causing the prices of products and services to reflect more fully their defect-related accident costs, strict liability helps to reduce this overconsumption and thus to reduce the overall costs of defect-related accidents;\(^\text{16}\) and (6) by helping to spread the costs of defect-related accidents among those who consume products, strict liability performs the social insurance function of reducing the dislocation costs of those accidents.\(^\text{17}\)


\(^{14}\) See notes 6 & 7 supra. For the thesis that, absent transaction costs, parties would bargain their way to optimal points irrespective of the nature of the liability rule, see Coase, \textit{The Problem of Social Cost}, 3 J.L. & ECON. 1 (1960).


\(^{16}\) See, e.g., authorities cited in note 4 supra.

From a somewhat broader perspective, these traditional justifications for strict products liability may be viewed as furthering two overall objectives pursued generally by systems of tort liability: fairness, in the sense of furthering shared notions of social morality; and efficiency, in the sense of eliminating unnecessary accident costs. The former objective is reflected primarily in the first three justifications listed above; the latter objective, primarily in the last three. Because the analysis that follows is concerned predominantly with the potential for market distortions inherent in extending the boundaries of strict products liability, it speaks most directly to those who view strict liability, at least in part, as a means of achieving more efficient allocations of society's resources. However, the very real possibility that boundary extensions may promote, rather than discourage, relatively risky activities for which compensation is not available should render the analysis of interest even to those who doubt that strict products liability promotes allocative efficiency.

Given the relevance of allocative efficiency to this Article, a brief treatment of that concept is in order. To the welfare economist, optimally efficient resource allocations occur when it is impossible for any individual to gain by further exchange without causing loss to another individual. More specifically, in the context of strict products liability, allocative efficiency is attained when the sum of the costs of incurring defect-related accidents and the costs of avoiding such accidents is at a minimum—that is, when accident costs cannot be lowered without an increase in avoidance costs of greater magnitude, and vice versa. Of the efficiency-oriented justifications for strict products liability, the one that is

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18 See generally Fletcher, supra note 12.
19 The last three justifications, though primarily reflecting the efficiency objective, also reflect notions of fairness to some extent. Cost spreading, for example, is frequently advanced as a way of achieving fairness. See, e.g., Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 441 (1944) (Traynor, J., concurring); McKean, supra note 4, at 39. And some of the efficiency justifications are mutually antagonistic if pushed to the extreme. For example, when cost spreading in the form of social insurance is pursued as an end in itself, it undermines the general deterrence objective. See G. Calabresi, supra note 2, at 43-44, 64-67, 281-82.
20 This condition is commonly referred to as "Pareto optimality," after the Italian economist Wilfred Pareto, who originated the concept. See generally E. Mansfield, supra note 2, at 443-44; McKean, supra note 4, at 30.
21 See generally G. Calabresi, supra note 2, at 26. Given the economist's standard assumption of zero transaction costs, if the investment of one dollar in avoidance measures would reduce accident costs by more than one dollar, the interested parties would bargain their way to that expenditure. If reducing accident costs by one dollar would cost ten dollars in avoidance measures, the investment presumably would not be made.
most directly relevant in the following analysis is the fifth objective
outlined above, the one aimed at achieving what has been termed
"market deterrence." According to that justification, consumers are
presumed incapable of adequately assessing the accident costs
associated with defective products. By causing the prices of
commercially supplied products and services to reflect these acci-
dent costs, strict liability results in appropriately reduced consump-
tion of relatively risky products and services, and a corresponding
reduction in related accident costs. It is assumed that commercial
producers and suppliers are able to assess (and thus efficiently to
insure against) such risks and to pass on the related costs to con-
sumers in the form of price increases.

B. Areas of Consensus Regarding Commercial Enterprises
Included Within the Boundaries

1. Manufacturers and Other Commercial Sellers of
New Products

The universal rule in American products liability law is that a
manufacturer is strictly liable for the physical harm proximately

22 See generally G. Calabresi, supra note 2, at 27 (prefers to use term "general deterrence," but views them as interchangeable); J. O'Connell, Ending Insult to Injury 76-80 (1975).
23 See note 3 supra & accompanying text.

caused by those of its products shown to have been defective and unreasonably dangerous when sold new by the manufacturer. This basic rule generally applies to all other commercial sellers in the chain of distribution, including wholesalers and retailers. Courts have been fairly generous toward injured plaintiffs in defining sale of a product. As long as the defendant is a commercial seller, for example, defective products distributed as free samples are treated as having been sold for strict liability purposes. Similarly, consumers injured by defective demonstration models and sellers of component parts are generally treated as products sellers. See, e.g., Sevits v. McKiernan-Terry Corp., 264 F. Supp. 810, 814 (S.D.N.Y. 1966) (suit against manufacturer of component part of naval vessel allowed when suit against vessel manufacturer was not possible); Suvada v. White Motor Co., 32 Ill. 2d 612, 623, 210 N.E.2d 182, 188 (1965) (manufacturer of defective tractor brake held liable when tractor manufacturer merely installed brake); Clark v. Bendix Corp., 42 A.D.2d 727, 728, 345 N.Y.S.2d 662, 663-64 (1973). But see Goldberg v. Kollsman Instr. Corp., 12 N.Y.2d 432, 437, 240 N.Y.S.2d 592, 595, 191 N.E.2d 81, 83 (1963).


See, e.g., Delaney v. Towmotor Corp., 339 F.2d 4, 6 (2d Cir. 1964) (allowing recovery by employee of prospective purchaser injured by demonstration fork lift truck); First Nat'l Bank v. Cessna Aircraft Co., 365 So. 2d 966, 968 (Ala. 1978) (advisory opinion to federal district court declaring that strict liability doctrine applies in cases involving demonstration models and free samples).

27 The Restatement of Torts indicates that, in order to impose strict liability on a commercial seller, the product causing the injury must have been in a "defective condition unreasonably dangerous to the user or consumer." Restatement (Second) of Torts § 402A (1965). This formulation suggests that the product must have been both defective and unreasonably dangerous. Although some courts have accepted this view, e.g., Kirkland v. General Motors Corp., 521 P.2d 1353, 1362-63 (Okla. 1974), others have required only that the product have been defective, e.g., Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 133-35, 501 P.2d 1153, 1162-63, 104 Cal. Rptr. 433, 442-43 (1972).

by defective products that cause harm prior to actual purchase are able to recover under a theory of strict liability. An exception to this pattern of judicial generosity is the refusal to apply strict liability to isolated sales of products by commercial enterprises that are not in the business of selling products of the same type as those causing the injury.

2. Commercial Lessors

The most significant extension of the boundaries of strict products liability is the inclusion of commercial products lessors in the category of suppliers held strictly liable for product defects. In a landmark decision, the Supreme Court of New Jersey held the commercial lessor of a truck fleet strictly liable for injuries to the driver-employee of the lessee. Relying doctrinally upon implied warranty concepts, the court concluded that "the relationship between the parties fairly calls for an implied warranty of fitness for use, at least equal to that assumed by a new car manufacturer." Commentators have praised this extension as consistent with the policy objectives of strict products liability. With few exceptions, courts have imposed strict liability on commercial lessors


37 Id. at 449-50, 212 A.2d at 777.


of a broad range of products,\textsuperscript{40} including motor vehicles,\textsuperscript{41} aircraft,\textsuperscript{42} tools,\textsuperscript{43} and machinery.\textsuperscript{44}

3. Commercial Sellers of New Housing

Another generally accepted extension of strict products liability doctrine is the inclusion of commercial sellers of new housing in the category of commercial sellers of products.\textsuperscript{45} Historically, the major impediment to their inclusion was the notion that the term “product” did not readily apply to real property.\textsuperscript{46} Additionally, courts assumed that purchasers of real property were as able as sellers to inspect for defects,\textsuperscript{47} and most of the cases did not involve personal injuries.\textsuperscript{48}

The widespread development of mass-production techniques in the housing industry in the decades following World War II provided the factual basis for the eventual elimination of these conceptual impediments. Real estate developers began manufacturing

\textsuperscript{40} See generally Annot., 52 A.L.R.3d 121 (1973).


\textsuperscript{48} The only cases cited in note 45 supra that involved personal injuries were Hyman v. Gordon, 35 Cal. App. 3d 769, 111 Cal. Rptr. 262 (1973), and Schipper v. Levitt & Sons, Inc., 44 N.J. 70, 207 A.2d 314 (1965). On the whole, courts have been more sympathetic to plaintiffs suffering personal injuries than to plaintiffs suffering other types of harm.
houses on enormous tracts, and courts came to realize that the individual purchasers of mass-produced homes are typically in no better position to inspect for defects than are the purchasers of mass-produced automobiles. Moreover, in many cases the structural components alleged to have been defective at time of sale were manufactured items that clearly would have qualified as "products" had they not been attached to realty when sold by the defendant. In the same year that it imposed strict liability on commercial-products lessors, the Supreme Court of New Jersey extended the boundaries to include commercial sellers of mass-produced housing. With few exceptions, courts in other states have followed New Jersey's lead, even in cases involving the commercial sale of new, custom-built homes. A recent decision by the New Jersey Superior Court explicitly applies strict liability to all commercial sellers of housing, regardless of their size or their use of mass-production methods. By and large, scholars have praised these decisions.

4. Restaurant Operators

Early decisions refused to impose strict liability on restaurant operators because their activities, though commercial, were thought to involve the provision of services rather than the sale of products.

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51 For example, in Schipper v. Levitt & Sons, Inc., 44 N.J. 70, 207 A.2d 314 (1965), the "product" that caused injury was a hot water heating system. In Patitucci v. Drelich, 153 N.J. Super. 177, 379 A.2d 297 (Law Div. 1977), the defective "product" was the sewage system designed for the house. Of course, manufacturers of defective products are liable notwithstanding the fact that their products are incorporated into real property. See U.C.C. § 2-105(1) (definition of "goods").
54 See authorities cited in note 45 supra.
However, assisted doctrinally by section 2-314 (1) of the Uniform Commercial Code, which explicitly treats such transactions as sales for implied warranty purposes, courts today generally impose strict liability upon restaurant operators for defects in food and drink served to customers. In an early decision holding that implied warranties of wholesomeness and merchantability accompanied the serving of prepared food, the United States Court of Appeals for the District of Columbia expressly recognized the applicability of two of the policy justifications for strict liability discussed earlier—customers' reliance on restaurant operators' judgment and negligence law's failure to force these operators to approach optimal defect rates.

C. Areas of Consensus Regarding Activities Excluded from the Boundaries

Two types of suppliers should be distinguished: (1) those who supply unsafe and defective products, but in noncommercial contexts; and (2) those whose activities are commercial but do not involve supplying "products." In cases involving the first type of supplier, courts unanimously refuse to impose strict liability, even when the supplier sells the product. Inevitably, some cases come close to the line between commercial and noncommercial activity, but most are fairly easy to categorize. Thus, when someone gives, lends, or sells to a neighbor a defective product that subsequently causes an injury, the transferor is liable in tort only if the injured

58 See, e.g., Cushing v. Rodman, 82 F.2d 864 (D.C. Cir. 1936); Ray v. Deas, 112 Ga. App. 191, 144 S.E.2d 468 (1965); Heise v. Gillette, 83 Ind. App. 551, 149 N.E. 182 (1925); Deris v. Finest Foods, Inc., 198 So. 2d 412 (La. Ct. App. 1967); Zorinsky v. American Legion, Omaha Post No. 1, 163 Neb. 213, 79 N.W.2d 172 (1956); Sofman v. Denham Food Serv., Inc., 37 N.J. 304, 181 A.2d 168 (1962); Bethea v. Cape Cod Corp., 10 Wis. 2d 323, 103 N.W.2d 64 (1960). Although these cases rely on the doctrine of implied warranty, they are still "strict products liability" cases, as that phrase is defined in note 1 supra.


61 See, e.g., Wentzel v. Berliner, 204 So. 2d 905 ( Fla. Dist. Ct. App. 1967), cert. denied, 212 So. 2d 871 (Fla. 1968) (commercial caterer who gratuitously prepared food at church supper not held to strict liability).
party can prove negligence. Doctrinally, the rule excluding non-commercial suppliers derives from the fact that implied warranties arise only in commercial sales. Furthermore, the policy justifications supporting strict products liability do not so readily apply to noncommercial transactions. For example, because the transferors in such cases typically do not realize a profit, principles of fairness do not so clearly require that they be held strictly liable. More significant, the objective of market deterrence cannot be achieved by imposing strict liability upon such suppliers. Because these suppliers cannot assess defect-related risks or pass them on effectively, imposing strict liability would not cause the prices of noncommercially supplied products to reflect their accident costs. Nor would imposing such liability effectively alter patterns of product consumption. Thus, although individual noncommercial suppliers could be held strictly liable, no broader policies would thereby be served.

The commercial activities of those in the second category do not sufficiently involve the supplying of products to be embraced easily by the phrase "strict products liability." Examples of these activities, which are sometimes referred to by commentators as "pure services," include services furnished by health care providers, architects, product repairers, attorneys, engineers, etc.

62 See RESTATEMENT (SECOND) OF TORTS § 402A, Comment f (1965). See also Stapinski v. Walsh Constr. Co., 383 N.E.2d 473 (Ind. Ct. App. 1978). As a practical matter, however, the limited access of noncommercial sellers to pertinent information makes their exposure for negligent misrepresentation relatively insignificant.

63 See U.C.C. § 2-314 (1).

64 Cases involving the provision of services in connection with the sale of products or product components are discussed in the text accompanying notes 98-117 infra.


69 See, e.g., Lucas v. Hamm, 56 Cal. 2d 533, 364 P.2d 685, 15 Cal. Rptr. 821 (1961); Young v. Bridwell, 20 Utah 2d 332, 437 P.2d 686 (1968); Denzer v. Rouse, 48 Wis. 2d 528, 180 N.W.2d 521 (1970). Although the plaintiffs in these cases did ground their claims in negligence, the courts implicitly held that attorneys were only liable on the basis of fault.

and others. Although some scholars have urged that the boundaries of strict products liability be extended to include pure services, most courts have refused to do so. The policy considerations supporting the courts' consensus have not been articulated clearly or convincingly in the decisions. Aside from the conclusion that these defendants were not supplying products, many courts have based the refusal to impose strict products liability on the assertion that the defendants were selling services, not...


72 See, e.g., Baldwin, Products Liability as It Applies to Service Transactions, 43 J. Am L. & Com. 323 (1977) (urging application of strict liability to all services); Greenfield, supra note 4 (to all services); Note, Application of Strict Liability to Repairers: A Proposal for Legislative Action in the Face of Judicial Inaction, 8 Pac. L.J. 865 (1977) (to repair services). See also 11 CREIGHTON L. REV. 1357 (1978) (discusses pros and cons of extending strict liability to medical services).


74 See, e.g., Gagne v. Bertran, 43 Cal. 2d 481, 487, 275 P.2d 15, 20 (1954); Endicott v. Nissan Motors Corp., 73 Cal. App. 3d 917, 930, 141 Cal. Rptr. 95, 103 (1977); Queensbury Union Free School Dist. v. Jim Walter Corp., 91 Misc. 2d 804, 806, 398 N.Y.S.2d 833, 833 (Sup. Ct. 1977). See Greenfield, supra note 4, at 683. Some of the cases that are traditionally classified as professional pure service cases arguably belong in the sale-service hybrid category. See text accompanying notes 98-117 infra. One commentator argues that the attorney's work product (e.g., deed, will, brief) should be considered a product for strict liability purposes. Reynolds, Strict Liability for Commercial Services—Will Another Citadel Crumble?, 30 OXLA. L. REV. 298, 303 (1977). This argument would apply also to architects' plans, engineers' plans, and reports prepared by surveyors. But see Note, Application of Strict Liability to Repairers: A Proposal for Legislative Action in the Face of Judicial Inaction, 8 Pac. L.J. 865, 869 (1977) (no strict liability if value of service depends on "skill, training and education" of provider).
insurance. In addition, many courts have relied on precedent in its "driest" form and declined to impose strict liability because they had never done so in the past. Scholars favoring the extension of strict liability to pure services have expressed concern that wasteful market distortions may occur if the accident costs associated with various services are not reflected in the prices charged the consumer.

D. Areas of Continuing Controversy

The cases in this section involve categories of commercial-products suppliers whose inclusion within the boundaries of strict products liability is the subject of continuing judicial controversy. These suppliers may be arranged into three basic categories: used-products sellers, suppliers of sale-service hybrids, and nonsale suppliers. Although the first category is self-descriptive, the distinction between the second and third requires explanation. Sellers in both of these categories supply products to consumers, but they do so in different ways. In sale-service hybrids, a product is typically delivered to and consumed by the buyer in the course of the seller's rendering a service. In the usual case, the product permanently leaves the seller's possession, or is used up in the course of the

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77 See, e.g., Pena v. Sita World Travel, Inc., 88 Cal. App. 3d 642, 644, 152 Cal. Rptr. 17, 18 (1978); Castaldo v. Pittsburgh-Des Moines Steel, 376 A.2d 88, 90-91 (Del. 1977); Immergluck v. Ridgeview House, Inc., 53 Ill. App. 3d 472, 473, 368 N.E.2d 803, 804 (1977); Hoven v. Kelble, 79 Wis. 2d 444, 463-64, 256 N.W.2d 379, 388-89 (1977); Note, Application of Strict Liability to Repairers: A Proposal for Legislative Action in the Face of Judicial Inaction, 8 Pac. L.J. 865, 866 n.9 (1977) ("With no authority on the subject of strict liability to repairers, the [California] courts have created a 'Catch-22' whereby they will not act because they have not previously acted and by not previously acting, they cannot so act in the future.").

77 Greenfield, supra note 4, at 695-96 (including strict liability costs in the costs of products and services makes consumers pay the actual cost in one lump sum instead of risking a debilitating cost at a later date); Note, Application of Strict Liability to Repairers: A Proposal for Legislative Action in the Face of Judicial Inaction, 8 Pac. L.J. 865, 881 (1977) (because repairers compete with sellers of new products and because strict liability applies to the latter, it should apply to the former; otherwise, the consumer's choice to repair is penalized.); 4 N.M. L. Rev. 271, 280 n.28 (1974) (market distortions may occur if the initial price does not reflect the social costs).
buyer's consumption of the service. Examples of such suppliers include beauty parlor operators who use defective hair treatment products and product repairers who supply defective replacement parts. Restaurant operators, now considered to be sellers of food and drink, earlier would have fallen into this category.

Nonsale suppliers are those who provide products to be used only temporarily by the buyer while he avails himself of the supplier's primary products or services. If, as is fairly typical, the buyer uses the product on the supplier's business premises, the cases involving these suppliers may be included under the heading of "premises liability." Examples of such suppliers include supermarket operators who provide defective shopping carts and "pick them yourself" orchard operators who supply unsafe ladders.

A particular commercial enterprise may be categorized under both the "sale-service hybrid" and the "nonsale supplier" headings, depending on which aspect of the enterprise is claimed to be defective. For example, a beauty parlor operator would be categorized as a supplier of a sale-service hybrid with respect to the hair treatment products used on customers, but would be considered a nonsale supplier of the chairs used in the waiting room. Indeed, that same person would be treated as a supplier of pure services regarding the haircuts given to customers, and would be a retail seller of the take-home beauty aids offered for sale.

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80 See notes 57-59 supra & accompanying text.


84 Many of these products liability cases fit into more than one category. Probably the clearest examples are the cases involving transfused blood contaminated with hepatitis virus. Typically, the defendant is the hospital performing the transfusion or the blood bank supplying the blood. Although the transaction could be characterized as the sale of a product, those courts wishing to avoid imposition of strict liability have focused on the service element and minimized the sale aspect. See, e.g., Perlmutter v. Beth David Hosp., 308 N.Y. 100, 123 N.E.2d
1. Commercial Sellers of Used Products

Until fairly recently, strict liability applied only to commercial sellers of new products and did not extend to used-products sellers. Although some courts have steadfastly refused to extend the boundaries, others, mostly in cases involving the commercial sale of used motor vehicles or other heavy equipment, have begun to impose strict liability on these sellers. Courts and commentators supporting this extension of the boundaries have advanced four justifications: (1) commercial sellers profit from their activities and should pay when products prove defective; (2) strict liability causes defect-related accident costs to be treated as costs of doing business and thereby spreads those costs among consumers of used products; (3) according to section 402A of the Restatement of Torts, Second, strict liability applies to any person engaged in the commercial sale of used products.

792 (1954) (breach of warranty). See also notes 105-17 infra & accompanying text. Much the same reaction has occurred in cases in which hospitals supply surgical equipment. See, e.g., Silverhart v. Mount Zion Hosp., 20 Cal. App. 3d 1022, 98 Cal. Rptr. 187 (1971). And the same phenomenon is evident in cases involving installers who supply both parts and services; courts reluctant to impose strict liability isolate the service element and play down the sale. See, e.g., Delta Ref. Co. v. Procon, Inc., 552 S.W.2d 387 (Tenn. Ct. App. 1976).


business of selling products for use or consumption; and (4) strict liability is necessary for the safety of the general public. Some courts and commentators have recognized the illogic of holding lessors strictly liable for defects while not holding used-products sellers to the same standard because most leased products are necessarily used products.

Courts that have refused to extend strict liability to commercial sellers of used products have done so essentially on doctrinal grounds. The early strict liability cases involved implied warranties of merchantability, which the courts were unwilling to extend to used products. Moreover, some of these cases reflected a judicial willingness to give effect to "as is" disclaimers in contracts of sale. In more recent decisions, some courts have declined to impose strict liability on used-products sellers on the ground that the transactions were isolated sales. Other courts have relied on the lack of precedent. Finally, one influential court refused to extend strict liability to retail sellers of used automobiles because they have no rights of indemnity against manufacturers and thus cannot shift the losses to the parties who created the risks.

2. Suppliers of Sale-Service Hybrids

Whether these suppliers are subject to strict liability appears to turn on the relative importance of the product component in the

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93 See authorities cited in note 85 supra.


overall transaction. Some courts ask whether the "essence of the transaction" is sale or service; others ask whether the defendant is engaged in the business of selling or supplying the product in question; and still others ask whether the defendant may be equated with a manufacturer and thereby avoid the difficult question whether strict products liability should be extended to suppliers of sale-service hybrids.

An influential consideration is whether the defendant is a professional. In *Magrine v. Krasnica*, an allegedly defective hypodermic needle broke in a patient's jaw. The Supreme Court of New Jersey, refusing to impose strict liability on the dentist, adopted a lower court opinion characterizing the transaction as essentially the provision of services. The lower court's opinion left little doubt that the defendant's status as a professional was determinative. Commentators have argued that the principles of strict liability should apply in these sale-service hybrid cases.

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regardless of the defendant’s professional character.\textsuperscript{105} Courts, however, have been unwilling to apply strict liability in sale-service hybrid cases involving professionals,\textsuperscript{106} except in cases in which a hospital or blood bank supplied contaminated blood.\textsuperscript{107}

Courts have been more willing to impose strict liability on nonprofessional providers of services,\textsuperscript{108} as long as a product-sale component can be identified.\textsuperscript{109} In \textit{Newmark v. Gimbel’s, Inc.},\textsuperscript{110} a well-known decision involving an allegedly defective hair treatment product used on a beauty parlor customer, the Supreme Court of New Jersey reversed the trial court’s refusal to give a strict liability instruction to the jury. The court likened the defendant’s position to that of a retailer\textsuperscript{111} and distinguished \textit{Magrine} on several grounds, among them the following: that the beauty parlor operator was a nonprofessional offering a mechanical and routine service; that he advertised for customers; and that he charged cus-

\textsuperscript{105} See generally Baldwin, \textit{supra} note 72 (calling for application of strict liability to all services); Franklin, \textit{supra} note 4 (calling for imposition of strict liability on blood banks, hospitals, and doctors that supply contaminated blood); Reynolds, \textit{supra} note 74 (concluding that strict liability will probably be extended to services); Note, \textit{Products and the Professional: Strict Liability in the Sales-Service Hybrid Transaction}, 24 Hastings L.J. 111 (1972) (concluding that medical professionals should be subject to strict liability). \textit{But see} Sales, \textit{supra} note 65, at 27 (no strict liability for professional sale-service hybrids); Weist, \textit{Pricing Bad Blood: Reassessing Liability for Post-Transfusion Hepatitis}, 15 Harv. J. Legis. 557 (1978) (negligence-based liability is best regulatory tool for blood suppliers).


\textsuperscript{110} See id. at 600, 258 A.2d at 704.
tomers directly for the products consumed in the course of treatment.\(^{112}\)

Another type of sale-service hybrid involves repairers, for they may be viewed as placing a repaired product into commerce, whether or not they actually supply any parts. Repairers who furnish no product in the course of their work have been treated as providers of service—liable only if found negligent.\(^{113}\) Some courts, however, have held repairers who supply allegedly defective replacement parts strictly liable for harm caused by product defects.\(^{114}\) Similarly, strict liability has been applied to product installers\(^{115}\) and rebuilders.\(^{116}\) In general, commentators have favored these extensions of the boundaries of strict products liability.\(^{117}\)

3. Nonsale Suppliers

Nonsale suppliers may conveniently be divided into two subcategories:\(^{118}\) those who charge their customers specifically and

\(^{112}\) Id. at 596, 258 A.2d at 697.


\(^{117}\) See, e.g., Baldwin, supra note 72; Reynolds, supra note 74; Comment, Application of Strict Liability to Repairers: A Proposal for Legislative Action in the Face of Judicial Inaction, 8 Pac. L.J. 365 (1977). But see Sales, supra note 65.

\(^{118}\) Another, less practically significant, category of nonsale suppliers consists of manufacturers who supply their own products for the "in house" use of their employees. For example, in Winkler v. Hyster, 54 Ill. App. 3d 282, 369 N.E.2d 606 (1977), the plaintiff was employed by the defendant, who manufactured forklifts for sale to the public. The manufacturer used some of its forklifts in its own factory operations, and the plaintiff was injured when cargo fell from one such lift. The court refused to impose strict liability on the ground that the product had not been placed "in the stream of commerce." Id. at 287, 369 N.E.2d at 610. Contra,
directly for the use of the product provided, and those who treat the costs of furnishing the product as part of their overhead, to be reflected in the prices they charge for their other products and services. Several courts have imposed strict products liability on nonsale suppliers in the first subcategory. For example, the California Court of Appeal imposed strict liability on the operator of a laundromat for injuries to a customer caused by an alleged design defect in one of the laundromat's washing machines. Describing the laundromat operator as a "licensor of personal property," the court concluded that such suppliers "are an integral part of the overall . . . marketing enterprise that should bear the cost of injuries resulting from defective products."

Compared with the preceding group, nonsale suppliers in the second subcategory are involved in many more reported cases across a broader range of fact patterns. The comparative abundance and variety of these decisions stem in part from the fact that many commercial enterprises furnish products for the temporary use and convenience of their customers. Examples include supermarkets.

Nonsale supplier cases in which the defendant charged the plaintiff specifically for use of the product that caused the injury become very similar to the products lessor cases considered earlier. See notes 35-44 supra & accompanying text. The main difference between the two are the relative informality and short duration of contracts between plaintiffs and defendants in nonsale supplier cases, and the plaintiff's use, in the typical nonsale supplier case, of the product on the defendant's business premises. An example of an activity that could be placed in either category is the renting of golf carts by golf course operators. Compare Sipari v. Villa Olivia Country Club, 63 Ill. App. 3d 985, 380 N.E.2d 819 (1978) (strict liability applied), with Katz v. Slade, 460 S.W.2d 608 (Mo. 1970) (strict liability not applied).

These cases are the ones most likely to be categorized as involving "premises liability." See note 61 supra & accompanying text.


Id. at 324, 82 Cal. Rptr. at 422.

Id. at 325, 82 Cal. Rptr. at 423 (quoting Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 262, 391 P.2d 168, 171, 37 Cal. Rptr. 896, 899 (1964)).

See cases cited in notes 129 & 130 infra.
that provide shopping carts and hotels that supply bathmats in their bathrooms.\textsuperscript{127}

Although commentators have urged extension of the boundaries of strict products liability to include nonsale suppliers in the second subcategory,\textsuperscript{128} courts have been reluctant to impose strict liability on this group: a number of courts have done so,\textsuperscript{129} but about an equal number have declined.\textsuperscript{130} Many of these refusals reflect in part an unwillingness to overturn the rules limiting the liability of commercial enterprises for harm suffered by persons coming onto business premises. The plaintiffs in these nonsale supplier cases are typically business invitees to whom the invitor owes a duty of care.\textsuperscript{131} In such cases, proof of negligence has traditionally been a prerequisite to invitor liability.\textsuperscript{132} Moreover, because these nonsale suppliers do not charge their customers directly for the products that cause the accidents, market deterrence would be achieved only imperfectly by imposing strict liability.\textsuperscript{133} Finally, an indemnity action by a supplier against the original


\textsuperscript{131} See cases cited in notes 126, 127, & 129 supra. See also Restatement (Second) of Torts § 343 (1965).

\textsuperscript{132} The Restatement (Second) of Torts § 343 (1965) imposes the duty of "reasonable care" on the invitor, and courts have refused to impose strict liability. See, e.g., Wagner v. Coronet Hotel, 10 Ariz. App. 296, 458 P.2d 390 (1969); Keen v. Dominick's Finer Foods, Inc., 49 Ill. App. 3d 480, 364 N.E.2d 502 (1977).

\textsuperscript{133} For example, if a restaurant is held strictly liable when a chair collapses, injuring a customer, the prices the restaurant charges for its meals will presumably reflect the accident costs on a pro rata basis. Thus, a customer who orders barley soup will pay less "chair risk tax" than one who orders the more expensive lobster bisque, although both sit for the same length of time in the chairs provided by the restaurant.
manufacturer may not be available as a practical matter because the
product in question is relatively old and has been used by many
different persons. Thus, these suppliers will have difficulty
shifting the loss to the parties who created (and who can better
avoid) the risk.

II. IMPLICATIONS OF THE THEORY OF THE SECOND BEST IN
RESOLVING BOUNDARY DISPUTES

A. The General Relevance of Second Best Theory to
Products Liability

The Theory of the Second Best may be used to define the ap-
propriate reach of strict products liability in the areas of consensus
and controversy outlined above. The theory is primarily concerned
with the effects upon allocative efficiency of boundary extensions
that distinguish between activities that are, from the consumer's
viewpoint, substantially substitutable. In order to appreciate the
theory's relevance to products liability boundary disputes, it will be
helpful to examine its general contours and review its applications
in other legal areas.

As explained earlier, optimally efficient resource allocation is
achieved when it is impossible for any individual to gain by further
exchange without causing harm to another individual. In any
given situation, a finite number of identifiable conditions, relating
to the satisfaction of consumer preferences and the allocation of in-
puts and outputs among producers, must be met in order to achieve
optimal efficiency. Stated most generally, the Theory of the
Second Best considers the possible impact of alternative courses of

134 The restaurant's wine glass in Shaffer v. Victoria Station, Inc., 91 Wash. 2d
295, 588 P.2d 233 (1978), for example, probably had been used and washed many
times prior to the time it broke and injured the plaintiff. Given the requirement
that the restaurant operator establish that the glass was defective when it left the
manufacturer's hands, an indemnity action was unlikely to succeed. See note 167
infra & accompanying text.

135 Cf. Peterson v. Lou Bachrodt Chevrolet Co., 61 Ill. 2d 17, 18-19, 329
N.E.2d 785, 786-87 (1975) (court refused to impose strict liability on used-
products seller because seller had no right of indemnification against manufacturer).

136 See note 20 supra & accompanying text.

137 These conditions are: (1) "the marginal rate of substitution between any
two commodities must be the same for any two consumers"; (2) "the marginal
rate of technical substitution between any two inputs must be the same for any
pair of producers"; and (3) "the marginal rate of substitution between any two
commodities must be the same as the marginal rate of product transformation
between these two commodities for any producer." E. MANSFIELD, supra note 2,
at 444-45.
action when all of these conditions cannot be fulfilled.\textsuperscript{138} Under these circumstances, will efficiency necessarily be increased by satisfying those conditions that can be satisfied? Rejecting the intuitive wisdom of "half a loaf is better than none," the Theory of the Second Best answers this question in the negative. If the "first best" position of satisfying all of the requirements for optimally efficient resource allocation cannot (or for some overriding policy reason should not) be reached, the "second best" position may be to fulfill fewer than all, or even none, of the remaining satisfiable conditions.\textsuperscript{139} The theory does not insist that allocative efficiency is always an overriding social objective. It simply advises against proceeding on the assumption that efficiency will be enhanced by satisfying as many as possible (but less than all) of the conditions necessary to achieve optimal efficiency.

To date, the implications of Second Best Theory in legal analysis have been recognized primarily by writers in the fields of antitrust and economic regulation.\textsuperscript{140} Although commentators have questioned the practical utility of the theory in those contexts,\textsuperscript{141} an

\textsuperscript{138} See generally authorities cited in note 2 supra.

\textsuperscript{139} See authorities cited in note 2 supra & text accompanying notes 5-7 supra.


\textsuperscript{141} Applied on an economy-wide, or global, scale, the theory in its pure form counsels against any regulatory action on the ground that all the conditions of perfect resource allocation can never be achieved. See generally W. Baumol, \textit{ supra note 140, at 30; R. Bork, \textit{ supra note 140, at 114; Sullivan, \textit{ supra note 140, at 4-5. The present context of products liability is sufficiently different from these other legal areas to render Second Best Theory more useful here. In antitrust, for example, Congress has mandated that monopolizing is a criminal offense, 15 U.S.C. §2 (1976); the courts are not free to decide independently whether specific illegal monopolies should or should not be eliminated. In products liability, no comparable congressional mandate exists. Moreover, allocative efficiency is an important economic objective of antitrust enforcement. Thus, in order to use Second Best analysis in antitrust cases, courts would be required to determine a range of potential results of regulation, including not just substitution effects, but also the effects of product complements, inputs, and outputs. See R. Bork, \textit{ supra note 140, at 4-5. In the context of products liability, inquiry may more legitimately be limited to substitution effects, due to the more limited relevance of allocative efficiency: the objective of strict products liability is not to achieve an efficient allocation of resources as an end in itself, but to cause the prices of products to reflect their defect-related accident costs as a means of reducing those costs.
examination of the theory's importance there will help to make clear its relevance in the present, somewhat different, area of resolving products liability boundary disputes. One writer, discussing in general terms Second Best Theory in the context of antitrust law, employs the following hypothetical example: 142

[L]eather buttons are monopolized and sell at a price of 10¢, even though the cost of production is only 6¢. The nearest substitute for leather buttons, plastic buttons, sell for 8¢ each.143 As a result of the monopolization of leather buttons, some people substitute plastic buttons for them, but if the price of a plastic button is equal to its cost, this substitution is inefficient. A product that costs 8¢ to produce is being purchased in place of one that costs only 6¢ to produce. Resources are being diverted from the production of a less costly method of satisfying consumer wants to the production of a more costly one. But suppose now that plastic buttons are not being sold at a price equal to cost. They are being sold at 8¢, a monopoly price, but cost only 5¢ to produce. With leather buttons being sold at the monopoly price of 10¢, people will buy more plastic buttons despite their monopoly price, and this is efficient since plastic buttons cost less to produce. If the monopoly of leather buttons is terminated, price will decline to the competitive level, 6¢, and people will begin to substitute leather for plastic buttons. Termination of the leather button monopoly confronts the consumer with a false alternative. Given the monopoly of plastic buttons, the "second best" solution to the problem of economizing on resource use is a monopoly of leather buttons; first best, of course, would be no monopolies.144

The usefulness of Second Best Theory in the present analysis can best be understood by comparing the situation confronting

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143 Assuming that plastic buttons are competitively priced, the monopoly in the leather button industry causes overconsumption of plastic buttons and underconsumption of leather buttons, relative to the levels of consumption that would occur in a competitive market. Thus, a necessary condition to the efficient allocation of resources—that leather buttons as well as plastic buttons be competitively priced—is not satisfied. In technical terms, the marginal rate of substitution for consumption of plastic and leather buttons does not equal the marginal rate of transformation for production of that pair of commodities. See generally E. Mansfield, supra note 2, at 445-46.
144 In the context of strict products liability, the emphasis is not on which products are more costly to produce, but on which are more costly to consume—that is, which generate more defect-related accident costs. See note 7 supra & note 165 infra.
government officials in enforcing the antitrust laws with that con-
fronting courts in products liability cases. In the antitrust context,
monopolies cause the prices of certain products and services to be
higher than they should be, that is, higher than they would be in a
free market. In the products liability context, the inability of con-
sumers effectively to assess defect-related accident costs causes the
prices of certain products and services to be lower than they should
be, that is, lower than they would be if suppliers paid the accident
costs caused by their defective products. Antitrust laws and strict
products liability aim at eliminating these pricing breakdowns: the
former attempt to ensure that prices do not rise above competitive
market levels; the latter is intended to produce prices of products
and services adequately reflecting their accident costs. In effect,
antitrust regulations seek to remove the equivalent of an unfair,
inefficient, privately imposed products tax; strict products liability,
also in the interests of fairness and efficiency, seeks to impose the
equivalent of a public "risk tax" on products based on their relative
defect-related risks.

Second Best Theory becomes relevant in the antitrust field due
to the impossibility of eliminating all monopolies via regulation.
In the area of strict products liability, the theory's usefulness arises
due to the impossibility of effectively reaching all suppliers of
products and services via strict products liability. The same basic
question is posed in both contexts: Will allocative efficiency be
enhanced by satisfying those conditions that can be satisfied—that is,
by using antitrust regulation and strict liability, respectively, to
reach those market activities that can be reached? The answer sug-
gested in both areas by Second Best Theory, at least when the reach-
able and unreachable activities are substantially substitutable, is
"probably not." When the two activities are substitutable, con-
sumers at the margin will turn to those suppliers whose products
are comparatively underpriced because they are not within the
limited reach of regulation; thus, market distortions will occur in
the form of overconsumption of those underpriced products.

145 See notes 3-4 supra & accompanying text.
146 Admittedly, both antitrust and strict products liability have objectives other
than the attainment of allocative efficiency, but that shared aim is of greatest rel-
evance in the present analysis.

Among the noneconomic goals of antitrust are decentralizing decisionmaking
power and widening opportunities for individuals to engage as entrepreneurs in
For a summary of the noneconomic objectives of products liability, see text ac-
companying notes 10-19 supra.
147 The use here of the word "underpriced" is not technically accurate in the
area of antitrust. The competitively priced plastic buttons in the earlier example,
The importance of Second Best Theory to disputes about the boundaries of strict products liability should now be clear. Areas of consensus exist regarding categories of suppliers of products and services to be included within or excluded from the boundaries. Some of the excluded categories—those involving noncommercial suppliers of products and services—are unreachable in any practical sense. Between these areas of consensus are areas in which the exact placement of the boundaries is still disputed. To date, policy analyses in these areas of controversy have tended to focus on the objectives of cost spreading and deterrence and to urge that strict liability be imposed on all risky commercial activities. Second Best Theory suggests an additional policy consideration. Even if a particular commercial activity can be reached by a system of strict products liability, allocative efficiency may not be increased, and may in fact be diminished, if consumers can substitute for that activity a more risky activity beyond the system's reach.

For example, consider the earlier illustration involving leather and plastic buttons. In that example, the cost of producing leather buttons was six cents, and the cost of plastic buttons, five cents. The effect of eliminating a monopoly with respect to the former but not the latter, it will be recalled, was to cause some consumers to shift to leather buttons, the more expensive to produce, in place of plastic buttons.

In the present context, both types of buttons are assumed to have risks of injury from product defects (bringing the total costs to consumers to ten cents and eight cents respectively), and the costs associated with those risks are assumed to be hidden from consumers. On these assumptions, leather buttons enjoy a slight com-
petitive advantage over plastic buttons by reason of their escaping four cents in accident costs, compared with three cents for the plastic substitutes. The first best solution to the resulting marginal overconsumption of leather buttons would be to impose a risk tax on both types of buttons sufficient to raise the price of leather buttons to ten cents and that of plastic to eight cents. If plastic buttons are for some reason the only ones that can be reached by such a tax, however, its imposition would cause plastic buttons to be priced higher (eight cents) than leather buttons (six cents) and would therefore exacerbate the distortion favoring consumption of leather buttons. In that circumstance, the second best solution would be to decline to tax the reachable plastic buttons, for to impose such a tax would significantly increase consumption of a substitute that is not only more costly to produce (six cents versus five cents), but is also accompanied by greater hidden accident costs (four cents versus three cents).  

The possibility that allocative efficiency—and therefore social welfare—will decrease as a result of imposing strict liability on only one of two substitutable products may be demonstrated graphically as follows:

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153 The possibility that allocative efficiency—and therefore social welfare—will decrease as a result of imposing strict liability on only one of two substitutable products may be demonstrated graphically as follows:
Thus, allocative efficiency may be reduced as a consequence of reaching all of the activities that strict products liability can reach. To be sure, torts scholars do not view efficiency as an end in itself. But when inefficiency takes the form of wastefully high accident rates caused by overconsumption of relatively risky products and product-related activities, efficiency should at least be a relevant, if not a controlling, policy consideration.

B. Developing Criteria with Which to Assess the Potential Distortion Effects of Proposed Boundary Extensions

As suggested by the foregoing analysis, the primary criterion for assessing the potential distortion effects of any proposed exten-

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**Figure 2**

In each of these figures, the marginal costs curves for leather buttons (L) and plastic buttons (P) are indicated, with the curves for P rising from left to right and the curves for L from right to left. The horizontal axis in each figure represents the combined consumption of P and L. It is assumed that P and L are perfect substitutes and that the aggregate demand for P and L is constant—that is, that consumers will buy a total of 100 units of P and L regardless of their price. (Because P and L are perfect substitutes, their prices will be the same. This departure from the hypothetical in the text, in which P and L were not perfect
sion of the boundaries of strict products liability is the relative substitutability of noncommercial—and therefore unreachable—activities for the commercial activity proposed to be included by the boundary extension. The greater the substitutability, the more significant will be the shifts in consumer demand favoring the ac-

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In figure 1, MRCL is the marginal real costs curve for leather buttons, and MRCP is the marginal real costs curve for plastic buttons. The curves' point of intersection, *a*, determines the proportion in which *P* and *L* are consumed if they are accompanied by no hidden costs—that is, if their prices reflect both their costs of production and their accident costs. In figure 1, 45 units of *P* and 55 units of *L* are consumed at price *W*, at a total social cost (that is, production costs plus accident costs) indicated by the lightly shaded area under the curve *bac*.

MACP is the marginal apparent costs curve for plastic buttons; it represents production costs but not accident costs. If only production costs are reflected in the price of *P*—that is, if the difference in costs between MACP and MRCP is hidden from consumers—a different point of intersection, *e*, is established. Because *P* is now underpriced relative to *L*, consumption of *P* increases, and consumption of *L* decreases, to the point that an equal number of each is consumed, at a total social cost indicated by the area under the curve *boec*. The heavier shaded triangle *aoe* represents the net increase in social costs associated with underpricing *P*. The five additional plastic buttons consumed at the margin actually cost more than the five leather buttons they replace (although their monetary price to consumers is the same), and social welfare is correspondingly diminished.

Figure 1 clearly reveals how imposing strict liability under the above-described circumstances increases social welfare: by moving the cost curve for *P* up to MRCP, the appropriate equilibrium between plastic and leather buttons is established. The intersection of costs curves moves from point *e* to point *a*, and the wasteful costs indicated by the heavily shaded area are eliminated.

In figure 2, a marginal apparent costs curve for leather buttons (MACL) has been added. Leather buttons are assumed to be riskier than plastic ones, so that the vertical distance between MACL and MRCL is greater than the vertical distance between MACP and MRCP. Assuming for the moment that both *P* and *L* escape their hidden costs—that is, that the prices for both are equal to their apparent costs—a new intersection, *f*, is established. Leather buttons thus gain a small advantage over their plastic counterparts because they escape a bit more in the way of hidden costs. The small, very heavily shaded area to the left of point *a* in figure 2 represents the social waste generated by the overconsumption of leather buttons. (This very heavily shaded area is smaller than the heavily shaded area in figure 1 because *L*'s advantage over *P* in figure 2 is smaller than *P*'s advantage over *L* in figure 1.)

In figure 2, the first best solution to the problem of social waste is to impose strict liability on both *P* and *L*, moving the intersection to point *a*. Such a move would establish the optimal mix between the two substitutes and eliminate the social waste associated with point *f*. If this first best solution is not possible—if for some reason leather buttons cannot be reached by strict liability—the second best solution is not to impose strict liability just on plastic buttons. If only plastic buttons are forced to reflect their accident costs in their price, the new point of intersection is *h*, considerably to the left of point *f* in figure 2. At point *h*, the mix between *P* and *L* shifts to 37.5-62.5, and the social waste increases by the amount of the not-so-heavily shaded area above MRCP and below MRCL. On the assumptions made herein, imposing strict liability only on plastic buttons actually makes things worse than if no strict liability were imposed at all.

154 See text following note 63 supra.
tivities excluded from strict liability. Of course, even though strict liability does not reach the excluded activities directly, it may reach them indirectly if they depend substantially on commercially supplied products. A second criterion is therefore the extent to which the noncommercial substitutes are reachable by strict products liability. The greater their relative "reachability," the less significant the shifts in demand in their direction.

A third criterion that must be taken into account is the relative differential in defect-related risks between the commercial activity proposed to be covered by strict products liability and the noncommercial substitutes excluded from the boundaries. In general, the greater the defect-related risks associated with the noncommercial substitutes compared with those associated with the commercial activity to be included, the greater the price advantage enjoyed by the excluded substitutes and thus the greater the potential distortion effects. The distortion effects of primary concern to torts scholars are those that result in increases in defect-related

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155 See note 5 supra.

In terms of the behavior of individual consumers, when two products are not highly substitutable, increasing the price of the reachable substitute, R, will cause only a few consumers to switch to the unreachable substitute, U. Many of the remaining consumers will simply pay R's new price, which reflects its marginal real costs. The rest will do something else with the money that they used to spend on R.

Although figure 2 in note 153 supra deals with perfect substitutes, it shows that when consumers at the margin switch from buying a reachable substitute at a price determined by its marginal apparent costs to buying an unreachable substitute at a price determined by its marginal apparent costs, social welfare may decrease. But figure 2 also shows that when consumers do not switch, but consume the reachable substitute at a price determined by its real costs, this social loss is eliminated. (In graphical terms, if consumers do not switch, the welfare loss represented by the lightly shaded area disappears.)

Consumers who stop buying either product are not represented in figure 2, but their behavior could be represented in an N-dimensional figure, with N equal to the number of available substitutes. If the changes in social welfare produced by the consumers who stop buying either product are put aside, it is clear that if U is highly substitutable for R, the decrease in welfare caused by consumers' switching to R is large. But when U is less substitutable, fewer consumers switch, and the loss is smaller.

156 For an example of an excluded activity that can be reached indirectly, see notes 213-14 infra & accompanying text.

157 In graphical terms, the relative "reachability" of the unreachable substitute affects the height of its marginal apparent costs curve. Because the unreachable substitute cannot be reached directly by strict products liability, the marginal apparent costs curve will probably remain below the marginal real costs curve; but reaching that substitute indirectly will raise the apparent costs curve and thus bring the curves closer together. In figure 1 in note 153 supra, for example, the increase in social costs represented by the heavier shaded triangle aoe will be reduced if the marginal apparent costs curve for P (MACP) is raised.
accident costs; this third criterion will be most important, therefore, when the risks of the excluded substitutes are greater than the risks of the activities to be included within the boundaries of strict products liability. In that circumstance, extending the boundaries may actually increase, rather than reduce, overall accident costs.

A fourth, and final, criterion for assessing potential distortion effects of boundary extensions is the relative inability of consumers to assess for themselves the defect-related risks of the excluded, noncommercial substitutes. As a general rule, consumers are assumed to be incapable of adequately evaluating the defect-related accident costs associated with the use and consumption of manufactured products. The same assumption may be inappropriate, however, in connection with some of the noncommercial alternatives to which consumers are attracted at the margin. Even if the risks associated with these noncommercial substitutes are relatively high, the price advantage they enjoy, and hence the potential distortion effects, will be reduced to the extent that consumers can, and will, weigh their own, accurate risk assessments in deciding whether to shift to those substitutes.

The foregoing criteria may be used to evaluate the potential distortion effects of extending the boundaries of strict products liability; it remains to consider the possible distortion effects of refusing to extend the boundaries to include all commercial activities that are good substitutes for already included activities. Given that including commercial activities for which noncommercial substitutes are available may create distortion effects, declining to include commercial activities for which other commercial—and

158 See note 6 supra.

159 In graphical terms, the extent of the distortion, and thus the increase in social costs, of reaching with strict liability only one of two product substitutes depends in part on the relative distances between their real and apparent costs curves. In figure 2 in note 153 supra, for example, the distortion created by reaching only P is greater than the distortion created by reaching only L (the triangle hka to the left of point a is larger than the triangle aoe to the right of point a) in part because the distance between MRCL and MACL is greater than the distance between MRCP and MACP.

160 See note 3 supra & accompanying text.

161 See notes 170-71 infra & accompanying text.

162 In graphical terms, to the extent that consumers can, and will, consider the defect-related risks of the unreachable substitute in deciding which product to buy, the marginal apparent costs curve of that substitute rises, causing a decrease in social costs. See note 157 supra.
presumably already included—for substitutes exist may also produce distortion. Clearly, the adverse effects of extending the boundaries may not be considered significant if rejecting the extension would generate distortion of even greater magnitude; the relevant consideration is the net distortion effects of any given boundary decision.

Expanding the analysis in this way underscores its situational character. Rather than focus upon the policy objectives that prompted courts to construct the system of strict products liability, this analysis explores the implications of the practical limits of that system's reach. In the context of any particular boundary dispute, the question asked is not only whether the proposed extension fits into some overall policy scheme, but also whether it fits into the neighborhood of reachable and unreachable substitutes that immediately surround it. To those accustomed to working exclusively with overarching policies, this analysis may at times appear shortsighted, if not self-contradictory. At one moment, it counsels caution by concluding: "Just because we could go further doesn't mean we should." At the next, it justifies boldness by asserting: "Because we have come this far, we probably should go further." As should be clear by now, what connects and reconciles these positions is a concern for the distortion caused by the availability to consumers of reachable and unreachable substitutes immediately surrounding a proposed boundary extension.

Not surprisingly, the criteria with which to assess the potential distortion effects of refusing to extend the boundaries of strict products liability closely parallel the criteria already developed for assessing the effects of boundary extensions. Again, the primary criterion is the relative substitutability of the commercial activity proposed to be excluded for other commercial activities already, or likely to be, included within the boundaries. A second criterion is the relative "reachability" of the commercial activities that are to be excluded. To the extent that these activities would be only partially reachable even if they were included within the bound-

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163 If the other commercial substitutes are not already included within the boundaries, the court would have to assess the likelihood of their eventual inclusion. This need for prediction reflects a source of difficulty in implementing the present analysis via the incremental process of the common law. Courts that first began to impose strict liability may have faced a bigger problem due to the larger number of unsettled issues. To illustrate, in Larsen v. General Motors Corp., 391 F.2d 495 (8th Cir. 1968), which extended liability to automobile manufacturers for negligently designed vehicles, the defendant argued that "(t)he automobile manufacturers cannot be made a special class." Id. 504. The court agreed, and vowed in dictum to extend the same rule to all products manufacturers.
aries of strict liability, the potential distortion effects produced by their exclusion will be reduced.

A third criterion is the relative differential in defect-related risks between the commercial activity proposed to be excluded and substitutable commercial activities already, or likely to be, included within the boundaries. Like its counterpart above, this criterion relates to the comparative price advantage to be enjoyed by the excluded commercial activity by reason of its exclusion. In general, the greater the risks of the excluded activity compared with those of the substitutable activities already included, the greater the potential price advantage and hence the greater the possible distortion from refusing to extend the strict liability boundaries. As in the earlier analysis, the fourth and final criterion is the relative inability of consumers to assess for themselves the defect-related risks of the commercial activities proposed to be excluded.

Before these criteria are applied to both the areas of consensus and the areas of continuing controversy at the boundaries of strict products liability, a few general caveats are in order. First, these criteria are not intended to be applied on a case-by-case basis—they are not rules for deciding individual cases. Instead, they are offered as part of an underlying policy analysis to aid courts and legislatures in establishing general categories of activities included and excluded from the domain of strict products liability. Second, data are not presently available upon which to base scientifically accurate applications of the criteria. The extent to which one product or product-related activity substitutes for another, for example, can only be surmised here. For the present, sensible assumptions must suffice, although they may be rebutted if and when data become available.

Finally, this Article addresses only one factor to consider in setting the boundaries of strict products liability. Bases other than the achievement of allocative efficiency—shared notions of fairness, for example—exist for imposing strict products liability. And even when strict liability creates distortion effects, it may nevertheless be justified on efficiency grounds if it achieves reductions in accident costs that more than offset those distortion effects. Thus, if a commercial enterprise is clearly a "more efficient cost minimizer," and if exposure to negligence-based liability is insufficient to pressure that enterprise to adopt cost-effective safety procedures, imposing strict liability may generate gains in safety that more than

\[164\] See note 15 supra & accompanying text.
compensate for the shift of some consumers to riskier substitutes. Product manufacturers, for example, represent more efficient cost minimizers to whom this observation quite clearly applies. As will be developed in the following section, however, imposing

105 The possibility that imposing strict liability on only one of two perfect substitutes will produce safety gains that outweigh the resultant distortion may be demonstrated graphically as follows:

Figure 3

Figure 3 is reproduced from figure 2 in note 153 supra, except for the addition of curve MRCP', which represents the marginal real costs of producing P after the imposition of strict liability. That MRCP' is below MRCP reflects the assumption that imposing strict liability on P will force producers to reduce P's accident costs.

Before the imposition of strict liability, P and L were consumed in a proportion represented by point f, with a corresponding total social cost equal to the area under the curve bnjc. After the imposition of strict liability, curves MACP and MRCP move to curve MRCP', and the proportion of P and L consumed shifts to point h'. The total social cost associated with this point equals the area under the curve b'h'k'c.

A comparison of the total social costs before and after the imposition of strict liability reveals two differences: a reduction in P's accident costs (represented by the lightly shaded area in figure 3) and a relative increase in social costs due to overconsumption of L (represented by the heavily shaded area in figure 3). The reduction in P's accident costs occurs across the entire range of production and is therefore likely to exceed the loss produced at the margin by the overconsumption of L. Thus, if a significant decrease in P's accident costs can be achieved by subjecting P to strict liability, that reduction is likely to outweigh the marginal increase in social costs caused by imposing such liability.
strict liability on most of the commercial enterprises whose inclusion within the boundaries is controversial would not produce gains in safety of sufficient magnitude to counterbalance the resulting distortion.\textsuperscript{166}

C. Applying the Criteria to the Areas of General Consensus

The objective of this section is to demonstrate that the boundaries of the activities that are by consensus included within, or excluded from, strict products liability tend to minimize the distortion described in this Article.

1. Manufacturers and Other Commercial Sellers of New Products

Beyond question, the decision to impose strict liability upon commercial sellers of new products reduces substantially the distortion effects that are of primary concern in this analysis. Generally speaking, there are two noncommercial, and therefore unreachable, substitutes for using and relying upon commercially supplied new products in an industrialized society: (1) "doing it yourself" by relying on homemade products and individual labor, and (2) relying on older products for which the original commercial sellers are no longer responsible.\textsuperscript{167} Regarding the first of these alternatives, some shifts at the margin undoubtedly have occurred due to the fact that do-it-yourself substitutes escape most risk taxes (the price increases that reflect the cost of defect-related accidents).\textsuperscript{168} But because the degree of substitutability of these

\textsuperscript{166} These gains are likely to be too small because these enterprises have less control over defect rates and are more subject to negligence-based liability than are manufacturers. See note 248 infra & accompanying text.

\textsuperscript{167} Commercial sellers are generally held legally responsible for defects throughout the useful lives of their products. See, e.g., Dunham v. Vaughan & Bushnell Mfg. Co., 42 Ill. 2d 339, 342-44, 247 N.E.2d 401, 403 (1969). But courts generally refuse to impose liability when the products in question are very old, have been used by many persons, or have been repaired in such a way that it is difficult to prove that the injury was caused by a defect that existed when the product left the seller's hands. See, e.g., Knuelsen v. Peoples Lumber Co., 68 Cal. App. 3d 167, 137 Cal. Rptr. 110 (1977) (opinion withdrawn from publication by order of California Supreme Court pursuant to rule 976 of the California Rules of Court); Ford Motor Co. v. McCamish, 559 S.W.2d 507 (Ky. App. 1977); Worrell v. Barnes, 87 Nev. 204, 484 P.2d 573 (1971). See also Barbeau v. Roddy Mfg. Co., 431 F.2d 989 (6th Cir. 1970).

\textsuperscript{168} Of course, some risk taxes may not be avoided. When "do it yourselfers" rely on manufactured components to produce their own assembled products, the commercial sellers of those components are liable for harm proximately caused by defects. See, e.g., Independent Nail & Packing Co. v. Mitchell, 343 F.2d 819, 823 (1st Cir. 1965). And when commercial sellers supply consumers with "assemble it
alternatives is generally quite low, these shifts (and thus the distortion) are probably quite small.¹⁶⁹ Moreover, it may reasonably be assumed that the do-it-yourself activities to which consumers at the margin are likely to turn are generally less risky than activities relying upon commercially supplied new products,¹⁷⁰ and that consumers are generally better able to assess, and more willing to consider, the risks associated with do-it-yourself activities.¹⁷¹

A more attractive substitute for reliance upon new products is the second alternative described above—replacing old products less frequently and replacing some worn-out products with used, rather than new, products.¹⁷² Older products are frequently fair "yourself" kits, the sellers may be liable for accidents caused by errors in assembly or use due to alleged inadequacies in the instructions included in the kits. See, e.g., Midgley v. S.S. Kresge Co., 55 Cal. App. 3d 67, 127 Cal. Rptr. 217 (1976).

¹⁶⁹ The efficiency gains provided by many manufactured products generally render do-it-yourself alternatives impractical in a modern industrialized society. For example, except for the very poor, washing machine-washable clothes by hand on a routine basis is an unacceptably inefficient substitute for using a washing machine. Furthermore, for those products the demand for which is created almost entirely by advertising, do-it-yourself activities are, by hypothesis, poor substitutes. See generally J. Galbraith, THE AFFLUENT SOCIETY (1958).

In this context, it is interesting to observe that in the early days of the industrial revolution, some courts may have been motivated to replace strict liability with negligence principles "by a desire to make the risk-creating enterprises of a developing industrial economy less subject to liability than they had been under the earlier common law." Peck, Negligence and Liability Without Fault in Tort Law, in U.S. DEPT OF TRANSPORTATION, AUTOMOBILE INSURANCE AND COMPENSATION STUDY: THE ORIGINS AND DEVELOPMENT OF THE NEGLIGENCE ACTION 51 (1970). Presumably, this was done to allow such enterprises to compete more favorably with do-it-yourself alternatives. See generally M. Horwitz, THE TRANSFORMATION OF AMERICAN LAW, 1780-1860, at 63-108 (1977).

¹⁷⁰ For example, the relatively few people who are driven to washing clothes by hand by the imposition of a risk tax on washing machines presumably will have turned to a safer, albeit less efficient, cleaning method. Imposing a risk tax on new products may not always force consumers to use safer substitutes, however. For example, imposing a risk tax on a new safety device may deter some consumers from buying it. For a discussion of a similar problem in the area of commercially provided services, see notes 202-04 infra & accompanying text.

¹⁷¹ Continuing the example in the preceding footnotes, the risks inherent in washing clothes by hand presumably are more easily assessed than are the risks associated with using power-driven equipment. In addition, the individual is more likely to act sensibly in assessing the former risks because he is the only one likely to be injured. But with many products, including power-driven washing machines, nonuser bystanders are exposed to some of the risks, and some users are for that reason more inclined to ignore even accurate risk assessments.

¹⁷² Consumer behavior of this sort causes the number and average age of products in use to rise. Obviously, this phenomenon only occurs with durable goods. For example, the cyclical nature of new car sales is generally attributed to decisions of car owners at the margin to retain their cars for longer or shorter periods. See generally Quite a difference from last year, BUS. WEEK, Oct. 27, 1975, at 24; The '75s get off to a dismal start, BUS. WEEK, Oct. 26, 1974, at 36. For a court's acknowledgement of the same self-defeating possibility in a somewhat different context, see International Harvester Co. v. Ruckelshaus, 478 F.2d 615, 634 (D.C. Cir. 1973).
substitutes for relatively new products and generally present greater defect-related risks. Moreover, a risk tax cannot reach used-product substitutes as directly as it can reach new products. To some extent, the potential distortion produced by the availability of used-product substitutes could be reduced by holding manufacturers responsible throughout the useful lives of the new products they sell, even when those lives are rather long. But there are practical limits to these extensions. On balance, it must be conceded that the imposition of strict liability on new-products sellers produces some distortion in the form of under-consumption of new products generally.

On the other hand, refusing to subject new-products sellers to strict liability would generate substantially greater distortion in the form of overconsumption of relatively risky new products. In a competitive marketplace some new products are, by hypothesis, highly substitutable for one another, and the differentials in defect-related risks among these substitutable products are frequently substantial. It follows that in the absence of strict liability, riskier products enjoy significant price advantages. Moreover, consumers generally are unable to assess the risks associated with product defects and frequently are unwilling or unable to act ef-

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173 Certainly a used washing machine is a better substitute for a new one than is washing clothes by hand. On the other hand, American manufacturers rely heavily on advertising to reduce the substitutability of older products for new. See generally J. Galbraith, supra note 169, at 155-60.

174 It may reasonably be presumed that the risks of mechanical failure increase with a product's age. Moreover, many newer product designs tend to be safer than older designs, due in large measure to greater governmental regulation and increased exposure to products liability. For a critical review of this trend toward greater safety, see Guzzardi, The Mindless Pursuit of Safety, Fortune, Apr. 9, 1979, at 54.

175 When a product is used beyond its expected useful life, the original commercial sellers are not liable for defects. See note 167 supra. And in cases involving used products purchased from commercial suppliers, many courts do not impose strict liability on those suppliers. See notes 85-86 supra & accompanying text.

176 See, e.g., Miller v. Bock Laundry Mach. Co., 568 S.W.2d 648 (Tex. 1977), in which the plaintiff recovered against the manufacturer for injuries sustained while using an 18-year-old clothes dryer in a laundromat: a design defect in the machine caused a safety mechanism to fail.

177 The biggest practical limit is the fact that as products age, they are subject to increasingly varied patterns of maintenance and use. Beyond some point in the average life of a given type of product, it becomes impossible adequately to differentiate among individual products on the basis of the treatment each has received. Thus, a presumption that the user is responsible is both fair and unavoidable. See note 167 supra.

178 It must be remembered that avoidance costs can be too high. See note 6 supra. The inefficiencies associated with too great a reliance on do-it-yourself substitutes constitute such distortions.

179 Carbonated and noncarbonated bottled beverages are good examples of relatively substitutable products that present very different defect-related risks.
fectively on those assessments. Thus, although imposing strict products liability on commercial sellers of new products generates some underconsumption of new products generally, refusing to impose such liability would generate distortion of significantly greater magnitude.

2. Commercial Lessors

In general, the foregoing analysis applies equally well to the decision to extend strict liability to commercial products lessors. Moreover, the extension of the boundaries to include such lessors provides an example of the "because we have come this far, we probably should go further" approach mentioned earlier. For many consumers, leasing products on a long-term basis from a commercial lessor is a very good substitute for buying new products. If products lessors were not held strictly liable, the products they supplied would enjoy a competitive advantage over new products sold commercially, and distortion would result. Of course, these price advantages and distortion would be reduced if manufacturers and other sellers above the lessors in the chains of distribution were strictly liable for the defect-related accident costs generated by leased products. But a substantial portion of such costs would exceed the effective liabilities of products sellers higher up in the chain. (This portion would be at least as great as the liabilities of the retail products sellers for whom lessors most frequently substitute in the chains of commercial product distribution.)

180 See note 3 supra & accompanying text.

181 Moreover, imposing strict liability on these manufacturers may significantly reduce the marginal real costs of product defects, thereby swamping the distortion effects produced by the underconsumption of new products. See notes 15, 164, & 165 supra & accompanying text.

182 Thus, generally speaking, do-it-yourself alternatives are not highly substitutable for leased products; some leased products are highly substitutable for one another; differentials in risks among substitutable leased products are substantial; and consumers generally underassess those risks.


184 Leased products are probably no riskier than products purchased new. But the high degree of substitutability of leased products for new ones might lead to such pervasive use of leasing that the objectives of strict products liability would be undermined.

mercial products lessors must be held strictly liable for this uncompensated portion of accident costs if distortion is to be minimized.\textsuperscript{186}

3. Restaurant Operators and Commercial Sellers of New Housing

Restaurant operators and commercial sellers of new housing now face less competition from noncommercial, do-it-yourself substitutes than they once did.\textsuperscript{187} Imposition of a risk tax upon these commercial activities when this competition was stronger would have exacerbated the price advantages enjoyed by their noncommercial substitutes, producing potentially significant distortions.\textsuperscript{188} For example, had strict liability for defective food and drink been imposed on restaurant operators under such circumstances, a marginal shift away from eating in restaurants would have occurred. Compared to the corresponding shifts away from purchasing or leasing products, this shift—and the resulting distortion—would have been more significant. The noncommercial alternatives to eating out were better substitutes for their commercial counterparts than the noncommercial alternatives to new products were for theirs.\textsuperscript{189} Moreover, one can reasonably assume that the

\textsuperscript{186} Retailers, after all, are held strictly liable. See note 30 supra. Interestingly, the court in Cintrone v. Hertz Truck Leasing & Rental Serv., 45 N.J. 434, 212 A.2d 769 (1965), held the lessor liable to an extent exceeding that of a new-products seller. The truck in that case was almost three years old at the time of the accident. Id. at 442, 212 A.2d at 773. A retailer seller of the same truck would almost certainly not have been liable. See note 167 supra & accompanying text. This greater measure of lessor liability is explained and supported by the present analysis, inasmuch as the lessor in Cintrone in effect invited and induced the lessee’s employees to treat all the trucks as perfect substitutes for one another, regardless of their age, Cintrone, 45 N.J. at 448-49, 212 A.2d at 777.

\textsuperscript{187} Indeed, at one time most families built their own houses, and most people ate in restaurants only when traveling. The shifts toward paying others to build homes or prepare meals occurred gradually. Only recently has it become fairly commonplace for most Americans to pay for these services. Regarding the decline in do-it-yourself home building, see notes 196-98 infra & accompanying text. The shift to eating out has been especially dramatic in recent years. See generally Eating Out: A Binge That Defies Recession, U.S. News & World Rep., Feb. 19, 1979, at 62. In 1977, the food-service industry absorbed $87 billion, accounted for one of every three dollars spent for food, and was growing at a rate of 11\% per year. See Langway & Nicholson, America: Out to Eat, Newsweek, Oct. 3, 1977, at 86, 86.

\textsuperscript{188} The significance of this concern is suggested by the frequently advanced rationale for the mid-nineteenth century shift from a regime of strict liability to one of negligence: that the growth of industry would have been curtailed had developing industries been subject to the earlier, stricter forms of tort liability. See note 169 supra.

\textsuperscript{189} Until recently, most people viewed eating at home as an adequate substitute for eating at a local restaurant. The rapid growth of the restaurant industry in recent years is due in large measure to the ability of restaurant operators to convince the consuming public that eating at home substitutes for eating out no better than it substitutes for going on a vacation or going to church. See note 192 infra.
noncommercial eating environments into which the imposition of a risk tax on restaurant operators would have driven some consumers contained at least as many defect-related risks as the restaurants they would have left behind.\textsuperscript{190}

Presumably, the traditional refusal to impose strict liability on restaurant operators resulted in some distortion due to the inability of consumers to distinguish relatively risky from relatively safe establishments. But there are reasons to believe that this inability was a less significant cause of distortion than the corresponding inability of consumers to assess the relative defect-related risks of various manufactured products.\textsuperscript{191}

In recent years, two changes have combined to reduce the potential distortion caused by extending strict products liability to restaurant operators. First, the noncommercial alternatives are generally less substitutable for eating out than they once were; and second, the commercially available alternatives—purchasing manufactured, "ready to eat" products for home consumption—are now more substitutable. Gradually, the typical restaurant operator has evolved from a commercial extension of the individual homemaker into an integral part of the commercial system for distributing manufactured goods. Because of this evolution, the distortion effects of imposing strict liability upon restaurant operators have diminished: relatively fewer consumers at the margin will be driven to do-it-yourself substitutes by the imposition of strict liability on restaurants.\textsuperscript{192} In contrast, the potential distortion effects of re-

\textsuperscript{190} One survey found that over two million persons suffer some form of food poisoning each year, and that members of six out of ten households are likely to suffer food poisoning. \textit{See} Watch out \textit{for food poisoning}, CHANGING TIMES, July, 1977, at 4.

\textsuperscript{191} Two factors combined to reduce the significance of consumers' inability to assess relative risks. First, because restaurants tended to be local—or perhaps regional—operations, one may assume that they developed reputations that enabled patrons to avoid the riskiest establishments. Second, public health regulations were passed relatively early in an effort to reduce and make more uniform defect-related risks. See, \textit{e.g.}, Act of May 16, 1913, ch. 552, §§ 343-a to -c, 1913 N.Y. Laws 1488-1489 (current version at N.Y. Pub. Health Law §§ 1350-1354 (McKinney 1971 & Supp. 1979)); Agricultural Law of 1909, ch. 8, §§ 40, 41, 200, 1909 N.Y. Consol. Laws 14, 15, 47 (current version at N.Y. Agric. & Merts. Law § 199-a (McKinney 1972)).

\textsuperscript{192} The point is not that restaurant patrons in general are insensitive to price increases, but that the relative percentage of patrons at the margin who would turn to do-it-yourself substitutes is growing smaller. At least three factors appear to have contributed to this change. First, restaurant operators (especially the large chains, which make up a significant portion of the industry) have succeeded in using advertising to increase consumer differentiation between eating out and eating at home. \textit{See generally} note 187 \textit{supra} & note 193 \textit{infra}. Second, as society becomes increasingly mobile, more people find themselves away from home and forced to eat out more often. (Circumstantial support for these assertions is found in the dramatic growth in recent years of the travel-services industry. \textit{See},
fusing to impose strict liability have grown: if restaurant operators are not held strictly liable, they will enjoy a comparative price advantage over the retail sellers of prepared foodstuffs with whom they increasingly compete and to whom strict liability without question applies. Again, distortion of one kind or another is unavoidable; including restaurant operators within the boundaries of strict products liability produces less distortion than does excluding them.

Recent similar changes in connection with home builder-sellers tend to justify their inclusion within the boundaries of strict liability. With the advent of mass production following World War II, noncommercial, do-it-yourself alternatives have become increasingly less substitutable for purchasing new housing. And although two commercially available alternatives—purchasing used housing and renting a place to live—may not have become more substitutable, a third—purchasing "ready to use" housing components—has. Furthermore, suppliers of such components are subject to strict liability. Thus, the net distortion of imposing strict liability on commercial builder-sellers of new housing has

e.g., Too Good To Be True, FORBES, May 15, 1976 at 46.) And third, as growing numbers of people abandon the traditional single-family home, do-it-yourself meal preparation becomes less feasible. For example, there are over 40 million single adults in the United States today, with a combined spending power of at least $205 billion. See generally Rise of the "Singles"—40 Million Free Spenders, U.S. News & World Rep., Oct. 7, 1974, at 54, 54. The food-service industry believes that these adults have contributed greatly to the growth of that industry. See note supra.

The growth of the industry in prepared, processed, and manufactured foods in recent years has been substantial. See generally The Burger That Conquered the Country, TIME, Sept. 17, 1973, at 84 (traces steps taken to render eating at McDonald's restaurants a unique experience). Increasingly, the choice facing consumers is not so much whether to eat manufactured foods as where to eat them—at home or at a restaurant.


See authorities cited in note 45 supra.


See generally M. DRURY, MOBILE HOMES: THE UNRECOGNIZED REVOLUTION IN AMERICAN HOUSING (rev. ed. 1972); LAMPE, MOBILES, MODULARS: TWO WAYS TO LOW-COST HOUSING, POPULAR MECHANICS, June, 1975, at 88.

diminished (fewer consumers at the margin will be driven to do-it-yourself substitutes) and the potential distortion of refusing to impose strict liability has grown (if such builder-sellers escape strict liability, they will enjoy a competitive advantage over the retail sellers of manufactured housing components with whom they increasingly compete).

4. Commercial Providers of Pure Services

It remains to be demonstrated that the consensus against imposing strict liability on pure-services providers also minimizes the distortion effects of distinguishing between substantially substitutable activities. To a degree exceeding that involving manufactured products, do-it-yourself substitutes are available to which consumers at the margin could be expected to turn if commercially provided, nonprofessional services were subjected to risk taxes. Moreover, the resulting distortion effects would be enhanced by the fact that the noncommercial substitutes are frequently riskier than their commercially available counterparts. Were repairers, for example, to be held strictly liable, as some commentators have advocated, do-it-yourself repairs, including doing without safety-related repairs, would attract consumers at the margin. Although do-it-yourself substitutes are less available for professional services, imposing a risk tax on these services would make them less affordable. Even with respect to health-care services, consumption of which seems to be relatively insensitive to price,

200 For example, although the average consumer may not seriously consider building his own home, he may consider painting or repairing it. Indeed, in the face of rising living costs, the “do it yourself” movement seems to be expanding fairly rapidly. See generally Do-It-Yourself is Big Business, Nation’s Bus., Nov. 1972, at 63.

201 Commercial repairers are liable in negligence, and presumably are thereby pressured to maintain adequate safety standards. “Do-it-yourselfers,” in contrast, are substantially immune from tort liability. Certainly they cannot sue themselves; nor can their friends or members of their families often succeed in tort actions against them. See H. Clark, The Law of Domestic Relations 252-60 (1968) and cases cited therein (intrafamily immunities); W. Prosser, supra note 7, at 859-69 and cases cited therein (intrafamily immunities). See generally Restatement (Second) of Torts §§ 330, 342 (1965) (limited duties of care owed to social guests). But see W. Prosser, supra note 7, at 378-79, 398-99.


203 Two factors may cause demand for health-care services to be relatively inelastic compared to other services: (1) the presence of third-party-payment plans, see note 210 infra & accompanying text, and (2) the fact that some medical services are necessary to sustain life.
courts have expressed concern over the safety implications of deterring patients from obtaining effective treatment by holding health-care providers strictly liable.\textsuperscript{204}

Of course, refusing to include commercial providers of services within the boundaries of strict products liability generates distortion because such services are substitutable for commercially available alternatives that are included. For example, one commentator has observed that the traditional refusal of courts to apply strict liability to product repairers allows repairers to compete unfairly with sellers of new products, whose activities are subject to strict liability.\textsuperscript{205} On balance, however, the distortion due to imposing strict liability on repairers is probably greater than the distortion due to refusing to impose such liability because do-it-yourself repairs are more substitutable for commercial repairs than commercial repairs are for new products.\textsuperscript{206}

In at least one other respect, the distortion effects of refusing to extend strict liability to providers of pure services are less than they might first appear. It will be recalled that the differentials in defect-related risks among commercially supplied new products are assumed to be substantial, and that a refusal to impose strict liability would produce significant distortion in the form of overconsumption of relatively risky products.\textsuperscript{207} With respect to some commercially supplied services, in contrast, the differentials in defect-related risks (and thus the distortion effects of a refusal to impose strict liability)


\textsuperscript{206} Replacement of a product substitutes most effectively for repair when the defect requiring repair prevents the product from functioning adequately, and when the product is near the end of its useful life. For relatively new products, repair is most often the only feasible alternative. In contrast, do-it-yourself repair is often a good substitute for commercial repair because both new and used products may lend themselves to do-it-yourself repair. Furthermore, if the repairs require abilities beyond those of average individuals, going without the repairs is a substitute when the defect does not greatly interfere with the product's functioning. Thus, in the cases of greatest concern in the present context—those in which defects increase the risks of harm but do not interfere with the product's functioning (that is, those in which the risks of accidents are greatest)—do-it-yourself repairs (including doing without repairs) are much more substitutable for commercially provided repairs than are product replacements.

\textsuperscript{207} See notes 179-80 supra & accompanying text.
are lower. At least in the case of professional suppliers of services, a greater uniformity in approach among suppliers is more likely due to the maintenance of professional standards. Individual providers may fall below those standards, but the negligence system aims at minimizing the social costs of such deviations. Apart from these individual instances of provider negligence, however, there is relatively less of a basis, in terms of defect-related risks, for choosing one professional over another. In effect, the relative uniformity of approach achieved through professional standards tends to distribute defect-related risks more uniformly among the professional-services providers. It follows that the distortion effects of allowing such providers to escape strict liability for defect-related accident costs will be less than in the case of new-products sellers, among whom differentials in defect-related risks are presumably more substantial. Moreover, the risk of creating market distortions by refusing to impose strict liability on professional providers of services has been reduced by the adoption of third-party-payment plans covering the costs of medical care.

D. Applying the Criteria to the Areas of Continuing Controversy

This section will examine the potential distortion effects of extending or refusing to extend the boundaries of strict products liability to include various commercial enterprises whose inclusion would be controversial.

1. Commercial Sellers of Used Products

Deciding whether to impose strict liability on commercial sellers of used products demonstrates most clearly the relevance of Second Best Theory to products liability boundary disputes. Al-

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208 With very rare exceptions, physicians and other professional health-care providers are liable in negligence when they fail to conform to the standards of their professions. See generally McCoid, The Care Required of Medical Practitioners, 12 Vand. L. Rev. 549, 558-60 (1959); Pearson, The Role of Custom in Medical Malpractice Cases, 51 Ind. L.J. 528 (1976). In theory, the negligence system pressures providers to conform to the relevant standards. See generally Schwartz & Komesar, Doctors, Damages and Deterrence, 298 New Eng. J. Med. 1282 (1978).

209 The term “defect-related risks” is used here in the sense of risks associated with providing health care that conforms to the relevant professional standards—that is, risks inhering in the standards themselves. By hypothesis, if all providers conform more or less to the same standards, these risks will be distributed more or less uniformly among them.

210 Generally speaking, third-party-payment plans cause demand for services to be less sensitive to price because subscribers do not pay premiums in proportion to their consumption. See generally Newhouse, Phelps, & Schwartz, Policy Options and the Impact of National Health Insurance, 290 New Eng. J. Med. 1345 (1974).
though the availability to consumers of noncommercial substitutes for commercially supplied products may be questioned in the other areas of controversy, it is beyond doubt that used products obtained from noncommercial sellers are highly substitutable for used products obtained commercially. Furthermore, commercial sellers face strong and effective competition from their noncommercial counterparts. To impose a substantial risk tax upon commercial used-products sellers through strict products liability would, therefore, drive consumers at the margin to readily available noncommercial substitutes.

Of course, these noncommercial substitutes are reachable indirectly by strict products liability, at least to the extent that manufacturers are exposed to strict liability for some defect-caused accidents notwithstanding resale of the product. But even though resale poses no theoretical bar to recovery, as a practical matter manufacturers are infrequently held liable for accidents involving older products that have been resold one or more times. Thus,

211 For a description of the used-motor-vehicles market in recent years, including the suggestion "that dealer sales have been subject to a long-term erosion with the private market gaining at the dealers' expense," see BUREAU OF CONSUMER PROTECTION, FEDERAL TRADE COMMISSION, SALE OF USED MOTOR VEHICLES, FINAL STAFF REPORT TO THE FEDERAL TRADE COMMISSION AND PROPOSED TRADE REGULATION RULE (16 CFR Part 455) 455-57 (1978) [hereinafter cited as FTC FINAL REPORT].

212 Some support for this assertion comes from a study of the impact on the used-motor-vehicles market of a recently enacted Wisconsin law requiring dealers to inspect vehicles, make safety repairs, disclose inspection results to purchasers, and refuse to sell unsafe vehicles, 8 Wis. Admin. Code ch. MVD 24 (1977). See FTC FINAL REPORT, supra note 211, at 19-24. That study indicates that in the two years following implementation of the Wisconsin law, significant shifts occurred away from the commercial toward the private market. See id. 463 n.24. These data may be especially significant in the present context, given the differences between the Wisconsin law (essentially a fair disclosure act) and strict liability in tort. The Wisconsin law and the proposed FTC Trade Regulation Rule, 41 Fed. Reg. 1089 (1976) (to be codified at 16 C.F.R. §455), are intended to build greater public confidence in the commercial market in order to enhance that market's appeal to consumers. See id. 458. In contrast, strict liability in tort, unaccompanied by any formal disclosures of the sort required by the Wisconsin law, would be less likely to build public confidence in the market. Indeed, the publicity that legal actions would attract might well erode public confidence. Commercial sellers might attempt to counter this tendency with advertising, but the success of such an approach is doubtful. Thus, imposing strict liability on commercial sellers of used cars might well cause an even greater shift away from the commercial market than did the Wisconsin statute.

213 See, e.g., Court v. Grezelinski, 72 Ill. 2d 141, 379 N.E.2d 281 (1978) (design defect); Iadicicco v. Duffy, 60 A.D.2d 905, 401 N.Y.S.2d 557 (1978) (design defect or defective manufacture makes out prima facie case).

214 See, e.g., Ford Motor Co. v. McCamish, 559 S.W.2d 507 (Ky. 1977) (five-year-old truck); Westerberg v. School Dist. No. 792, 276 Minn. 1, 148 N.W.2d 312 (1967) (six-year-old washing machine).

In order to invoke the doctrine of strict products liability, the plaintiff must show that the product was defective when it left the manufacturer's hands. See
the "unreachability" of noncommercial used-products sellers is only partially offset by the "reachability" of manufacturers for accidents involving used, resold products.

Even if noncommercially supplied used products are highly substitutable for their commercially supplied counterparts and are relatively unreachable by strict liability, the potential distortion effects of imposing strict liability on commercial used-products sellers would be reduced if the noncommercial substitutes were generally safer than their commercial counterparts. It may reasonably be presumed, however, that, in general, used products supplied by noncommercial sellers are riskier than used products available commercially. Even in the absence of strict liability, commercial used-products sellers are liable for their negligent failure to discover, correct, and warn against dangerous defects. In contrast, non-commercial sellers are, as a practical matter, substantially immune from negligence-based liability. In addition to commercial sellers' liability for negligence, the adverse publicity generated by tort actions and the requirements imposed by state regulation give them greater incentive to discover and correct dangerous defects than noncommercial sellers are likely to have. Furthermore, commercial sellers are generally more expert at detecting defects in used products. To be sure, the available data suggest that noncommercial sellers are generally more truthful than their commercial

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note 167 supra. The resale of a product often makes this proof more difficult, if not impossible.

Many of the cases in which manufacturers are held strictly liable for defects in older products involve defective designs. See, e.g., cases cited in note 213 supra. Because the design of a product does not change with age, manufacturers are exposed to liability for longer periods with respect to their designs. In response, a number of states have recently enacted statutes of repose that reduce the periods during which manufacturers are exposed to liability. See, e.g., Fla. Stat. Ann. § 95.031(2) (West Supp. 1978); Ore. Rev. Stat. § 30.905 (1977). For a critical analysis of these statutes, see Phillips, An Analysis of Proposed Reform of Products Liability: Statutes of Limitations, 56 N.C.L. Rev. 663 (1978).

215 See, e.g., Benton v. Sloss, 38 Cal. 2d 399, 404, 240 P.2d 575, 578 (1952); Drummond v. American Ins. Co., 159 So. 2d 61, 63 (La. Ct. App. 1963); McKinney v. Frodsham, 57 Wash. 2d 126, 129-30, 356 P.2d 100, 102-03 (1960), modified on other grounds, 58 Wash. 2d 12, 360 P.2d 576 (1961). Of course, this exposure to liability for negligence does not eliminate the significance of moving to a rule of strict liability because commercial sellers are liable in negligence only for failing to discover defects that are discoverable through reasonable inspection. See, e.g., Heilig v. Studebaker Corp., 347 F.2d 666, 690 (10th Cir. 1965); Woolley v. Uebelhor, 239 Md. 318, 325, 311 A.2d 302, 305-06 (1965).

216 See note 201 supra.

217 For example, most states require commercial used-car dealers to correct defects in the vehicles they offer for sale. See FTC Final Report, supra note 211, at 393 n.3, 519-25.

218 See FTC Final Report, supra note 211, at 425.
counterparts about the relevant facts of product age and prior use.\footnote{See, e.g., FTC Final Report, supra note 211, at 423-25 (data limited to used-car sales).} But disclosing such information does not eliminate defect-related risks. On balance, therefore, application of the criteria developed earlier strongly suggests that relatively significant distortion could be expected were courts generally to extend strict products liability to include commercial sellers of used products.\footnote{The total costs of accidents caused by purchased used products would increase if the gains in safety achieved by imposing strict liability on commercial used-products sellers, see note 15 supra & accompanying text, did not at least equal the losses in safety represented by marginal shifts to the private market. See note 165 supra & accompanying text. Given the existing legal pressures on commercial used-products sellers to detect and correct dangerous product defects, see notes 215 & 217 supra & accompanying text, it is unlikely that the gains in safety would outweigh the losses.}

It remains to consider the potential distortion effects of refusing to impose strict liability upon commercial used-products sellers. That some distortion would be generated by such a refusal may not be doubted. For one thing, if commercial sellers of used products were allowed to escape strict liability, the price advantage they enjoy over new-products sellers would be increased, thereby causing some shifts away from the purchase of new products. Presumably, however, commercial and noncommercial used products substitute for each other better than commercial used products substitute for new products. Thus, the distortion produced by refusing to extend strict products liability to used-products sellers would not be as great as the effect of the contrary decision.

Refusing to impose strict products liability on commercial sellers of used products might create another source of distortion, for this refusal would give the greatest competitive advantage to those who sold the riskiest used products. Two factors, however, combine to reduce these effects below what might otherwise be expected. First, commercial used-products sellers have less control over the quality of the products they sell than have manufacturers. For example, they cannot redesign their products to improve safety. Thus, if differentials in risk due to discoverable defects are put aside,\footnote{Presumably, such differentials are already being reduced by factors other than strict liability, including the imposition of liability for negligent conduct. See notes 215 & 217 supra.} it may reasonably be assumed that the remaining defect-related risks tend to be distributed more randomly and, over time, more uniformly among those sellers. Second, at least some of these sellers are being pressured by state regulatory schemes to do what they can to reduce risks.\footnote{See note 217 supra.} Therefore, although some overconsump-
tion of relatively risky commercially supplied used products may occur as a result of refusing to tax these products in proportion to their relative risks, this effect should not be significant.

It follows from this application of the criteria developed earlier that greater distortion is likely to result from including commercial used-products sellers within the boundaries of strict products liability than from excluding them. Moreover, the distortion effects of including these suppliers would probably take the form of shifts in consumption favoring comparatively risky products. Consumers at the margin would be driven away from commercial used-products sources that are relatively safer, due to various regulatory pressures, and toward noncommercial sources of used products that cannot be regulated and are less safe. A policymaker might nevertheless decide to impose strict liability on commercial used-products sellers out of a sense of fundamental fairness, or as a means of spreading defect-related accident costs to the greatest extent possible. But such a decision should be reached only after considering the distortion that could be expected to ensue.

2. Suppliers of Sale-Service Hybrids

On balance, the present analysis offers little guidance on the issue of holding professional sale-service providers strictly liable for defect-caused harm. Certainly in the case of medical professionals, distortion effects are less relevant because of the pervasiveness of third-party-payment plans. And when such plans do not exist, the potential distortion effects of imposing strict liability are not likely to be significant because of the relative unavailability of do-it-yourself substitutes for professional health care. On the other hand, the fact that the sale-service providers are professionals probably tends to reduce the differentials in defect-related risks among them, thus reducing the significance of the potential distortion effects of refusing to impose strict liability. It follows that other policy considerations must inform the decision whether to include professional sale-service providers within the boundaries of strict products liability.

223 See notes 11-12, 17, & 88-89 supra & accompanying text.
224 See note 210 supra.
225 Although consumers might decide to forgo medical treatment altogether, it is difficult to perceive how they could treat themselves in the sorts of circumstances typically presented in these sale-service hybrid cases: e.g., defective hypodermic needles, defective prosthetic devices, defective contact lenses, and contaminated blood. See cases cited in notes 106-07 supra.
226 See note 209 supra & accompanying text.
The present analysis may offer more guidance in connection with nonprofessional sale-service providers. Although do-it-yourself substitutes for the service components of these sale-service hybrids are available to consumers, such substitutes are generally unavailable for the sales components. A consumer who decides to dye his hair, for example, supplies his own service component, but he must turn to commercial sellers for the dye. Thus, as courts in these cases have recognized, the nonprofessional sale-service provider is analogous to a retailer as far as the sales component is concerned. Because nonmanufacturing sellers are strictly liable for defective products, sale-service providers that are allowed to escape strict liability for the defective products they supply will enjoy a competitive advantage over product retailers. The result will be a distortion in the form of consumers at the margin opting to obtain products from sale-service providers rather than from retailers.

On balance, the present analysis suggests that the potential distortion effects of extending the boundaries of strict products liability to include nonprofessional sale-service providers will be less significant than the potential effects of refusing to extend the boundaries. This consideration standing alone is probably insufficient to justify extending the boundaries in this fashion; but to the extent that it coincides with a discernible expansionist trend in the case law, it confirms the judgments reached on other policy grounds.

3. Nonsale Suppliers

As discussed earlier, nonsale suppliers may be divided into two subcategories: those who charge their customers specifically for use of the products supplied, and those who treat the costs of supplying the products as overhead and charge only indirectly for their...
use. For the first of these subcategories, there are relatively few do-it-yourself substitutes to which consumers could be expected to turn if nonsale suppliers were held strictly liable. Moreover, when such noncommercial substitutes are available, they tend to be significantly less risky than the products supplied in the commercial, nonsale context. For typical customers of a laundromat, for example, who presumably do not own washing machines or dryers, do-it-yourself substitutes are impractical. Moreover, a consumer typically cannot borrow a washing machine from a neighbor. And for the few potential laundromat users at the margin who would be driven by a risk tax to wash their clothes by hand, or to forgo either clothes-soiling activities or even cleanliness, the defect-related risks of such alternatives would be negligible. Thus, significant distortion in the form of shifts to more dangerous do-it-yourself substitutes are not likely to be generated by imposing strict liability on nonsale suppliers in this first subcategory.

On the other hand, refusing to impose a risk tax on these nonsale suppliers could be expected to generate more significant distortion, inasmuch as these suppliers provide substitutes for other commercially available products and services that are already subject to strict liability. In the laundromat example, a consumer who is unable to own a washing machine confronts the basic choice between having his clothes washed at a commercial laundry or washing them himself at a laundromat. Commercial laundries are subject to a risk tax—the prices they charge presumably reflect the costs of injuries to employees caused by the machines used to wash customers’ clothes. If laundromats were allowed to escape strict

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234 The nonsubstitutability of do-it-yourself activities for the products supplied by these nonsale suppliers reflects the nonsubstitutability of do-it-yourself activities for manufactured products generally. See note 169 supra & accompanying text.

235 See note 170 supra & accompanying text.

236 Aside from the lack of facilities for washing and drying clothes by hand, the efficiency gains presented by washing machines and dryers render do-it-yourself alternatives very unattractive. See note 169 supra.

237 Washing clothes by hand presents relatively few defect-related risks; forgoing activities that tend to soil clothes probably decreases risks of injury; and forgoing cleanliness may be aesthetically unpleasant, but is unlikely to be risky unless carried to the extreme.

238 Although other commercial alternatives exist—e.g., linen and diaper services, industrial uniform services—these alternatives substitute only partially for those mentioned in the text. As between laundries and laundromats, the latter industry appears to be growing faster due to a number of factors, including an increase in the young-adult population and individuals’ growing preference to do their own laundry and dry cleaning. See Vickary, New Technology in Laundry and Cleaning Services, MONTHLY LAB. REV., Feb. 1972, at 54, 58.

239 A portion of these costs are covered by workmen’s compensation insurance. See generally A. Larson, THE LAW OF WORKMEN’S COMPENSATION (1978 & Supp.
liability, they would enjoy a correspondingly greater price advantage over laundries, and consumers at the margin would shift to them. To be sure, this price advantage and the resulting overconsumption of laundromat equipment would be reduced to the extent that the manufacturers of the washing machines were strictly liable for defect-related accidents occurring in laundromats.\footnote{See, e.g., Thomas v. General Motors Corp., 13 Cal. App. 3d 81, 88, 91 Cal. Rptr. 301, 305 (1970); Miller v. Bock Laundry Mach. Co., 568 S.W.2d 648, 650 (Tex. 1977).} As a practical matter, however, manufacturers escape a significant portion of liability for laundry equipment that becomes defective due to age, misuse, or improper maintenance.\footnote{See, e.g., Westerberg v. School Dist. No. 792, 276 Minn. 1, 148 N.W.2d 312 (1967). \textit{See also} notes 167, 177, & 214 \textit{supra}.}

On balance, then, the criteria advanced in this Article suggest that greater distortion will be generated by refusing to extend strict liability to this first subcategory of nonsale suppliers than will be generated by extending it. Thus, this analysis supports the decisions of those courts that have imposed strict liability on these suppliers.\footnote{See notes 121-24 \textit{supra}.}

The second subcategory of nonsale suppliers, those who do not charge specifically for the use of products, presents a less clear picture. For some products provided by nonsale suppliers in this subcategory, noncommercially supplied substitutes are generally available. When a laundromat provides chairs for its customers' convenience, for example, the chairs are typically no different—except for their location—from chairs generally available to those customers. For example, if imposing a risk tax to cover the costs of accidents caused by defective chairs would discourage laundromat operators from providing chairs, some customers could be expected to bring their own chairs to laundromats, or to leave the laundromats to sit in chairs available elsewhere while their clothes were being washed.

Thus, imposition of a risk tax on products that customers use while on business premises and that have substitutes in noncommercial environments would probably create distortion effects favoring consumption of those noncommercial substitutes. Moreover, those substitutes, which largely escape risk tax,\footnote{See notes 167 & 241 \textit{supra} & accompanying text.} are probably riskier than the products provided by nonsale suppliers.\footnote{Even in the absence of strict liability, commercial nonsale suppliers are liable for their negligent failure to inspect for and repair dangerous defects. \textit{See}}
It follows that to impose strict liability on commercial establishments would, at the margin, drive consumers out of environments posing few defect-related risks and into riskier environments, resulting in distortion that might increase accident rates. This distortion will be reduced to the extent that consumers generally are better able to assess, and are more willing to respond to, risks in noncommercial environments. Nevertheless, significant distortion could be expected to follow from imposing strict liability on nonsale suppliers for those products that have counterparts in non-commercial environments.

To complete the analysis of this aspect of nonsale suppliers' strict liability, the potential distortion effects of refusing to impose strict liability must be considered. Obviously, such a refusal would, to some extent, encourage overuse by consumers of relatively riskier commercial establishments and underuse of relatively safer ones. Distortion of this sort is likely to be minimized, however, because the defect-related risks of commercially supplied products that have counterparts generally in society are presumably distributed more uniformly among commercial enterprises than are other product-related risks. On balance, therefore, the distortion effects of imposing strict liability on this subcategory of nonsale suppliers appear to outweigh the distortion effects of refusing to impose such liability. Moreover, the potential for reducing defect-related accident costs by pressuring these suppliers to adopt safety measures appears relatively small.

A different result emerges from applying the criteria to the nonsale suppliers of products that are more uniquely designed for use in commercial establishments and for which substitutes are

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notes 131-32 supra. In contrast, the managers of noncommercial environments traditionally have been almost immune from tort liability. See note 201 supra.

245 Individuals presumably are more familiar with the furniture in their own homes than with the furniture made available to them in various commercial establishments.

246 From an enterprise-liability standpoint, commercial enterprises would be required to bear social costs that are not uniquely caused by or associated with those enterprises, thereby producing distortion.

247 For example, "slip and fall" risks and defect-related risks presented by chairs in waiting rooms are distributed more or less uniformly among commercial establishments. In contrast, defect-related risks presented by the manufactured products offered for sale by commercial establishments vary significantly. See note 179 supra & accompanying text. Bicycles, for example, pose greater defect-related risks than do books.

248 Again, these suppliers are already exposed to liability for their negligence, see notes 131-32 supra, and presumably will adopt most of the obvious safety measures available to them. Because in most cases they do not manufacture the products supplied for the use and convenience of customers, these defendants lack some of the control over defect-related risks that manufacturing sellers have.
generally not available.\textsuperscript{249} The potential distortion effects of imposing strict products liability on these suppliers would not be significant because, by hypothesis, the noncommercial environments into which consumers at the margin would be driven by a risk tax contain relatively few substitutes for such products. In addition, it may reasonably be assumed that levels of defect-related risks presented by such products vary significantly among commercial enterprises.\textsuperscript{250} Thus, the distortion effects of refusing to impose strict liability would be correspondingly increased. But because nonsale suppliers do not charge directly for use of these products, the activity of supplying them is only indirectly reachable by a risk tax: some consumers will use the products without purchasing goods or services from the supplier and will receive a free ride.\textsuperscript{251} On balance, however, this analysis supports the imposition of strict products liability on commercial nonsale suppliers who provide products for which noncommercial substitutes are not generally available.\textsuperscript{252}

In sum, the decision whether to impose strict liability on nonsale suppliers turns on whether the products they supply have close substitutes in the noncommercial world. Admittedly, courts might have difficulty distinguishing commercial products that have such substitutes from those that do not. The glassware supplied to customers in a restaurant\textsuperscript{253} clearly falls into the first category; elevators, escalators, and bleachers\textsuperscript{254} clearly fall into the second. But a number of cases will come closer to the line. For example,

\textsuperscript{249} These products include elevators, escalators, and bleachers. See note 254 infra.

\textsuperscript{250} Smaller commercial establishments, for example, may not have elevators and escalators.

\textsuperscript{251} Compare note 133 supra & accompanying text.

\textsuperscript{252} Compare note 133 supra & accompanying text.

\textsuperscript{253} See, e.g., Shaffer v. Victoria Station, Inc., 91 Wash. 2d 295, 588 P.2d 233 (1978). That court held that strict liability could be imposed on a restaurant operator for injuries sustained by a customer when his wine glass broke. The court drew an analogy between the wine glass and product packages, for which new product sellers are strictly liable. Under the present analysis, glassware supplied by restaurants is distinguishable from new-product packaging on the ground that do-it-yourself substitutes are more available for the former than for the latter.

\textsuperscript{254} Although courts have not imposed strict liability on business establishments for elevator, escalator, or bleacher accidents, they have applied the \textit{res ipsa loquitur} doctrine in negligence cases. See, e.g., Otis Elevator Co. v. Scale, 334 F.2d 928 (5th Cir. 1964) (elevator) (applying Louisiana law); Vandagriff v. J.C. Penney Co., 228 Cal. App. 2d 579, 39 Cal. Rptr. 671 (1964) (escalator); Boyer v. Iowa High School Athletic Ass'n, 260 Iowa 1061, 152 N.W.2d 293 (1967) (bleacher); Gilbert v. Korvette's, Inc., 457 Pa. 602, 327 A.2d 94 (1974) (escalator).
how should the shopping carts supplied by a supermarket or the ladders supplied by a "pick them yourself" apple orchard be categorized?

In classifying products of this sort, several considerations must be borne in mind in addition to those previously described. First, the focus should be on the uniqueness of the risks presented rather than on superficial physical dissimilarities between the commercial products and their noncommercial substitutes. Shopping carts, for example, should be classified as products without substitutes in noncommercial environments because of the unique risks they present rather than because they are deliberately designed to be of little use outside the supermarket. Second, it may not matter that the products supplied commercially have counterparts generally available elsewhere if those products are not likely to be used in the activities that substitute for the commercial activities. The ladders supplied by a "pick them yourself" orchard illustrate this point nicely. Although ladders are generally available to consumers in noncommercial environments, those ladders are unlikely to be used by consumers in the activities that substitute for spending an afternoon in the orchard. Thus, substitutes for the ladders supplied commercially may be "available" to consumers in noncommercial environments, but distortion of the sort being considered here will be minimal because the ladders available elsewhere will not be used, and therefore will not present significant risks, in the activities to which consumers will turn.

Finally, it must be remembered that the present analysis is not meant to be applied on a case-by-case basis, nor is it intended to replace traditional policy considerations. Presumably, courts will develop fairly broad categories of products within which they may devise consistent, sensible approaches to products liability cases. On balance, it probably makes sense to limit the relevance of the present analysis to those product categories about which judges can

257 For example, shopping carts may tip over while loaded with heavy items, may pinch a customer in a concealed hinge, or may tip over while a child is riding in the seat. These risks may fairly be said to be unique to shopping carts, at least for the typical users of such carts.
258 The small diameter of the wheels on most shopping carts renders the carts practically useless in environments that do not have smooth, unbroken floors.
259 Two types of activities come to mind that might substitute for picking apples in an orchard: (1) buying apples at a store, or (2) spending an afternoon at the beach. Neither activity is likely to involve a ladder.
make fairly confident findings about availability of noncommercial substitutes, and to leave doubtful cases entirely to more traditional policy analyses.

CONCLUSION

In considering proposed extensions of the boundaries of strict products liability, courts and commentators have tried to determine whether a particular extension would be consistent with various underlying social policies. Debate has focused on the differences between these social policies, some of which militate in favor of more expansive, and others in favor of more restrictive, patterns of liability. To date, no one has considered the possibility that quite apart from its implications for policy, a proposed new boundary may distinguish between activities that are substitutable from the consumer's point of view, and thus may distort patterns of consumption in ways unanticipated, and probably unintended, by those proposing the boundary extension. The distortion effects of concern here take the form of shifts in consumption away from activities included within, and toward substitute activities excluded from, the boundaries of strict products liability. When these distortions involve shifts away from relatively safer activities and toward relatively riskier activities, they may produce results that detract from, rather than enhance, the traditional policy objectives of strict products liability.

Exploring the implications of the Theory of the Second Best, this Article has developed criteria with which to predict in a general way the distortions likely to result from given extensions of the boundaries of strict products liability, and has applied those criteria to a number of products liability areas—both settled and controversial. It has shown that virtually every boundary extension that has become settled law conforms to a pattern of decision tending to minimize the potential distortion effects described herein. With respect to areas of continuing controversy, evaluation of the predictive criteria tends to support extending the boundaries to include nonprofessional sale-service providers and certain types of nonsale suppliers of products. The same analysis points away from the imposition of strict liability on commercial sellers of used products and certain other types of nonsale suppliers of products.

As has been emphasized throughout, the criteria developed and applied herein are intended not to replace traditional policy analyses in products liability, but to supplement them. A balanced approach is called for, one in which the overall policy objec-
tives of products liability are tempered by a concern for the implications of drawing boundaries that distinguish between essentially substitutable activities. To the extent that this analysis provides a useful supplement to traditional policy analyses in the field of products liability, it should provide a similarly useful supplement in the broader context frequently referred to by torts scholars as “enterprise liability.” Indeed, to the extent that other legal regulation of conduct, including the criminal law, involves processes of line drawing and boundary establishment analogous to the processes examined in this Article, this analysis should have application beyond the confines of tort law.

260 Any enterprise-liability approach presumably would encounter the same problems with unreachable do-it-yourself activities as are described in this Article.

261 Criminal proscriptions against nontherapeutic abortions, for example, tend to drive persons to riskier, do-it-yourself alternatives.