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Sindell v. Abbott Laboratories: A Market Share Approach to DES Causation

In *Sindell v. Abbott Laboratories*,¹ the California Supreme Court allowed a cause of action against a group of manufacturers of the drug diethylstilbestrol (DES)² even though the plaintiff was unable to identify which manufacturer had supplied the drugs that plaintiff's mother had taken to prevent a miscarriage.³ The decision is an attempt by the court to provide victims of latent product defects a means of recovery where they would otherwise be unable to establish causation because of prolonged delay in injury manifestation.⁴ In doing so, *Sindell* departs from traditional common law recovery requirements and raises numerous problems in its application.

Part I of this Note briefly describes the case. Part II discusses existing tort theories which the *Sindell* court could have adopted to allow a cause of action for DES induced injuries and explains why these theories were not suitable. Part III analyzes the market share cause of action created by the court, examining problems in defining the essential requirements of the theory and potentially faulty factual assumptions upon which the action is based. Part IV examines the market share action from a broader perspective and considers its impact on conflicting social policies that the court failed to expressly consider. It concludes that *Sindell's* market share approach to liability may produce significant undesirable social costs.

1. 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132 (1980) (Mosk, J.) (4-3 decision), *cert. denied*, 101 S. Ct. 286 (1980).

2. DES is a synthetic compound of the female hormone estrogen used as a miscarriage preventive from 1947 until 1971.

3. DES may cause adenocarcinoma in the daughters exposed to it before birth. The heretofore rare disease is a rapid-spreading cancer of the vagina and uterus with a current incidence of between 1 in 250 to 1 in 10,000. DES also causes adenosis, an abnormality of the vaginal and cervical tissue which affects between 30% to 90% of postpubertal girls exposed to DES in utero. Comment, *DES and A Proposed Theory of Enterprise Liability*, 46 *FORDHAM L. REV.* 963, 964-67 (1978).

DES is still marketed for treatment of menopausal disturbances, senile vaginitis, relief of breast engorgement during lactation suppression, and cancer of the prostate in men. It is also used in animal feed and drugs as a growth promoter. *Id.* at 963 n.2.

4. The disease has a minimum latent period of ten to twelve years. 26 Cal. 3d at 594, 607 P.2d at 925, 163 Cal. Rptr. at 133. For many women it may be twenty years before the carcinogenic effects of the drug appear. Comment, *supra* note 3, at 970 n.23.

I.
THE CASE

Plaintiff Judith Sindell brought a class action suit against eleven drug manufacturers for personal injuries sustained as a result of prenatal exposure to DES marketed by the defendants.⁵ The complaint alleged that the manufacturers had negligently manufactured, marketed, and promoted DES as a safe drug without adequate testing or monitoring and that they had collaborated in marketing DES, relied upon each other's tests, and adhered to an industrywide safety standard.⁶ Additionally, the complaint predicated liability on theories of strict liability, violation of express and implied warranties, fraud, misbranding, conspiracy, and lack of consent.⁷ The trial court sustained the defendants' demurrers and dismissed the action on the basis that the plaintiff could not identify which DES manufacturer had produced the drug to which she had been exposed.⁸

The supreme court reversed the trial court's dismissal of plaintiff's action. Justice Mosk, writing for the majority,⁹ announced a new cause of action which dispensed with any requirement that plaintiff identify the particular manufacturer that supplied DES to plaintiff's mother. Rather, each defendant would be liable for the portion of plaintiff's damages equal to that defendant's percentage share of the DES market.¹⁰ The court reasoned that when the producers of a substantial share of the market are joined as defendants in all such cases, each defendant's total liability will be roughly equal to what would be the case if perfect identification were possible in all cases.¹¹

In reaching the conclusion that a new approach was necessary, the court examined three other possible theories of liability: "alternative liability" based on *Summers v. Tice*,¹² "concert of action" liability,¹³

5. Plaintiff sought \$1 million in compensatory and \$10 million in punitive damages for herself; on behalf of the class she sought equitable relief ordering defendants to inform physicians and the public of dangers posed by DES and to establish free clinics throughout California for the treatment and diagnosis of DES daughters. 26 Cal. 3d at 595, 607 P.2d at 926, 163 Cal. Rptr. at 134.

6. *Id.* at 595, 607 P.2d at 926, 163 Cal. Rptr. at 134.

7. *Id.*

8. *Id.* at 596, 607 P.2d at 926, 163 Cal. Rptr. at 134.

9. Justice Mosk was joined by Chief Justice Bird and Justices Newman and White (sitting by assignment of the Chairman of the Judicial Council).

10. 26 Cal. 3d at 612-13, 607 P.2d at 937, 163 Cal. Rptr. at 145.

11. In a vigorous dissent, Justice Richardson, joined by Justices Clark and Manuel, argued that the court's decision would create substantial fairness problems for defendants by eliminating the essential element of causation. The dissent suggested that market share data and the relatively deeper pocket of defendants are both irrelevant to imposing liability and that the problem is better suited for legislative action than for judicial solution. *Id.* at 614-22, 607 P.2d at 938-43, 163 Cal. Rptr. at 146-51.

12. 33 Cal. 2d 80, 199 P.2d 1 (1948); see text accompanying notes 17-24 *infra*.

and "enterprise liability" based on *Hall v. E.I. Du Pont de Nemours & Co.*¹⁴ Although the court drew inspiration in part from all three theories, which shared an underlying policy goal of protecting plaintiffs in the face of unidentifiable tortfeasors, and described the market share approach as a modification of the rule of *Summers*,¹⁵ it concluded that none of them alone was adequate for a fair judicial treatment of the DES problem.

II

ANALYSIS OF EXISTING THEORIES

One of the basic rules of American tort law is that a plaintiff cannot recover absent a showing that injury resulted from some act or omission of the defendant.¹⁶ Over the years, however, courts have recognized the potential inequity in leaving a plaintiff uncompensated simply because fortuitous circumstances render identification of the tortfeasor impossible. As a result, a number of exceptions have emerged.

A. *Alternative Liability*

In the landmark case of *Summers v. Tice*,¹⁷ the California Supreme Court established the principle of alternative liability. Summers was injured when two hunters negligently shot in his direction. Although it was impossible to determine whose shot actually caused the injury, the court held both defendants jointly and severally liable for all the damages. The court observed that if Summers were required to establish identity, both defendants would likely escape liability since it was equally probable that either one was responsible.¹⁸ In order to put the loss on the culpable shooters rather than on the innocent plaintiff, the court shifted the burden of proof of identifying the wrongdoer to the defendants, "each to absolve himself if he can."¹⁹

13. See text accompanying notes 25-33 *infra*.

14. 345 F. Supp. 353 (E.D.N.Y. 1972); see text accompanying notes 34-41 *infra*.

15. 26 Cal. 3d at 612, 607 P.2d at 936, 163 Cal. Rptr. at 144.

16. W. PROSSER, THE LAW OF TORTS § 41, at 236 (4th ed. 1971). In the field of products liability the general rule is that the plaintiff must show that the defendant "was the manufacturer of the product which caused the injury." 1 R. HURSH & H. BAILEY, AMERICAN LAW OF PRODUCTS LIABILITY § 1.41, at 125 (2d ed. 1974). Until *Sindell*, a DES plaintiff had the burden of proving that a particular defendant's defective product proximately caused the injury. *McCreery v. Eli Lilly & Co.*, 87 Cal. App. 3d 77, 82, 150 Cal. Rptr. 730, 733 (3d Dist. 1978).

17. 33 Cal. 2d 80, 199 P.2d 1 (1948).

18. *Id.* at 86, 199 P.2d at 4.

19. *Summers* relied in part on *Ybarra v. Spangard*, 25 Cal. 2d 486, 154 P.2d 687 (1944), in which the court allowed a hospital patient to seek damages against several doctors and a nurse for injuries sustained while he was unconscious and thus unable to identify the wrongdoer. Relying on the doctrine of *res ipsa loquitur*, *Ybarra* held that the inference of negligence would apply to

The *Sindell* court held, however, that liability could not properly be imposed in the DES context solely on the basis of *Summers*.²⁰ Unlike *Summers*, the *Sindell* defendants come from a large ill-defined class of as many as two hundred companies which produced DES for a variety of uses under at least seventy different trade names.²¹ If the probability that any one of the defendants supplied the injury-causing drug is measured by taking the reciprocal of the number of possible tortfeasors, then the possibility that the actual supplier of DES to *Sindell's* mother was before the court is quite small. The court concluded that it would be unfair to require each defendant to exonerate itself when there was a substantial likelihood that none of the defendants joined in the action actually made the DES that caused the injury. The court asserted that there was "no rational basis on which to infer" that any of the manufacturer-defendants supplied the drug to plaintiff's mother.²² Yet if the plaintiff actually joined producers of more than ninety percent of the DES market as she alleged,²³ then there was a ninety percent chance that one of the defendants was the actual supplier. In this instance, the court's rejection of alternative liability based on the great number of DES manufacturers is not convincing.²⁴

each defendant, thereby shifting to defendants the burden of explaining their conduct. *Id.* at 490, 154 P.2d at 689. This approach would force those in control of the instrumentalities used in *Ybarra's* treatment to disclose the identity of the negligent person and the facts establishing liability. The *Ybarra* goal of forcing out information is not applicable to the DES situation because the manufacturers of DES do not have greater access to the identifying information than do plaintiffs. The main factors obscuring identification of DES suppliers by plaintiffs are the long time span between the original sale and manifestation of the disease, and the lack of records of retail purchases. *See* note 58 *infra*.

20. The *Summers* rule was subsequently adopted by the Restatement of Torts. RESTATEMENT (SECOND) OF TORTS § 433B, subd. 3 (1965). The Restatement suggested in one comment that the size of the class of defendants might be extended in certain circumstances. *Id.* Comment h. While it declined to state what those circumstances would be, it offered prolonged delay between injury and manifestation as one possibility. *Id.* Comment c.

21. 26 Cal. 3d at 609, 607 P.2d at 935, 173 Cal. Rptr. at 143; Comment, *supra* note 3, at 964 n.3.

22. 26 Cal. 3d at 603, 607 P.2d at 931, 163 Cal. Rptr. at 139.

23. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

24. A New Jersey court applied an alternative liability theory to a recent DES case and specifically rejected the *Sindell* criticisms of the suitability of alternative liability for DES litigation. *Ferrigno v. Eli Lilly & Co.*, 175 N.J. Super. 551, —, 420 A.2d 1305, 1314 (1980). Even a substantial likelihood that the actual wrongdoer was not before the court was not fatal to an alternative liability cause of action. The *Ferrigno* court relied principally on *Anderson v. Somberg*, 67 N.J. 291, 338 A.2d 1 (1975), in which the New Jersey Supreme Court allowed a plaintiff, injured while unconscious in a hospital surgical room, to recover for damages caused by a defective surgical instrument. The court noted that there was a strong possibility that the cause of the defect in the instrument could have been misuse by any one of a large number of doctors and nurses who had handled it during the previous four years. *See also* *Abel v. Eli Lilly & Co.*, 94 Mich. App. 59, 289 N.W.2d 20 (1979) (allowing cause of action based on alternative liability as well as concerted action). Unfortunately, the rationale of *Abel* is opaque and appears motivated solely by a desire to allow plaintiff's recovery.

There is, however, another reason for avoiding a blind acceptance of alternative liability for DES litigation. *Summers* imposed joint and several liability, holding each of the hunters liable for the full amount of damages, since the two were equally likely to have caused the injury. In a DES case there are often many defendants who supplied widely varying amounts of the drug. To treat large and small producers as equal contributors to the harm suffered by plaintiff seems manifestly unfair.

B. Concert of Action

A second theory advanced by Sindell and by other DES plaintiffs is known as concert of action.²⁵ The classic concert of action case is the illegal drag race in which a bystander is injured by one of the participants.²⁶ The person may sue any or all of the participants and they are jointly and severally liable for her injuries. All the plaintiff need allege is that each defendant acted pursuant to a common design or gave substantial assistance or encouragement to an actor whose conduct caused the harm.²⁷ An express agreement is not necessary; a tacit understanding will suffice, and this may be shown by the parallel actions of the defendants.²⁸

Although concert of action is not expressly designed to eliminate the identification problem, it can apply to situations in which the immediate injury-causing agent is unknown. If the tortious event is the group activity itself,²⁹ then any participant will be liable regardless of whether plaintiff can point to the immediate wrongdoer. For example, if plaintiff is not sure which driver in the illegal drag race caused the injury, she may still proceed to sue some or all of the participants. The action, however, is limited by the requirement of showing some sort of understanding by which all the defendants are implicated in the tortious act.

The *Sindell* court rejected the use of a concert of action theory to impose liability. While the court recognized considerable parallel acts among industry members,³⁰ it held that application of concerted action

25. The distinction between alternative liability, as embodied in *Summers*, and concert of action is not precise. The defendants in *Summers* could be characterized as having acted in concert. The *Summers* court, however, felt this was straining the concept, 33 Cal. 2d at 85, 199 P.2d at 3, and held that each defendant is liable for the whole damage whether they are deemed to be acting in concert or independently. *Id.* at 88, 199 P.2d at 5.

26. Comment, *supra* note 3, at 979.

27. RESTATEMENT (SECOND) OF TORTS § 876 (1965).

28. W. PROSSER, *supra* note 16, § 47 at 292; Comment, *supra* note 3, at 979.

29. See, e.g., *Boykin v. Bennett*, 253 N.C. 725, 731, 118 S.E.2d 12, 17 (1961) ("The primary negligence involved is the race itself."). Alternatively, each participant may be viewed as vicariously liable for the actual injury-causing agent's conduct. W. PROSSER, *supra* note 16, § 46, at 291.

30. For an excellent discussion of the drug industry in general, and specific facts on which

to the DES context would represent too great an expansion in the doctrine.³¹ Some of the parallel acts among industry members were dictated by Food and Drug Administration (FDA) regulations.³² The court refused to imply a tacit understanding from the defendants' compliance with federal regulations controlling the manufacture of DES or from conformity to industry marketing practices. Moreover, there was no basis for finding that each defendant knew other defendants were acting tortiously toward the plaintiff, nor that they assisted or encouraged one another to inadequately test DES.³³

C. Enterprise Liability

The federal district court case of *Hall v. E.I. du Pont de Nemours & Co.*³⁴ is the basis of a third theory called enterprise liability. Thirteen children injured by exploding blasting caps in separate accidents brought suit against six blasting cap manufacturers and their trade association. The evidence showed that the defendants, constituting virtually the entire industry, had adhered to an industrywide safety standard, had delegated safety design and investigation to the association, and had cooperated on an industrywide basis in the design and manufacture of blasting caps.³⁵ These facts showed that the defendants contributed to the risks in a manner akin to concerted action.³⁶ Therefore, if the plaintiffs could establish that the caps were produced by any of the defendants, then the burden of proof to identify which defendant caused the injury would shift to the defendants.³⁷

some plaintiffs rely to demonstrate concerted action among DES producers, see Comment, *supra* note 3, at 975-78.

31. 26 Cal. 3d at 605-06, 607 P.2d at 933, 163 Cal. Rptr. at 141.

32. The FDA required drug companies to pool their clinical data in the public interest even though the drug companies were not enthusiastic about the idea. *Lyons v. Premo Pharmaceutical Labs., Inc.*, 170 N.J. Super 183, 190, 406 A.2d 185, 189 (1979). Additionally, the FDA instructed the companies to utilize the same United States Pharmacopoeia standard to insure that each company's DES was chemically identical. *Ferrigno v. Eli Lilly & Co.*, 175 N.J. Super 551, —, 420 A.2d 1305, 1311 (1980). These facts, coupled with the idea that concerted action is designed to deter antisocial conduct, led both *Lyons* and *Ferrigno* to reject the concert of action theory.

33. 26 Cal. 3d at 605-06, 607 P.2d at 933, 163 Cal. Rptr. at 141. *But cf.* *Bichler v. Eli Lilly & Co.*, — A.D.2d —, 436 N.Y.S.2d 625 (1981) (allowing a cause of action based on concerted action theory against one of five possible suppliers of DES); *Abel v. Eli Lilly & Co.*, 94 Mich. App. 59, 289 N.W.2d 20 (1979) (allowing a cause of action based on either concerted action or alternative liability).

34. 345 F. Supp. 353 (E.D.N.Y. 1972).

35. *Id.* at 375.

36. Comment, *supra* note 3, at 974.

37. The Fordham Comment, *supra* note 3, adapted *Hall's* enterprise liability theory for the DES context. The Comment suggested the following requirements for shifting the burden of proof as to causation: 1. There existed an insufficient, industrywide standard of safety as to the manufacturer of the product. 2. Inability to identify the defendant was not the plaintiff's fault, but rather due to defendant's conduct. 3. A generically similar defective product was manufactured by all the defendants. 4. Plaintiff's injury was caused by this defect. 5. Defendants owed a

The supreme court rejected the enterprise liability theory suggested by *Hall*. That case had specifically recognized that its holding should be limited to an industry comprising only a small number of units, all or most of which were joined in the suit.³⁸ In *Sindell*, the court was faced with approximately two hundred manufacturers of DES, of whom only eleven were joined, in contrast with the six blasting cap defendants who made up nearly the entire industry in *Hall*. Moreover, the defendants in *Hall* had delegated safety standards to their trade association whereas the DES manufacturers had not.³⁹ The *Sindell* court also observed that the federal government plays a pervasive role in formulating criteria for the testing and marketing of new drugs,⁴⁰ and that it would be unfair to impose liability on a manufacturer who did not supply the drug to plaintiff simply because it had followed FDA standards. But while this unfairness was sufficient to prevent the application of enterprise liability theory, the court noted that adherence to those FDA standards would not absolve a manufacturer of any liability to which it would otherwise be subject.⁴¹

duty to the class of which plaintiff was a member. 6. There is evidence that plaintiff's injury was caused by one of the defendants, such as, the joined defendants produced a high percentage of the defective product marketed. 7. All defendants were tortfeasors. Comment, *supra* note 3, at 995. 38. 345 F. Supp. at 378.

39. See note 32 *supra*. But see Comment, *supra* note 3, at 996: "This focus on the joint activities of industry members is analogous to the 'agreement' requirement in concert cases . . ." The *Sindell* court, however, rejected this expansion of the concert of action theory. See text accompanying notes 30-33 *supra*.

40. 26 Cal. 3d at 609-10, 607 P.2d at 935, 163 Cal. Rptr. at 143.

41. The court cited *Stevens v. Parke Davis & Co.*, 9 Cal. 3d 51, 507 P.2d 653, 107 Cal. Rptr. 45 (1973), for the proposition that adherence to FDA standards cannot absolve a manufacturer of liability. 26 Cal. 3d at 609, 607 P.2d at 935, 163 Cal. Rptr. at 143. *Stevens*, however, dealt solely with drug warning regulations, which the court found might be only a minimal requirement. In that context, the *Stevens* court felt that the manufacturer's duty to warn would not be satisfied by mere compliance with FDA regulations if it "knows of, or has reason to know of, greater dangers not included in the warning." 9 Cal. 3d at 65, 507 P.2d at 661, 107 Cal. Rptr. at 53. Noncompliance with FDA regulations imposes a presumption of negligence. *Toole v. Richardson Merrell*, 251 Cal. App. 2d 689, 60 Cal. Rptr. 398 (1st Dist. 1967) (defendant failed to furnish FDA with complete information on tests with regard to application for approval of a new drug). One might argue that compliance with FDA regulations should impose a presumption of nonnegligence. Such a position could be justified by the FDA's extensive involvement in the testing and marketing of DES. See, e.g., Proposed Judgment and Specification of Issues in *Stamper v. Eli Lilly & Co.* (L.A. Sup. Ct. 1979), No. C 163801, at 4 (FDA conducted its own interviews with independent researchers before giving DES the go-ahead); note 32 *supra*.

Several commentators have suggested that the government should bear at least partial responsibility due to FDA involvement. See, e.g., Pratt & Parson, *Diagnosis of a Legal Headache: Liability for Unforeseeable Defects in Drugs*, 53 ST. JOHN'S L. REV. 517, 538 (1979); Teff, *Products Liability in the Pharmaceutical Industry at Common Law*, 20 MCGILL L.J. 102, 121 (1974). At present, however, direct responsibility is not possible due to FDA immunity under the Federal Tort Claims Act, 28 U.S.C. § 2680(a) (1976). See *Gray v. United States*, 445 F. Supp. 337 (S.D. Tex. 1978) (plaintiff could not recover against FDA for approving marketing of DES since agency decisions were highly discretionary); Merrill, *Compensation for Prescription Drug Injuries*, 59 VA. L. REV. 1, 68-87 (1973). In light of these obstacles to government liability, one may argue that

III

ANALYSIS OF THE MARKET SHARE LIABILITY THEORY

A. *The Theory*

Having concluded that existing tort mechanisms were not suited to providing recovery in the DES context, the *Sindell* court fashioned a new theory to allow DES daughters a cause of action for their injuries. Stressing the gravity of the injury and the ability of the common law to adapt to the changing structure of society,⁴² the court pointed to several broad policy arguments favoring imposition of liability. Assuming for purposes of appeal that all DES defendants were negligent,⁴³ the court adopted the *Summers* rationale that as between culpable defendants and an innocent plaintiff, defendants should bear the loss caused by their own conduct.⁴⁴ Furthermore, defendant manufacturers were better able to guard against defects, to warn the public of side effects, and to insure against losses resulting from introducing defective products into the stream of commerce.⁴⁵ The court believed that this was partic-

drug companies should be given some protection from liability until legislation is enacted that provides partial participation in compensation by the government.

42. 26 Cal. 3d at 610, 607 P.2d at 936, 163 Cal. Rptr. at 144.

43. *Id.* at 594, 607 P.2d at 925, 163 Cal. Rptr. at 133.

44. *Id.* at 610-11, 607 P.2d at 936, 163 Cal. Rptr. at 144.

45. *Id.* Drug manufacturers' liability for DES injuries is potentially immense. For example, one class action brought against 27 drug companies sought \$41,250,000 for education and treatment of DES daughters. This did not include compensation for personal injuries. *Morrissy v. Eli Lilly & Co.*, 76 Ill. App. 3d 753, 394 N.E.2d 1369 (1979). In another action, in which plaintiff could identify Eli Lilly as the producer of the drug her mother used, \$5 million in personal injury damages were sought. *Katz v. Eli Lilly & Co.*, 84 F.R.D. 378 (1979). Although virtually none of the estimated hundreds of DES cases throughout the country, Comment, *supra* note 3, at 967, have reached final resolution, at least one case resulted in a \$500,000 verdict for plaintiff. *Bichler v. Eli Lilly & Co.*, — A.D.2d —, 436 N.Y.S.2d 625 (1981). See *Katz v. Eli Lilly & Co.*, 84 F.R.D. at 379.

At least some of this liability should be covered by insurance policies. However, there may be a significant issue as to which insurers are obligated to indemnify drug companies held liable for injuries caused by DES. There are two major theories for characterizing precisely when injuries occur: the "manifestation" theory and the "exposure" theory. See Mansfield, *Asbestos: The Cases and the Insurance Problem*, 15 FORUM 860, 875 (1980).

The manifestation theory holds that coverage attaches at the time the plaintiff's injuries become known or should have become known. This theory will place losses inordinately onto more recent policies because the DES problems have surfaced only recently while the original exposure occurred many years ago. *Id.* at 876. Since DES was sold until 1971 as a miscarriage preventive, there are probably some injuries which have not yet appeared. Insurance companies writing new policies may expressly exclude coverage for DES injuries for which they may be held liable under a manifestation theory. Moreover, premiums may be so high that some manufacturers will not be indemnified because they had not purchased adequate insurance.

The exposure theory essentially holds that policies in existence at the time of the plaintiff's exposure should define the extent of coverage. Using this approach for the DES problem would put liability on those insurers who wrote policies many years ago. Old policies will have much lower limits on liability than current policies, due to inflation. A second potential problem is that adequate records of old policies may not exist. Thus, while the exposure theory would probably

ularly true with respect to drugs since the consumer is virtually incapable of recognizing and protecting against any defects.⁴⁶ Additionally, although less clearly articulated, the court felt that the mere fortuity that a defect does not manifest itself for a prolonged period, thus making it difficult or impossible for plaintiffs to identify the supplier, was not a principled reason for shielding the defendant from liability.

Under the new theory each manufacturer is liable for a percentage of plaintiff's damages based on its market share of the DES production used for prevention of miscarriages. To take advantage of this new approach to causation, plaintiff must join the producers of a substantial share of the DES market.⁴⁷ If the defective drug caused plaintiff's injuries and if all defendants produced the drug from an identical formula, then plaintiff's suit will not be barred for failure to identify the particular manufacturer of DES in her case.⁴⁸ A manufacturer can escape liability, however, by demonstrating that it could not have made the product that caused plaintiff's injuries.⁴⁹

The court argued that market share liability would produce the same result as would occur if every DES plaintiff could identify a particular manufacturer. In a world of perfect identification, a producer of twenty percent of DES sold would be a sole defendant in approximately twenty percent of all cases. Under the market share approach, the same supplier would now be a defendant in all DES cases but

not have as great an impact on current insurance rates as the manifestation theory would, the exposure theory may not generate sufficient indemnification for the drug companies.

One court has adopted the manifestation theory in the DES context. *American Motorists Ins. Co. v. E.R. Squibb & Sons, Inc.*, 95 Misc. 2d 222, 406 N.Y.S.2d 658 (1978). The contract language involved was identical to that used in the Standard Comprehensive General Liability Policy promulgated in 1966 by the National Bureau of Casualty Underwriters and the Mutual Insurance Rating Bureau. The policy defined "occurrence" as "'An accident or injurious exposure to conditions which results, *during the policy period*, in bodily injury" *Id.* at 223, 406 N.Y.S.2d at 659 (emphasis added). A California court has also culled a manifestation interpretation from similar language in a different context. *Remmer v. Glens Falls Indem. Co.*, 140 Cal. App. 2d 84, 295 P.2d 19 (1st Dist. 1956) (landslide resulting from grading and filling on hillside two years earlier). *Cf. Insurance Co. of North America v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212 (6th Cir. 1980) (asbestos case in which court found exposure theory comports best with literal interpretation of policy language, intention of the parties, and also maximizes coverage). *See also Emons Indus., Inc. v. Liberty Mut. Fire Ins. Co.*, 481 F. Supp. 1022, 1025 (S.D.N.Y. 1979) (implying that regardless of which theory, manifestation or exposure, is adopted for fixing the policy or policies relevant for purposes of determining indemnification, all insurers that issued policies during the years the particular drug company produced DES will share the defense obligation).

46. 26 Cal. 3d at 610-11, 607 P.2d at 936, 163 Cal. Rptr. at 144.

47. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

48. The plaintiff in *Sindell* alleged causes of action based on negligence, strict liability, and several other theories. *See* text accompanying note 7 *supra*. In outlining the market share approach to liability, the court did not specify how many of these theories could be applied in a market share action.

49. 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

would be liable only for twenty percent of the damages.⁵⁰ The process of matching percentages serves as a fairness justification for the decision because liability is limited to what would hypothetically occur if identification were possible. Total costs, including all administrative costs, under *Sindell* could potentially be much greater than costs in identification suits, because each manufacturer will be a party to more suits under the market share approach than in a perfect identification world.⁵¹ The court, however, focused only on matching liabilities, rather than total costs, and concluded that although in practice the correlation would not be perfect because market shares were probably impossible to determine exactly,⁵² any variation was within the limits commonly tolerated by the law.⁵³

50. *Id.* at 612 n.28, 607 P.2d at 937 n.28, 163 Cal. Rptr. at 145 n.28.

51. Administrative costs under *Sindell* will be greater than they would be if identification were possible in each case. This is because manufacturers will be required to defend in more suits including suits in which their product was not the actual cause. The actual defense costs incurred by manufacturers will be affected by the number of suits brought as class actions, which should be less expensive to defend than a series of individual suits brought by each member of the class.

Class actions, under federal law, require for their viability that common questions of law or fact predominate over any questions affecting only individual members of the class. FED. R. CIV. P. 23(b)(3). Class actions are generally disfavored in mass tort litigation due to their propensity for degenerating into multiple lawsuits that are separately tried. *See* Advisory Committee's Note to FED. R. CIV. P. 23, 39 F.R.D. 69, 103 (1966); Comment, *Diethylstilbestrol: Extension of Federal Class Action Procedures to Generic Drug Litigation*, 14 UNIV. S.F. L. REV. 461, 470-71 & n.65 (1980). This criticism has been held to apply in the DES context as well. *See* cases cited in *Payton v. Abbot Labs.*, 83 F.R.D. 382, 391 (D. Mass. 1979). One case lists a number of individual questions of law or fact that would predominate over common questions in DES class action suits:

[W]hether the product was properly prescribed for the mother's then existing medical condition; the dosage of DES prescribed; the amount of DES actually ingested; the point during the pregnancy at which DES was started and ended; the hereditary and genetic history and background of the patient and incidences of cancer or the other disorders suspected; the patient's exposure to known carcinogenic agents in the environment; and the personal habits of the individual subjects.

Morrissy v. Eli Lilly & Co., 76 Ill. App. 3d 753, 761, 394 N.E.2d 1369, 1376 (1979) (denying class certification).

There is, however, growing support for allowing class actions in DES suits. *See* *Payton v. Abbott Labs.*, 83 F.R.D. 382 (D. Mass. 1979); Note, *Payton v. Abbott Laboratories: An Analysis of the Massachusetts DES Class Action Suit*, 6 AM. J.L. & MED. 243 (1980). To the extent that class actions reduce administrative costs under *Sindell*, they are preferable to individual suits. *See* Note, *Market Share Liability: An Answer to the DES Causation Problem*, 94 HARV. L. REV. 668, 675 (1981).

Another potential cure for the high costs of *Sindell* litigation is defense pooling. Drug companies could form an industry legal defense fund and contribute to it on the basis of their respective market shares. Each suit could then be defended with money from the fund regardless of what companies were named defendants. A major barrier to this approach is that each manufacturer can reduce its share of liability by proving a low market share or by showing it could not have produced the DES taken by plaintiff's mother. Thus the success of a mutual defense fund is contingent upon the manufacturers agreeing in advance on what their relative market shares are.

52. 26 Cal. 3d at 612-13, 607 P.2d at 937, 163 Cal. Rptr. at 145.

53. *Id.* at 613, 607 P.2d at 937, 163 Cal. Rptr. at 145. ("[W]here a correct division of liability cannot be made 'the trier of fact may make it the best it can.'") (quoting *Summers v. Tice*, 33 Cal. 2d 80, 88, 199 P.2d 1, 5 (1948)).

Although the *Sindell* approach has superficial appeal, it leaves many unresolved questions. The court ignored the extreme practical difficulties in actually defining market shares empirically by dismissing them as "largely matters of proof."⁵⁴ In making joinder of a substantial share of the market a condition of bringing suit, the court provided little guidance for determining when the requirement would be met. The extent of liability under the market share theory is equally unclear: the joined defendants may be liable for one hundred percent of plaintiff's damages or merely for the aggregate amount of their respective market shares.

B. *How is a Market Share Defined?*

In order to calculate market shares, the scope of the market itself must be defined in terms of the time period, the geographical area covered, and the range of identifiable product forms included. The only market factor mentioned by the court was time—if a manufacturer could prove that it did not sell DES during the period of time that plaintiff's mother purchased the drug, then that manufacturer could be dismissed from the suit.⁵⁵ The reason for considering this factor is that market share is used as a theoretical proxy for the likelihood that a defendant supplied the product which allegedly injured plaintiff.⁵⁶

A similar analysis can be made with respect to geographical area. Theoretically, each DES plaintiff should sue only those producers who supplied the drug to an area in which plaintiff's mother lived when plaintiff was in utero. Whether the appropriate area is local, state, regional, or national in scope depends on the structure of the DES market and the methods of distribution of DES.⁵⁷ For producers who supplied only limited areas, a decision as to relevant market size will determine who is a proper defendant in many cases. For example, a supplier only to Detroit would not be liable to any plaintiffs exposed outside of the Detroit area. However, such a producer would have large liability for suits brought by plaintiffs exposed to DES in Detroit.

Use of a nationwide market has several advantages over other

54. 26 Cal. 3d at 613, 607 P.2d at 937, 163 Cal. Rptr. at 145.

55. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

56. *Id.* at 611, 607 P.2d at 937, 163 Cal. Rptr. at 145.

57. The presence of regional differences in distribution patterns has already been documented in other DES litigation. For example, affidavits filed in *Frodesen v. Eli Lilly & Co., et al.*, U.S. District Court (W.D. Wash.), No. 76-1312, establish that Kremers-Urban Co., a Wisconsin firm, did not distribute the product west of the Rocky Mountains and that Blue Line Chemical Co., a St. Louis manufacturer, confined its distribution to the Central U.S. In *Wood v. Eli Lilly Co.*, U.S. District Court (E.D. Pa.), an affidavit filed by J.F. Hartz Co. states that it did not market DES outside the Detroit metropolitan area.

Defendant's Petition for Writ of Certiorari at 19 n.13, *Abbott Labs. v. Sindell*, 101 S. Ct. 286 (1980) (*cert. denied*).

market sizes. First, calculation of market shares will be less complicated for a national market than for a state or local market because geographical data is very scarce.⁵⁸ Second, national shares will be less likely to generate inconsistent case by case determinations of the relevant market size and the associated percentage breakdown of damages. Third, the DES market is dominated by a few very large producers who sold DES throughout the country—it has been suggested that five or six suppliers made ninety percent of the total DES production.⁵⁹ Thus, percentage market shares for the industry leaders may not vary greatly with respect to market size.

However, when small local producers are included, the national market approach may result in unfair distributions of damages. Suppose defendant *D* is a small local producer of DES who supplied sixty percent of the Detroit market and that the national giants furnished the remaining forty percent. If plaintiff uses national shares, the *D*'s maximum liability will be very small because the sixty percent share of the Detroit market will be a very small share of the national market. At the same time, the large companies will pay the bulk of the damages even though the odds are low that plaintiff's mother used their products in Detroit. The goal of having market share liability mimic what

58. Crucial to the market share approach is the assumption that market share data is available. However, specific and relevant local market share data is usually sketchy, if it exists at all. DES was produced for a variety of purposes, yet only one of these creates the injuries for which plaintiffs seek redress. See note 2 *supra*. DES apparently causes cancer in animals which are given feed containing the drug and may pose some risk to humans as a result because DES residue appears in the edible portions of those animals. See *Rhone-Poulenc, Inc. v. FDA*, 636 F.2d 750, 752 (D.C. Cir. 1974). As of yet, however, plaintiff's injuries apparently only arise from exposure in utero. See note 2 *supra*. While records of aggregate production of the drug may exist on a manufacturer-by-manufacturer basis, there is no way of distinguishing what portion of the drug produced was ultimately prescribed as a miscarriage preventive.

Reconstructing market share data, as well as making specific identification in individual cases, is complicated by the existence of a variety of inconsistent practices in the drug industry. Some drug companies, like Eli Lilly, sell only to wholesalers, *Petition for Rehearing of Eli Lilly & Co.* at 35, (*Sindell v. Abbott Labs.*, No. 51845 (Cal. Ct. of App. 2d Dist. 1978)), some, like Abbott Laboratories, sell directly to pharmacies, and others provide easily removable labels on their products so that retailers can relabel the package with the retailer's name for advertising purposes. See *Northern Cal. Pharmaceutical Ass'n v. United States*, 306 F.2d 379, 386 (9th Cir. 1962).

Since for any given manufacturer the proportion that DES produced as a miscarriage preventive bears to the total amount of DES produced by that manufacturer for all purposes will probably vary, information on total DES produced may be irrelevant to the apportioning of liability for harm caused by DES as a miscarriage preventive. The passage of time makes it difficult to reconstruct the necessary records, and the only alternative is to estimate market share. But without records no rational estimation can be made. Imposition of liability on manufacturers in that situation would be wholly arbitrary.

59. The *Sindell* plaintiffs asserted that Eli Lilly & Co. and five or six other companies produced ninety percent of the DES marketed. 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145. The same assertion is found in Comment, *supra* note 3, at 977 (citing B. SEAMAN, *WOMEN AND THE CRISIS IN SEX HORMONES* 33 (1977)).

would occur in the hypothetical world of perfect identification suggests that the Detroit case be resolved on a Detroit area market.

A California resident who was exposed to DES in Detroit, however, may not be able to obtain jurisdiction over the Detroit-only supplier.⁶⁰ By failing to join a sixty percent supplier in her California suit, plaintiff will not meet the requirement that she sue makers of a substantial share of the relevant market. Even if she could proceed, she would only get forty percent of her damages if each company is only liable for its relevant market share percentage of the award. If the joined defendants are forced to pay all of the damages, however, they will not be able to compel contribution by supplier *D* in Detroit unless Michigan also recognizes the market share theory of liability; having failed to get contribution from defendant *D*, the suppliers of forty percent of the Detroit market would pay much more than their share of liability.

There is nothing in *Sindell*, however, that requires courts to follow any specific definition of market size. Each court can define the scope of the market to fit the needs of a particular case. A court could start with a national market and put the burden on each defendant to show that it could not have made the DES which injured the plaintiff. A local supplier would be dismissed from cases if it could show that none of its product reached outlets in the area in which the plaintiff's mother lived.⁶¹ The hypothetical plaintiff from Detroit may recover much less than her entire damages under this approach if she cannot obtain jurisdiction over the local supplier, but this will occur only if the large companies can succeed in proving the domination by a local producer. This is highly unlikely because of the strong market position held by the leading drug companies.⁶²

60. State court jurisdiction over nonresident defendants is limited by the principle that the defendant must have had "certain minimum contacts with [the forum state] such that the maintenance of the suit does not offend 'traditional notions of fair play and substantial justice.'" *International Shoe Co. v. Washington*, 326 U.S. 310, 316 (1945) (quoting *Milliken v. Meyer*, 311 U.S. 457, 463 (1940)). One test of minimum contacts, known as the "stream of commerce theory," holds that the forum state may constitutionally assert jurisdiction over a nonresident defendant only if the defendant has injected a product into the stream of commerce while knowing the product will likely be used in the forum state. *See World-Wide Volkswagen Corp. v. Woodson*, 444 U.S. 286 (1980); Note, *World-Wide Volkswagen Corp. v. Woodson: A Limit to the Expansion of Long-Arm Jurisdiction*, 69 CALIF. L. REV. 611, 622 (1981). In the case of a California resident and a Detroit manufacturer, the latter would not be subject to California jurisdiction unless one of its products, although not necessarily DES, had foreseeably been used in California. The mere fact that plaintiff now lives in California is not sufficient for state court jurisdiction.

61. This approach was used in a DES case based on alternative liability. *Ferrigno v. Eli Lilly & Co.*, 175 N.J. Super. 551, —, 420 A.2d 1305, 1316 (1980).

62. It has been estimated that in twenty various drug product markets, the leading five firms accounted for 58 to 98 percent of the output. Comment, *supra* note 3, at 977 (citing SENATE SUBCOMM. ON MONOPOLY, SELECT COMM. ON SMALL BUSINESS, COMPETITIVE PROBLEMS IN THE DRUG INDUSTRY, 92d Cong., 2d Sess. 30 (Comm. Print 1972)).

Another potential market factor is the identifiable physical characteristics of the product. Plaintiff's mother may be able to remember taking a pill of a certain size, shape, or color. Where this is true the relevant submarket could be defined to include only those manufacturers who produced pills with that particular physical characteristic.⁶³ Use of such submarkets, however, will cause defendant manufacturers of pills with unique and memorable physical characteristics to be sued more often than other producers. They will be liable for one hundred percent of plaintiff's damages in all cases where the feature is remembered, and also for their market share in cases where no identifying features are recalled.⁶⁴ Thus, the goal of matching actual liability with the results expected in a world of perfect identification will not be met if suits based on special submarkets are permitted.

The same possibility of double exposure exists when some plaintiffs can identify the manufacturer of DES that supplied the drug to their mothers.⁶⁵ If identification results from one supplier having more detailed records or having used a more direct distribution system to pharmacies,⁶⁶ then that supplier will be a defendant more often, assuming that both market share and traditional theories of liability coexist. Only if identification suits are randomly distributed over all manufacturers will the distortion not occur. Because it is likely that identification will be predicated on market behavior unique to specific

63. This possibility was suggested by the DES Comment, *supra* note 3, at 995. Partial identification is also discussed in Note, *Market Share Liability: An Answer to the DES Causation Problem*, 94 HARV. L. REV. 668, 677 (1981).

64. If *Sindell* is extended to other drugs, future product differentiation will likely be discouraged. See Comment, *Industry-Wide Liability*, 13 SUFFOLK U.L. REV. 980, 1005 n.130 (1979). This is somewhat ironic since the lack of product differentiation is one of the factors that led to plaintiff's identification problem in the first place.

65. Identification can be made in some suits. By late 1980 Eli Lilly was a defendant in 148 DES suits throughout the country. In 41 of these suits it was named as the actual producer of the DES that plaintiff's mother ingested. Defendant's Petition for Writ of Certiorari at 22, E.R. Squibb & Sons, Inc. v. Sindell, 49 U.S.L.W. 3270 (Oct. 14, 1980) (*cert. denied*). In some cases the attending physician is able to identify the manufacturer from his records. *E.g.*, Thomas v. Ferndale Labs., Inc., 97 Mich. App. 718, 296 N.W.2d 160 (1980). In others, the pharmacy that sold the drug can point to a limited number of producers who supplied DES to the pharmacy, so that the scope of the possible identification is narrowed. *E.g.*, Bichler v. Eli Lilly & Co., 49 U.S.L.W. 2587, 2587 (March 17, 1981) (only four or five manufacturers had supplied the pharmacy) (allowing an action against Eli Lilly alone on the basis of concerted action). In some cases, due to peculiar fact situations, large numbers of plaintiffs can identify the specific producer. *E.g.*, Mink v. University of Chicago, 460 F. Supp. 713 (1978) (1000 plaintiffs can identify the University and Eli Lilly as supplying the drug because plaintiffs were part of a test group used by defendants in a study of DES effects on humans). And in some cases where courts have denied plaintiffs a cause of action unless they can meet the identification requirement, a substantial proportion have suddenly become capable of pointing to a specific producer. *E.g.*, Abel v. Eli Lilly & Co., 94 Mich. App. 59, —, 289 N.W.2d 20, 23 (1979) (after lower court granted defendants' motion for summary judgment 70 out of 182 plaintiffs alleged that a specific manufacturer supplied the drug).

66. Abbott, for example, sold directly to pharmacies. See note 58 *supra*.

producers, the existence of both market share suits and traditional suits poses the threat of double liability for some defendants.⁶⁷

There are two ways to avoid this double liability. The first is by adjusting damages among producers after all suits have reached final resolution—a complicated and unlikely event since no court would have authority to make post hoc readjustments of liability. The other solution is to use market share apportionment exclusively and therefore preclude DES suits tied to identification of product characteristics. Even plaintiffs who could identify a particular manufacturer as sole defendant would be forced to rely on the market share approach—otherwise a few easily identifiable producers will pay more than their share. Precluding suits based on traditional theories, however, creates several problems. Plaintiffs who fail to obtain jurisdiction over a substantial share of the relevant market may go remediless even though they can identify and obtain jurisdiction over the specific DES producer that supplied the drug. Any other reason for a court's dismissal of a market share based action will result in the same unfairness to all plaintiffs who could have proceeded on traditional theories of liability.

The *Sindell* decision does not hold, however, that market share liability is the exclusive remedy for DES plaintiffs. It allows the new approach where defendants “produced a drug from an identical formula and the manufacturer of the DES which caused plaintiff's injuries cannot be identified.”⁶⁸ Where identification is possible the plaintiff may proceed against the identified producer. The tone of the decision suggests that the court would be more willing to tolerate the possibility of imposing excess liability on some suppliers than to deny plaintiffs a cause of action. Furthermore, in breaking new ground in tort causes of action the court should be reluctant to preclude old approaches without more information about whether there will be any significant overlap of market share suits and identification suits.

C. *The Measure of Damages*

The court did not clearly specify how each defendant manufac-

67. Another problem arises from the fact that some plaintiffs that can identify the actual supplier will find that due to the passage of time that supplier has gone out of business or otherwise become judgment-proof. They will have an incentive, therefore, to perjure themselves and pursue a market share action. See Note, *Market Share Liability: An Answer to the DES Causation Problem*, 94 HARV. L. REV. 668, 676 (1981). These plaintiffs, if allowed to sue on a market share theory, will distort longrun matching between market share and pre-*Sindell* perfect identification liability for all manufacturers joined in their suits because they will receive compensation that they otherwise would not have. Of course, in practice it will be nearly impossible to discover who these plaintiffs are. The only remedy, therefore, if matching distortions are to be minimized, is to include in the calculation of total market size the market shares of judgment-proof manufacturers so that plaintiffs that perjure themselves are built into manufacturer's liability.

68. 26 Cal. 3d at 611, 607 P.2d at 936, 163 Cal. Rptr. at 144.

turer's damages would be measured. One possible approach would make each defendant jointly and severally liable for all of plaintiff's damages. Thus a plaintiff would be compensated for all her injuries regardless of how many manufacturers are joined as defendants because plaintiff could collect her entire judgment from any defendant.⁶⁹ A second approach would impose liability solely on the basis of each defendant's share of the DES market. This pro rata distribution of liability has two consequences: (1) a plaintiff will recover only that percentage of her total damages which is equal to the sum of the market shares of the defendants joined in her suit, and (2) a plaintiff will bear the risk of a defendant's insolvency because other defendants will not be forced to pay more than their respective market share percentages of damages. For example, if a plaintiff joined eighty percent of the market and one defendant with a ten percent market share was insolvent, plaintiff's recovery would be seventy percent of her total damages. In contrast, the joint and several approach would yield a recovery of one hundred percent of the damages, which could be collected from any of the remaining solvent defendants. Although there is language in the *Sindell* opinion supporting both approaches to liability, this Note concludes that pro rata liability is more consistent with the logic underlying the market share cause of action than is joint and several liability.

There are several indications in the opinion that the court would impose joint and several liability on DES suppliers. First, the *Sindell* pleadings allege that defendants are jointly and severally liable under each of the several theories offered in the complaint.⁷⁰ Since the majority does not unambiguously delete this feature from its new theory, one might infer that joint and several liability is required by the decision. Second, the dissent draws that inference; presumably the majority would have forthrightly dispelled this implication if it were not true.⁷¹

69. "When independent negligent actions of a number of tortfeasors are each a proximate cause of a single injury, each tortfeasor is thus personally liable for the damage sustained, and the injured person may sue one or all of the tortfeasors to obtain a recovery for his injuries." *American Motorcycle Ass'n v. Superior Court*, 20 Cal. 3d 578, 587, 578 P.2d 899, 904, 146 Cal. Rptr. 182, 187 (1978). Market shares represent the probability that each defendant might have been the actual supplier of DES to a given plaintiff's mother. Hence, each supplier is in a sense a contributor to each plaintiff's injury and might be viewed as part of the causation of plaintiff's harm. A joint tortfeasor forced to pay an entire claim for damages may recover from the other tortfeasors their share of the liability on a per capita basis. CAL. CIV. PROC. CODE § 875 (West 1980). In *American Motorcycle* the supreme court held that a concurrent tortfeasor may obtain partial indemnity from other concurrent tortfeasors on a comparative fault basis. 20 Cal. 3d at 598, 578 P.2d at 912, 146 Cal. Rptr. at 195.

70. 26 Cal. 3d at 595, 607 P.2d at 926, 163 Cal. Rptr. at 134.

71. "[T]hose defendants who are brought to trial . . . will bear effective joint responsibility for 100 percent of plaintiffs' injuries despite the fact that their 'substantial' aggregate market share may be considerably less." 26 Cal. 3d at 617, 607 P.2d at 940, 163 Cal. Rptr. at 148 (Richardson, J., dissenting).

Third, the *Sindell* decision is based on an expansion of *Summers v. Tice*, which imposed joint and several liability on the defendant hunters.⁷²

The court's reference to the availability of third party impleader also implies that joint and several liability was intended.⁷³ If each defendant can be held liable for plaintiff's total damages, or some variable portion thereof, then defendants will have a strong incentive to join other producers to share the liability.⁷⁴ On the other hand, if each defendant is liable only to the extent of its market share percentage of the damages, then it will have little incentive to join other producers since its dollar amount of liability will be the same regardless of the number of defendants.⁷⁵

Moreover, joint and several liability is consistent with the substantial share joinder requirement. The rule that plaintiff must sue producers of a substantial share of the DES market avoids the possibility that a lone defendant might shoulder an entire judgment for lack of success in obtaining contribution from other producers.⁷⁶ Both third party impleader and the joinder requirement serve to spread liability among as many defendants as are solvent and amenable to jurisdiction in California.

In describing the market share cause of action, however, the court several times said that damages were to be apportioned in relation to their market share.⁷⁷ In answer to the *Sindell* defendants' arguments contesting the fairness of the decision to impose liability, Justice Mosk stated:

Most of their arguments, . . . are based upon the assumption that one manufacturer would be held responsible for the products of another or for those of all other manufacturers if plaintiff ultimately prevails. But

72. See notes 17-19 and accompanying text *supra*.

73. 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

74. The incentive to join other producers is not unlimited. The added costs in attorneys' fees may be quite large and a rational defendant would not seek to join producers whose ultimate share of the damages will be smaller than the costs of including them in the judgment. Of course, it is not mandatory that defendants use third party impleader, and partial equitable indemnification would still be available against defendants that were not joined. See note 69 *supra*. But pursuing indemnification in separate indemnification suits would be both expensive and risky. Defendants would run the risk in California indemnification suits that the trier of fact would not find liability. Additionally, if California jurisdiction could not be obtained over some manufacturers, defendants would run the risk in out-of-state suits that California law on either partial equitable indemnification or market share liability might not be applied.

75. A defendant may still have an incentive to join other manufacturers in order to insure that no manufacturer obtains a competitive advantage by incurring less liability than others. Of course, in practice this would only happen if a fairly large manufacturer was omitted from a suit that promised to result in a large damage award.

76. See note 74 and accompanying text *supra*.

77. 26 Cal. 3d at 612-13, 607 P.2d at 937-38, 163 Cal. Rptr. at 145-46.

under the rule we adopt, each manufacturer's liability for an injury would be approximately equivalent to the damages caused by the DES it manufactured.⁷⁸

Since the measure of each defendant's liability would be its percentage market share of plaintiff's damages and since no defendant is to be responsible for another producer's product, the *Sindell* decision requires that market share function as an absolute limit to each defendant's liability. In contrast, joint and several liability could result in some defendants paying a greater percentage than their market share would dictate. Therefore, the most direct language in the decision concerning liability points to the pro rata market share approach as the appropriate measure of each defendant's share of the successful plaintiff's damage recovery.

Moreover, pro rata market share liability is more consistent with the goal of the *Sindell* decision to reproduce what would occur if identification were possible in all cases. The producer of twenty percent of the market held liable for twenty percent of the damages in all DES suits should pay the same amount as would be paid if twenty percent of plaintiffs could identify that same supplier and recover one hundred percent of their damages. To hold that same supplier jointly and severally liable for one hundred percent of the damages in one hundred percent of all DES suits could increase liability above the total amount that would be imposed in the hypothetical world of perfect identification. Although joint and several liability could generate a result similar to pro rata market share liability when all defendants are solvent and before the court, the court should have held that each supplier's maximum liability is fixed by its market share in order to ensure that no producers incur excess liability.

The rejection of joint and several liability requires that the court's remarks about third party crossclaims be re-evaluated. If each defendant is liable only for its market share percentage, then defendants will have little incentive to join other producers except in the rare case in which a defendant will be able to prove that another producer in fact supplied a plaintiff's mother with DES. Thus, third party complaints seeking indemnification are not essential for the *Sindell* theory. However, since the court very much wanted to ensure that as many DES suppliers as possible would be defendants, its mention of cross-complaints against additional producers probably reflected the goal of holding the entire industry liable for DES injuries. That goal is more directly served by the substantial share joinder requirement.

78. *Id.* at 613, 607 P.2d at 938, 163 Cal. Rptr. at 146.

D. *The Substantial Share Requirement*

Under *Sindell*, plaintiffs must sue manufacturers of a substantial share of the DES market in order to state a cause of action.⁷⁹ The court declined to give a numerical definition to "substantial,"⁸⁰ despite the dissent's criticism that lack of a precise definition left the issue open-ended.⁸¹ Perhaps the court simply wished to avoid making the new approach too inflexible by specifying a fixed percentage. A more critical issue is why the court imposed the requirement at all.

The court mentioned several reasons for the substantial joinder requirement. First, it noted that joining producers of a large aggregate market share would reduce the likelihood that "the offending producer would escape liability."⁸² This argument reflects the court's desire to keep the *Sindell* theory similar to older, well-established notions about tort liability. In *Summers v. Tice*, for example, the court knew that one of the two hunters fired the shot that hurt the plaintiff⁸³ and hence the actual offender would not escape liability.

The court's second reason for the joinder requirement is that it diminishes the "injustice of shifting the burden of proof to defendants."⁸⁴ Having the major producers in court will facilitate the determination of the dimensions of the relevant market. The greater availability of market information in court will presumably yield a more thorough and accurate picture of DES distribution. The composition of the relevant market may thus indicate which defendants were less likely to have caused the plaintiff's injuries. If a supplier can prove that it did not sell any DES within the relevant market, then it will not be held liable. Furthermore, if a supplier can prove that another defendant in fact made the DES which injured the plaintiff, it will again be relieved of any liability. Thus, the presence of many manufacturers

79. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

80. The DES Comment suggested a joinder requirement of 75 to 80% of the market. Comment, *supra* note 3, at 996. The *Sindell* court rejected these figures but gave no reason for doing so. 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145. Cases in other areas of California law do not supply much guidance on what percentage amount comprises a substantial share. In substantial performance of contract cases, courts typically require a very high percentage of completion. *See, e.g.*, *Lowy v. United Pac. Ins. Co.*, 67 Cal. 2d 87, 429 P.2d 577, 60 Cal. Rptr. 225 (1967) (substantial performance found where contract 98% completed); 1 B. WITKIN, SUMMARY OF CAL. LAW, Contracts § 588, at 503 (1973) (minor deviation from contract terms is substantial performance). In other areas, however, a much lower percentage is substantial. *See, e.g.*, *People v. Ames*, 61 Cal. App. 2d 522, 143 P.2d 92 (4th Dist. 1943) (substantial means valuable, as opposed to nominal in some contexts; where defendant falsely testified she had applied to the purchase price of a car a substantial amount of borrowed funds, the court found that 20% is substantial).

81. 26 Cal. 3d at 615, 607 P.2d at 939, 163 Cal. Rptr. at 147 (Richardson, J., dissenting).

82. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

83. *See* text accompanying notes 17-20 *supra*.

84. 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.

in court will give each one a better opportunity to show that it did not supply the drug to the plaintiff's mother.

Third, the court argued that the presence of a substantial share of the market "provides a ready means to apportion damages among the defendants."⁸⁵ Although the court again did not elaborate on its underlying reasoning on this point, the argument suggests that having the main suppliers together will simplify the calculation of the market shares that form the basis for each defendant's liability and will avoid inconsistent determinations which could result from separate actions. Furthermore, dividing the damages in one action will involve lower costs for the parties and the courts than would occur if each producer were sued in a separate case.

The substantial joinder requirement serves other functions which the court did not discuss. It will prevent plaintiffs from forcing settlements against companies with high name recognition, yet small DES production.⁸⁶ Because such a company produces very little DES, its market share and hence its ultimate liability would be small, but its litigation expenses as the sole defendant would be substantial. Plaintiffs might be able to force settlements on these defendants if there were no joinder requirement. The potential for forced settlements is much less when there are many defendants because small market share producers can expect the major suppliers to handle much of the defense.

The requirement also serves as a substitute for the element of causation which the plaintiff must show in traditional tort actions.⁸⁷ The court has excused DES plaintiffs from identifying the particular supplier whose drug caused her injury, and in effect has apportioned responsibility for all DES injuries to all suppliers. Thus the joinder rule ensures that most of the causal elements are accounted for in court.

Analogizing substantial share joinder to causation raises the issue of how much the plaintiff must prove to satisfy her burden of proof. In order to show that she has joined a substantial share of the market, plaintiff will have to produce some evidence concerning DES production at the time her mother took the drug. If the showing of substantial market share requires plaintiffs to identify approximate market shares for each defendant, *Sindell* actions may be extremely difficult to main-

85. *Id.*

86. Rexall is one such company. Affidavit of A. Edward Grashof in Support of Rexall's Motion for Dismissal with Prejudice of *Stamper v. Eli Lilly Co.*, No. C 163 801 (L.A. Sup. Ct. 1979).

87. W. PROSSER, *supra* note 16, § 41, at 236: "An essential element of the plaintiff's cause of action for negligence, or for that matter for any other tort, is that there be some reasonable connection between the act or omission of the defendant and the damage which the plaintiff has suffered."

tain. At this time the data is extremely scarce⁸⁸ and defendants are likely to be the only ones possessing production and sales figures. Plaintiffs therefore will have to conduct extensive and costly discovery, and if market share data is wholly nonexistent, plaintiffs' causes of action would be precluded.

The court did not explore how accurate the market share apportionment must be for plaintiffs to recover under this theory. It did say that "the difficulty of apportioning damages among the defendant producers in exact relation to their market share does not seriously militate against the rule we adopt."⁸⁹ Further, it noted that where the data is scarce the jury is to divide the liability "the best it can."⁹⁰ Although these statements indicate that the court will not insist on precise accuracy in determining market shares, the plaintiff must still provide some reasonably good figures on DES production and its ultimate uses in order for the trier of fact to make an estimate. Furthermore, because the logic of the decision depends on market share liability reproducing what would occur in a world of perfect identification, a minimum standard of accuracy is necessary for this goal to be achieved. Otherwise, liability will be arbitrarily divided among defendants and there will be no correlation with what would happen if producers could be identified.

IV

POTENTIAL SOCIAL COSTS OF THE DECISION

The thrust of the analysis in Part III has focused on the court's failure to define the central elements of market share, substantial share, and the nature of liability and has noted the dependence of the approach on the existence of adequate market data and of the availability of sufficient insurance coverage. This Note has suggested solutions to some of these issues with respect to the DES problem. If the decision is subsequently applied to defective products in other industries⁹¹ in which, unlike the drug industry, market control is not centralized in a few large firms subject to nationwide jurisdiction, precise definition of market share and substantial share will become crucial to the decision's fairness. Whether market share liability should be applied in other contexts, therefore, cannot be answered solely on the basis of whether the theory operates fairly in the DES context. Before applying *Sindell* to other industries, this Note cautions that the market structure of those

88. See note 58 *supra*.

89. 26 Cal. 3d at 613, 607 P.2d at 937, 163 Cal. Rptr. at 145.

90. *Id.*

91. See Comment, *supra* note 64, at 1002; Sansweet, *Product-Liability Law Is in Flux as Attorneys Test a Radical Doctrine*, Wall St. J. Dec. 30, 1980 at 1, col. 6.

industries must be evaluated to determine if special obstacles to fairness might exist.

Sindell's potentially enormous reach may both inspire positive developments in the product safety area and pose significant social policy problems that the court might not have considered carefully. On the one hand, the decision promotes several broad policies underlying all of tort law. It will result in loss spreading by imposing liability on companies that can insure against such losses and that can pass along losses to those who use the product by increasing prices.⁹² In addition, the decision will encourage investment by manufacturers in product safety.⁹³ Finally, the decision marks a commendable attempt at prohibiting fortuitous circumstances from shielding a negligent defendant from liability which in fairness it should bear.

On the other hand, however, *Sindell's* impact on the drug industry and specifically on consumers of pharmaceutical products may not be consistent with other competing social policies. *Sindell* may have two types of impact on the drug industry and consumers. First, and most importantly, imposing liability for DES injuries nearly a decade after the FDA banned use of DES as a miscarriage preventive⁹⁴ will require drug companies to spread their losses over other product lines. This means that drug prices in general will rise,⁹⁵ including those for safe, beneficial drugs. Moreover, since part of this increase will result from increased insurance costs, and since insurance rates are set on a nation-

92. 26 Cal. 3d at 611, 607 P.2d at 936, 163 Cal. Rptr. at 144. The extent to which existing insurance policies will cover DES liability is unclear. See note 45 *supra*. Furthermore, in response to *Sindell*, insurance companies might even refuse to issue general indemnification policies. Brief of the American Insurance Association as *Amicus Curiae* in Support of Petitions for Writ of Certiorari at 2-3, *Abbott Labs. v. Sindell*, 49 U.S.L.W. 3270 (Oct. 14, 1980) (*cert. denied*). See Schwartz, *Products Liability and No-Fault Insurance: Can One Live Without the Other?*, 12 FORUM 130 (1977). Of course, since the drug industry has typically enjoyed greater immunity from product liability due to the policies expressed in RESTATEMENT (SECOND) OF TORTS § 402A, Comment k (1965), this "insurance crisis" may not be as immediately felt by drug companies as it will be in other industries. *Sindell*, however, is potentially relevant to a number of other latent defect cases in various industries. For a list of a number of possibilities, see Comment, *supra* note 91, at 1002 (suggesting, among others, air and water pollution, cigarette cancer, dyes and preservatives). See also G. PETERS, *PRODUCT LIABILITY AND SAFETY* 136 (1971). One study of 377 companies showed that the average number of claims per year rose from 4.3 per firm in 1971 to 11.4 per firm in the first nine months of 1976. See Pauly, *Sue Syndrome*, NEWSWEEK, Apr. 4, 1977, at 61, cited in Comment, *supra* note 64, at 1016 n.193. This has led to dramatic price increases in the cost of liability insurance, sometimes to the extent of 300% per year. *Id.*

93. For a discussion of encouraging investment in product safety, see G. CALABRESI, *THE COSTS OF ACCIDENTS* 26-31 (1970). The range of safety problems in the general area of drugs and chemicals is shown in M. DIXON, *DRUG PRODUCT LIABILITY* §§ 11.01-11.64 (1980).

94. Sale of DES as a miscarriage preventive was banned in 1971. Comment, *supra* note 3, at 966 n.11.

95. Of course, it is difficult to speculate as to the size of such increases. If, however, liability is great, see note 75 *supra*, and if significant portions of those liabilities are not indemnified through insurance, *id.*, pharmaceutical prices could increase significantly.

wide basis,⁹⁶ drug prices will be adversely affected throughout the country. *Sindell* therefore will conflict with the social policy of minimizing increases in health care costs,⁹⁷ especially if market share liability results in higher administrative costs than would traditional forms of recovery in a world of perfect identification.⁹⁸

Not only might drug prices in general rise, but actual consumption may be curtailed as consumers respond to price increases by purchasing less. This price response of consumers is one of the justifications for imposing liability on producers because use of dangerous products is discouraged.⁹⁹ Price increases, however, cannot be confined to DES because it is no longer used as a miscarriage preventive. To the extent manufacturers spread DES liability costs to other drugs, consumption in general may be discouraged. *Sindell* therefore may have a socially undesirable effect on consumption of safe, beneficial pharmaceuticals which by definition are socially useful.¹⁰⁰

The second adverse impact *Sindell* may have is to deter the rapid development and marketing of new drugs. The decision will encourage longer periods of testing than was customary when DES was first marketed because manufacturers will have more economic incentives to eliminate unsafe drugs. Longer testing, however, is not beneficial in and of itself. The cost from delay in marketing due to extra testing, in terms of continued suffering and lives lost, must be weighed against the likelihood that adverse side effects of the drug will be discovered through longer testing.¹⁰¹ A negligence standard theoretically forces

96. Premium levels are set on a nationwide basis, so that when risks for some producers increase, rates for all increase. Buchanan, *Product Liability Defenses Under the Model Uniform Product Liability Act and State Legislation*, 15 FORUM 813, 813 (1980).

97. See *McCreery v. Eli Lilly & Co.*, 87 Cal. App. 3d 77, 86-87, 150 Cal. Rptr. 730, 736 (3d Dist. 1978) (importance of rapid development of new medicines); RESTATEMENT (SECOND) OF TORTS § 402A Comments i, j & k (1965) (restricting strict liability for unavoidably unsafe products).

98. This is because even if social policy favored having low drug prices it might still be reasonable to hold manufacturers liable for their negligence in order to encourage product safety. This trade-off becomes less reasonable when particular forms of recovery entail large administrative costs. At that point, some sort of social insurance or superfund approach may be more consistent with these competing social policies. See Comment, *supra* note 64, at 1015-22.

99. For a discussion of "socially optimal accident rates," see G. CALABRESI, *THE COSTS OF ACCIDENTS* 88-94 (1970). Optimal accident rates are only produced, however, when accident related costs of a product are internalized into the price of the injury-causing product. See J. O'CONNELL, *ENDING INSULT TO INJURY* 76-80 (1975); Henderson, *Extending the Boundaries of Strict Products Liability: Implications of the Theory of the Second Restatement*, 128 U. PENN. L. REV. 1036, 1042 (1980).

100. Consumption of less beneficial and more dangerous drugs could perhaps be more efficiently deterred through physicians, pharmacies, and their trade associations. See generally Comment, *supra* note 3.

101. See S. PELTZMAN, *REGULATION OF PHARMACEUTICAL INNOVATION: THE 1962 AMENDMENTS* 1-3 (1974) (estimates that reduced availability of new drugs caused by more extensive testing requirements has cost the American public over \$300 million and thousands of lives).

manufacturers to strike the proper balance.¹⁰² *Sindell*, therefore, to the extent it simply avoids the identification problem and imposes liability for negligent behavior should encourage striking the proper balance. The problem that *Sindell* poses, however, is that manufacturers may tend to overvalue liability risks and engage in excessive testing if market share liability results in greater liability than what liability would be if perfect identification were possible. As the *Sindell* court itself recognized, long run matching will not be perfect.¹⁰³ How imperfect it will be depends upon a number of factors, including whether joint and several liability is imposed and how the industry market is actually found to be structured within an area. Under the best possible scenario long run matching may be quite good. However, one may also envision scenarios in which lower court interpretations of the ambiguities left by *Sindell*, in combination with real world facts different from those assumed by the *Sindell* court, create major distortions in matching.

This problem of overtesting may be avoided by the incentive *Sindell* supplies for manufacturers to keep better records and thus avoid market share liability altogether. Whether this actually happens, however, will depend on whether it costs more to test than it does to keep records. Large producers may have to keep extremely detailed records if they are to escape market share liability. This is because small producers may have an incentive to not keep any records or differentiate their product in any way from those of large producers, in the hope that in market share actions they would not even be sued since their small market share would not make joining them worthwhile. Keeping detailed records, however, may be both complicated and exceedingly costly given the present structure of the drug distribution system with its thousands of physicians, pharmacies, and middlemen.¹⁰⁴ This could be especially true with respect to nonprescription drugs since there is presently no control over who purchases them. However, since nonprescription drugs tend to have less medical value, marketing delay due to prolonged testing may not be particularly socially detrimental. With respect to prescription drugs, though, *Sindell* may result in an undesirable deterrent to marketing and development.

CONCLUSION

The *Sindell* case constitutes a major development in tort law. To the extent its market share approach to liability results in manufacturers bearing the cost of their negligent conduct, the decision should be

102. See Henderson, *Coping with the Time Dimension in Products Liability*, 69 CALIF. L. REV. 919, 926-27 (1981).

103. 26 Cal. 3d at 612-13, 607 P.2d at 937, 163 Cal. Rptr. at 145.

104. See generally Comment, *supra* note 3, at 975-78.

applauded. At present, however, it is difficult to determine what the outcome will be. Unless market shares are properly defined and reliable market share data found to exist, the decision could result in wholly arbitrary assignment of liability. Moreover, there appears to be a basic conflict, which is not likely to be resolved, between liability based on market share, and traditional identification liability. Furthermore, unless damages are measured on the basis of pro rata liability rather than joint and several, serious distortions in long run matching between market share liability and what liability would be in a world of perfect identification may result. Since the existence of long run matching goes to the very heart of the decision's fairness, proper resolution of the measure of damages issue is extremely important.

Depending on how these questions are resolved, *Sindell* may prove to have serious negative effects both on consumption of safe, beneficial pharmaceuticals and on the lag time between such medications' development and ultimate marketing. The *Sindell* decision, therefore, while potentially a vital and commendable step forward in the protection of consumer interests, could conceivably prove under a "worst case" scenario to be a nightmare for both consumers and the pharmaceutical industry. At the very least, the California Supreme Court should hasten to explicate the difficult issues surrounding practical application of market share liability.

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