THE PECULIAR CHALLENGES POSED BY LATENT DISEASES RESULTING FROM MASS PRODUCTS

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ABSTRACT

Legal actions against manufacturers of products that cause latent diseases, such as asbestos products, cigarettes, lead pigment, and Agent Orange, are the signature torts of our time. Yet within this rather important subset of tort liability, it is unlikely that the imposition of liability actually results in loss prevention. Three factors, present in varying combinations in the context of latent diseases resulting from product exposure, frustrate the deterrent impact of liability. First, an extended period of time—sometimes decades—passes between the time of the manufacturer's distribution of the product and the imposition of liability. Second, the accident compensation system frequently is unable to attribute liability for damages to the activity that caused the harm. Third, activities of parties other than the product manufacturer generally are necessary contributing causes to the victim's latent disease. It is not axiomatic that the manufacturer is the "cheapest cost avoider"; indeed, the determination of the cheapest cost avoider may depend upon cultural attitudes, not value-neutral economic analysis. The questionable ability of the tort system to fulfill its loss avoidance objective suggests that compensation for latent diseases should be handled by an administrative no-fault compensation system and that legislative or administrative regulation must play a larger role in preventing such harms.

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I. INTRODUCTION

The Costs of Accidents[1] was written against a landscape of controversy over automobile accident no-fault plans[2] and the then-recent emergence of strict products liability.[3] A generation later, the signature torts of our time, claims against manufacturers of asbestos, cigarettes, lead pigment and other mass products that cause latent disease, offer new challenges and complexities for any system of allocating the costs of accidents, including either the traditional tort system or others premised upon the analysis presented in *The Costs of Accidents.*

Within this important subset of tort liability, three factors—present in varying combinations—complicate the ability of any accident compensation system to deter harmful conduct; that is, to use Professor (now Judge) Guido Calabresi's terminology, to reduce primary accident costs. First, an extended period of time—sometimes decades—often has passed between the time of the manufacturer's distribution of a product and the victim's manifestation of disease.[4] In the case of some disease-producing products, most notably asbestos and lead pig-

1. GUIDO CALABRESI, THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS (1970) [hereinafter THE COSTS OF ACCIDENTS].

2. The first chapter of *The Costs of Accidents,* for example, largely describes then-current proposals addressing liability for the costs of automobile accidents. *Id.* at 3-13.

3. *Id.* at 13-14. The adoption of section 402A of the *Restatement (Second) of Torts* in 1964, providing for strict liability in the case of claims against product sellers, was viewed at the time as "the most radical and spectacular development" in twentieth-century American tort law. Robert W. Miller, *Significant New Concepts of Tort Liability—Strict Liability,* 17 SYRACUSE L. REV. 25, 29 (1966) (quoting *American Law Institute Meeting,* 32 U.S.L.W. 2623, 2627 (1964)).

4. *See infra* notes 135-138 and accompanying text.

ment, the defendant may have stopped producing the disease-causing product long before the litigation.[5] These realities raise questions as to the implications for loss avoidance or deterrence when liability is not imposed until decades later.[6] The imposition of liability years after the manufacture and distribution of a disease-producing product has ceased cannot prevent harm caused by that specific product. While the fact that asbestos and similar other products are no longer being manufactured may be the exception and not the rule among latent diseases caused by mass products, for the tort system to ignore these examples is analogous to ignoring the elephant in the room.[7] Even if the product causing a latent disease continues to be manufactured, the delay between the time of the distribution of the product and the subsequent liability decreases any deterrent impact such liability may have in encouraging the specific manufacturer or another manufacturer to avoid marketing disease-producing products in the future.

The second complexity posed by latent diseases resulting from exposure to mass products is the frequent inability of the accident compensation system to assess liability to the actor and to the activity that has caused the harm.[8] At the most basic level, the issue is the frequent inability of the victim suffering from childhood lead poisoning, DES-induced cancer, tobacco-related disease, or some other latent disease, to identify which manufacturer produced the product that caused her disease and therefore should be held liable.[9] In *The Costs of Accidents,* Calabresi dismisses the notion that a requirement of liability should be that an individual injurer must compensate his individual victim,[10] thus foreshadowing the eventual adoption by some courts of market share liability and other means of imposing collective responsibility on manufacturers.[11] Yet even if we dispense with a requirement that a victim seeking compensation identify the specific manufacturer(s) of the product causing her disease, it is still necessary

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5. It was not the case, of course, at the time of the filing of the first successful litigation against asbestos manufacturers in 1969, that asbestos products were no longer being sold and distributed. *See* Borel v. Fibreboard Paper Prods. Corp., 493 F.2d 1076, 1086 (5th Cir. 1973). Before *Borel,* however, the Occupational Safety and Health Administration (OSHA) had promulgated a series of increasingly restrictive regulations that effectively prevented the use of asbestos products in most commercial settings. *See infra* note 252 and accompanying text.

6. *See infra* Part IV.

7. *See infra* notes 39-44 (discussing the scope of asbestos liability).

8. *See infra* Part V.

9. *See infra* Part V.A.1.

10. THE COSTS OF ACCIDENTS, *supra* note 1, at 22-23, 302.

11. *See infra* Part V.A.2.

to determine how much each manufacturer of a product must contribute to the compensation pool. The passage of decades between the distribution of the product and the victims' manifestation of the disease generally makes any accurate or meaningful assessments of the manufacturers' relative shares of causal contribution difficult or impossible. Calabresi himself acknowledges that while collective liability would be more just, it "may not be feasible."[12]

More important than any difficulty or impossibility in assessing the shares of liability of the actors who causally contributed to the latent disease is the inability to assess liability for the costs of latent diseases to the activity that caused the disease.[13] After the passage of years since the time of distribution of the disease-causing product, the manufacturing firms remaining when victims seek compensation—many firms that manufactured the product at the time that the victims were exposed to it will no longer be in business or will be insolvent—in all probability are engaged in the manufacture of a variety of other products, probably none of which causes disease. Hence, the costs of latent diseases often are paid by activities other than those generating the injuries—hardly a desirable result from the perspective of law and economics or welfare economics.

The third—and closely related—complexity is that the activities of parties other than product manufacturers often are necessary contributing causes to the victims' latent diseases.[14] The manufacture of cigarettes is a cause of the smoker's lung cancer, but so is the smoker's unwillingness to quit smoking after she becomes aware that smoking is dangerous.[15] The manufacture of lead-based paint is an actual cause of a child's developing lead poisoning eighty years later, but so is the landlord's failure to prevent painted surfaces from deteriorating.[16] In traditional tort terms, such issues were analyzed under the rubrics of contributory and comparative negligence,[17] assumption of risk,[18] and

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12. THE COSTS OF ACCIDENTS, *supra* note 1, at 302.

13. *See infra* Part V.B.

14. *See infra* Part VI.

15. *See, e.g.*, Horton v. Am. Tobacco Co., 667 So. 2d 1289, 1292-93 (Miss. 1995) (holding that a smoker with lung cancer could not recover damages on a strict products liability claim where he continued to smoke despite his knowledge of the risks of smoking).

16. *See infra* notes 74-76 and accompanying text; Part VI.C.

17. *E.g.*, *Horton*, 667 So. 2d at 1292-93 (holding that a plaintiff's comparative fault may defeat recovery on a strict products liability claim).

18. *E.g.*, Barnes v. Am. Tobacco Co., 161 F.3d 127, 148 (3rd Cir. 1998) (noting that a plaintiff's assumption of a known risk can be used to disprove causation in strict products liability claims).

superseding cause.[19] Calabresi addresses similar issues as a part of his inquiry into which party is the cheapest cost avoider.[20] The often-reflexive conclusion of the courts is that manufacturers are the cheapest cost avoiders.[21] In reality, the question of "Who is the cheapest cost avoider?" may be either so complicated that it is impossible as a practical matter to determine, or may be dependent upon cultural, ideological, or political beliefs, not economic analysis.[22]

The collective impact of these three factors, present in varying combinations in the contexts of specific latent diseases caused by exposure to mass products, suggests the possible futility of achieving the goal[23] of primary accident cost avoidance, not only in the tort system's handling of latent diseases resulting from exposure to mass products, but with any accident compensation system's treatment of such injuries.

Part VIII considers the implications of this conclusion for the handling of compensation claims of victims of latent diseases. Implicit throughout *The Costs of Accidents*, particularly in Calabresi's criticism of government-funded or government-subsidized compensation systems, is his apparent view that primary accident cost avoidance is first among equals when it comes to the goals of an accident compensation system. Calabresi is careful not to recommend any particular accident compensation system to the exclusion of others,[24] but he does criticize two features, either or both of which are frequently present in alternative no-fault compensation systems. First, he argues that restricting victims' recovery to economic losses would undermine the goal of primary accident cost avoidance by alleviating the need for the injurer to consider the full consequences of his actions.[25] Second, for essentially

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19. *E.g.*, Foister v. Purdue Pharma, L.P., 295 F. Supp. 2d 693, 706 (E.D. Ky. 2003) (finding that the learned intermediary doctrine severs the liability of a pharmaceutical company where the prescribing physician had been adequately warned of risks).

20. THE COSTS OF ACCIDENTS, *supra* note 1, at 135-73.

21. *See infra* notes 244-247 and accompanying text.

22. For discussion of these points, see *infra* Part VI, particularly Part VI.E.

23. Calabresi's nomenclature identifies only two goals for an accident compensation system: "First, it must be just or fair; second, it must reduce the costs of accidents." THE COSTS OF ACCIDENTS, *supra* note 1, at 24. He then identifies three "subgoals" including primary accident cost avoidance, secondary accident cost avoidance, and tertiary accident cost avoidance. *Id.* at 26-31; *see infra* Part III.A-B. For my purposes, no confusion is created by referring to these three "subgoals" simply as "goals."

24. THE COSTS OF ACCIDENTS, *supra* note 1, at 14-15.

25. Calabresi argues, "[i]f a fully appropriate general deterrence market judgment for or against accidents is to be made, [damages for pain and suffering and other elements for which there is no ready market value] must be valued in some way." *Id.* at 206. He notes that excluding some types of non-economic damages, those described as "fanciful or sentimental," poses "interesting implications for general deterrence which are paralleled to a

the same reasons, Calabresi opposes full or partial government funding of an accident compensation system.[26]

If, however, we give up on the goal of primary accident cost avoidance because any attempt to achieve this goal in the context of latent diseases resulting from exposure to mass products is problematic, Calabresi's other goals for the accident compensation system—secondary accident cost avoidance (loss distribution)[27] and tertiary accident cost avoidance (reduction of administrative costs)[28]—arguably suggest that compensation for latent diseases resulting from exposure to mass products should be handled by an administrative no-fault compensation system. In short, a careful analysis of Calabresi's principal goals, when applied to the mass products/latent disease context, appears to conflict with his more specific objections to government-subsidized compensation programs that limit recovery to economic losses.

This Article does not purport to analyze in detail the admittedly difficult problems inherent in the design of an administrative compensation system for latent-disease injuries. Part VIII does, however, briefly consider some of the major issues in designing such a program, including the definition of the compensable event[29] and the funding for an administrative compensation program.[30] These issues are both critical to the design of any alternative compensation system and difficult to resolve. I argue, however, that the difficulties in the details of administration should not obscure the conclusion that such a compensation system would be preferable to the current tort system's handling of latent-disease injuries, which fails to accomplish Calabresi's

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greater or lesser degree whenever accident costs are misvalued." *Id.* at 216. Specifically, the likely accident victim may be deterred from engaging in conduct possibly resulting in injury, because the victim will seek to avoid the injury even if it is to be compensated, at the same time that the injurer is deterred by the prospect of liability. *Id.* at 217-19. The result of this combination, according to Calabresi, may be too much primary cost avoidance and, as a result, too little injury-producing, but otherwise presumably desirable, activity. *Id.* Calabresi finds, however, "[t]his question need not detain us unduly, . . . as there are several objections, both theoretical and practical, to the basic assumptions that give rise to the problem." *Id.* at 219. Ultimately, he concludes that "as far as general deterrence is concerned, the problem of nonmonetizable costs, though substantial, is not unmanageable." *Id.* at 224. The more common types of such costs can be valued in the same manner as other damages are valued, and "some highly individual and hard-to-value items of costs" can remain with the victims. *Id.* at 224-25.

26. *Id.* at 6-7, 10-13; *see infra* notes 130-133 and accompanying text.

27. THE COSTS OF ACCIDENTS, *supra* note 1, at 39-67; *see infra* notes 119-123 and accompanying text.

28. THE COSTS OF ACCIDENTS, *supra* note 1, at 28; *see infra* notes 124-125 and accompanying text.

29. *See infra* Part VIII.B.

30. *See infra* Part VIII.C.

three goals of reducing accident costs through primary accident cost avoidance, distributing losses, and controlling administrative costs.

To set the stage for this analysis of the handling of mass product tort latent diseases when considered through the lens of Calabresi's goals for an accident compensation system, I begin in Part II with a description of how latent diseases resulting from mass products torts have transformed the reality of tort law. Before turning my attention to the argument that primary accident cost avoidance is likely to be futile when it comes to such latent diseases, Part III briefly summarizes Calabresi's description of the goals he suggests for an accident compensation system.

II. THE CHANGING LANDSCAPE OF TORTIOUS HARM

The landscape of tort liability has been fundamentally altered since the publication of *The Costs of Accidents* in 1970. While more mundane claims, such as those resulting from automobile accidents, continue to be more common,[31] the past generation has seen an explosion of legal claims alleging that the victims suffer from latent diseases arising from exposure to mass products. The earliest successful mass product/latent disease cases were filed in the early 1960s,[32] but it was the decision of the United States Court of Appeals for the Fifth Circuit against the manufacturers of asbestos insulation products in *Borel v. Fibreboard Paper Products Corp.* that began the onslaught.[33]

The factual background of asbestos litigation is well known. Asbestos, a fibrous mineral, was used extensively in insulation and other products until the 1970s because of its heat resistance, flexibility, and tensile strength.[34] Millions of people were exposed to asbestos dust generated, for example, by insulation materials.[35] The inhalation of asbestos fibers causes diseases ranging from asbestosis, a lung disease resulting in the destruction of air sacs in the lung, to mesothelioma and other lung cancers.[36] Medical research had begun to reveal the

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31. *See* JAMES S. KAKALIK & NICHOLAS M. PACE, COSTS AND COMPENSATION PAID IN TORT LITIGATION 14 tbl.2 (RAND Inst. for Civil Justice, Doc. No. R-3391-1CJ, 1986).

32. *See* Paul D. Rheingold, *The MER/29 Story—An Instance of Successful Mass Disaster Litigation*, 56 CAL. L. REV. 116, 132-33 (1968) (discussing tort claims filed in the early 1960s against Richardson-Merrell, Inc., manufacturer of a cholesterol-lowering drug, MER/29, that caused cataracts and skin and hair problems).

33. 493 F.2d 1076 (5th Cir. 1973) (affirming the trial court's decision in favor of an asbestos insulation worker suffering from mesothelioma, a particularly virulent form of cancer affecting the membranes enclosing the lungs, heart, or abdomen).

34. *See* Falise v. Am. Tobacco Co., 94 F. Supp. 2d 316, 323 (E.D.N.Y. 2000) (Weinstein, J.).

35. *Borel*, 493 F.2d at 1083-84; *Falise*, 94 F. Supp. at 323-24.

36. *Falise*, 94 F. Supp. 2d at 324.

health hazards resulting from exposure to asbestos by the early decades of the twentieth century.[37] Manufacturers of asbestos products not only failed to warn consumers of these hazards, but also actively concealed the risks of exposure to asbestos by, among other means, altering and censoring research results.[38]

Since the *Borel* decision in 1973, more than 600,000 claims have been filed based upon allegations of asbestos-related illnesses or the fear of such diseases,[39] more than $54 billion has already been paid in compensation and litigation expenses,[40] and, as a result, at least sixty defendant companies have filed for bankruptcy.[41] The claims against the bankruptcy trust of the Manville Corp., once the world's largest asbestos-products manufacturer, are now paid off at five cents on the dollar.[42] Experts predict that eventually, somewhere between one and three million claims will be filed,[43] with a cost estimated between $145 and $210 billion.[44]

Asbestos was just the start of the explosion in litigation arising out of latent diseases caused by exposure to mass products. Beginning in 1978, veterans of the Vietnam War filed class actions and individual cases against the United States and various manufacturers of a defoliant commonly known as Agent Orange, alleging that it contained small amounts of dioxin that caused a variety of horrible health problems, including cancers, skin disorders, and birth defects in the children of those exposed.[45] The cases were consolidated and trans-

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37. *Id.* For discussion of this research, see PAUL BRODEUR, OUTRAGEOUS MISCONDUCT: THE ASBESTOS INDUSTRY ON TRIAL 10-14 (1985).

38. *Falise*, 94 F. Supp. 2d at 324-25.

39. STEPHEN J. CARROLL ET AL., ASBESTOS LITIGATION COSTS AND COMPENSATION: AN INTERIM REPORT 40 (RAND Inst. for Civil Justice, Doc. No. DB-397-ICS, 2002), *available at* http://www.rand.org/publications/DB/DB397/DB397.pdf. Many claimants, although exposed to asbestos, currently have little or no functional impairment. *Id.* at 45. Increasingly, those filing claims have worked in "nontraditional industries" other than those industries, such as insulation contracting and shipbuilding, where most asbestos claimants historically had worked. *Id.* at 47. For example, claims are being filed by textile workers who have been exposed to machine tools containing asbestos gaskets or who worked in factories with ventilation systems that contained asbestos. *Id.* at 47-48.

40. *Id.* at 53.

41. *Id.* at 71.

42. *Id.* at 80 (citation omitted). At the time it filed for bankruptcy, Manville was the largest American industrial company ever to do so. *See* BRODEUR, *supra* note 37, at 3.

43. *See* CARROLL ET AL., *supra* note 39, at 78 (noting that the 600,000 claims already filed represent between one-half and one-fifth of the final number of expected claims).

44. *Id.*

45. *See generally* PETER H. SCHUCK, AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS 23-57 (1986) (describing the development and initial filings of the cases against Agent Orange manufacturers).

ferred to Judge Jack B. Weinstein of the Eastern District of New York[46] who certified a class including an estimated 250,000 claimants.[47] The defendants eventually settled for $180 million.[48]

Latent diseases often have resulted from the use of pharmaceutical products. Most observers of the tort system are familiar with the litigation arising out of the use of diethylstilbestrol (DES), a synthetic estrogen used to prevent miscarriages and for a variety of other medical conditions.[49] DES caused a variety of cancers and other diseases, in both the mothers who had used the drug and in their daughters.[50] In 1979, the first jury verdicts against DES manufacturers were entered: a New York jury awarded $500,000 to a woman with cancer whose mother had used DES, and a Michigan jury awarded $800,000 in a similar case.[51] By the early 1990s, there were one thousand cases pending against DES manufacturers,[52] and plaintiffs represented that there were as many as 430,000 victims who were eligible for inclusion in a class action.[53] Similarly, 190,000 claims were filed during the bankruptcy proceedings of A.H. Robins, Inc., the manufacturer of the Dalkon Shield, an intrauterine contraceptive device (IUD) that allegedly caused pelvic inflammation and septic abortions.[54] A.H. Robins, the sole manufacturer of the product, paid $378.3 million to claimants and $107.3 million in legal fees before declaring bankruptcy.[55] The bankruptcy court established a $2.475 billion trust to pay those victims that had not yet been compensated.[56] The histories of the liabilities resulting from silicone breast implants[57] and the diet drug fenphen[58] are similar.

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46. *See In re* "Agent Orange" Prod. Liab. Litig., 597 F. Supp. 740, 750-52 (E.D.N.Y. 1984); Comment, *Procedural History of The Agent Orange Product Liability Litigation*, 52 BROOK. L. REV. 335, 335 (1986).

47. Deborah R. Hensler & Mark A. Peterson, *Understanding Mass Personal Injury Litigation: A Socio-Legal Analysis*, 59 BROOK. L. REV. 961, 1002 (1993).

48. *Id.*

49. *See* ROBERT MEYERS, D.E.S.: THE BITTER PILL 215-230 (1983); Hensler & Peterson, *supra* note 47, at 981-83.

50. Tracey I. Batt, Note, *DES Third-Generation Liability: A Proximate Cause*, 18 CARDOZO L. REV. 1217, 1218-22 (1996).

51. MEYERS, *supra* note 49, at 222-23.

52. Hensler & Peterson, *supra* note 47, at 983.

53. Kurczi v. Eli Lilly & Co., 160 F.R.D. 667, 672 (N.D. Ohio 1995).

54. *See* Hensler & Peterson, *supra* note 47, at 983-84.

55. *Id.* at 986.

56. *Id.*

57. *See id.* at 992-98. By 1995, 248,500 women had claimed illness as a result of silicon breast implants. MARCIA ANGELL, SCIENCE ON TRIAL: THE CLASH OF MEDICAL EVIDENCE AND THE LAW IN THE BREAST IMPLANT CASE 80 (1996).

58. *See In re* Diet Drugs (Phentermine, Fenfluramine, Dexfenfluramine) Prods. Liab. Litig., MDL No. 1203, Civil Action No. 99-20593, 2000 U.S. Dist. LEXIS 12275 (E.D. Pa.

As has been illustrated by these specific examples, once litigation seeking redress for diseases caused by a particular product "matures,"[59] the compensation often has been dispensed by an administrative structure created either by a bankruptcy court or by an agreed-upon settlement between the parties in a class action.[60] Professor Richard A. Nagareda describes the compensation mechanisms that have been established by class action settlements as follows:

> In recent years, class actions have played a highly controversial role . . . centered on widely reported multibillion-dollar class settlements designed to resolve, in one fell swoop, whole categories of mass tort litigation and, in so doing, to afford defendants "global peace." Leading examples include class settlements involving asbestos, silicone gel breast implants, and most recently, the diet drug combination popularly known as fen-phen. Each of these settlements has its own nuances, but all aspire to create some form of private administrative system that would pay compensation to claimants according to a preestablished grid. In this manner, class settlements seek to shift claims from the ordinary tort system to a private regime that promises more efficient compensa-

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Aug. 28, 2000); *Fen-phen Maker Agrees to $3.75 Billion Settlement*, CNN.com, Oct. 8, 1999, *at* http://www.cnn.com/HEALTH/diet.fitness/9910/08/fen.phen.

59. A mass tort is mature when

> there has been full and complete discovery, multiple jury verdicts, and a persistent vitality in the plaintiffs' intentions. Typically at the mature stage, little or no new evidence will be developed, significant appellate review of any novel legal issues has been concluded, and at least one full cycle of trial strategies has been exhausted.

Francis E. McGovern, *An Analysis of Mass Torts for Judges*, 73 TEX. L. REV. 1821, 1843 (1995) (quoting Francis E. McGovern, *Resolving Mature Mass Tort Litigation*, 69 B.U. L. REV. 659, 659 (1989)).

60. *But see* Amchem Prods., Inc. v. Windsor, 521 U.S. 591, 597, 625, 628 (1997). *Amchem* involved a nationwide "opt-out" settlement class for current and future asbestos claims, certified under Rule 23(b)(3) of the Federal Rules of Civil Procedure. *Id.* at 597-605. The Court held that given the size and diversity of the class, the class did not satisfy Rule 23(b)(3)'s requirement that issues of law and fact common to the class predominate over issues that affect only individual members of the class. *Id.* at 622-25. The Court also held that the class did not satisfy Rule 23(a)(4), a prerequisite for all class actions, which requires that the named parties adequately protect the interests of the class as a whole. *Id.* at 625-28. The class failed to satisfy Rule 23(a)(4) because the interests of claimants already suffering injuries—immediate and substantial compensation—were at odds with the interests of potential future claimants who had been exposed to asbestos but who had yet to suffer any injury—the continued vitality of the fund for the satisfaction of future claims. *Id.*; *see also* Ortiz v. Fibreboard Corp., 527 U.S. 815, 854-59 (1999) (overturning the certification of a mandatory "limited fund" class under Rule 23(b)(1)(B) in part because of the failure to address properly conflicts of interest within the class).

tion for plaintiffs, long-term peace for defendants, and a reduced litigation burden for the courts.[61]

Yet another new—and distinctive—generation of mass products torts litigation was launched in 1994 when American states filed actions against tobacco companies, seeking reimbursement or "recoupment" for the expenditures they had been forced to make as a result of tobacco-related illnesses, primarily their payments to victims of tobacco-related diseases under state medical assistance (Medicaid) programs.[62] The litigation was prompted in part by new discoveries in the early 1990s that cigarette manufacturers had not only concealed and affirmatively misrepresented the health risks caused by smoking, but also had purposefully designed their product to foster addiction.

Victims of lung cancer and other tobacco-related diseases had sued manufacturers throughout the preceding four decades with only failure.[63] Suits filed by state and local governments, however, offered the possibility of matching the tobacco companies' litigation resources and of circumventing the obstacles that had proven so difficult to overcome in the past; among others, the inability to prove that one particular manufacturer's products had caused a victim's disease or the contention that the victim's own knowledge of the dangers of smoking should preclude recovery. Eventually the legal actions by the states were settled for payments by the tobacco companies totaling $206 billion as well as their agreement to abide by certain other restrictions, including a requirement to refrain from youth-oriented advertising.[64] The settlement did not preclude or formally affect actions brought by individuals or those seeking reimbursement of costs sustained by health care insurers or labor union health funds,[65] and so

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61. Richard A. Nagareda, *Autonomy, Peace, and Put Options in the Mass Tort Class Action*, 115 HARV. L. REV. 747, 751 (2002) (footnotes omitted).

62. *See* Robert L. Rabin, *The Third Wave of Tobacco Tort Litigation*, *in* REGULATING TOBACCO 176, 179, 189-93 (Robert L. Rabin & Stephen D. Sugarman eds., 2001) [hereinafter *Third Wave*]; Donald G. Gifford, *Public Nuisance as a Mass Products Liability Tort*, 71 U. CIN. L. REV. 741, 757-64 (2003); Robert L. Rabin, *The Tobacco Litigation: A Tentative Assessment*, 51 DEPAUL L. REV. 331, 337-42 (2001) [hereinafter *Tobacco Litigation*]. Copies of the complaints filed by the states are available at the website of the Tobacco Control Archives at the University of California, San Francisco, http://www.library.ucsf.edu/tobacco/litigation/states.html (last updated Jan. 25, 2004).

63. *See* Robert L. Rabin, *A Sociolegal History of the Tobacco Tort Litigation*, 44 STAN. L. REV. 853, 874 (1992) [hereinafter *Sociolegal History*] (noting that prior to 1991, the tobacco industry had not paid out a single tort award after thirty-five years of litigation).

64. Rabin, *Tobacco Litigation*, *supra* note 62, at 340.

65. *Id.* at 339-40.

litigation filed on behalf of those individuals[66] and groups[67] has continued.

The success of the tobacco settlement spawned recoupment actions by state and municipal governments against other industries whose products allegedly caused disease or injury that necessitated government expenditures, including actions against manufacturers of handguns used in the commission of crimes[68] and lawsuits against manufacturers of lead pigment, which was used to make lead-based paint, and which causes childhood lead poisoning.[69] Handgun injuries and deaths, of course, are not latent diseases, though they do share some of the characteristics of latent diseases caused by exposure to mass products.[70] Childhood lead poisoning may result in impaired cognitive function, behavior difficulties, impaired hearing, reduced stature, and, in extreme but now rare cases, even death.[71] Lead-based paint for use in the interior of residences has not been sold since 1978, when it was banned by federal law,[72] but more than eighty percent of the lead paint used in residential housing was applied before 1940, and less than four percent was applied after 1960.[73] Childhood lead poisoning can be almost entirely prevented by maintaining resi-

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66. *E.g.*, Brown v. Philip Morris Inc., 228 F. Supp. 2d 506 (D.N.J. 2002).

67. *E.g.*, Blue Cross & Blue Shield, Inc. v. Philip Morris, Inc., 113 F. Supp. 2d 345 (E.D.N.Y. 2000) (health insurer); Steamfitters Local Union No. 420 Welfare Fund v. Philip Morris, Inc., 171 F.3d 912 (3d Cir. 1999) (union health and welfare fund).

68. *E.g.*, Camden County Bd. of Chosen Freeholders v. Beretta, U.S.A. Corp., 273 F.3d 536 (3d Cir. 2001); Ganim v. Smith & Wesson Corp., 780 A.2d 98 (Conn. 2001); City of Cincinnati v. Beretta U.S.A. Corp., 768 N.E.2d 1136 (Ohio 2002).

69. *E.g.*, *In re* Lead Paint, No. MID-L-2754-01, 2002 WL 31474528 (N.J. Super. Ct. Law Div. Nov. 4, 2002); State v. Lead Indus. Ass'n, C.A. No. 99-5226, 2001 R.I. Super. LEXIS 37 (R.I. Super. Ct. Apr. 2, 2001); *see* Gifford, *supra* note 62, at 769-74.

I have served as Chair of the Maryland Lead Paint Poisoning Commission (1992-95) and as a consultant or advisor to both Dickstein Shapiro Morin & Oshinsky LLP of Washington, D.C., which represents E.I. du Pont de Nemours, and to the National Paint and Coatings Association, on state legislative solutions to eliminate childhood lead poisoning resulting from exposure to lead-based paint. I have also consulted briefly with Dickstein Shapiro Morin & Oshinsky LLP on various issues in *State v. Lead Industries Ass'n.* Obviously, the views expressed in this Article reflect only my personal views and not those of any entity with which I have been affiliated.

70. *See infra* notes 297-301.

71. PRESIDENT'S TASK FORCE ON ENVTL. HEALTH RISKS AND SAFETY RISKS TO CHILDREN, ELIMINATING CHILDHOOD LEAD POISONING: A FEDERAL STRATEGY TARGETING LEAD PAINT HAZARDS 1 (2000) [hereinafter PRESIDENT'S TASK FORCE], *available at* http://www.hud.gov/offices/lead/reports/fedstrategy2000.pdf.

72. Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint, 16 C.F.R. § 1303.1 (2004); *see also* Lead-Based Paint Poisoning Prevention Act, Pub. L. No. 91-695, tit. IV, § 401, 84 Stat. 2078, 2079 (1971) (codified as amended at 42 U.S.C. § 4831 (2000)) (prohibiting the use of lead-based paint in residential structures constructed or rehabilitated with Federal assistance in any form).

73. PRESIDENT'S TASK FORCE, *supra* note 71, at 22 tbl.4.

dential units properly so that lead-based paint is not allowed to deteriorate into chips and dust accessible to children.[74] As of this time, the lawsuits brought by either individuals or governments against manufacturers of lead-based paint and lead pigment have not been successful.[75] Actions brought on behalf of lead-poisoned children against landlords who failed to maintain their properties, however, have had more success.[76]

The proliferation of mass products torts generally, and specifically of claims for latent diseases resulting from exposure to mass products, unleashed a virtual avalanche of academic commentary suggesting procedural and institutional reforms.[77] Generally absent, however, was any analysis of the more basic issues of how the recurring features of latent diseases resulting from exposure to mass products may frustrate the fundamental tort goal of accident cost reduction.

Parts IV through VI undertake such an analysis. I illustrate the analysis with the examples of diseases caused by exposure to asbestos, tobacco-related disease, and childhood lead poisoning. There are a variety of reasons for selecting these product-related diseases, including their high profile and prominence in defining the contemporary tort landscape, their sharing of certain characteristics that are com-

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74. *See id.* at 4; REPORT OF THE LEAD PAINT POISONING COMMISSION 3 (State of Md., 1994) [hereinafter MD. LEAD PAINT REPORT] ("The single most important source of childhood lead poisoning in Maryland is lead-contaminated dust resulting from, among other sources, deteriorating lead-based paint in the older housing stock.").

75. *E.g.*, City of Chicago v. Am. Cyanamid Co., No. 1-03-3276, 2005 Ill. App. LEXIS 14 (Ill. App. Ct. Jan. 14, 2005); *In re* Lead Paint, No. MID-L-2754-01, 2002 WL 31474528 (N.J. Super. Ct. Law Div. Nov. 4, 2002); Skipworth v. Lead Indus. Ass'n, 690 A.2d 169 (Pa. 1997). *But see* State v. Lead Indus. Ass'n, C.A. No. 99-5226, 2001 R.I. Super. LEXIS 37, at *28 (R.I. Super. Ct., Apr. 2, 2001) (denying defendants' motion to dismiss the State's public nuisance claim); City of Milwaukee v. NL Indus. Inc., Appeal No. 03-2786, 2004 Wisc. App. LEXIS 885 (Wis. Ct. App. Nov. 9, 2004) (reversing the trial court dismissal of claims against manufacturers of lead-based paint and remanding for trial). *State v. Lead Industry Ass'n* went to trial in 2002 and ended in a hung jury. C.A. No. 99-5226, 2004 R.I. Super. LEXIS 56, at *2 (R.I. Super. Ct. Mar. 16, 2004). The case is scheduled to be retried in 2005. *Id.* at *4. For discussion of the case, see Gifford, *supra* note 62, at 770-74.

76. *E.g.*, Brooks v. Lewin Realty III, Inc., 835 A.2d 616 (Md. 2003) (affirming the intermediate appellate court's reversal of a $750,000 jury verdict and remanding for a new trial, but holding that the plaintiffs were not required to prove that a landlord had knowledge of lead paint hazards); Brown v. Dermer, 744 A.2d 47 (Md. 2000) (trial court's decision to grant defendant landlord's motion for summary judgment reversed); *see also Ohio Jury Awards $100,000 To Lead-Poisoned Boy*, MEALEY'S LITIG. REP.: LEAD, Aug. 13, 2003, at 11; *$2M Verdict For Virginia Girl*, MEALEY'S LITIG. REP.: LEAD, Apr. 16, 2003, at 2.

77. *E.g.*, Francis E. McGovern, *Toward a Cooperative Strategy for Federal and State Judges in Mass Tort Litigation*, 148 U. PA. L. REV. 1867 (2000); Linda S. Mullenix, *Resolving Aggregate Mass Tort Litigation*, 33 VAL. U. L. REV. 413 (1999); Nagareda, *supra* note 61; Peter H. Schuck, *Mass Torts: An Institutional Evolutionist Perspective*, 80 CORNELL L. REV. 941 (1995).

monly found in most latent diseases resulting from exposure to mass products, and, most importantly, their differences. Though the similarities and differences will be explored throughout the Article, a few of the differences are identified here because they guide the structure of the analysis. First, although all three categories of product-caused disease generally involve the passage of a substantial period of time between the use of the product and the manifestation of the illness, tobacco manufacturers continue to market their disease-producing products but manufacturers of asbestos and lead-based paint do not. Second, sometimes—but probably not in a majority of cases—it is possible to identify the specific manufacturer of the cigarettes or asbestos products that caused a victim's disease; for all intents and purposes this is impossible in the case of childhood lead poisoning. Third, victims themselves arguably share some of the responsibility for tobacco-related disease; this is far less likely with asbestos-caused diseases and never the case with childhood lead poisoning. The activities of parties other than manufacturers and victims, however, may contribute causally to childhood lead poisoning, and perhaps to asbestos-related disease, in ways that generally are not present in the case of tobacco-related disease.

III. CALABRESI'S GOALS FOR AN ACCIDENT COMPENSATION SYSTEM

The Costs of Accidents does not purport to prescribe a particular accident compensation system.[78] Instead, its goal is to identify the criteria or goals against which any accident compensation system, including our current tort system, can be assessed.[79] As such, *The Costs of Accidents* is a seminal work espousing an instrumental theory of tort law "as a means of forwarding the community's aggregate welfare through a strategy of maximization often expressed in economic terms."[80] The last twenty years have spawned a diametrically different academic perspective—with its intellectual roots returning to the jurisprudence of Oliver Wendell Holmes[81] and even the philosophies of Aristotle and Kant[82]—viewing tort law largely as a matter of corrective

78. THE COSTS OF ACCIDENTS, *supra* note 1, at 14-15.

79. *Id.* at 15.

80. ERNEST J. WEINRIB, THE IDEA OF PRIVATE LAW 48 (1995). Along with Calabresi, the other leading tort theorist identified with an instrumental view is Judge Richard A. Posner. *See generally* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW (6th ed. 2003); Richard A. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32-34 (1972).

81. *See* WEINRIB, *supra* note 80, at 3.

82. *See id.* at 19.

justice, as a means of requiring the injuring party to repair the losses caused by his or her wrongful conduct.[83]

Without taking sides in this clash of the grand theories of tort law, it seems safe to assume as a descriptive matter that instrumental goals guided the development of products liability law during the twentieth century.[84] Further, the instrumental goals identified by Calabresi appear to be the appropriate ones for assessing the performance of the legal system's current handling of latent diseases resulting from exposure to mass products. Although Parts IV through VI of this Article use Calabresian analysis to illustrate the difficulties of achieving what he calls "'primary' reduction of accident costs"[85] or "primary accident cost avoidance"[86] in the context of latent diseases resulting from exposure to mass products torts, the difficulty—or impossibility—of achieving this objective is present in any accident compensation system that purports to deter or reduce conduct resulting in latent diseases by the imposition of liability for the costs of the diseases.

A. Primary Accident Cost Avoidance

Calabresi begins his analysis in *The Costs of Accidents* by identifying fairness and the reduction of accident costs as the two goals of an accident compensation system.[87] He then suggests that justice "is not a goal but rather a . . . veto"[88] on any accident compensation system designed to reduce the costs of accidents. Calabresi finds justice to be "by far the harder of the two goals to analyze,"[89] and he suggests that it is "elusive."[90] For Calabresi, justice imposes two requirements on a system of accident law. First, "[i]t . . . requires some consistency in what is done within the area of accident law."[91] Second, it requires that an accident compensation system be accepted by the "[m]oral

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83. *See* JULES L. COLEMAN, RISKS AND WRONGS 361 (1992). *See generally* WEINRIB, *supra* note 80.

84. *See, e.g.*, Sindell v. Abbott Labs., 607 P.2d 924, 936-38 (Cal. 1980) (adopting market share liability to further the goals of loss minimization and loss distribution); Escola v. Coca Cola Bottling Co., 150 P.2d 436, 441 (Cal. 1944) (Traynor, J., concurring) (arguing that product manufacturers should be held strictly liable for defective products on the grounds of loss minimization and loss distribution); Henningsen v. Bloomfield Motors, Inc., 161 A.2d 69 (N.J. 1960) (justifying the elimination of a requirement of privity in an implied warranty claim on the grounds of loss minimization and loss distribution) .

85. THE COSTS OF ACCIDENTS, *supra* note 1, at 26.

86. *Id.* at 68.

87. *Id.* at 24.

88. *Id.* at 25.

89. *Id.* at 24.

90. *Id.* at 25.

91. *Id.* at 293.

attitudes" of the public.[92] Calabresi finds that "moral attitudes are . . . complex,"[93] but that "[n]o system of accident law can operate unless it takes into account which acts are deemed good, which deemed evil, and which deemed neutral."[94] He argues that the public's acceptance of any accident compensation system as just ultimately depends largely on whether it can be shown to the public that such a system reduces accident costs.[95] Hence, if an accident compensation system achieves primary accident cost avoidance, secondary accident cost avoidance (loss minimization), and tertiary cost avoidance (keeping administrative costs low), it will probably, over time, be regarded as fair and just.[96]

In terms of reducing the costs of accidents, Calabresi identifies three "subgoals" for any accident compensation system.[97] He uses the term "primary accident cost avoidance" to refer to what is usually thought of as accident prevention: "to discourage activities that are 'accident prone' and substitute safer activities as well as safer ways of engaging in the same activities."[98] Calabresi's phrase, "secondary accident cost avoidance,"[99] refers to minimizing the disruptive impact of the costs of accidents that have already occurred, by what often has been referred to as "loss distribution"—spreading the costs of accidents among a larger group of people through insurance or raising the costs of the product that caused the victim's injury.[100] Calabresi's third subgoal of "tertiary cost reduction" seeks "to reduce the costs of achieving primary and secondary cost reduction."[101] Calabresi makes it clear that this goal is "tertiary" only because its aim is to achieve efficiency in accomplishing the other two subgoals, and "in a very real sense this 'efficiency' goal comes first."[102] Part VII of this Article eval-

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92. *Id.* at 293-94.

93. *Id.* at 294.

94. *Id.*

95. *Id.* at 296-97.

96. A couple of years following publication of *The Costs of Accidents*, Calabresi and his co-author Douglas Melamed used the term "other justice" to describe goals other than economic efficiency and loss distribution. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1102 (1972). They admitted "that it is hard to know what content can be poured into that term." *Id.* In the paper he presented at this Symposium, Calabresi described "other justice" as "the catchall for any other goals that [*The Costs of Accidents*] does not analyze." Guido Calabresi, *Neologisms Revisited*, 64 MD. L. REV. 736, 745 (2005).

97. THE COSTS OF ACCIDENTS, *supra* note 1, at 26-28.

98. *Id.* at 68.

99. *Id.* at 39.

100. *Id.* at 27-28.

101. *Id.* at 28.

102. *Id.*

uates the effectiveness of the tort system in accomplishing these latter two goals when confronted with latent diseases resulting from exposure to mass products.

Calabresi's analytical framework then identifies two means of achieving primary accident cost avoidance or accident reduction. First, "specific deterrence" achieves the accident reduction goal through collective decisions, often accomplished through legislative or administrative action, to prohibit certain accident-causing activities or to regulate such activities.[103] An example of specific deterrence would be a ruling by the Food and Drug Administration not to approve the marketing of a new drug because of the pharmaceutical manufacturer's failure to test the drug adequately or because other research has suggested the possibility of harmful consequences.

For our purposes, however, it is the second method of primary accident cost avoidance, "general deterrence," which is of greater interest. The general deterrence approach "decide[s] what the accident costs of activities are," and then allows the market to determine how much of an accident-causing activity there should be and in what manner those activities should be conducted.[104] If, for example, some users of a power tool are injured, imposing liability on the manufacturer for the costs of accidents may lead the manufacturer to decide (1) to stop manufacturing the power tool, (2) to redesign it or to provide more adequate warnings, (3) to raise the price of the power tool so that fewer individuals purchase it in the future and to cover the costs of the accidents, (4) all of the preceding, or (5) none of the preceding. The manufacturer and consumers make their choices among these alternatives based upon their own economic self-interests.

The approach to accident compensation outlined in *The Costs of Accidents*, and indeed any system for allocating the costs of accidents except a comprehensive social insurance system, must begin with what Calabresi describes as the "what-is-a-cost-of-what" decision.[105] For example, are the injuries and deaths caused by handgun violence the costs of criminal conduct, the marketing and distribution practices of handgun manufacturers, or the refusal of government authorities to enact and enforce adequate gun control laws?

The law and economics approach to modern tort law frequently begins with the premise that "[i]f there were no transaction or infor-

103. *Id.* at 95.
104. *Id.* at 69.
105. *Id.* at 133.

mation costs associated with paying people to alter their behavior, it would not matter (in terms of market control of accidents) who bore the accident costs initially."[106] As every first-year tort student learns, in a world without transaction costs, if liability initially were placed on a party other than the one who could avoid the accident most cheaply, that party would "bribe" or pay the party who in fact could avoid the accident most cheaply.[107] The difficulty, as Calabresi is quick to point out, is that not only do transaction costs exist in the real world, but they often are substantial.[108] In the real world, as Calabresi illustrates, if the party initially selected as the party to bear the costs of the accident is not, in fact, the party able to avoid the accident most cheaply, the accident precautions adopted may not be optimal and/or their adoption may require unnecessary expense because of the presence of transaction costs, particularly those costs involved in negotiation among the parties.[109]

The initial assignment of liability to a party therefore may be no more than a starting point, and suggesting how the initial bearer of liability should be determined is a core component of *The Costs of Accidents.* Calabresi begins by suggesting that in trying to determine the initial bearer of liability, we rule out activities that could reduce accident costs only at a cost deemed obviously unacceptable, either because of people's preferences for the activity, expressed through the market economy, or because such activities have a limited or tenuous causal connection to the resulting accident costs.[110] In choosing among the remaining alternative activities that are causally connected with the accident costs, Calabresi offers a series of guidelines. First, the administrative costs involved in determining the cheapest cost avoider should not be prohibitively large.[111] If they are, the administrative costs involved in making the determination may be greater than any reduction in accident costs. Second, the choice of the cheapest cost avoider should achieve the "maximum degree of internalization" of the costs of the accidents.[112] If, in contrast, for example, smokers were initially identified as the probable cheapest cost avoiders for tobacco-related illnesses, but a substantial share of the costs of tobacco-related illness were paid by the state and federal gov-

106. *Id.* at 135. *See generally* R.H. Coase, *The Problem of Social Cost,* 3 J.L. & ECON. 1 (1960).

107. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 133-36.

108. *Id.* at 138-39.

109. *Id.* at 136-37.

110. *Id.* at 140.

111. *Id.* at 143-44.

112. *Id.* at 144.

ernments through medical assistance programs and by nonsmoking medical insurance policyholders, these costs would be externalized or paid by persons other than smokers. This would violate Calabresi's guideline that the choice of the cheapest cost avoider achieve the greatest possible cost internalization. Calabresi's third guideline for picking the initial loss bearer focuses not on which party is the cheapest cost avoider, but instead on which party is the "best briber"; that is, the party who is in the best position to identify who amongst the other parties can avoid the accident at the cheapest cost, and can then most readily provide the incentive or disincentives for that party to reduce the accident costs.[113]

Calabresi notes that even when the parties are in a bargaining relationship, and therefore the transaction costs associated with negotiation are relatively low, there may still be reasons to prefer one party rather than the other as the cheapest cost avoider.[114] First, one party may be in a better position to evaluate the risks of engaging in activity that leads to accidental injury.[115] For example, the asbestos insulation manufacturer presumably is in a better position to evaluate the health risks to an insulation installer than is the worker herself. Further, the party engaged in one activity or another leading to accidental injury may be in a better position than other parties to obtain insurance at a reasonable cost.[116]

Finally, and importantly, Calabresi concludes that determination of the cheapest cost avoider should not be made on a case-by-case basis.[117] To do so would result in a liability determination somewhat similar to the traditional tort system. Juries would make individual determinations of which party could have avoided the accident at the cheapest cost. Calabresi argues that "the jury is very unlikely to be suitable for selecting the cheapest cost avoiders."[118] Further, any individualized determination following the accident regarding which party was the cheapest cost avoider and therefore should bear the costs of the accident is necessarily post hoc and probably of uncertain accuracy. This makes it more difficult for the parties whose activities contributed to the accidents to identify the cheapest cost avoider in advance of the accident through negotiation and to reduce the likelihood of the accident or the costs of it.

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113. *Id.* at 150.
114. *Id.* at 162-64.
115. *Id.* at 163.
116. *Id.* at 164.
117. *Id.* at 161.
118. *Id.*

B. Calabresi's Other Goals for Accident Compensation Systems: Loss Distribution and Administrative Cost Avoidance

In *The Costs of Accidents*, Calabresi identifies two other instrumental goals for an accident compensation system: secondary accident cost reduction (loss distribution) and tertiary cost avoidance (reducing the costs of administering the accident compensation system). This Subpart briefly describes these goals.

Calabresi's second objective in designing an accident compensation system is to distribute the costs of accidents in a manner that inflicts "less pain" than if the accident costs were borne solely by the original victims.[119] The most important means of accomplishing this objective is to distribute the losses resulting from an accident broadly across many people.[120] Calabresi calls this "interpersonal loss spreading."[121] To a single victim of a mass product tort, an injury or disease is likely to be an unexpected, unmitigated disaster. If, however, her damages are compensated by insurance or by the manufacturer (which attempts to pass along the costs of the accidents to other consumers), the impact of the accident on the victim is reduced. Compensation provided to victims of mass products torts from government-financed social insurance schemes spreads the loss even more broadly and with lower transaction costs, but may sacrifice any attempt to provide incentives for product manufacturers to minimize losses.[122] Calabresi also discusses the "deep pocket notion" that the costs of accidents will cause less pain and disutility if paid for by people who will suffer less "social and economic dislocations as a result of bearing them, usually thought to be the wealthy."[123]

Calabresi's third objective is to reduce the costs of administering any accident compensation system. He notes that the traditional fault-based tort system is inefficient because it relies upon case-by-case determinations.[124] His argument is buttressed by the findings of a 1986 study by the RAND Corporation Institute for Civil Justice showing that cumulatively the transaction costs involved in tort litigation exceed the compensation received by victims.[125]

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119. *Id.* at 39-42.

120. *Id.*

121. *Id.* at 37.

122. *See id.* at 43-44 ("[P]erfect systems of secondary cost avoidance, if they give poor primary cost avoidance, may be totally unacceptable.").

123. *Id.* at 40.

124. *Id.* at 286-87.

125. KAKALIK & PACE, *supra* note 31, at vi-viii. As Kakalik and Pace report:

> We estimate that the total expenditure nationwide for tort litigation terminated in state and federal courts of general jurisdiction in 1985 was between $29

C. *Calabresi's Criticism of Typical Features of Alternative Accident Compensation Systems*

In *The Costs of Accidents*, Calabresi is careful not to recommend any particular accident compensation system to the exclusion of others.[126] He does take aim, however, at two features that have become typical of alternative no-fault compensation systems.

First, most no-fault alternative compensation systems, including both of the eight-hundred-pound gorillas of no-fault workers' compensation and automobile no-fault, generally either prevent claimants from recovering for losses other than economic losses or restrict economic losses to those within limits specified by statute or regulation.[127] Historically and politically, limiting recovery to economic damages was a tradeoff for enabling claimants to recover without a showing of fault on the injurer's part and for eliminating affirmative defenses based upon the victim's own conduct.[128]

For Calabresi, primary accident cost avoidance is, at a minimum, first among equals as the goal of an accident compensation system. He argues that not allowing the victim to recover pain and suffering or other non-economic damages means that the injured party bears this portion of the costs of the accident.[129] An injurer who may have

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> billion and $36 billion. These expenditures . . . include compensation paid to plaintiffs, legal fees and related expenses for both plaintiffs and defendants, insurance company claims-processing costs for claims in suit, the value of litigants' time spent, and the costs of operating the court system for these cases.
>
> . . . .
>
> Of the $29 to $36 billion, an estimated $16 to $19 billion was spent for the various costs of the tort litigation system, not including the net compensation paid to plaintiffs.

Id. at vi-vii.

126. THE COSTS OF ACCIDENTS, *supra* note 1, at 14-15.

127. For a discussion of no-fault workers' compensation statutes, see *Spangler, Jennings & Dougherty P.C. v. Indiana Ins. Co.*, 729 N.E.2d 117, 121 (Ind. 2000) (describing the Indiana workers' compensation system's limitation on recovery for non-economic losses), and *Turney v. Werner Enters., Inc.*, 618 N.W.2d 437, 443 (Neb. 2000) (noting that under Nebraska workers' compensation law, "pain and suffering" is not compensable as a separate element of damages). On the purpose, structure, and limitations of workers' compensation statutory schemes, see 3 FOWLER V. HARPER, FLEMING JAMES, JR. & OSCAR S. GRAY, THE LAW OF TORTS § 11.2 (2d ed. 1986).

For a discussion of automobile no-fault systems, see *Licari v. Elliot*, 441 N.E.2d 1088, 1090 (N.Y. 1982) (discussing the New York no-fault insurance system, under which plaintiffs may not recover non-economic losses, i.e., "pain and suffering," unless the injury meets the statutory definition of a "serious injury"). *See generally* STEPHEN J. CARROLL & JAMES S. KAKALIK, NO-FAULT AUTOMOBILE INSURANCE: A POLICY PERSPECTIVE 4-7 (RAND Inst. for Civil Justice, Doc. No. R-4019/1-1CJ, 1991).

128. Richard A. Epstein, *The Historical Origins and Economic Structure of Workers' Compensation Law*, 16 GA. L. REV. 775, 800 (1982).

129. THE COSTS OF ACCIDENTS, *supra* note 1, at 205-06.

been the cheapest cost avoider therefore does not need to consider these damages when it decides whether to limit or restrict its accident-causing behavior. Any alternative compensation system that compensates the victim only for economic losses therefore undermines Calabresi's goal of primary accident cost avoidance.

The second feature of some alternative no-fault compensation systems that Calabresi criticizes is full or partial government funding or subsidization of such systems.[130] For example, the federally sponsored compensation system established by the Black Lung Benefits Act[131] is funded in part by general tax revenues.[132] Again, Calabresi would argue that the externalization of costs resulting from funding the covered injuries with general tax revenues reduces the primary accident cost avoidance for the injuring parties.[133]

Both of Calabresi's arguments, of course, assume that the imposition of financial responsibility on injuring parties in fact plays a meaningful role in discouraging injury-producing activities. If the goal of reducing primary accident costs is a largely futile one, this goal becomes relatively less important in designing an accident compensation system than other goals. Calabresi himself acknowledges that "[i]f primary accident cost avoidance were not a goal, . . . the compensation aim could very easily be discussed in terms of its ideal solution—a system of general social insurance."[134]

IV. LIABILITY, LOSS AVOIDANCE, AND THE PASSAGE OF TIME

Mass products torts in which the victim manifests a latent disease many years after exposure to the toxic product—or even shortly after exposure to the product but many decades after the manufacture and

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130. *Id.* at 6-7, 10-13, 284, 311.

131. 30 U.S.C. §§ 901-945 (2000). *See generally* Allen R. Prunty & Mark E. Solomons, *The Federal Black Lung Program: Its Evolution and Current Issues*, 91 W. VA. L. REV. 665 (1989).

132. Although the Black Lung Disability Trust Fund is financed by an excise tax on coal producers, the Fund is authorized to borrow funds from the U.S. Treasury to make up for shortfalls in excise tax revenues. *See* Prunty & Solomons, *supra* note 131, at 669 n.9 (citing 26 U.S.C. §§ 4121, 9501 (2000)). As of 2004, the Fund owed $7.7 billion to Treasury. HOUSE COMM. ON WAYS AND MEANS, 108TH CONG., *Section 15—Other Programs*, *in* 2004 GREEN BOOK: BACKGROUND MATERIAL AND DATA ON THE PROGRAMS WITHIN THE JURISDICTION OF THE COMMITTEE ON WAYS AND MEANS 15-145 (Comm. Print 2004), *available at* http://waysandmeans.house.gov/media/pdf/greenbook2003/Section15merge.pdf.

On funding of alternative accident compensation systems, see Stephen D. Sugarman, *Doing Away with Tort Law*, 73 CAL. L. REV. 555, 628-33 (1985). For a thorough discussion of the design and operation of such a system, see Stephen Todd, *Privatization of Accident Compensation: Policy and Politics in New Zealand*, 39 WASHBURN L.J. 404 (2000).

133. THE COSTS OF ACCIDENTS, *supra* note 1, at 6-7, 284, 311.

134. *Id.* at 37.

distribution of the product, such as in the case of childhood lead poisoning—pose particular challenges for the idea that tort liability can deter harmful behavior and lead to loss minimization. Asbestosis and other asbestos-related diseases typically manifest themselves in persons who have had occupational exposure to asbestos within fifteen to thirty-five years.[135] For those who have had only environmental exposure, the latency period may be greater than forty years.[136] Similarly, cancer resulting from smoking may have a latency period of as many as thirty years.[137] The time lag between the manufacture and distribution of a product and the onset of a disease caused by the product often is greatest, however, in the case of childhood lead poisoning. Lead-based paint manufactured as far back as the early decades of the twentieth century remains a leading cause of childhood lead poisoning.[138] Among these three products, only cigarettes continue to be manufactured and sold today.

In this Part, I question whether a liability judgment against manufacturers of products that are no longer sold, such as asbestos or lead paint, at a time two, three, or even twelve decades after the distribution of their products, significantly encourages primary accident cost reduction. I argue that the typical corporate decisionmaker making decisions about her employer's potentially harm-producing behavior—whether to market a product, how much to invest in product-safety testing, and what safety enhancements should be included in the product—likely does not give much weight to the prospect of a liability judgment many decades into the future. If the disease-causing product continues to be manufactured, such as in the case of cigarettes, obviously the prospect of future liability may tend to encourage the withdrawal of the product from the market or other changes designed to reduce the incidence of future latent diseases caused by the continued manufacture of the product. Such liability might have some impact on the manufacturer's subsequent distribution of other products that cause latent diseases, or on the conduct of other manufacturers, but, as discussed below, even this deterrent impact is likely to be less than one might expect.

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135. Falise v. Am. Tobacco Co., 94 F. Supp. 2d 316, 324 (E.D.N.Y. 2000) (Weinstein, J.).

136. *Id.*

137. Lawrence S. Engel et al., *Population Attributable Risks of Esophageal and Gastric Cancers*, 95 J. NAT'L CANCER INST. 1404, 1411 (2003).

138. *See* PRESIDENT'S TASK FORCE, *supra* note 71, at 22 tbl.4 (demonstrating that more than 95% of lead paint currently posing potential health risks was applied before 1960, with 49% having been applied between 1914 and 1923).

A variety of factors combine to substantially reduce the loss minimization effects of manufacturer liability for damages caused by latent diseases that do not manifest themselves until decades after the manufacture or distribution of the disease-causing product. These factors include:

1. inherent psychological tendencies and economic incentives that cause manufacturers to discount future liabilities, including
   a. the inherent human tendency to make decisions based upon time horizons measured in years, not decades; and
   b. the economic logic of discounting contingent liabilities that would not be faced until the distant future;
2. the career prospects of corporate decisionmakers that depend upon short-term and not long-term results;
3. the inability to project how changes in both the cultural perceptions of the acceptability of manufacturers' conduct and in the substantive law governing products liability will affect liabilities in the distant future; and
4. the use of some types of insurance policies in the past that sometimes shifted the liability risks of unforeseen latent diseases from the manufacturer to the insurer.

Felstiner and Siegelman have reached the same general conclusion about the impact of the passage of time on the ability of any accident compensation system to minimize losses: "latent injuries introduce empirical complications that overwhelm the assumptions on which the deterrent effect of tort compensation found in neoclassical economic theory is based."[139]

A. *Inherent Psychological Tendencies and Economic Incentives That Result in the Discounting of Future Liabilities*

Psychological studies suggest an inherent human tendency to discount future liabilities. This human element plays a strong role in assessing the potential impact of corporate liability for diseases manifesting themselves decades into the future, because formal business and economic models often cannot deal with the multiple uncertainties necessary for economic forecasting beyond a few years.[140]

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139. W.L.F. Felstiner & Peter Siegelman, *Neoclassical Difficulties: Tort Deterrence for Latent Injuries*, 11 LAW & POL'Y 309, 309 (1989).

140. *See* Ola Svenson, *Time Perception and Long-Term Risks*, 22 INFOR. J. 196, 197 (1984) (noting that "the ultimate source of models of forecasting and predictions about the future is human," and that "formal models are not valid with the multitude of uncertainties associated with predictions in the distant future").

Boniecki has concluded that "10-15 years seems the most distant practical horizon" that individuals see as related to their own life experiences.[141] Other social scientists have found that research subjects regarded events occurring years into the future as substantially less important than current events.[142] These studies suggest that human factors make it less likely that liability imposed at T_L (time of imposition of liability) will affect decisions made at T_D (time of the initial distribution of the product).

Further, in strictly economic terms, ignoring long-term liabilities—or at least paying little attention to them—may be rational and profit maximizing for the manufacturer. From the manufacturer's economic perspective, the deferral of any liability resulting from distribution of a mass product for a forty-year period is the next best thing to never having to pay the liability. For example, the present discounted value[143] of a $1 million liability payable forty years in the future is only $452,890.[144] Deferral of liability benefits the manufacturer even more when the discount rate is set at a higher level. In the 1980s, Professor Henderson concluded that "high discount rates . . . play[ed] an especially significant role" in encouraging

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141. George Boniecki, *What Are the Limits to Man's Time and Space Perspectives? Toward a Definition of a Realistic Planning Horizon*, 17 TECH. FORECASTING & SOC. CHANGE 161, 174 (1980); *see also* Gerjo Kok, *The Further Away, the Less Serious: Effect of Temporal Distance on Perceived Value and Probability of a Future Event*, 52 PSYCHOL. REP. 531, 534 (1983) ("[P]eople tend to underestimate the disadvantages of long-term behavior . . . [as] a result of an underestimation of the severity of a consequence: the further away, the less serious.").

142. *See* Ulf Lundberg et al., *Involvement in Four Future Events as a Function of Temporal Distance*, 16 SCANDANAVIAN J. PSYCHOL. 2 (1975) (demonstrating that emotional involvement of subjects in future events with higher estimates of event probability decreased slowly as the time until the anticipated event increased to twenty years, and then rapidly approached zero; the emotional involvement of subjects estimating lower probability of future events tended to decrease rapidly in nearest decades and then slowly approach an asymptotic value).

143. *See* PAUL A. SAMUELSON, ECONOMICS 615 (10th ed. 1976). This classic economics textbook explains how the decisionmaker should determine the present discounted value of the amount of the liability to be paid in the future:

> To figure out the value today of $1 payable t years from now, ask yourself how much must be invested today at compound interest to grow into $1 at the end of t years. Now we know that at 6 per cent compound interest any principal grows in t years proportionally to $(1 + 0.06)^t$. Hence, we need only invert this expression to arrive at the final answer. Therefore the *present discounted value* of $1 payable t years from now is only $\$1/(1 + 0.06)^t$. What if the interest rate were 8 per cent? Replace 0.06 by 0.08.

Id. at 615-16 n.4; *see also* DAVID THORNDIKE, THORNDIKE ENCYCLOPEDIA OF BANKING AND FINANCIAL TABLES § 8-1.4 (4th ed. 2001).

144. Here I use a discount rate of 2%. *See* Ramirez v. New York City Off-Track Betting Corp., 112 F.3d 38, 41 n.3 (2d Cir. 1997) (Calabresi, J.) (suggesting a discount rate of 2% per year).

"manufacturers to engage in patterns of deep play, deferring until tomorrow changes in product design and offers of settlement that might . . . be implemented today."[145]

It is unlikely that most manufacturers knowingly or deliberately would ignore an epidemic of injuries resulting from exposure to products that cause latent diseases or the consequent legal liability, even if the epidemic were not projected to occur until forty years into the future. Despite the arguably rational and profit-maximizing impact of discounting, it is to be hoped that the corporate decisionmaker is motivated by other factors, such as a desire to maintain the long-term reputation of her employer or even the altruistic impulse to avoid knowing that one's actions or inactions resulted in other human beings suffering from cancer or other latent diseases. Yet principles of profit maximization arguably produce a corporate culture that discounts any consequences materializing in the distant future, including legal liabilities resulting from latent diseases. Further, the divergence between the interests of the corporation itself and the professional interests of its managers, discussed in the next Subpart, as well as other factors inherent in the passage of time between product distribution and the onset of product-caused disease, considered in subsequent Subparts, unfortunately contribute to a tendency of corporate decisionmakers to pay insufficient attention to liability risks on the distant time horizon.

B. The Interests of Corporate Decisionmakers

Obviously, it is corporate executives and managers who make decisions to market products, including those marketed without adequate testing or awareness of health risks. But what influences their decisions? What is the likely impact on their decisions of the prospect of possible liability twenty, fifty, or one hundred years later? What

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145. James A. Henderson, Jr., *Product Liability and the Passage of Time: The Imprisonment of Corporate Rationality*, 58 N.Y.U. L. REV. 765, 775 (1983). Professor Henderson also observes that corporate decisionmakers may discount future liabilities because they bank on escaping all or part of the financial responsibility for harms caused by their products through tort reform or bankruptcy protection. *Id.* at 776-77. *See generally* KEVIN J. DELANEY, STRATEGIC BANKRUPTCY: HOW CORPORATIONS AND CREDITORS USE CHAPTER 11 TO THEIR ADVANTAGE 172-73 (1992) (discussing how Continental, Manville, and Texaco all utilized bankruptcy to avoid paying damage awards). Even solvent defendants can take advantage of the bankruptcy laws. *See* Jordan A. Kroop, *Toxins-Are-Us: Putting the "Brakes" on Federal Court Jurisdiction*, AM. BANKR. INST. J., June 2002, at *2-4, *available at* 2002 ABI JNL. LEXIS 99 (noting that solvent defendants in asbestos cases assert cross-claims against their Chapter 11 debtor co-defendants in order to delay or avoid liability).

happens when we look inside what Professor Henderson has called the corporate "black box"?[146]

Those who study corporate behavior[147] have reached a conclusion of critical importance to the imposition of liability for latent-disease-causing products that courts and tort theorists almost universally have ignored.[148] The prospect of liability more than a few years in the future—indeed the prospect of anything more than a few years in the future—has little impact on corporate decisionmaking:[149]

> The investment time horizon of utility-maximizing senior corporate managers tends to be short. Senior corporate managers tend to have relatively short tenures in their positions, as such managers often accede to their positions late in their careers and keep these positions for only a few years. More junior managers often move from position to position within the firms (or worse, from firm to firm). Thus, few managers who invest in long-term research and development projects will be around to reap any benefits from such investments.[150]

Theoretically, of course, the corporate entity should be regarded as the cheapest cost avoider, the entity in the best position to bribe or influence the behavior of its management employees so as to reduce the costs of future latent diseases.[151] Further, the economist might

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146. *See* Henderson, *supra* note 145, at 769 (describing and questioning the "black box" model of corporate decisionmaking, in which the interests of corporate managers and manufacturing firms are perfectly congruent).

147. The general topic of "agency problems" in the corporate context, that is, the possible conflict of interests between managers and their firms, obviously is beyond the scope of this Article. For a discussion of the relationship between managers and their firms, see Eugene F. Fama, *Agency Problems and the Theory of the Firm*, 88 J. POL. ECON. 288 (1980); Oliver Williamson, *Corporate Governance*, 93 YALE L.J. 1197 (1984).

148. Felstiner and Siegelman are the most notable exception to this statement. *See* Felstiner & Siegelman, *supra* note 139, at 310 (observing that "managers confronted by uncertainty often seek personal goals at the expense of organizational ones").

149. Thomas Lee Hazen, *The Short-Term/Long-Term Dichotomy and Investment Theory: Implications for Securities Market Regulation and for Corporate Law*, 70 N.C. L. REV. 137, 140 (1991) ("Investors and corporate decisionmakers" must make decisions to satisfy "[t]he investment markets . . . [which] are largely driven by short-term forces."); Henderson, *supra* note 145, at 782 ("The decision that is best for the manager may not be best for the firm, but to the extent that managers can advance their own interests and avoid scrutiny, that circumstance will not affect their decisions.").

150. Steven S. Cherensky, *Shareholders, Managers, and Corporate R&D Spending: An Agency Cost Model*, 10 SANTA CLARA COMPUTER & HIGH TECH. L.J. 299, 328 (1994) (footnotes omitted).

151. I am indebted to the late Ryan Easley, a 2004 graduate of the University of Maryland School of Law and a student in my Spring 2004 Advanced Torts seminar, for this insight. Tragically, both Ryan and Melanie Easley, married only a few months earlier, were killed in a car accident in December 2004. Ryan had unusual analytic abilities and was well

argue that market forces in the competitive market for capital would preclude the apparent discrepancy between the manufacturer's long-term interests and the manager's more immediate interests, at least if the future liabilities were known.[152] A manufacturer facing large liability exposure would be at a competitive disadvantage in attracting equity. This assumes, however, that the presence and extent of the future liability is understood in the equity markets.

The professional interests of corporate managers probably are even more focused on the short term when the long-term exposure is only a possibility—as is always the case with a potential legal liability—and not a certainty.[153] Professors Gillette and Krier provide the following illustration:

> Imagine, for example, a manager with sufficient resources to invest in either of two ventures, but not both. The first venture bears a .1 probability of increasing next year's profits by $10 million. The second is expected, with the same probability, to avoid distant losses from injuries by an amount presently valued at something more than $10 million. A desire for tangible and relatively quick indicia of success will incline the manager to pursue the former strategy, even if the latter has a higher expected value, simply because the manager can't demonstrate that she triggered a benefit by arranging that something bad won't eventually happen. This incentive to pursue tangible gains, rather than to avoid ethereal losses, may become greater as the relative certainty of the former increases, notwithstanding that the expected value of the two options is equal. Suppose that the first venture in our example is regarded as almost certain to increase profits by $1 million, while the second venture would avoid injury losses totaling $100 million were they to materialize, but the probability of materialization is only .01. The manager will now be even more tempted to pursue the first strategy, because certain and demonstrable gains are likely to enhance her standing in the firm more than would the tenuous avoidance of losses.[154]

In short, even if the rational, wealth-maximizing decision of a corporate entity would be to eliminate or reduce currently profitable ac-

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on his way to becoming an outstanding lawyer. His death is a painful reminder that the "costs of accidents" are far more than dollars.

152. *But see* Felstiner & Siegelman, *supra* note 139, at 311 (rebutting this argument).

153. *Cf.* Lundberg et al., *supra* note 142 (suggesting that lower probability of future events increases the rate at which subjects discount the significance of future events).

154. Clayton P. Gillette & James E. Krier, *Risk, Courts, and Agencies*, 138 U. PA. L. REV. 1027, 1040-41 (1990) (footnotes omitted).

tivities that may result in latent disease in coming decades, it is unlikely that corporate managers will make that decision, because of the disparity between their own interests and those of their employers.[155]

According to some observers, in recent decades, shareholders of corporations, particularly institutional investors, have been even more focused on short-term results than have corporate managers:

> The ascendancy, increased activism, and short-term focus of the institutional investor have significant implications for this age . . . . Whatever the perceived vices of management control, management historically pursued socially beneficial objectives such as expanding the enterprise, improving productivity, and cultivating planning, research, and development. In contrast, the new control persons—the institutional investors—share none of these social goals.[156]

Lipton goes on and decries the focus on short-term profitability rather than on long-term research.[157] Belzer has noted the often short-term nature of corporate ownership and has criticized Superfund liability—imposed in situations parallel to liability for product-caused latent diseases—for penalizing a group of corporate shareholders, decades after the corporate decisions that caused toxic contamination:

> There is another intergenerational equity issue that arises in the Superfund program . . . .
> . . . For all publicly traded corporations held liable for site remediation, the beneficiary capitalists were those who owned stock at the time these actions occurred. These are not necessarily the same people and institutions who owned shares at the time that contamination was discovered thereby triggering the EPA's cleanup demands, or when stock prices declined to capitalize the reduced future stream of (dis-

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155. Professor Henderson offers modest suggestions for better aligning the interests of the corporation and its managers in this context, but I am skeptical both that these suggestions would solve the problem and that it would be feasible to enact his suggestions. *See* Henderson, *supra* note 145, at 785-94.

156. Martin Lipton, *Corporate Governance in the Age of Finance Corporatism*, 136 U. PA. L. REV. 1, 8-9 (1987) (footnote omitted). Similarly, Roe notes that:

> Modern writers blame corporate mismanagement on shareholders, who they say value short-run profits excessively, to the detriment of the nation. They claim that managers would take the long-view but are stymied by Wall Street's short-run goals; companies shun long-term investment, and industry underinvests in research and development.

157. Mark J. Roe, *A Political Theory of American Corporate Finance*, 91 COLUM. L. REV. 10, 13 (1991).

Lipton, *supra* note 156, at 23.

> counted) profits. Depending on how ancient the hazardous waste problem, most of the actual beneficiaries could be dead. Instead of making polluters pay, Superfund imposes the cost of remediation on those with the misfortune of having acquired stock from those who benefited from the pollution. It is not based on the Polluter Pays Principle, but rather on the Hot Potato Principle.[158]

In theory at least, corporations often rely on members of boards of directors to consider the long-term consequences of corporate actions in a manner that managers and executives, and even short-term investors, sometimes do not.[159] It is possible that a board member would intervene in the introduction of a new product and insist on greater product-safety testing or other forms of latent-disease avoidance. In many instances, though, the independent board member probably lacks knowledge of the possible risks of latent diseases. Those board members who are most likely to be aware of product risks likely are "inside" board members[160] and may, like managers and shareholders, be more interested in immediate and tangible financial consequences than in the risks of latent diseases or liability resulting from such diseases decades in the future.[161]

C. Changing Law and Cultural Attitudes

In order for any accident compensation system to provide the appropriate incentives for product manufacturers to minimize loss, their liability exposures must be foreseeable. Yet in the decades between the activities of a manufacturer that are causally connected to a product-caused disease and the manifestation of such disease, the law governing the manufacturer's liability, the legal climate in which liability is determined, and the cultural attitudes regarding latent diseases all

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158. Richard B. Belzer, *Discounting Across Generations: Necessary, Not Suspect*, 20 RISK ANALYSIS 779, 788 (2000).

159. *See* Lisa M. Fairfax, *Doing Well While Doing Good: Reassessing the Scope of Directors' Fiduciary Obligations in For-Profit Corporations with Non-Shareholder Beneficiaries*, 59 WASH. & LEE L. REV. 409 (2002). Many states have enacted statutes allowing boards to consider the impact that corporate decisions may have on constituencies other than shareholders. *See id.* at 460-64. A substantial number of these statutes, however, apply only in the takeover context. *Id.* at 463. Additionally, these statutes do not *require* directors to consider longer-term interests or broader constituencies. *Id.*; *see also* Lawrence E. Mitchell, *A Theoretical and Practical Framework for Enforcing Corporate Constituency Statutes*, 70 TEX. L. REV. 579 (1992).

160. An "inside" board member typically is one who is also a corporate officer or employee, or an otherwise affiliated director, such as a banker or attorney who works on behalf of the corporation. WILLIAM E. KNEPPER & DAN A. BAILEY, LIABILITY OF CORPORATE OFFICERS AND DIRECTORS § 1.14, at 1-52 to 1-53 (7th ed. 2004).

161. *See* Peter C. Kostant, *Breeding Better Watchdogs: Multidisciplinary Partnerships in Corporate Legal Practice*, 84 MINN. L. REV. 1213, 1237 n.100 (2000).

may change dramatically. Even if one believes that manufacturers of asbestos products acted in an ethically culpable and outrageous manner and ought to be held legally accountable for the diseases caused by their products, it is still fair to recognize that these manufacturers' behavior can be explained at least in part by a failure to predict such changes. As Felstiner and Siegelman have observed:

> Asbestos company officials in the [U.S.] in the 1930s, 40s and 50s were undeterred from putting consumers and workers in jeopardy not because they ignored the legal consequences of their own behavior, but because they did not predict the changes in legal doctrine and pre-trial practice that would facilitate the litigation that eventually erupted.[162]

The changes in substantive law governing the liability of manufacturers of mass products during the last half of the twentieth century obviously were as dramatic as any changes in American tort law since the emergence of negligence law during the first half of the nineteenth century. In addition, judges became more willing to submit cases to the jury[163] and damage awards increased substantially in excess of the rate of inflation.[164] The last fifty years also have brought significant cultural changes that result in injured parties being less likely to blame illness and disease on "fate" and more likely to seek a culpable human cause that can be held legally responsible.[165] Perhaps most importantly in the context of latent diseases caused by mass

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162. Felstiner & Siegelman, *supra* note 139, at 313.

163. *See* WERNER PFENNIGSTORF & DONALD G. GIFFORD, A COMPARATIVE STUDY OF LIABILITY LAW AND COMPENSATION SCHEMES IN TEN COUNTRIES AND THE UNITED STATES 36-37 (1991); Kenneth S. Abraham, *The Trouble with Negligence*, 54 VAND. L. REV. 1187, 1198-99 (2001) ("The increasing tendency of trial judges, as the twentieth century proceeded, to submit issues for jury decision rather than to decide them as a matter of law is a testament to the growing influence of the democratic ethos as negligence law has developed.").

164. *See, e.g.*, W. KIP VISCUSI, REFORMING PRODUCTS LIABILITY 96 & tbl.5.2 (1991) (examining jury awards in products liability cases from 1971 to 1988 and finding that in most years, the rate of increase in awards exceeded the rate of inflation); *compare* ERIK MOLLER, TRENDS IN CIVIL JURY VERDICTS SINCE 1985, at 16 (RAND Inst. for Civil Justice, Doc. No. DRU-1222-ICJ, 1995) (reporting results of a study of jury verdicts in fifteen jurisdictions from 1985 to 1994, which indicated a general increase in award amounts across jurisdictions, with the highest increase, 300%, in Cook County, Illinois), *with* Bureau of Justice Statistics, U.S. Dep't of Labor, Consumer Price Index—All Urban Consumers: U.S. City Average, *at* ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt (Dec. 17, 2004) (showing a cumulative increase in CPI during same period of time of roughly 40%).

165. *See* Donald G. Gifford & David J. Nye, *Litigation Trends in Florida: Saga of a Growth State*, 39 U. FLA. L. REV. 829, 869 (1987) (noting that injured parties "are less willing to attribute tragedy to fate, the supernatural, or chance," which is one explanation for the general increase in litigation); *see also Alternatives to the American Judicial System*, *in* NO ACCESS TO LAW: ALTERNATIVES TO THE AMERICAN LEGAL SYSTEM 3, 4-5 (Laura Nader ed., 1980) (noting that individuals increasingly turn to the state for redress because other mecha-

products, the link between product exposure and the resulting disease often was not as clearly understood at the time of the manufacture of the product as it is today.[166] While it had long been understood that smoking results in harmful health effects, the strong causal connection between lung cancer and smoking was not clearly established until the 1950s.[167] The dangers of high-dosage exposure to lead probably have been known since ancient times,[168] but the effects of low doses of lead on children in terms of loss of intelligence, behavior disruptions, and physiological changes, were not fully appreciated until decades into the twentieth century.[169] Fifty or sixty years ago, even the most astute and prudent corporate decisionmakers and their counsel probably could not have predicted these changes in scientific understanding of the effects of exposure to tobacco smoke or lead, the cultural shifting in blaming behavior, and the changes in the legal system's handling of claims seeking compensation for latent diseases.

The reflexive response to this argument might be that corporations and their counsel should anticipate progressive changes in the

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nisms of social control, such as public opinion, have less force in today's increasingly fragmented, urbanized, and mobile society).

166. This is due in part to a shift in the focus of public health. In the early decades of the twentieth century, public health was focused on contagious diseases, not on diseases caused by toxic exposure. *See* CHRISTIAN WARREN, BRUSH WITH DEATH: A SOCIAL HISTORY OF LEAD POISONING 38-39 (2000).

167. DAVID KESSLER, A QUESTION OF INTENT: A GREAT AMERICAN BATTLE WITH A DEADLY INDUSTRY 198 (2001); Rabin, *Sociolegal History*, *supra* note 63, at 856. According to Kessler, a series of medical presentations in December 1953 that demonstrated the link between smoking and cancer first focused public attention on the dangers of smoking. Until this time, the link between smoking and cancer had not been acknowledged by the National Cancer Institute, the U.S. Public Health Service, or many prominent doctors and scientists. KESSLER, *supra*, at 198.

168. WARREN, *supra* note 166, at 20 (noting that the Greek poet and physician Nicander described the symptoms of acute lead poisoning in the second century B.C.).

169. According to Warren, "[a]t the beginning of the twentieth century, the relative lack of diagnostic tools meant that only acute, clinical plumbism was accurately diagnosed." *Id.* at 14. Public health researchers only "became aware of the true scale of childhood lead poisoning [in the late 1960s]." *Id.* at 28. Warren continues, "[a]s late as the early 1950s, Baltimore's aggressive pediatric lead-screening program defined cases in which the blood-lead level exceeded 70 μg/dL only as 'possible' lead poisoning." *Id.* Today, the Centers for Disease Control notes that "[m]any studies point to a link between BLLs [blood-lead levels] >=10 μg/dL and harmful health effects, in particular learning disabilities and behavior problems." Nat'l Ctr. For Envtl. Health, Ctrs. for Disease Control and Prevention, Children's Blood Lead Levels in the United States, *at* http://www.cdc.gov/nceh/lead/research/kidsBLL.htm (last reviewed Oct. 4, 2004). Warren concludes, "[t]he prerequisites for the discovery of childhood lead-poisoning's epidemic nature were met in the United States by the 1920s . . . [b]ut until the 1970s, the medical and public health communities' responses remained sluggish, if not moribund." WARREN, *supra* note 166, at 43.

law,[170] generally err on the side of greater avoidance of injury and disease, and encourage a "safety margin" or "cushion" against future liability. Neither Calabresi's theory of accident law nor the existing principles of tort liability, however, typically seek to prevent *all* injury or illness resulting from products, and such an approach could lead to keeping many useful products out of the marketplace, excessive product testing, and other unnecessary safety precautions not warranted by the reduction in accident costs.[171]

Changes in the law and legal culture, however, do not invariably favor the plaintiff. Trends in products liability law during the 1980s and 1990s generally have been seen as benefiting manufacturers, not consumers.[172] State legislative "tort reform,"[173] the unwillingness of courts to certify classes of injured consumers,[174] and the increased use of bankruptcy by mass products manufacturers to avoid liability[175] all might have been difficult for corporate counsel and executives or insurance actuaries to foresee as late as the 1980s. Similarly, it is difficult to predict the changes in accident compensation law, legal process, and blaming behavior that the next generation will bring and whether these changes will benefit manufacturers or victims of latent

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170. *See, e.g.*, Gary T. Schwartz, *New Products, Old Products, Evolving Law, Retroactive Law*, 58 N.Y.U. L. REV. 796 (1983).

171. *Contra* Gregory C. Keating, *Pressing Precaution Beyond the Point of Cost-Justification*, 56 VAND. L. REV. 653, 747 (2003) ("Cost-justified precaution . . . demands too little in the way of precaution . . . .").

172. *E.g.*, James A. Henderson, Jr. & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479, 481 (1990).

173. *See* Joseph Sanders & Craig Joyce, *"Off to the Races": The 1980s Tort Crisis and the Law Reform Process*, 27 HOUS. L. REV. 207, 218-23 (1990) (summarizing legislative efforts to limit tort liability in forty-eight states between 1985 and 1988).

174. *E.g.*, Barnes v. Am. Tobacco Co., 161 F.3d 127, 143 (3d Cir. 1998) (finding that individual issues raised by cigarette litigation precluded class certification); Castano v. Am. Tobacco Co., 84 F.3d 734, 752 (5th Cir. 1996) (decertifying a class because of the prominence of individual issues and variations in state law); Barreras Ruiz v. Am. Tobacco Co., 180 F.R.D. 194, 199 (D.P.R. 1998) (denying class certification because the proposed class action was not a superior form of adjudication to individual actions and because common issues of law and fact were not predominant); Smith v. Brown & Williamson Tobacco Corp., 174 F.R.D. 90, 98-99 (W.D. Mo. 1997) (same).

175. *E.g.*, Kane v. Johns-Manville Corp., 843 F.2d 636, 638-39 (2d Cir. 1988) (affirming the bankruptcy court's confirmation of the plan of reorganization for Johns-Manville Corp., which faced significant liabilities from asbestos litigation); *In re* Fuller-Austin Insulation, No. 98-2038-JJF, 1998 U.S. Dist. LEXIS 18340, at *3-5 (D. Del. Nov. 10, 1998) (finding that certain parties did not have standing to object to the plan of reorganization under Chapter 11 of the Bankruptcy Code of a company that sought to consolidate all present and future asbestos claims in a trust); Helen Dewar & Kathleen Day, *Senate Approves Bankruptcy Bill; Industry-Sought Overhaul Passes 83-14*, WASH. POST, Feb. 3, 2000, at A1, *available at* 2000 WL 2283515 (noting that gun manufacturers have filed for bankruptcy to avoid liability arising from tort lawsuits). *See generally* DELANEY, *supra* note 145.

diseases caused by exposure to products that were manufactured one or two decades ago.

D. The Impact of "Occurrence" and "Claims-Made" Insurance Policies

The time delay between the manufacture and distribution of a product that causes latent disease and any legal liability that may deter or regulate a manufacturer's conduct may be affected by the type of liability insurance that a manufacturer carries. Prior to the mid-1980s, coverage under most policies insuring against manufacturers' liability for harm resulting from exposure to their products was triggered by an "occurrence," defined in a typical policy as "an accident, including injurious exposure to conditions, which results, during the policy period, in *bodily injury*."[176] In the mass products/latent diseases context, courts have reached differing conclusions on the question of which event is the occurrence triggering coverage. Some courts have held that the policy in effect at the time of the victim's exposure to the disease-causing product is the policy at risk,[177] a few have held that the insurer providing coverage at the time of the manifestation of disease provides coverage,[178] and many courts now follow the "triple-trigger" or "continuous-trigger" approach and hold that any insurer who provided coverage at any time between the initial exposure of the victim to the product and the subsequent manifestation of disease is liable to the manufacturer for indemnification and defense costs.[179]

Under an occurrence policy, the choice among the possible triggers of coverage determines whether it is the insurer or the manufacturer—either directly or through increases in the cost of subsequently purchased insurance policies—that will bear the financial risk resulting either from the discovery that a product causes a latent disease theretofore unknown or from changes in the law and legal culture. Under an exposure theory, the amount of the policy premium is determined and the premium paid long before the victims' latent diseases manifest themselves. The insurer therefore bears the risk that

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176. Keene Corp. v. Ins. Co. of N. Am., 667 F.2d 1034, 1039 (D.C. Cir. 1981).

177. *E.g.*, Ins. Co. of N. Am. v. Forty-Eight Insulations, Inc., 633 F.2d 1212, 1217, 1223 (6th Cir. 1980), *aff'd on reh'g*, 657 F.2d 814 (6th Cir. 1981) (subscribing to the "exposure theory" of insurance coverage, under which all insurance carriers that provided coverage during the period in which the employee was exposed to asbestos are liable).

178. *E.g.*, Eagle-Picher Indus., Inc. v. Liberty Mut. Ins. Co., 682 F.2d 12, 25 (1st Cir. 1982) (holding that "the operative date for determining which of . . . several policies . . . apply to a given claim . . . is the date when the asbestos-related disease became reasonably capable of medical diagnosis").

179. *E.g.*, *Keene*, 667 F.2d at 1041; Owens-Illinois, Inc. v. United Ins. Co., 650 A.2d 974, 995 (N.J. 1994).

medical science will subsequently determine that the product causes an unforeseeable latent disease and also bears the risk of pro-plaintiff developments in the law or legal culture.[180] Under a manifestation trigger, the risks of changes in medical understanding or the law in the time between the victim's exposure to the product and the manifestation of his illness would be largely borne by the insured manufacturer if the liability insurance industry, as would be expected, excludes coverage of the product in question or increases the price of such coverage in response to these intervening developments. Finally, under the continuous-trigger approach, the risks are shared between the manufacturer and the insurer. Insurers whose policies cover the risk of liabilities from latent disease because the exposure took place during the policy periods will share financial responsibility for the unforeseen latent diseases with manufacturers who later purchased policies covering these liabilities (once the risks of the latent diseases were known and reflected in the price of coverage), under which coverage was triggered by the manifestation of the disease.

Courts adopting either an exposure or a continuous-trigger approach under an occurrence-based policy thus further erode the deterrent impact on the manufacturer that otherwise might have resulted from the imposition of liability. In these situations, it is not just that a substantial period of time passes before the manufacturer faces liability. In this situation, the insurer ends up unexpectedly bearing at least part of the financial risk for a large liability that may not have been anticipated by either the manufacturer or the insurer and that was not reflected in the policy premium.

Insurers' unexpected and dramatically large exposure resulting from asbestos liability led them in 1984 to begin to offer policies on a "claims-made" basis.[181] Claims-made policies provide coverage for those claims discovered and brought to the attention of the insurer during the policy term, regardless of when the product was manufactured, when the victim was exposed to the product, or when the victim's illness first manifested itself.[182] At the current time, manufacturers that do not appear to have "long-tail" liability risks generally still can obtain occurrence policies, but those in fields such as

180. *See* Kenneth S. Abraham, *Making Sense of the Liability Insurance Crisis*, 48 OHIO ST. L.J. 399, 406 (1987) [hereinafter *Liability Insurance*] ("Pricing an occurrence policy under such circumstances is an exercise in speculation.").

181. Eugene R. Anderson et al., *Liability Insurance: A Primer for Corporate Counsel*, 49 BUS. LAW. 259, 264-65 (1993); *see also* Abraham, *Liability Insurance*, *supra* note 180, at 406.

182. ROBERT H. JERRY, II, UNDERSTANDING INSURANCE LAW § 65[a], at 531-32 (3d ed. 2002).

pharmaceuticals, which pose risks of latent diseases, may be forced to purchase claims-made policies.[183] Even a manufacturer whose products pose a long-term risk sometimes can negotiate to obtain an occurrence policy if its negotiating leverage is sufficiently great, e.g., a large corporation with the need for extensive and diverse insurance coverages.

Under claims-made policies, the risk of a new understanding in the distant future of a causal connection between exposure to the insured manufacturer's product and disease, as well as changes in the law and legal climate, are largely shifted to the insured and are not borne by the insurer.[184] To the extent that insurers still offer occurrence policies to manufacturers whose products posed any risk at all of downstream latent diseases, it is likely that such policies have included what Professor Abraham has called an "unpredictability risk premium," thus shifting back to the insured at least a portion of the risk of liability judgments resulting from latent diseases not anticipated at the time of product distribution.[185]

Even a claims-made policy that places the financial risks for the subsequent discovery of latent diseases on the insured manufacturer and not on the insurer, however, does nothing to counteract the factors discussed above that discourage the manufacturer from giving much weight to liabilities on the distant time horizon, i.e., the rational discounting of liabilities that will not occur until decades into the future, the human tendency to make decisions premised upon events occurring in a more proximate time horizon, and the professional and financial interests of those in the corporate culture that often focus on short-term outcomes.

E. The Passage of Time and the Effects of Imposing Liability

This Part has argued that imposing liability for the manufacture of a mass product that has resulted in latent diseases decades after the distribution of the product is unlikely to affect the manufacturer's original activities in manufacturing and distributing the product. What effect, however, might such liability have on encouraging primary accident cost avoidance by these manufacturers and their peers in other contexts?

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183. E-mail from Professor Kenneth S. Abraham, University of Virginia School of Law (Apr. 13, 2004) (on file with author).

184. Abraham, *Liability Insurance*, *supra* note 180, at 406.

185. *Id.* at 405.

Most obviously, liability judgments at T_L (time of determination of liability) for latent diseases caused by the product encourage the manufacturer either to stop continued distribution of the product at T_L or to otherwise avoid further harm by changing the design or composition of the product or by providing effective warnings to product users. The conclusion that liability at T_L will not encourage primary accident cost avoidance applies only to those situations where the manufacturer already has stopped distribution of the product or already has taken steps to prevent products currently distributed from causing latent diseases in the future. This is not an unusual situation, however. The initial determinations of liability for illnesses caused by DES,[186] Agent Orange,[187] lead-based paint,[188] and many other products occurred after the withdrawal of the product from the market. Most of the judgments against asbestos manufacturers also occurred after federal regulators had effectively prohibited the use of asbestos in its highest-risk, i.e. commercial, applications.[189] Even if the initial litigation against the manufacturer of a disease-causing product occurred while the product was still on the market, this litigation, together with the publicity generated by the litigation and resulting regulatory actions, generally results in the removal of the product from the market.[190] The threat of subsequent liability judgments obviously influences this decision, but the inherent nature of "mass" torts, e.g., litigation against manufacturers of asbestos products, is such that the degree of legal exposure projected generally is far greater than

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186. *See supra* notes 49-53 and accompanying text. The manufacture of DES was discontinued in 1971 when the Food and Drug Administration banned its use after studies linked the drug to adenocarcinoma. *In re* DES Cases, 789 F. Supp. 552, 558 (E.D.N.Y. 1992) (Weinstein, J.). Claims against the manufacturers began in the mid-1970s, but were unsuccessful until the development of market share liability enabled claimants to circumvent their inability to identify the manufacturer of the specific product that caused harm to any particular plaintiff. *See* MEYERS, *supra* note 49, at 215-30.

187. *See supra* notes 45-48 and accompanying text. The Department of Defense suspended use of Agent Orange in 1970. Ellen Tannenbaum, Note, *The Pratt-Weinstein Approach to Mass Tort Litigation*, 52 BROOK. L. REV. 455, 459 (1986). The first case was not filed until 1978. *Id.* at 460.

188. Manufacturers of lead pigment or lead-based paint, which was banned by federal law in 1978, have yet to be held liable for childhood lead poisoning. *See supra* notes 71-76 and accompanying text.

189. *See supra* notes 5, 33-44 and *infra* notes 251-253 and accompanying text.

190. For example, silicon gel breast implants were taken off the market in 1992 by the FDA except for reconstructive (as opposed to cosmetic) purposes or for extremely limited clinical trials. Rebecca Weisman, *Reforms in Medical Device Regulation: An Examination of the Silicone Gel Breast Implant Debacle*, 23 GOLDEN GATE U. L. REV. 973, 980-81 (1993). The FDA explicitly stated that the ban was due to information uncovered in some of the initial litigation. *Id.* at 981. However, the bulk of the litigation did not come until after the implants had been taken off the market. *See* ANGELL, *supra* note 57, at 69-89.

that probably necessary to encourage the manufacturer to withdraw the product from the market.[191]

One would assume that the imposition of liability also would influence the product manufacturer, and other manufacturers in the industry, when they make decisions in the future about the distribution of other products. The factors analyzed in this Part, however, suggest that the mere imposition of financial liability at T_L, decades after the decisions are made about product safety and product distribution, may not significantly encourage either the same product manufacturer or its peers to take care to avoid similar liabilities in the future. Imposition of liability probably does make corporate decisionmakers more conscious of liabilities that could occur in the distant future,[192] but it is still likely that the corporate manager would discount the effects of such liabilities. Further, while corporate cultures today may encourage greater sensitivity to the harms caused by toxic products, many executives probably remain more concerned about the next quarter's numbers and the impact of such short-term feedback on their careers than they are about the prospect of corporate liabilities or the health problems—regardless of their severity—experienced by those exposed to their products at a point in the distant future long after the executives' retirements or deaths.

F. Time and the Determination of the Cheapest Cost Avoider

Law and economics and tort theorists often overlook *time*, the fourth dimension. As described in this Subpart, the passage of time between T_A (the time of the acts that are a contributing cause of the accident or illness) and T_L (the time of liability) is ignored.[193] If the only goal is to minimize the costs of accidents or latent diseases, the

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191. *See, e.g., supra* notes 39-44 and accompanying text (examining the costs associated with asbestos litigation).

192. The nature of latent diseases often means that the manufacturer does not know whether any latent diseases caused by exposure to its products will occur within a couple of years, only after several decades, or never, but it would be rational for the manufacturer to assume that at least some of the risks of latent diseases are risks that would not manifest themselves until decades into the future.

193. In a 1983 commentary, in Symposium, *The Passage of Time: The Implications for Product Liability*, 58 N.Y.U. L. REV. 733 (1983), Calabresi considered the passage of time in a different context. *See* Guido Calabresi, *Commentary*, 58 N.Y.U. L. REV. 939 (1983). He asked whether, in assessing a party's conduct under a cost-benefit analysis, the situation should be viewed retrospectively at the time of the accident (the "hindsight test") or prospectively as of the time of the party's conduct (the "prospective test"). *Id.* at 941. Calabresi's focus was on a different issue—which party should bear the risk of harm from unknowable risks—rather than on the frustration of the effectiveness of liability in minimizing losses that result merely from the passage of a significant period of time. *Id.*

determination of which party is the cheapest cost avoider should be made at T_A and not T_L.[194] In the latent disease context, however, the T_A may be different for various actors who contribute to the harm. For instance, the determination of the cheapest cost avoider[195] may turn upon the point in time at which this determination is made. For example, the contributing causes of childhood lead poisoning may include the manufacturer's distribution of a lead-based paint in 1920 and the landlord's allowing the paint to deteriorate during the 1990s. The effects of the passage of time on the determination of the cheapest cost avoider will be considered further in Part VI.

V. THE INABILITY TO ASSESS THE COSTS OF LATENT DISEASES TO THE ACTIVITY CAUSING THE HARM

For primary accident cost avoidance to occur with any precision, the damages resulting from latent diseases due to exposure to mass products must be assessed to the activity causing the harm. In reality, this is probably impossible to accomplish in most cases. The obstacle is a somewhat different—and more difficult—one than the problem addressed by market share liability in *Sindell v. Abbott Laboratories*[196] or by Calabresi's argument in *The Costs of Accidents* that actors causing injuries should be held liable even if the victims cannot identify the particular actor who caused their harm.[197] Even if we were willing to forgo the traditional requirement that the victim must identify the particular tortfeasor causing her harm, there is a "second generation" problem with multiple and indeterminate defendants: If primary accident cost avoidance is to be achieved, the costs of accidents must in actuality be borne at least by the activity causing the harm, even if they

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194. Calabresi implicitly reached the opposite conclusion on this question, but he did so in the distinguishable context of which party should bear the risk of harm from unknowable risks. He concludes that the "entrepreneur" should bear this risk because "[i]n an entrepreneurial society like ours, those who choose to be entrepreneurs can properly be assumed to be less risk-averse than others." *Id.* His argument seems to be one based more on fairness than on primary accident cost avoidance, though it can be argued that the "less risk-averse" nature of entrepreneurs when compared with that of victims requires that in a close case, the costs of accidents should be placed on entrepreneurs in order to deter those more likely to engage in accident-causing behavior. *Id.* Again, his conclusion does not address the issue considered here, the likely inability of the imposition of liability decades later to affect the manufacturer's conduct at the time of the manufacture and distribution of a product.

195. *See supra* notes 105-118 and accompanying text (discussing Calabresi's analysis of the cheapest cost avoider); *infra* Part VI (discussing the determination of the cheapest cost avoider in various areas of mass torts).

196. 607 P.2d 924 (Cal. 1980); *see infra* notes 215-224 and accompanying text (discussing market share liability).

197. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 297-99.

cannot be assessed against the specific actor causing the harm. My argument is somewhat complex, so let us begin with the comparatively simple first-generation problem of whether the victim should be able to recover if she cannot identify the particular actor causing her harm.

A. The Inability to Identify the Actor Causing the Disease

1. Latent Diseases Resulting from Products Manufactured by Multiple or Indeterminate Firms.—In many, perhaps most, examples of latent diseases, the injured party is not able to identify the particular firm that manufactured the product causing her harm. Numerous firms manufacture products that are fungible or essentially so, and it is often impossible for the injured party to identify the manufacturer of the product that caused her harm because she is asked to do so years after she purchased or consumed the product. The facts of the widely known opinion in *Sindell* illustrate the issue. Plaintiff sued on behalf of herself and other similarly situated women suffering from cancerous and pre-cancerous growths that she alleged resulted from their mothers' consumption, at least ten or twelve years earlier, of diethylstilbestrol (DES), a synthetic estrogen compound intended to prevent miscarriages in pregnant women.[198] Plaintiff lacked the means to identify which pharmaceutical company manufactured the DES consumed by her mother, because eleven drug companies named in the complaint and scores of additional drug companies used an identical chemical formula for the drug.[199] The plaintiff admitted that she could not identify which company had manufactured the drug responsible for her injury, and accordingly, the trial court dismissed the complaint.[200] Claimants face similar obstacles in cases involving exposure to a wide variety of products that are fungible or similar, particularly when the delayed onset of harm and the passage of time have made identification of the specific manufacturer responsible for the disease impossible.[201] The claimant's ability to recover for his injury

198. *Sindell*, 607 P.2d at 925.

199. *Id.* at 926.

200. *Id.*

201. In another DES opinion, the Massachusetts Supreme Judicial Court noted that "[i]dentification of the party responsible for causing injury to another is a longstanding prerequisite" for liability. Payton v. Abbott Labs., 437 N.E.2d 171, 188 (Mass. 1982). The court reasoned that this requirement "separates wrongdoers from innocent actors, and also ensures that wrongdoers are held liable only for the harm that they have caused." *Id.* Many courts have recognized the dilemma caused by the traditional requirement that the victim identify the specific manufacturer that produced the fungible product that caused her disease. For example, in *Smith v. Cutter Biological, Inc.*, the Hawaii Supreme Court acknowledged that unless it departed from traditional rules of causation, "innocent plaintiffs would be left without a remedy." 823 P.2d 717, 724 (Haw. 1991).

has been denied because of his inability to prove which specific defendant manufactured the product in cases of exposure to Agent Orange,[202] asbestos insulation,[203] lead pigment,[204] and cigarettes.[205]

2. Market Share Liability and Other Forms of Collective Liability for Latent Diseases.—Despite the traditional requirement that a claimant identify the specific product manufacturer whose product caused her harm, manufacturers of mass products may be held liable without proof of specific identification on legal theories including civil conspiracy[206] or concert of action,[207] alternative liability,[208] enterprise or

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202. *E.g.*, *In re* "Agent Orange" Prod. Liab. Litig., 611 F. Supp. 1223, 1263 (E.D.N.Y. 1985) (Weinstein, J.) (denying recovery to plaintiffs who opted-out of a class action settlement and were unable to prove that their diseases resulted from exposure to Agent Orange or that "any particular defendant produced the Agent Orange to which he may have been exposed").

203. *E.g.*, Bateman v. Johns-Manville Sales Corp., 781 F.2d 1132, 1133 (5th Cir. 1986) (affirming the dismissal of an asbestos case in which the plaintiffs were unable to identify either the specific products that caused their diseases or any of the manufacturers of the products).

204. *E.g.*, Skipworth v. Lead Indus. Ass'n, 690 A.2d 169, 175 (Pa. 1997) (affirming summary judgment because of plaintiffs' inability to identify the manufacturer of the lead pigment).

205. *E.g.*, Brown v. Philip Morris Inc., 228 F. Supp. 2d 506, 515 (D.N.J. 2002) (granting summary judgment in a suit against a tobacco company because plaintiff "provided insufficient evidence that decedent was exposed to [the defendant's] product").

206. *E.g.*, Wright v. Brooke Group Ltd., 114 F. Supp. 2d 797 (N.D. Iowa 2000). In *Wright*, plaintiffs sued multiple cigarette manufacturers, alleging "civil conspiracy," among other torts. *Id.* at 803. They alleged that the defendants were "acting in concert . . . to produce an unreasonably dangerous product—cigarettes—an underlying wrong for which they could be held strictly liable." *Id.* at 837. The court denied the defendants' motion to dismiss the civil conspiracy claim. *Id.* at 838; *see also* Hollar v. Philip Morris Inc., 43 F. Supp. 2d 794, 810 (N.D. Ohio 1998) (denying defendants' motion to dismiss a claim that the defendant cigarette manufacturers "conspired and acted in concert to deprive the public and consumers of cigarettes of the medical and scientific data and further misrepresented the adverse health effects of cigarettes"); *In re* Asbestos Litig., 679 F. Supp. 1096, 1099 (S.D. Fla. 1987) (denying defendants' motion to dismiss a civil conspiracy claim in an asbestos case where plaintiff alleged cooperation between manufacturers to misrepresent and conceal "the dangerous nature of the product").

207. *E.g.*, *In re* Related Asbestos Cases, 543 F. Supp. 1152, 1159 (N.D. Cal. 1982) (denying a motion to dismiss concert of action claims against manufacturers of asbestos products); Abel v. Eli Lilly & Co., 289 N.W.2d 20, 25, 27 (Mich. Ct. App. 1979) (noting that under a concert of action claim a defendant manufacturer may be "liable for the harm caused by his fellows because all acted jointly" and holding that plaintiffs adequately stated a cause of action), *aff'd*, 343 N.W.2d 164 (Mich. 1984).

208. *E.g.*, Menne v. Celotex Corp., 861 F.2d 1453 (10th Cir. 1988). In *Menne*, the plaintiff developed mesothelioma after a forty-year history of exposure to asbestos products as a pipefitter and plumbing and heating contractor. *Id.* at 1456. Plaintiff proved that he had been exposed to asbestos products manufactured by each of the defendants, but could not prove that exposure to any particular defendant's product was a substantial cause of his disease, a requirement under Nebraska law. *Id.* at 1461-62. Under these circumstances, the court held that it was appropriate to shift the burden to the defendants "to prove the

industry-wide liability,[209] and market share liability.[210] Each of these theories for holding manufacturers of mass products liable, however, has been applied only in cases with specific (and generally unusual) circumstances.[211] Even if courts impose liability on mass products manufacturers collectively, with the exception of market share liability, such liability is joint and several.[212] When courts hold multiple or indeterminate manufacturers jointly and severally liable, the critical issue for primary accident cost avoidance becomes how the courts will divide financial responsibility among the manufacturers,[213] or per-

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exposure [from their respective products] was unlikely to have been frequent or long enough to be a substantial factor in causing Menne's mesothelioma." *Id.* at 1468. The court acknowledged that "[w]here a defendant lacks evidence as to the frequency or duration of exposure, the burden shift may well result in a finding that the defendant is a cause of the harm." *Id.* at 1469.

209. *E.g.*, Hall v. E.I. Du Pont De Nemours & Co., 345 F. Supp. 353 (E.D.N.Y. 1972) (Weinstein, J.). Judge Weinstein denied a motion to dismiss by six manufacturers of blasting caps and their trade association who plaintiffs alleged were jointly and severally liable on a theory of "enterprise liability" (subsequent courts more often have referred to this theory of liability as "industry-wide liability") for damages to children resulting from eighteen separate accidents on the grounds that defendants had cooperated in a safety program through a trade association, and acting either jointly or in a parallel fashion, had adopted common safety features. *Id.* at 358-59.

210. *E.g.*, Sindell v. Abbott Labs., 607 P.2d 924 (Cal. 1980). Market share liability is discussed *infra*, at notes 215-224 and accompanying text.

211. For example, holding manufacturers liable under a theory of civil conspiracy requires an agreement, at least a tacit one, among manufacturers to commit a tortious or wrongful act. *Wright*, 114 F. Supp. 2d at 836. As a practical matter, courts generally have rejected the application of alternative liability to mass products torts unless the number of possible manufacturers is very small and all of them are before the court. The traditional theory of alternative liability requires that (1) the conduct of defendants be simultaneous in time or nearly so; (2) the plaintiff's injury result from the conduct of only one tortfeasor; and (3) all possible tortfeasors be joined as defendants. Cimino v. Raymark Indus., Inc., 151 F.3d 297, 314 n.35 (5th Cir. 1998). Mass products torts cases generally fail to meet these requirements. *E.g.*, *id.*; Wood v. Eli Lilly & Co., 38 F.3d 510, 512-13 (10th Cir. 1994); City of Philadelphia v. Lead Indus. Ass'n, 994 F.2d 112, 128 (3d Cir. 1993); *see also* RESTATEMENT (SECOND) OF TORTS § 433B(3) cmt. h (1965). Following its introduction in Judge Weinstein's promising opinion in *Hall*, enterprise or industry-wide liability has been virtually universally rejected by the courts. *E.g.*, Ryan v. Eli Lilly & Co., 514 F. Supp. 1004, 1017-18 (D.S.C. 1981) (refusing to apply enterprise liability and describing it as "repugnant to the most basic tenets of tort law").

212. *See, e.g.*, *In re* "Agent Orange" Prod. Liab. Litig., 597 F. Supp. 740, 822-23 (E.D.N.Y. 1984) (Weinstein, J.) (alternative liability resulting in joint and several liability); *Hall*, 345 F. Supp. at 376-78 (enterprise liability resulting in joint and several liability); *Abel*, 289 N.W.2d at 25 (concert of action resulting in joint and several liability).

213. *See, e.g.*, *Cimino*, 151 F.3d at 327-28 (discussing allocation of liability shares among defendants in an asbestos suit when one of the defendants declared bankruptcy after the verdicts were returned).

haps more accurately, how financial liability will be divided among the manufacturers' insurers.[214]

The distribution of financial liability for mass products torts also lies at the heart of the tantalizing concept of market share liability, which was first accepted by the court in *Sindell*. Market share liability has inspired considerable academic attention,[215] despite its virtually universal subsequent rejection by the courts[216] in cases other than those against DES manufacturers.[217] The basic principle of market share liability is that "[e]ach defendant will be held liable for the proportion of the judgment represented by its share of that market unless it demonstrates that it could not have made the product which caused plaintiff's injuries."[218] This theory, claimed the California Supreme Court in *Sindell*, results in each manufacturer's liability reflecting "the injuries caused by its own products."[219] In *Sindell*, the court justified its adoption of this theory on the basis of Calabresian concepts—primary cost avoidance and the determination of the cheapest cost avoider:

> The manufacturer is in the best position to discover and guard against defects in its products and to warn of harmful effects; thus, holding it liable for defects and failure to warn of harmful effects will provide an incentive to product safety.[220]

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214. *See, e.g., In re* Asbestos Insurance Coverage Cases, No. 1072, slip op. (Cal. Super. Ct. Jan. 24, 1990), *reprinted in* 4 MICHAEL DORE, LAW OF TOXIC TORTS app. 31C (2003); Jonathan Dahl, *Case of Five Asbestos Firms vs. Insurers over Huge Claims Goes to Trial Monday*, WALL ST. J., Mar. 1, 1985, *available at* 1985 WL-WSJ 240673.

215. *See, e.g.*, David A. Fischer, *Products Liability—An Analysis of Market Share Liability*, 34 VAND. L. REV. 1623 (1981); Glen O. Robinson, *Multiple Causation in Tort Law: Reflections on the* DES *Cases*, 68 VA. L. REV. 713 (1982).

216. *E.g.*, Griffin v. Tenneco Resins, Inc., 648 F. Supp. 964 (W.D.N.C. 1986) (benzidine congener dyes); Shackil v. Lederle Labs., 561 A.2d 511 (N.J. 1989) (DPT vaccine); Goldman v. Johns-Manville Sales Corp., 514 N.E.2d 691 (Ohio 1987) (asbestos products generally). *Contra* Wheeler v. Raybestos-Manhattan, 11 Cal. Rptr. 2d 109 (Ct. App. 1992) (asbestos brake pads); Smith v. Cutter Biological, Inc., 823 P.2d 717 (Haw. 1991) (blood plasma) .

217. Sindell v. Abbott Labs., 607 P.2d 924 (Cal. 1980); Conley v. Boyle Drug Co., 570 So. 2d 275 (Fla. 1990); Hymowitz v. Eli Lilly & Co., 539 N.E.2d 1069 (N.Y. 1989). *Contra* Payton v. Abbott Labs., 437 N.E.2d 171 (Mass. 1982).

218. *Sindell*, 607 P.2d at 937.

219. *Id.*

220. *Id.* at 936. There is no direct evidence that the California Supreme Court was relying upon the analysis presented in *The Costs of Accidents*. It is more likely that it relied upon Justice Traynor's concurring opinion in *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436, 441 (Cal. 1944), which appears to have substantially influenced the writing of *The Costs of Accidents*.

Further, the opinion reflects the concept of secondary cost avoidance that Calabresi developed in *The Costs of Accidents*:

> From a broader policy standpoint, defendants are better able to bear the cost of injury resulting from the manufacture of a defective product. As was said by Justice Traynor in *Escola*, "[t]he cost of an injury and the loss of time or health may be an overwhelming misfortune to the person injured, and a needless one, for the risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business."[221]

Finally, the court stated that "as between an innocent plaintiff and negligent defendants, the latter should bear the cost of the injury."[222] While this statement superficially reflects notions of corrective justice, it also can be seen as a primitive articulation of the concept of cheapest cost avoider.

In *The Costs of Accidents*, Calabresi comes down squarely on the side of collective responsibility for injuries caused by multiple or indeterminate defendants, including, presumably, manufacturers of mass products that are fungible or nearly so:

> For centuries society has seemed to accept the notion that justice required a one-to-one relationship between the party that injures and the party that is injured . . . .
> There is, of course, no logical necessity for linking our treatment of victims, individually or as a group, to our treatment of injurers, individually or as a group.[223]

Calabresi thus has separated the objectives of deterring harmful conduct by the injurer and compensating the victim. The link between the goals of primary accident cost reduction and secondary accident cost reduction is severed. Therefore, it is no longer a requirement that the amount that should be paid by the injurer to satisfy the goal of primary accident cost reduction is necessarily equivalent to the amount needed to compensate the injured party.[224]

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221. *Sindell*, 607 P.2d at 936 (quoting *Escola*, 150 P.2d at 441).

222. *Id.*

223. THE COSTS OF ACCIDENTS, *supra* note 1, at 297.

224. *Id.* at 302-03. When Calabresi writes, "Today accidents must be viewed not as incidental events linking one victim with one injurer, but as a more general societal problem," *id.* at 307-08, he follows in a journey transforming our understanding of tort liability that Oliver Wendell Holmes began when he wrote *The Path of the Law*:

> Our law of torts comes from the old days of isolated, ungeneralized wrongs . . . . But the torts with which our courts are kept busy to-day are mainly the incidents of certain well known businesses. They are injuries to person or property by railroads, factories, and the like. The liability for them is estimated, and sooner or

3. The Frequent Inability to Assess Individual Firms' Shares of Liability.—Any accident compensation system that provides for collective responsibility of multiple manufacturers of fungible or nearly fungible mass products—assuming that it is difficult or impossible to distinguish the products of one manufacturer from another—inevitably must address the issue of how financial responsibility for liabilities will be divided among them. Courts may confront this issue either initially in the plaintiff's action seeking liability against manufacturers of mass products,[225] or as a part of a contribution action brought by one manufacturer against another. This problem is not one that can be avoided under Calabresi's alternative framework for handling the costs of accidents.

The pragmatic problem of ascertaining market shares—or any other equitable basis for distributing the costs of mass products torts among manufacturers of fungible or similar products—is more than a matter of tweaking the details of liability, particularly when decades have passed since the time of the manufacture or distribution of the products. Consider, for example, *Skipworth v. Lead Industries Ass'n*, where a child suffering from childhood lead poisoning, acting through her guardian, sued substantially all manufacturers that had produced lead pigment used in residential house paint between 1870 and 1977.[226] The Supreme Court of Pennsylvania found the difficulties of allocating liability among the manufacturers to be insurmountable.[227] Presumably the house had been painted many times between 1870 (the date of its initial construction) and 1977 (when, according to the court, the manufacture of paint containing lead pigment ceased). No records were available to determine when the house had been painted, which paint manufacturers' products were used, or which pigment manufacturer's pigment was contained in any given paint.[228] Further, the chemical composition of paint varied widely.[229] Finally, as the court noted, the "bioavailablility" of the lead, that is, its

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later goes into the price paid by the public. The public really pays the damages, and the question of liability, if pressed far enough, is really the question how far it is desirable that the public should insure the safety of those whose work it uses.

O.W. Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 467 (1897).

225. This occurs in two very different contexts, either when the court employs market share analysis, discussed in the previous Section, or when a jurisdiction has adopted several or proportionate liability. *E.g.*, *In re* New York City Asbestos Litig., 750 N.Y.S.2d 469, 472 (N.Y. Sup. Ct. 2002) (applying New York's proportionate liability scheme, which limits a joint tortfeasor's liability for non-economic losses to its proportionate share, provided that the tortfeasor is 50% or less at fault, to asbestos manufacturers).

226. 690 A.2d 169, 171 (Pa. 1997).

227. *Id.* at 173.

228. *Id.* at 171.

propensity to be internalized by the body and absorbed by the bloodstream, varied from one product to another, even when the lead content was identical.[230] In these circumstances, the court determined that any application of market share liability "would lead to a distortion of liability which would be so gross as to make determinations of culpability arbitrary and unfair."[231]

While the determination of market shares of pigment manufacturers decades ago may be particularly challenging, the difficulty of determining market shares of manufacturers of fungible or similar products is endemic.[232] Cases against manufacturers of DES are ones in which it is uniquely easy to determine market shares: (1) all DES was manufactured according to an identical formula approved by the FDA,[233] and (2) the DES that resulted in injury to any particular plaintiff was consumed by her mother during a specified nine-month period of pregnancy, thus setting the temporal boundaries for establishing the market shares of the relevant DES manufacturers.[234] Beyond DES cases, the practical impossibility of accurately assessing liability on a market share basis has been an important factor in the judicial rejection of the market share liability approach.[235]

Under Calabresi's analysis, the inability of the injured party to identify one of several—or even one of many—manufacturers that distributed a specific disease-causing product, standing alone, should not matter. Each manufacturer would be assessed the financial responsibility attributable to its share of the market for the disease-producing

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229. *Id.* at 173. The amount of lead by weight in paint ranged from less than 2% to more than 70%. *Compare* Am. Standards Ass'n, American Standard Specifications to Minimize Hazards to Children from Residual Surface Coating Materials (Standard Z66.1-1955) (1955) (voluntary industry standard adopted in 1955 limiting lead content in paint to no more than 1% of total weight), *with* BUREAU OF STANDARDS, U.S. DEPT. OF COMMERCE, *United States Government Master Specification for Paint, White, and Tinted Paints Made on a White Base, Semipaste, and Ready Mixed* (Fed. Specifications Bd., Standard Specification No. 10B), *in* CIRCULAR OF THE BUREAU OF STANDARDS, NO. 89, at 2 (3d ed. 1927) (requiring that white base semipaste paint purchased by the federal government include between 45% and 70% white lead).

230. *Skipworth*, 690 A.2d at 173.

231. *Id.* at 172.

232. *See, e.g.*, Starling v. Seaboard Coast Line R.R., 533 F. Supp. 183, 191 (S.D. Ga. 1982) (rejecting market share liability in asbestos cases because "[a] market that is composed of an amalgam of asbestos products might also yield market shares that are not accurate indications of the potential exposure to disease created by a particular product").

233. Sindell v. Abbott Labs., 607 P.2d 924, 936 (Cal. 1980).

234. *See id.* at 937 (noting that one manufacturer had been dismissed from the suit because it did not commence manufacturing DES until after the plaintiff was born).

235. *E.g.*, *In re* Related Asbestos Cases, 543 F. Supp. 1152, 1158 (N.D. Cal. 1982).

product.[236] As has been illustrated, however, the passage of decades between the manufacture and distribution of the disease-causing products and the subsequent manifestation of the latent disease and claims by the victims often means that evidence of the respective market shares of the manufacturers is no longer available. Hence, courts or others administering an accident compensation system are not able to determine which portion of the total damages should be assessed to each manufacturer.

Market share analysis, at first glance seemingly the type of collective responsibility that Calabresi suggests in *The Costs of Accidents*, thus runs afoul of Calabresi's own principle that "[t]he first guideline for picking the cheapest cost avoider is to seek the optimal relationship between avoidance costs and administrative costs."[237] The determination of market shares in the context of mass products torts is, at best, likely to be very expensive and, at worst, impossible. Even if it were theoretically possible to determine market shares at some expense, that expense might be justified if and only if the resulting assessments of liability against manufacturers resulted in a greater savings of resources through primary accident cost reduction.

B. The Inability to Assess Liability to the Activity Causing the Disease

There is, however, an even more basic problem with market share liability or any other form of collective responsibility when measured against the criterion of how effectively it addresses the goal of primary accident cost avoidance. The passage of time and the fungible or nearly fungible nature of products causing latent diseases create a more important obstacle than either the impossibility of identifying the specific defendant causing a claimant's disease or even the inability to establish the appropriate respective shares of financial responsibility among the product manufacturers. These factors also frequently make it impossible to impose liability for the latent diseases on the *activity* that causes the disease.

The first complication contributing to the inability of an accident compensation system to assess liability to the activity causing the harm is that producers of a significant portion of the disease-causing products may have gone out of business or may be insolvent, particularly when substantial past liability judgments already have exceeded available insurance coverage limits—such as in the asbestos context. To the

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236. *See supra* notes 218-224 and accompanying text (discussing the assessment of market share liability in light of Calabresi's severance of primary cost avoidance from secondary cost avoidance).

237. THE COSTS OF ACCIDENTS, *supra* note 1, at 143.

extent that it is possible to determine the percentage of disease-producing products manufactured by each firm, some portion of damages may go unpaid because of the absence of financial contributions from some of those who manufactured injury-producing products. It is also possible, however, that in the absence of information sufficient to prove the firms' respective shares of production of disease-causing products, courts would hold firms jointly and severally liable, leaving the remaining solvent firms over which the court has jurisdiction liable for the shares of insolvent or bankrupt producers or those of manufacturers outside the jurisdiction of the court.[238] One suspects that Calabresi might endorse this approach for two reasons. First, the injury-producing activity is being forced to pay the damages caused by such activity (there being no requirement that any individual firm pay for damages directly attributable to its own products).[239] Second, the courts and the manufacturers themselves would determine the respective shares of liability; the burden of proving proportionate shares would not lie with the victims.

The second—and more important—complication is that most firms manufacture other products in addition to the one that caused the harm, and the product mix differs from one manufacturer to another. In a world with transaction costs, if a former manufacturer of asbestos insulation materials is no longer manufacturing insulation containing asbestos, but is manufacturing only non-asbestos insulation or any other product that does not cause harm, it probably does not serve primary accident cost avoidance goals to have that firm pay for damages attributable to a product manufactured forty years ago. In the unlikely event that all firms that had once produced asbestos insulation now produce non-asbestos insulation and their respective shares of the market for insulation remained constant throughout the decades, with no firms either entering or leaving the marketplace, insulation producers could simply charge more for non-asbestos insulation, pass the asbestos liability costs onto the consumers, and then pay their respective shares of damages. The only problem would be that non-asbestos insulation would be artificially overpriced, resulting in less consumption of non-asbestos insulation than would otherwise be desirable.

It is more likely, however, that firms that once produced asbestos products—if they remained solvent—now produce a variety of other

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238. *See Sindell*, 607 P.2d at 940 (Richardson, J., dissenting) (expressing concern that defendants that are amenable to suit will be jointly and severally liable for all of a plaintiff's injuries even though their shares of the market are much smaller).

239. *See supra* notes 223-224 and accompanying text.

products and, in a competitive marketplace, are not able to pass on to consumers the costs of their liabilities resulting from their now-discontinued distribution of asbestos products. As a result, unless the firm producing the injurious product carried liability coverage with an exposure trigger at the time of the distribution of its asbestos products,[240] the net result of imposing liability on the firm now producing non-asbestos insulation would be to harm current shareholders, most of whom probably did not own stock at the time of the distribution of the disease-producing product,[241] and current employees, all or most of whom did not work at the firm at the time of the distribution of the asbestos products.[242] These economic and social disruptions are similar to the ones Calabresi seeks to reduce through consideration of the goal of secondary accident cost avoidance.[243] Such a result in no way serves the goals of primary accident cost avoidance.

VI. THE COMPLEXITY AND INHERENTLY VALUE-LADEN NATURE OF THE IDENTIFICATION OF THE CHEAPEST COST AVOIDER

Since the publication of *The Costs of Accidents*, courts often reflexively conclude that product manufacturers are the cheapest cost avoiders, without any serious attempt to consider the ability of other parties contributing to the accidents to minimize the losses.[244] As the Supreme Court of New Jersey stated in *Fischer v. Johns-Manville Corp.*,[245] "[m]anufacturers are usually the 'cheapest cost-avoiders.'"[246] This conclusion echoes the analysis of Justice Traynor in his seminal concurring opinion in *Escola v. Coca Cola Bottling Co.*:

> [P]ublic policy demands that responsibility be fixed wherever it will most effectively reduce the hazards to life and

240. *See supra* note 177 and accompanying text.

241. *See supra* note 158 and accompanying text.

242. *See* Jonathan Orszag, *The Impact of Asbestos Liabilities on Workers in Bankrupt Firms*, 44 S. TEX. L. REV. 1077, 1080 (2003) ("[O]ur estimate of employment [loss] in firms that entered into bankruptcy due significantly to asbestos liabilities ranges from 52,000 to 60,000.").

243. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 39-42; *supra* notes 119-123 and accompanying text.

244. *See, e.g.*, Hamilton v. Accu-Tek, 62 F. Supp. 2d 802, 827 (E.D.N.Y. 1999) (Weinstein, J.) ("As between a negligent handgun manufacturer and an injured bystander, the former must be regarded as the 'cheapest cost avoider,'—the party upon whom imposition of liability will lead to the greatest degree of safety and efficiency."). In *Hamilton*, Judge Weinstein, of course, is choosing only between the gun manufacturer and the injured bystander as the cheapest cost avoider and is not considering the possible role of the person who fired the gun, who in most instances is unidentified, incarcerated, or judgment-proof.

245. 512 A.2d 466 (N.J. 1986).

246. *Id.* at 473.

> health inherent in defective products that reach the market. It is evident that the manufacturer can anticipate some hazards and guard against the recurrence of others, as the public cannot.[247]

Despite the virtually automatic response of courts that the product manufacturer is the cheapest cost avoider,[248] the determination of the cheapest cost avoider in the context of latent diseases resulting from exposure to mass products is not axiomatic. In the case of latent disease caused by any particular product, identification of the cheapest cost avoider often is problematic because of a variety of interlocking factors including those previously discussed—the passage of time and the inability to accurately assess liability to the activity causing the harm—as well as the presence of multiple other activities contributing to the victims' injuries or disease, some of which may be more contemporaneous in time and more culpable than the manufacturers' contributions. Finally, state and municipal governments now have assumed roles as plaintiffs in actions against manufacturers of products that have caused injuries and diseases that have resulted in public health and safety crises, such as litigation against manufacturers of tobacco products, handguns, and lead pigment. Governments that have failed to enact and enforce effective measures to address the social ills of tobacco-related illness, handgun violence, and childhood lead poisoning may themselves be viable candidates to be considered the cheapest cost avoider.

This Part briefly utilizes the approach described in *The Costs of Accidents* to analyze which party is the cheapest cost avoider—or whether such analysis is really meaningful—in the context of three mass products torts that result in latent diseases: asbestos, tobacco, and lead pigment. As will be seen, often in the mass products torts context it is difficult or impossible to identify a single party as the cheapest cost avoider.

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247. 150 P.2d 436, 440-41 (Cal. 1944) (Traynor, J., concurring).

248. The exception is the case in which plaintiff's conduct precludes recovery. *See, e.g.*, Estate of White v. R.J. Reynolds Tobacco Co., 109 F. Supp. 2d 424, 435 (D. Md. 2000) (precluding a smoker from recovering from a cigarette manufacturer because he continued to smoke after warnings were finally given; "[j]ust as these later-issued warnings were futile in altering Mr. White's smoking behavior, any earlier-issued warnings likewise would obviously have been futile"); West v. Caterpillar Tractor Co., 336 So. 2d 80, 92 (Fla. 1976) (holding that contributory negligence is a defense to a strict liability claim if the defense is not based upon the plaintiff's failure to discover the risk or guard against it); Horton v. Am. Tobacco Co., 667 So. 2d 1289, 1292-93 (Miss. 1995) (barring recovery for a smoker, even though Mississippi was a "pure" comparative fault jurisdiction, on grounds that plaintiff's fault was the "sole proximate cause" of his injury).

A. *Asbestos-Related Diseases*

The litigation against manufacturers of asbestos insulation and other asbestos products squarely raises the question of whether it is meaningful to identify the cheapest cost avoider when the seemingly obvious choice is no longer engaged in the conduct causing the loss, and therefore placing liability on that manufacturer can no longer directly encourage it to minimize the loss. It can be argued that while it is no longer possible to reduce primary accident costs resulting from exposure to asbestos products, the liability of the asbestos industry serves to deter other industries from marketing disease-causing products. An argument based upon deterring other industries, however, cannot avoid the conclusions earlier discussed: that it is rational for the profit-maximizing manufacturer to pay less attention to liabilities in the distant future,[249] and that corporate managers will continue to make decisions on the basis of incentives and disincentives likely to materialize within their professional lifespan.[250]

At first blush, the history of asbestos litigation would seem to be the ultimate success story for achieving primary accident cost avoidance through the imposition of liability. After all, the accident-producing activity—the widespread distribution of products containing asbestos—has been eliminated. In reality, the history is more complicated and provides less convincing evidence of the role of tort liability in reducing accident costs. Before the initial successful litigation against asbestos manufacturers,[251] the Occupational Safety and Health Administration (OSHA) had promulgated a series of increasingly restrictive regulations that effectively banned the use of asbestos in most commercial settings.[252] Judge Jack B. Weinstein has attributed the end of the use of asbestos in the early 1970s to "the greater awareness of dangers and new government regulations."[253] Even if one accepts that liability or the prospect of liability from the first as-

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249. *See supra* notes 143-145 and accompanying text.

250. *See supra* Part IV.B.

251. Borel v. Fibreboard Paper Prods. Corp., 493 F.2d 1076 (5th Cir. 1973).

252. *See In re* Joint E. & S. Dist. Asbestos Litig., 129 B.R. 710, 737 (E.D.N.Y. & S.D.N.Y. 1991) (Weinstein, J.); *compare* Occupational Safety and Health Standards, 36 Fed. Reg. 10,466, 10,506 (May 29, 1971) (setting an initial standard for occupational asbestos exposure), *with* Emergency Standard for Exposure to Asbestos Dust, 36 Fed. Reg. 23,207, 23,208 (Dec. 7, 1971) (amending the initial standard and decreasing the allowable levels of exposure to asbestos particles), *and* Standard for Exposure to Asbestos Dust, 37 Fed. Reg. 11,318, 11,320 (June 7, 1972) (setting a more restrictive standard to take effect in July of 1976); *see also* Mark A. Behrens, *Some Proposals for Courts Interested in Helping Sick Claimants and Solving Serious Problems in Asbestos Litigation*, 54 BAYLOR L. REV. 331, 337 n.25 (2002) (discussing these regulations).

253. Falise v. Am. Tobacco Co., 94 F. Supp. 2d 316, 324 (E.D.N.Y. 2000).

bestos claims was a factor in the elimination of asbestos materials from the marketplace, however, it does not follow that the hundreds of thousands of claims that came afterwards had any impact in reducing asbestos-caused disease. Nor does the fact that liability eventually might have had an impact in encouraging asbestos manufacturers to withdraw a harmful product from the marketplace necessarily suggest that the prospect of such liability decades after the initial marketing of the product served as a disincentive for the manufacturer to market the product in the first place.

As noted earlier, the evidence demonstrates that manufacturers of asbestos insulation either knew or should have known, at the time they distributed their products, of the dangers their products posed to insulation workers and pipefitters.[254] By the early 1970s, asbestos was no longer used for insulation, pipefittings, or virtually any other use in the United States.[255] Despite this, more than 40,000 complaints alleging asbestos-related disease are filed each year, and more than 200,000 cases are pending.[256]

Therefore, to the extent that we focus solely on primary accident cost avoidance in the context of asbestos-related disease, it is meaningless at this time, for purposes of the 200,000 pending cases and any cases that might be filed in the future, to attempt to identify a cheapest cost avoider. The costs of asbestos-related disease can no longer be avoided. Even assuming that at the time of the distribution of asbestos products it was the threat of liability in the future—decades away—that should have encouraged the manufacturer to show greater concern for safety, the variety of factors previously discussed, including the limited time horizon of corporate decisionmaking, suggests that the prospect of such liability likely had little impact on the decisions leading to the distribution of the asbestos products. Further, if the asbestos manufacturer had believed that another party—such as the insulation contractor or other industrial purchaser of asbestos products, or the insulation workers themselves—in fact had been the cheapest cost avoiders, it obviously would have been impossible, decades after the distribution and use of the product, for the manufacturer to "bribe" one of these parties.

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254. *See Borel*, 493 F.2d at 1083-86; BRODEUR, *supra* note 37.

255. *Falise*, 94 F. Supp. at 324.

256. *The Fairness in Asbestos Compensation Act: Hearing on H.R. 1283 Before the House Comm. on the Judiciary*, 106th Cong. (1999) (statement of Paul R. Verkuil, Dean, Cardozo School of Law) [hereinafter Verkuil statement], *available at* http://commdocs.house.gov/committees/judiciary.hju62442.000/hju62442_0f.htm; *see also supra* notes 39-44 and accompanying text.

To conclude, however, that a product manufacturer could no longer be assessed initial liability decades after the distribution of the product has terminated, because it could no longer be identified as the probable cheapest cost avoider for subsequently occurring diseases, would mean that no manufacturer would ever be responsible for its disease-causing activity when there had been a time lag between the distribution of the disease-causing product and the manifestation of the disease caused by exposure to the toxic substance. Manufacturers, in effect, would always be held harmless for the manufacture and distribution of such a disease-causing product, even if they knew the product was dangerous or their conduct was in other ways tortious. I would argue, therefore, that the mere passage of time following the manufacturer's distribution of a product should not preclude the asbestos manufacturer or any other manufacturer from being held liable for the costs of accidents, except perhaps where another actor continues to contribute, to a substantial degree, to causing the latent disease. In that situation, the other actor can be regarded as the cheapest cost avoider *at the current time*, and holding this party liable for the full costs of the latent diseases would yield the best possibility of actually reducing the costs of the disease from this point forward.

The other possible contenders for the role of cheapest cost avoider in the asbestos-related disease context are the insulation contractors and other industrial purchasers, and the insulation workers themselves. Similar to the contribution of asbestos manufacturers, the activities of these parties that causally contributed to asbestos-related disease generally ended decades ago. Thus, there is no basis for preferring one of them as the cheapest cost avoider on the grounds that a change in their activities could still minimize losses.[257]

If the determination of the cheapest cost avoider in the asbestos context were made at the time of the distribution of the asbestos products, and the likely ineffectiveness of holding parties liable decades later were ignored, Calabresi's criteria for determining the cheapest

257. Because of the synergistic effects of exposure to asbestos and smoking as causes of cancer, *Falise*, 94 F. Supp. 2d at 327, the ongoing smoking of a former asbestos worker is a factor suggesting that the smoking asbestos worker himself is the cheapest cost avoider when the harm caused is lung cancer. Calabresi advises that the determination of the cheapest cost avoider should not be made on a case-by-case basis. THE COSTS OF ACCIDENTS, *supra* note 1, at 255-59. It would be possible, of course, to make separate collective determinations of the cheapest cost avoider for (1) asbestos workers who never smoked or who have stopped smoking, and (2) asbestos workers who continued to smoke. The issues here are very similar to those involving victims of tobacco-related illnesses who continued to smoke following widespread recognition of the seriousness of health consequences caused by cigarette smoking. *See infra* notes 260-277.

cost avoider would point to the manufacturers of asbestos insulation and other products. The manufacturers either had, or should have had, greater knowledge of the risks caused by exposure to asbestos.[258] Calabresi also notes that if the administrative costs of finding the cheapest cost avoider are too high, it may be preferable to settle for a "slightly more expensive cost avoider."[259] This suggests that manufacturers, and not contractors (generally small businesses) should be chosen. A former insulation worker suffering from asbestos-related disease may have worked with multiple insulation contractors, and one or more of these contractors may now be out of business. While one of these contractors may be the cheapest cost avoider, there are fewer manufacturers to choose from, and it will likely be less expensive to determine who among them is the next best cheapest cost avoider. Finally, at the time of the distribution of the product, the manufacturer was "the best briber," the party in the best position to identify the cheapest cost avoider if it were not the manufacturer (which in this case seems unlikely) and change its behavior through warning labels and other means. Therefore, application of Calabresi's factors suggests that among the parties whose activities contributed to asbestos-related disease, the asbestos product manufacturers are the best candidate for the role of the cheapest cost avoider. This conclusion does nothing, however, to change the fact that the passage of decades since the manufacturer's activities, as well as the inability to assess the costs of the diseases to the activity causing the harm, renders any notion of primary accident cost avoidance problematic.

B. Tobacco-Related Diseases

The analysis of which party is the cheapest cost avoider in the case of tobacco-related illness differs from the analysis in the asbestos-related contexts in several regards. On one hand, the activities of the manufacturers that contribute to tobacco-related illnesses continue. Designating tobacco manufacturers as the cheapest cost avoider and imposing liability on this group may therefore directly lead to loss minimization.[260] On the other hand, it is at least arguable that other

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258. *See Borel*, 493 F.2d at 1083-86l; *Falise*, 94 F. Supp. 2d at 324-25. *See generally* BRODEUR, *supra* note 37.

259. THE COSTS OF ACCIDENTS, *supra* note 1, at 143-44.

260. It would be erroneous, however, to conclude that it was the possibility of potential legal liability for the damages caused by tobacco-related diseases that caused tobacco companies to agree to the Master Settlement Agreement (MSA) in 1998. As Professor Rabin notes, the MSA did not contain a number of harsh regulatory measures that were part of a previous settlement proposal that died in Congress. Rabin, *Tobacco Litigation*, *supra* note 62, at 340-41. While the MSA did include a number of public health measures, most nota-

parties—the smokers themselves[261] and perhaps the state or federal government—may be the cheapest cost avoider.

The easiest case for finding that tobacco companies are the cheapest cost avoider occurs for those victims of tobacco-related diseases who smoked cigarettes before the mid-1960s, have not smoked since then, and have only recently developed a tobacco-related disease.[262] While it was common knowledge among the public prior to the mid-1960s that smoking posed a health risk, the public often did not understand the strong connection between cigarette smoking and cancer that was known to tobacco manufacturers.[263] By the 1990s, it was clear that tobacco companies not only had deliberately concealed the risks posed by cigarettes, but also had intentionally designed their products to foster addiction.[264] For tobacco-related illnesses in smokers who had quit by the mid-1960s, tobacco companies are the obvious choice as the cheapest cost avoider because they were in the best position to minimize losses through reducing or eliminating production, raising prices, providing warnings, designing a safer cigarette, or some combination of these approaches. Further, prior to the 1960s, the manufacturer arguably was in the best position to bribe smokers, who were the other actors who caused the disease, to reduce their smoking, presumably through higher prices and comprehensive warning labels.[265] The administrative costs involved in identifying and locating

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bly bans on advertising aimed at youths, it did not include the provisions that the tobacco industry feared most: acknowledgement of FDA jurisdiction over its products and monetary "look back" penalties that would be assessed if underage smoking did not decrease at a specified rate. *Id.* In agreeing to the settlement, the tobacco companies seemed less motivated by the threat of legal liability than they were by the desire to avoid these measures.

261. *But see* Dewey v. R.J. Reynolds Tobacco Co., 577 A.2d 1239, 1254-55 (N.J. 1990) (rejecting defendant's argument that the smoker is the cheapest cost avoider).

262. *E.g.*, Tompkin v. Am. Brands, 219 F.3d 566 (6th Cir. 2000) (plaintiff's husband smoked cigarettes from 1950 until 1965, quit shortly after the Surgeon General's Report, and developed lung cancer in 1992).

263. *Id.* at 573 (noting expert testimony that "people thought cigarette smoke was simply as dangerous as breathing city air").

264. *See* Rabin, *Third Wave*, *supra* note 62, at 183-84.

265. The Congressional Budget Office has stated that "a 10 percent increase in price would result in a decrease in cigarette consumption of between 2.5 percent and 7.0 percent." CONG. BUDGET OFFICE, THE PROPOSED TOBACCO SETTLEMENT: ISSUES FROM A FEDERAL PERSPECTIVE 32 (1998), *available at* http://www.cbo.gov/showdoc.cfm?index=407&sequence=0. The study concluded that warning labels themselves are not as effective as increases in the price of cigarettes, but that a combined program of cigarette warnings, tobacco advertisement restrictions, public and workplace restrictions, and smoking cessation programs would decrease youth smoking by up to 4.5% and adult smoking by 5%. *Id.* at 29. For helpful links to related empirical data, see NAT'L CANCER POLICY BD., STATE PROGRAMS CAN REDUCE TOBACCO USE (2000), *available at* http://www.nap.edu/html/state_tobacco.

the manufacturer whose product caused a particular victim's disease, however, may be significant. As previously discussed, unless the victim is aware which manufacturer produced the cigarettes he smoked, the identification of a specific manufacturer as the cheapest cost avoider with respect to harm suffered by a particular victim of tobacco-related illness is likely difficult or impossible.

The determination of the cheapest cost avoider is more complex for those victims of tobacco-related illness who began smoking prior to the mid-1960s but did not quit when the connection between smoking and cancer became publicly known, and it is particularly difficult for those who began smoking after the mid-1990s. Public awareness of the link between cigarette smoking and cancer significantly increased with the 1964 release of the Surgeon General's report[266] and the surrounding publicity, and soon thereafter Congress enacted legislation requiring cigarette manufacturers to place health warnings on each package of cigarettes.[267] Because this group of smokers had greater awareness of the risks of smoking, it is possible that they, not the tobacco companies, are the cheapest cost avoider.

Victims of tobacco-related disease, particularly those who began smoking prior to the mid-1960s, will argue that the tobacco companies are the cheapest cost avoider because the addictive properties of cigarettes make it difficult to quit smoking.[268] Furthermore, they can argue that tobacco companies remain the cheapest cost avoider because they have a superior understanding of the risks of cigarette smoking[269] and because product warnings are ineffective in minimizing losses.[270] Designating the victim of tobacco-related disease as the cheapest cost avoider also is more likely to lead to externalization of the costs of tobacco-related disease. Often the medical costs allocated

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266. U.S. PUB. HEALTH SERV., PUB. NO. 1103, DEP'T OF HEALTH, EDUC. & WELFARE, SMOKING AND HEALTH: REPORT OF THE ADVISORY COMMITTEE TO THE SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE (1964).

267. Federal Cigarette Labeling and Advertising Act, Pub. L. No. 89-92, § 4, 1965 U.S.C.C.A.N. (79 Stat. 282) 298, 299 (1965) (codified as amended at 15 U.S.C. § 1333 (2000)); Public Health Cigarette Smoking Act of 1969, Pub. L. No. 91-222, § 4, 1970 U.S.C.C.A.N. (84 Stat. 93) 93, 93 (codified as amended at 15 U.S.C. § 1333 (2000)).

268. *See, e.g.*, Burton v. R.J. Reynolds Tobacco Co., 205 F. Supp. 2d 1253 (D. Kan. 2002) (allowing punitive damages of $15 million against tobacco manufacturers for their concealment of the addictive nature of cigarettes).

269. *E.g.*, Tompkin v. Am. Brands, 219 F.3d 566, 572-75 (6th Cir. 2000) (finding as a triable question the issue of whether consumers were aware of the "specific linkages between smoking and lung cancer" that were known to manufacturers); *Burton*, 205 F. Supp. at 1256-57 (finding that the defendants were aware of the addictive nature of nicotine and tobacco's health-related dangers and concealed this information from smokers).

270. *See generally* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193 (1994).

to the victims would in fact be paid by state medical assistance programs or by medical insurers.[271] Finally, allocating the costs to the victims more likely increases the secondary costs of accidents because some of the costs of tobacco-related diseases would remain with the smoking victims themselves, thus leading to greater disruption than if such costs were allocated to tobacco companies and distributed through higher cigarette prices or liability insurance.

The possibility that the victims of tobacco-related illness should be designated as the cheapest cost avoider is far more plausible with the group of victims who began smoking recently than it was with those who began and stopped smoking prior to the mid-1960s. At least if viewed on an individual basis, as contrasted with looking at smokers as a group, is not the highly educated person with a family history of lung cancer who became a chain-smoker after 1965 the cheapest cost avoider? (Not to mention suicidal?) As a group, cigarette smokers, if not themselves the cheapest cost avoiders, also can be viewed as excellent bribers: to the extent they stop purchasing cigarettes, tobacco companies will stop producing them.

Note also that despite Calabresi's desire to move accident compensation beyond determinations of the fault of the parties,[272] the determination of the cheapest cost avoider to prevent tobacco-related illness almost certainly requires a comparison of the relative degrees of knowledge of manufacturers and smokers regarding the risks of smoking. Unavoidably, tobacco litigation—and, in the alternative, the determination of the cheapest cost avoider—may still resemble what Rabin has described as "a last vestige of a perhaps idealized vision of nineteenth century tort law as an interpersonal morality play."[273] Indeed, it is generally the case with products that cause latent diseases that the determination of the cheapest cost avoider often depends in large part on the resolution of a question that looks surprisingly like an issue of fault: Did the manufacturer conceal or unreasonably fail to discover a risk not known to the consuming public?

In short, the choice between tobacco companies and those who have begun smoking during the last generation as the cheapest cost avoider is not as clear as it is between tobacco companies and those who began smoking in an earlier era. The decision may turn on more subtle factors identified by Calabresi. For example, placing the liability on smokers means that the government and medical insurers, not

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271. *See* Jon D. Hanson & Kyle D. Logue, *The Costs of Cigarettes: The Economic Case for Ex Post Incentive-Based Regulation*, 107 YALE L.J. 1163, 1224-29 (1998).

272. THE COSTS OF ACCIDENTS, *supra* note 1, at 286.

273. Rabin, *Sociolegal History*, *supra* note 63, at 871.

the victims themselves, will pay a substantial portion of the losses,[274] creating what Calabresi calls "externalization due to transfer."[275] Thus, at least in theory, the incentives on smokers to quit smoking are reduced, though some costs, e.g., the non-economic costs of lung cancer, cannot be externalized. Further, the inability of smokers to foresee accurately the risks of smoking may also result in "externalization due to inadequate knowledge,"[276] that is, the smoker may not, "because of inadequate knowledge or for psychological reasons, accurately foresee the risk of bearing [tobacco-related illness] costs involved in [smoking]."[277]

There is yet another player in tobacco-related illnesses. The claimants in the largest and most successful lawsuits against tobacco manufacturers have not been individuals with smoking-related diseases or even participants in class actions filed on behalf of smokers. Instead, such actions have been filed by state governments to "recoup" the states' expenditures resulting from medical assistance payments to or on behalf of those suffering from tobacco-related illness.[278] Yet for decades not only did the federal and state governments fail to enact legislation or adopt programs designed to minimize cigarette smoking,[279] but the federal government also aggressively subsidized the tobacco industry.[280] These contributions of federal and state governments to the prevalence of tobacco-related illnesses arguably

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274. *See* Hanson & Logue, *supra* note 271, at 1224-29.

275. THE COSTS OF ACCIDENTS, *supra* note 1, at 147-48.

276. *Id.* at 148-49.

277. *Id.* at 148.

278. *See supra* note 62 and accompanying text.

279. On the history and politics of federal and state government tobacco control efforts, see Robert A. Kagan & William P. Nelson, *The Politics of Tobacco Regulation in the United States*, *in* REGULATING TOBACCO, *supra* note 62, at 11. The failure of state governments on this front may be in large part due to the preemptive effect of the Federal Cigarette Labeling and Advertising Act (FCLAA). The FCLAA prohibits any "requirement or prohibition based on smoking and health . . . under State law with respect to the advertising or promotion of" cigarettes. 15 U.S.C. § 1334 (2000). Historically, federal regulatory agencies have refused to assert jurisdiction over tobacco products, and Congressional efforts to empower them to do so have failed. *See* Daniel B. Kamensky, Note, *Will Congressional Action Go up in Smoke? Overcoming Obstacles in Granting the FDA Jurisdiction over Tobacco Products*, 86 GEO. L.J. 2677, 2678-84 (1998). In 2000, the Supreme Court rejected the FDA's attempt to assert jurisdiction over tobacco products. FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120 (2000).

280. *See* Envtl. Working Group Farm Subsidy Database, Tobacco Subsidies in the United States (noting that subsidies from the federal government to tobacco farmers between 1995 and 2003 totaled more than $531 million), *available at* http://www.ewg.org/farm/progdetail.php?fips=00000&progcode=tobacco (last visited Jan. 12, 2005); *see also* Lucien J. Dhooge, *Smoke Across the Waters: Tobacco Production and Exportation as International Human Rights Violations*, 22 FORDHAM INT'L L.J. 355, 359 (1998) (describing federal tobacco subsidy programs).

suggest that based upon primary accident cost avoidance principles and loss distribution goals, state and federal governments should play a role in paying for the costs of these accidents. Stay tuned.

C. *Childhood Lead Poisoning*

The determination of the cheapest cost avoider in the context of childhood lead poisoning is more difficult than in the mass products torts previously considered. Here the activities of the lead pigment manufacturers ended in 1978, but children continue to be poisoned because of lead-based paint applied to the interiors of residences during the preceding century.[281] Thus, as in the case of asbestos liability, even if it were possible to trace the products causing the childhood lead poisoning to specific manufacturers, it would be too late for those manufacturers to act in a way to minimize primary accident costs. Such liability would only arguably provide incentives for those manufacturers (now manufacturing other products) or for other manufacturers to avoid harms caused by other products in the future.[282] While it may be desirable to hold asbestos manufacturers and tobacco manufacturers liable for their concealment of the risks of their products so as to discourage such conduct among other manufacturers in the future, there have been no judicial findings of concealment of risks by manufacturers of pigment or lead-based paint.[283]

Among the possible cheapest cost avoiders in the lead poisoning context are the pigment manufacturers, lead-based paint manufacturers, paint wholesalers and distributors, paint retailers, paint contractors, landlords and other property owners, and (for purposes of argument only, and for the sake of completeness) the parents of the children. Let us dismiss further consideration of wholesalers and distributors, retailers, and paint contractors, both because their activities that are causally connected to childhood lead poisoning occurred at least twenty-five years ago and because it is unlikely that any of them would have been more aware of the dangers of childhood lead poisoning than manufacturers, or would have been in a better position to prevent it.

This leaves as possible cheapest cost avoiders the following parties: pigment and lead-based paint manufacturers, landlords and

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281. *See supra* notes 72-73 and accompanying text.

282. *See supra* note 192 and accompanying text.

283. *See, e.g.*, Wright v. Lead Indus. Ass'n, No. 94363043/CL190488, slip op. at 12 (Md. Cir. Ct. June 20, 1996) ("[T]here are no facts which indicate that these Defendants conspired with each other to conceal the knowledge of the dangers of lead paint."), *available at* http://www.leadlawsuits.com/legaldoc_wright2.htm.

other property owners, and parents and other custodians of children. In the 1950s and 1960s, it was popular to blame parents, particularly low-income parents, for allowing their children to be exposed to the risks causing childhood lead poisoning, by allowing children to eat paint chips, failing to maintain a clean environment, and failing to provide proper nutrition for children.[284] It is now generally recognized, however, that the principal contributing cause to childhood lead poisoning is the deterioration of lead-based paint on the walls of older housing stock that produces lead dust ingested by toddlers as a result of frequent hand-to-mouth contact.[285] To the extent that parents might be the cheapest cost avoiders, placing financial responsibility on them provides little marginal incentive for them to avoid poisoning their children. They are less likely to foresee the risks than are either manufacturers or landlords. Identifying parents as the cheapest cost avoider also is likely to result in significant externalization of the costs of accidents through transfer.[286] State governments often shoulder the burden of medical and rehabilitation expenses through medical assistance or other programs and also pay the higher costs of educating the victims of childhood lead poisoning.[287] Additionally, parents, particularly low-income parents, are not in a position to be effective bribers, to encourage others, such as landlords, to take actions that will prevent childhood lead poisoning.

Thus, the identification of the cheapest cost avoider in the childhood lead poisoning context comes down to a choice between the manufacturers and the property owners, usually landlords. Property owners can currently minimize losses caused by childhood lead poisoning, while paint and pigment manufacturers have not causally contributed to the costs of lead poisoning for more than a quarter-century. While manufacturers at one time arguably either had or should have had greater knowledge of the risks of childhood lead poisoning, the reasonable landlord today clearly understands that de-

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284. *See* J. Julian Chisolm, Jr., *Lead Poisoning*, SCI. AM., Feb. 1971, at 15, 21 (noting that toddlers with parents that lack adequate "resources (emotional, intellectual, informational and/or economic) to cope with the family's needs" are particularly susceptible to lead poisoning); *cf.* Ankiewicz v. Kinder, 563 N.E.2d 684 (Mass. 1990) (allowing defendant owners of residential properties to implead and seek contribution from parents whose negligent actions contributed to the lead poisoning of their children).

285. *See* MD. LEAD PAINT REPORT, *supra* note 74, at 3.

286. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 147-48. This is particularly likely in the lead poisoning context because lead poisoning disproportionately affects low-income children. *See* PRESIDENT'S TASK FORCE, *supra* note 71, at 2 (finding that 16% of low-income children living in older housing are poisoned, compared to 4.4% of all children living in older housing); *see also* WARREN, *supra* note 166, at 134-51.

287. *See* MD. LEAD PAINT REPORT, *supra* note 74, at 2-3.

teriorating paint poses a risk to young children.[288] Even Calabresi's guideline that states that the administrative costs of determining the cheapest cost avoider should not be too large[289] probably points to the property owner rather than the manufacturer,[290] because the victim can more easily identify and locate the property owner than she can the manufacturer of the lead-based paint that caused the problem. Finally, the rental property owner generally is in a position to purchase insurance against the risks of childhood lead poisoning.[291] However, in the case of a child poisoned in an owner-occupied dwelling, insurance (except perhaps medical insurance) may not be readily available. If the child and his parents are not able to recover from a landlord or the manufacturer, the medical costs resulting from childhood lead poisoning may be externalized either to other policyholders who pay medical insurance premiums or to the government. In any event, further externalization of costs results when the government ends up paying for the additional difficulties caused by the child's lead poisoning, including educational difficulties and delinquency.

As in the case of handgun violence and, to some extent, tobacco-related illness, there is another actor whose activities contribute to childhood lead poisoning and who therefore should be considered as a possible cheapest cost avoider. Few, if any, municipalities and states have enacted and enforced housing standards that could prevent most childhood lead poisoning, despite the fact that the risks of lead poisoning from deteriorated housing have been understood by housing authorities since at least the mid-1960s.[292] The next Subpart considers the possible role of state or municipal government as the

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288. As the Maryland Court of Appeals noted in *Brown v. Dermer*:

> [A] jury could find that a reasonably prudent landlord would realize, after receiving notice, that flaking, loose or peeling paint presents an unsafe or dangerous condition and thus would investigate and correct the condition. The effectiveness of the housing code in promoting health and safety would be severely undermined if landlords were permitted to use lack of knowledge that the flaking paint was lead-based paint as a defense against civil liability for injuries proximately caused by their failure to comply with the law.

744 A.2d 47, 60-61 (Md. 2000).

289. THE COSTS OF ACCIDENTS, *supra* note 1, at 143-44.

290. At least if the cheapest cost avoider was determined on a case-by-case basis, as opposed to a collective basis. *But see id.* at 255-59; *supra* notes 117-118 and accompanying text.

291. Property owners, however, sometimes have had difficulty obtaining insurance to cover these risks. *See* MD. LEAD PAINT REPORT, *supra* note 74, at 5.

292. *See, e.g.*, N.Y. City Coalition to End Lead Poisoning v. Koch, 138 Misc. 2d 188 (N.Y. Sup. Ct. 1987) (suit alleging that New York City systematically failed to enforce federal and local laws designed to reduce the risk of childhood lead poisoning).

cheapest cost avoider in the cases of childhood lead poisoning, handgun violence, and tobacco-related illness.

D. Government Recoupment Actions and the Cheapest Cost Avoider

Recent actions by states and municipalities against the manufacturers of tobacco products,[293] handguns,[294] and lead pigment[295] add yet another complexity to determining which party is the cheapest cost avoider. Here, the government itself takes on the role of the plaintiff and seeks reimbursement or recoupment of expenditures that it alleges were caused by the consequences of the manufacturers' distribution of their products. For example, in the Master Settlement Agreement, tobacco companies agreed to pay forty-six states more than $206 billion, much of which reimbursed the states for medical assistance payments to victims of tobacco-related diseases.[296]

The party identified as the cheapest cost avoider does not need to be one of the parties to the litigation. The role of the government as the plaintiff in recoupment actions, however, helps to focus attention on the possibility that the government plaintiff itself is the cheapest cost avoider. Consider, for example, the damages resulting from handgun violence, also arguably a consequence of a mass products tort, albeit not one resulting in a latent disease. According to Professor Kairys, a key figure in at least two major legal actions brought by municipalities against gun manufacturers, state governments often have failed to enact and enforce effective handgun legislation that would have substantially reduced the costs of injuries, because of political considerations:

> Many state legislatures—and my own is a prime example—have taken extraordinary actions to accommodate the industry and the gun lobby. Philadelphia and Pittsburgh banned assault weapons. These are essentially war weapons, but the Pennsylvania legislature overturned both bans.
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> The Pennsylvania legislature stopped local government officials, including the Philadelphia Police, from inquiring of

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293. *E.g.*, Conye *ex rel.* Ohio v. Am. Tobacco Co., 183 F.3d 488 (6th Cir. 1999).

294. *E.g.*, City of Philadelphia v. Beretta U.S.A. Corp., 277 F.3d 415 (3d Cir. 2002); City of Cincinnati v. Beretta U.S.A. Corp., 768 N.E.2d 1136 (Ohio 2002).

295. *E.g.*, City of Chicago v. Am. Cyanamid Co., No. 1-03-3766, 2005 Ill. App. LEXIS 14 (Ill. App. Ct. Jan. 14, 2005); State v. Lead Indus. Ass'n, C.A. No. 99-5226, 2001 R.I. Super. LEXIS 37 (R.I. Super. Ct. Apr. 2, 2001).

296. MASTER SETTLEMENT AGREEMENT § IX (1998), *available at* http://caag.state.ca.us/tobacco/pdf/1msa.pdf; *see also* McClendon v. Ga. Dep't of Cmty. Health, 261 F.3d 1252, 1253-55 (11th Cir. 2001) (outlining the terms of the Master Settlement Agreement).

> people who apply for a concealed carrying permit about the reasons that they want to carry a gun.
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> . . . .
>
> The regulatory scheme on the federal and state levels is surprisingly underwhelming . . . .
>
> . . . .
>
> There is an oversaturation of handguns in areas of the country that are characterized by less stringent regulations . . . .[297]

This history suggests that state and local authorities may be in a better position to avoid the costs of injuries from handguns through gun control and licensing laws than are gun manufacturers.[298] Additionally, municipal or state authorities probably are the best bribers, because they are in a better position to influence the actions of those who truly can avoid the costs of accidents.[299] In the case of criminal handgun violence, presumably the assailant is the party that can most easily prevent the violence, but the imposition of financial liability directly on the assailant is unlikely to have a greater deterrent effect than the threat of a prison sentence. Furthermore, the government is in a better position to influence the criminal's conduct through negative bribes, that is, harsh criminal sanctions, than is the manufacturer of the handgun. Even if we focus specifically on the distribution of handguns, the government is probably still the cheapest cost avoider. In the suit brought by Camden County, New Jersey, against handgun manufacturers, the complaint alleged that the defendant manufacturers did "not limit, or require their distributors and dealers to limit, the number, purpose or frequency of handgun purchases, nor [did] they monitor or supervise their distributors or dealers for practices or policies that facilitate access to handguns for criminal purpose."[300] Presumably these same allegations could be applied even more

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297. David Kairys, *The Origin and Development of the Governmental Handgun Cases*, 32 CONN. L. REV. 1163, 1170-71 (2000).

298. In order to simplify the analysis, this conclusion ignores the reality that effective gun control measures undertaken by authorities in one state or municipality often are circumvented by criminals purchasing guns in a separate locality. *See, e.g.*, Tom Stacy & Kim Dayton, *The Underfederalization of Crime*, 6 CORNELL J.L. & PUB. POL'Y 247, 285 (1997) ("Given the interstate mobility of people and guns, one state's stringent gun control measure can be substantially undermined if bordering states choose not to enact such a measure.").

299. Of course, sovereign immunity principles and the related public duty doctrine often preclude the liability of municipal and state authorities for failure to enforce statutes and ordinances. *See generally* DAN B. DOBBS, THE LAW OF TORTS §§ 268-272, at 715-32 (2000).

300. David Kairys, *The Governmental Handgun Cases and the Elements and Underlying Policies of Public Nuisance Law*, 32 CONN. L. REV. 1175, 1179 n.16 (2000) [hereinafter *Elements and Underlying Policies*] (quoting Second Am. Compl. and Jury Demand ¶ 15, Camden County

appropriately to state and municipal authorities. In the real world, of course, the powerful political lobby of the gun industry and gunowners often prevents the government from taking the actions that it, as the cheapest cost avoider, should take to avoid injury from gun violence.[301]

Similarly, local housing authorities that are aware (or should be aware) of the risks of childhood lead poisoning from poorly maintained, older housing, and nevertheless fail to enforce local housing codes are, along with property owners, viable contenders for the role of cheapest cost avoiders.[302] They are in the best position to enforce local housing codes and thus prevent the vast bulk of childhood lead poisoning.

Note that the argument that the government is the cheapest cost avoider and ought to pay the costs of certain mass products torts is not the same as the assertion that the government, in its role of providing for the general welfare, ought to compensate victims of accidents or injuries through a social welfare system. In *The Costs of Accidents*, Calabresi repeatedly criticizes compensation of accident victims through government social welfare systems financed by general revenue taxes.[303] Calabresi is correct in claiming that without consideration of the government's possible role as the cheapest cost avoider, transferring financial responsibility to the government for the costs of accidents destroys the incentives for accident cost reduction otherwise placed upon the cheapest cost avoider. Where the government itself is in an excellent position to avoid or at least substantially reduce the

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Bd. of Chosen Freeholders v. Beretta U.S.A. Corp., No. 99CV2518 (D.N.J. filed Jan. 6, 2000)).

301. Those opposed to government recoupment actions have charged that the litigation is an attempt to circumvent the legislative process. *See, e.g.*, Anne Giddings Kimball & Sarah L. Olson, *Municipal Firearm Litigation: Ill Conceived from Any Angle*, 32 CONN. L. REV. 1277, 1278 (2000) (characterizing government recoupment actions as "an effort to bypass appropriate legislative channels to achieve impermissible regulation of interstate commerce in firearms through the courts"). Furthermore, proponents of government recoupment actions have come close to admitting this. *See* Kairys, *Elements and Underlying Policies*, *supra* note 300, at 1181. Without necessarily agreeing with the argument that litigation brought by the attorney general or other executive branch officials would be illegitimate when the legislative branch has refused to effectively regulate handguns, it nevertheless would seem implausible to argue that the government cannot be held to be the cheapest cost avoider because political pressures prevented the legislative branch from effectively minimizing the damages caused by handgun violence.

302. *See supra* note 292 and accompanying text. Again, I am ignoring the fact that in the real world, state and local governments and their officials would generally be immune from such liability. *See supra* note 299.

303. *E.g.*, THE COSTS OF ACCIDENTS, *supra* note 1, at 6-7, 148, 284-85, 311.

costs resulting from mass products torts, however, there is no reason to release the government from financial responsibility.

E. The Cultural and Political Construction of the Cheapest Cost Avoider

The critical term in the Calabresian analysis, "cheapest cost avoider" has the ring of virtually scientific, objective, value-neutral economics. What could be freer of cultural and political considerations than a determination of which party could most cheaply avoid the accident?

The examples of mass products torts resulting in latent diseases, however, reveal that the determination of the cheapest cost avoider is inherently a political choice. Take the case of tobacco-related illnesses.[304] On one hand, once information about the disease-causing properties of smoking is widely known to all parties, an individual smoker presumably is in the best position to refrain from smoking, and hence is the cheapest cost avoider. Until the last decade, the liability system's response to tobacco reflected this choice. In early tobacco cases—and indeed in a comment to *The Restatement (Second) of Torts* section 402A[305]—the conclusion was that "consumers must bear the generally recognized risks of a standardized product."[306] The "moral judgment" of juries throughout the 1980s was that smokers, particularly those who continued to smoke after learning the dangers of smoking, were at fault.[307] On the other hand, tobacco companies are arguably the cheapest cost avoider. They are in the best position to limit production, raise the costs of cigarettes, lower the content of addictive substances such as nicotine, vividly advertise the health risks of smoking, and curtail marketing practices focused on youth. The obligations imposed on tobacco manufacturers by the Master Settlement Agreement in 1998 acknowledge, implicitly at least, tobacco manufacturers as the cheapest cost avoider.

Inherent ambiguity in the meaning of the concept of cheapest cost avoider means that in many latent disease cases the determination will be made on the basis of politics and culture, not economics. Do we trust individuals, at least when provided with all relevant information, to make their own decision to smoke or not to smoke? Or, from a public health perspective, do we decide that manufacturers of tobacco products are the cheapest cost avoiders? The choice necessa-

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304. *See supra* Part VI.B.

305. RESTATEMENT (SECOND) OF TORTS § 402A cmt. i ("Good tobacco is not unreasonably dangerous merely because the effects of smoking may be harmful . . . .").

306. Rabin, *Sociolegal History*, *supra* note 63, at 863.

307. *Id.* at 878.

rily implicates our own weighing of the greater social good versus individual choice.

Similarly, in the case of childhood lead poisoning, the choice among lead pigment manufacturers, landlords and other residential property owners, and local housing authorities as the cheapest cost avoider is not one that can be decided on apolitical, neutral economic terms.[308] The choice is between landlords and other property owners whose poor maintenance practices greatly increase the incidence of childhood lead poisoning today and manufacturers whose distribution of the product ended more than twenty-five years ago. The choice of which party is to pay for the poisoning of children continues to be fought in courtrooms[309] and in state legislatures.[310] And, again, state and local housing authorities, most of which have consistently failed—and generally continue to fail—to either enact or enforce housing ordinances that would eliminate most childhood lead poisoning, arguably are, in fact, the cheapest cost avoider. These choices are inherently political decisions, not ones answerable by economic science.

VII. ASSESSING THE PERFORMANCE OF THE TORT SYSTEM IN ACHIEVING THE OBJECTIVES OF LOSS DISTRIBUTION AND ADMINISTRATIVE COST AVOIDANCE

A. *Loss Distribution and Latent Diseases*

Let us start by returning to Calabresi's concept of secondary cost avoidance and asking how well the tort system works to achieve this goal. The tort system as a whole reportedly compensates accident victims for less than five percent of their total economic losses,[311] and it

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308. *See supra* Part VI.C.

309. *See, e.g.*, Brown v. Dermer, 744 A.2d 47 (Md. 2000) (allowing a suit against landlords in a lead poisoning case); State v. Lead Indus. Ass'n, C.A. No. 99-5226, 2001 R.I. Super. LEXIS 37 (R.I. Super. Ct. Apr. 2, 2001) (allowing a suit against lead pigment manufacturers).

310. In 2003, New Jersey enacted legislation requiring landlords to eliminate lead-based paint hazards in their properties, while rejecting a proposal to impose a tax on paint (none of which has contained lead since 1978) to defray some of the expenses of lead-hazard remediation. *See* 2003 N.J. Laws 311 (codified at N.J. STAT. ANN. § 52:27D-437.1 to .15 (West Supp. 2004)). *Compare id., with* James Bruggers, *Lead-Paint Bill to Protect Children May Contain Flaws*, THE COURIER-J. (LOUISVILLE), Feb. 11, 2004, at A1, *available at* 2004 WL 55336485 (discussing a bill in the Kentucky Legislature, proposed by the paint industry, which was attacked by a representative of the Alliance for Healthy Homes because it allowed "paint manufacturers to 'shift the blame' for dangerous lead-based paints they made decades ago to property owners").

311. NEAL FEIGENSON, LEGAL BLAME: HOW JURORS THINK AND TALK ABOUT ACCIDENTS 9 (2000); *see also* Sugarman, *supra* note 132, at 592-94. Many of the losses not compensated

appears that the existing system does a particularly poor job of compensating victims of mass product torts and of distributing their losses. There are many reasons that victims of mass products torts do not receive compensation for their diseases, and hence that the losses caused by their diseases are not distributed among others. As previously considered, they are frequently unable to identify the specific manufacturer of the product that caused their illnesses,[312] and courts in their jurisdictions have rejected market share liability and other forms of collective responsibility for the products causing their harms.[313] The victim may be unable to prove that the manufacturer of the product causing him harm was negligent or otherwise had engaged in tortious conduct. Further, the culpability of the victim herself or of a third party may preclude the manufacturer's liability. For example, the lawsuit against the handgun manufacturer, brought to recover damage suffered by shooting victims, fails because the criminal activity of the assailant is held to preclude the liability of the manufacturer,[314] and the plaintiff's own behavior prevents him from recovering from the cigarette manufacturer.[315]

The very nature of mass products torts means that some victims may be deprived of compensation or receive considerably less than other tort victims because the assets of mass products manufacturers are not adequate to pay all the claims. For example, by mid-2003, more than sixty manufacturers of asbestos products had filed for bankruptcy, more than 600,000 claims had been filed, and over

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by the tort system, especially medical expenses, are paid by government medical assistance plans or by first-party medical or disability insurance or employer-provided plans for the continuation of income. *See, e.g.*, Linda Gunderson, *The Financial Costs of Gun Violence*, 131 ANNALS INTERNAL MED. 483, 483 (1999) (estimating that approximately 85% of the health costs of gun violence fall on taxpayers because most victims of gun violence are uninsured); Hanson & Logue, *supra* note 271, at 1224-29 (discussing the externalization of the health care costs of smoking-related illness); Mark D. Fridy, Note, *How the Tobacco Industry May Pay for Public Health Care Expenditures Caused by Smoking: A Look at the Next Wave of Suits Against the Tobacco Industry*, 72 IND. L.J. 235, 237-39 (1996) (discussing government health care expenditures on tobacco-related illnesses). *See generally* JERRY, *supra* note 182, § 13A[c], at 48 (discussing health and disability insurance). Nonetheless, "the victims themselves and their families absorb nearly 40% of medical costs and two thirds of lost wages." FEIGENSON, *supra*, at 9.

312. *See supra* Part V.A.1.

313. *See supra* Part V.A.2.

314. *E.g.*, Camden County Bd. of Chosen Freeholders v. Beretta, U.S.A. Corp., 273 F.3d 536, 541 (3d Cir. 2001) (rejecting claims against manufacturers because of the intervening acts of third parties); Ganim v. Smith & Wesson Corp., 780 A.2d 98 (Conn. 2001) (holding that a municipality lacks standing to pursue a recoupment claim against gun manufacturers because the damages resulting from use of handguns by criminals are too remote).

315. *E.g.*, Horton v. Am. Tobacco Co., 667 So. 2d 1289 (Miss. 1995).

200,000 of these claims were pending.[316] Many suits brought by victims of asbestos-related diseases have been dismissed because of the bankruptcy of the relevant manufacturers.[317]

Calabresi also argues that "[t]he moral context of accident law . . . requires some consistency" in the handling of accident compensation claims.[318] The observer assessing the loss distribution performance of the current system for handling mass products torts cannot avoid being troubled by the variability in the amount of damages awarded to victims. Professor Peter Schuck argues that the disparity of jury results in mass tort cases is even more troubling than in other tort cases:

> Empirical studies of jury performance in more conventional litigation suggest that most of the variation can indeed be explained . . . . It is much harder, however, to justify variable outcomes in cases where the identical factual issue—lack of general causation—is (or at least should be) dispositive of all of them, yet mass tort cases often violate the basic principles of system rationality and horizontal equity. In the Bendectin litigation, for example, a series of directed verdicts for defendants based on lack of general causation was both bracketed and interrupted by several large plaintiffs' verdicts. Similarly, in the silicone gel breast implant litigation, where the evidence on general causation of immunological disorders was always weak and became progressively weaker over time, most of the juries rendered defendants' verdicts, but some of them awarded large damages to plaintiffs, even after a string of defendant victories.

This variability in outcomes for cases that appear similar on their facts or that implicate identical dispositive legal principles or facts should trouble any system of justice that aspires to rationality, fairness, and predictability. It is especially regrettable when the different outcomes appear to reflect differences in the lawyer's skill, or in the location of the court, which is common in tort law generally.[319]

Similarly, a RAND Corporation study concludes:

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316. CARROLL ET AL., *supra* note 39, at 40, 71; Alex Berenson, *Senate Panel Approves Bill to Establish Asbestos Trust*, N.Y. TIMES, July 11, 2003, at C1; Verkuil Statement, *supra* note 256.

317. *See, e.g.*, *MDL 875 Cases Dismissed Because of Bankruptcy Filings*, MEALEY'S LITIG. REP.: ASBESTOS, June 9, 2004, at 21 (reporting on the dismissal in *In re* Asbestos Prods. Liab. Litig. (No. VI), No. MDL 875 (E.D. Pa.)).

318. THE COSTS OF ACCIDENTS, *supra* note 1, at 293.

319. Peter H. Schuck, *Judicial Avoidance of Juries in Mass Tort Litigation*, 48 DEPAUL L. REV. 479, 484-85 (1998) (footnotes omitted).

> Results of jury verdicts are capricious and uncertain. Sick people and people who have died a terrible death from asbestos are being turned away from the courts, while people with minimal injuries who may *never* suffer severe asbestos disease are being awarded hundreds of thousands of dollars, and even in excess of a million dollars. The asbestos litigation often resembles the casinos sixty miles east of Philadelphia more than a courtroom procedure.[320]

The current tort system thus fails if evaluated in terms of Calabresi's secondary cost avoidance and consistency criteria. These goals should remain important priorities of an accident compensation system for victims of mass products torts. Further, the relative importance of secondary accident cost avoidance is greater when addressing latent diseases caused by exposure to mass products than in other areas of accident compensation because of the inherent implausibility that any accident compensation system designed to handle such latent diseases can accomplish much by way of primary accident cost reduction.

B. Administrative Cost Avoidance and Latent Diseases

The inefficiencies of the current tort system[321] are particularly acute in the case of mass products torts because of the possibility that many of the fact issues necessary to determine whether or not an individual plaintiff can recover must be tried and retried for each new case. Courts generally deny class certification in mass products torts cases because the requirements that the claims of the litigating class representatives be typical of the class and that common issues predominate over individual issues are not satisfied.[322] Some courts have allowed the consolidation of mass products liability torts claims for trial on liability issues,[323] but others have not.[324] Though most courts now, in principle at least, allow the offensive use of issue preclu-

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320. DEBORAH R. HENSLER ET AL., ASBESTOS IN THE COURTS: THE CHALLENGE OF MASS TOXIC TORTS 41 (RAND Inst. for Civil Justice, Doc. No. R-3324-ICJ, 1985) (citation omitted); *see also In re* Sch. Asbestos Litig., 789 F.2d 996, 1001 (3d Cir. 1986) (stating that in asbestos litigation, "the variation in jury awards has led to complaints that injustice rather than careful apportionment has resulted").

321. *See generally* KAKALIK & PACE, *supra* note 31.

322. *See supra* notes 60, 174.

323. *E.g.*, Cimino v. Raymark Indus., Inc., 751 F. Supp. 649 (E.D. Tex. 1990) (consolidating asbestos cases for trial on common issues); ACandS, Inc. v. Godwin, 667 A.2d 116 (Md. 1995) (allowing the consolidation of 8,555 asbestos cases).

324. *E.g., In re* Repetitive Stress Injury Prods. Liab. Litig., No. MDL-955, 1992 WL 403023 (J.P.M.L. Nov. 27, 1992). *See generally* Richard L. Marcus, *Confronting the Consolidation Conundrum*, 1995 BYU L. REV. 879.

sion,[325] attempts by plaintiffs to use issue preclusion in mass products tort cases often have proved to be futile.[326]

Empirical and anecdotal evidence demonstrates that the costs of handling mass products torts claims through the current tort system are very, very substantial, and arguably excessive. A RAND Corporation Institute for Civil Justice study shows that victims of asbestos-related disease receive forty-three percent of the amount spent by asbestos manufacturers on liability resulting from asbestos-related illnesses, the remainder going to attorneys, insurers' expenses and profits, the court system, expert witnesses, and the like.[327] Lawyers' fees for the litigation by the states leading to the tobacco settlements ultimately will exceed $25 billion[328] and, at least after the fact, payments of these attorneys' fees have resulted in considerable litigation.[329] In comparison, workers' compensation systems and other compensation systems that do not require an individual claimant to prove the injuring party's fault have much lower administrative costs than those of the tort system.[330]

VIII. FUNDAMENTAL PRINCIPLES FOR DESIGNING COMPENSATION SYSTEMS FOR LATENT DISEASES RESULTING FROM EXPOSURE TO MASS PRODUCTS

The prescription of a compensation system for any particular mass products tort, much less an all-inclusive compensation system for handling all mass products torts, is beyond the scope of this Article. Nevertheless, the analysis presented does suggest some principles to guide the distribution of the costs of latent diseases resulting from exposure to mass products.

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325. *E.g.*, Parklane Hosiery Co. v. Shore, 439 U.S. 322 (1979).

326. *E.g.*, Hardy v. Johns-Manville Sales Corp., 681 F.2d 334 (5th Cir. 1982); Migues v. Fibreboard Corp., 662 F.2d 1182 (5th Cir. 1981); Michael D. Green, *The Inability of Offensive Collateral Estoppel to Fulfill Its Promise: An Examination of Estoppel in Asbestos Litigation*, 70 IOWA L. REV. 141, 224 (1984) ("[C]ollateral estoppel has little potential to make a significant contribution in resolving the judicial administration difficulties engendered by asbestos litigation.").

327. CARROLL ET AL., *supra* note 39, at 61.

328. Lester Brickman, *Effective Hourly Rates of Contingency-Fee Lawyers: Competing Data and Non-Competitive Fees*, 81 WASH. U. L.Q. 653, 700, 721 (2003).

329. *See, e.g.*, Brown & Williamson Tobacco Corp. v. Chesley, 749 N.Y.S.2d 842 (N.Y. Sup. Ct. 2002) (overturning arbitration determination of $1.25 billion dollars in tobacco lawyers' fees); *Minn. High Court Asked to Rule on Tobacco Fee*, MEALEY'S LITIG. REP.: TOBACCO, Feb. 3, 2000, at 5 (describing a challenge to a $440.8 million fee award for attorneys representing the State of Minnesota in tobacco litigation).

330. *See, e.g.*, John G. Fleming, *Is There a Future for Tort?*, 44 LA. L. REV. 1193, 1207 (1984) (noting that transaction costs are under 10% for both the New Zealand no-fault compensation plan and the Ontario workers' compensation program).

A. *Summary of the Peculiar Challenges to Loss Avoidance Objectives and Their Implications for Compensation Systems*

As this Article has shown, latent diseases resulting from exposure to mass products pose peculiar challenges to the goal of primary accident cost reduction. First, in the contexts of those products such as DES, asbestos, or lead-based paint, where there is a substantial delay, often decades, between the product manufacturer's activities that causally contribute to the disease and the onset of the disease, the imposition of liability following the manifestation of the disease is too remote in time—at least when the manufacturer is no longer distributing the product—to serve as an effective disincentive to discourage the product manufacturer from distributing the disease-causing product.[331]

Second, liability for latent diseases often cannot be assessed against the activity causing the disease—the manufacture and distribution of the toxic product—much less against the specific manufacturer of the product causing a specific victim's illness.[332] Many victims of product-caused diseases are not able to identify the specific manufacturer of the products to which they were exposed that caused their diseases. Most courts[333] and many corrective justice scholars[334] argue on the basis of principle that the victim should not recover in these circumstances. Even if this approach is rejected, however, and we, like Calabresi, view the goals of tort law as instrumental objectives, collective liability for mass torts remains troubling. Not only are individual victims of mass products torts frequently unable to identify the manufacturer of the product contributing to their injuries, but collectively the group of injured victims is inherently incapable of establishing,

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331. *See supra* Part IV.

332. *See supra* Part V.

333. *See supra* notes 201-205, 211, 216, and accompanying text.

334. For example, Weinrib argues that in such cases the "correlativity of right and duty" that is necessary for a determination of liability is lacking:

> [C]orrelativity highlights the moral reason for singling out the defendant for liability. Because the actor's breach of duty infringes the sufferer's right, liability reflects the defendant's commission of an injustice. Liability is therefore not the retrospective pricing or licensing or taxing of a permissible act. Nor is the defendant singled out as a convenient conduit to an accessible insurance pool that might spread the overall cost of harm. Conversely, correlativity also indicates why the plaintiff in particular is entitled to recover. The defendant violates a normative bond not with the world at large but specifically with the person to whom the defendant owed the duty. In bringing the action, the plaintiff does not step forward as the representative of the public interest in economic efficiency or in any other condition of general welfare. The plaintiff sues literally in his or her own right as the victim of the defendant's unjust act.

WEINRIB, *supra* note 80, at 142; *see also id.* at 1-2, 10-11, 65-66, 71-76.

even approximately, which portion of their collective financial loss was caused by each injurer. Further, many manufacturers whose products contributed to the latent disease have disappeared from the scene during the intervening decades. Each manufacturer that remains generally produces a different mix of products, none of which causes disease. In these circumstances, placing liability on the remaining manufacturers places financial responsibility for the latent disease on the manufacturers of products that have no causal connection with the disease, or on other unrelated activities.

Third, and finally, many mass products pass through several sets of hands. In traditional tort terms, the asbestos insulation contractor or the handgun assailant may be either a joint tortfeasor or even a superseding cause precluding the manufacturer's liability. The manufacturers of tobacco products, using traditional tort language, argue that the victims of tobacco-related disease themselves are contributorily negligent or have assumed the risk. Any of these parties, using Calabresian analysis, may be the cheapest cost avoider. Pinning that label on the manufacturer is not intuitively obvious.

Each of these factors suggests that imposition of liability on the manufacturer of mass products is not as effective in achieving primary cost avoidance as it may be in other, more routine types of tort actions[335] and, in fact, that the imposition of liability here may not be particularly effective at all in reducing accident costs. These same factors may also make it difficult or impossible for the manufacturer to play the role of best briber: to identify the cheapest cost avoider and create incentives or disincentives for this party to minimize the loss. Yet this single goal of primary accident cost avoidance drives much of Calabresi's own analysis regarding the design of accident compensation systems.

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335. A contrary argument can be made. The more idiosyncratic nature of many other tort claims, such as those arising from automobile accidents, premises liability, or even medical malpractice, suggests very few victims of these accidental injuries are likely to pursue claims against their injurers. *See* DAVID TRUBEK ET AL., CIVIL LITIGATION RESEARCH PROJECT: FINAL REPORT, pt. A, at S-20 tbl.1 (1983) (describing a survey that found that only 18.7% of those with possible tort claims filed a lawsuit); PAUL C. WEILER ET AL., A MEASURE OF MALPRACTICE: MEDICAL INJURY, MALPRACTICE LITIGATION, AND PATIENT COMPENSATION 70 (1993) (finding the ratio of medical negligence claims to actual incidents of medical negligence to be 1 to 7.6). A product manufacturer probably will be exposed to liability for a higher percentage of the damages it caused than will "non-mass" tortfeasors because of the efficiencies achieved by plaintiffs' firms specializing in asbestos and other latent diseases resulting from exposure to mass products and other efficiencies resulting from the availability of collective mechanisms for litigating claims, such as government recoupment litigation, consolidation, and class actions.

The likelihood that Calabresi's goal of primary cost avoidance cannot be effectively achieved through the imposition of liability in many mass products torts contexts suggests two conclusions. First, specific deterrence—that is, regulation achieved by the "collective method,"[336] i.e., legislatively or administratively imposed regulation, must play a larger role in regulating products that cause latent diseases than in other areas of liability. Regulation of the processes of product-safety testing, unlike liability for the results of inadequate testing or research, occurs before or simultaneously with the distribution of the product, not decades later. Thus, the delay between the manufacturer's conduct and the manifestation of the latent disease does not preclude primary accident cost avoidance achieved through specific deterrence as it does with general deterrence. Specific deterrence (regulation) obviously already plays a more important role in the manufacture and distribution of pharmaceutical products, a frequent cause of latent diseases, than it does with other products. Unfortunately, the case histories of pharmaceutical products such as DES[337] and fen-phen[338] illustrate that specific deterrence has not always proven capable of preventing latent diseases caused by exposure to pharmaceutical products.

In addition, the frequent inability of legal liability to achieve the goal of primary accident cost reduction in the case of latent diseases resulting from exposure to mass products, at least when the product is no longer being distributed, suggests that other goals—loss distribution and reduction of administrative costs—should become comparatively more important in the design of accident compensation systems for handling the damages resulting from those diseases. Calabresi notes that "if secondary cost avoidance were the only aim of accident law, there would be little reason for stopping short of general social insurance paid out of taxes and covering all accidents."[339]

There may be at least two reasons, however, for not going all the way toward adoption of a government social insurance system and instead taking an intermediate approach in some contexts involving latent diseases caused by exposure to mass products. First, if it can be shown that the manufacturer had greater knowledge of the risks of the product at the time of the distribution of the product or acted unreasonably in failing to determine the health risks of the product, then corrective justice grounds point to holding the manufacturer lia-

336. THE COSTS OF ACCIDENTS, *supra* note 1, at 27; *see also id.* at 68-69, 93-124, 174-97.
337. *See supra* notes 49-53 and accompanying text.
338. *See supra* note 58.
339. THE COSTS OF ACCIDENTS, *supra* note 1, at 46.

ble in some form. Second, the current fiscal realities of both the federal and state governments, characterized by budget deficits and a decreasing willingness to raise revenues through taxation, suggest the likely political infeasibility of using general tax revenues to fund new programs to compensate victims of latent diseases.

If we are prepared to acknowledge the obstacles to achieving primary accident cost avoidance in the handling of latent diseases caused by exposure to mass products and to give up on accident avoidance as the principal goal of any alternative accident compensation system designed to handle such claims, then the compensation system we choose also could deviate from Calabresi's requirements that (1) the victims' damages should not be limited to economic losses, and (2) government funds (general tax revenues) not be used to subsidize compensation funds.[340] Both of these conclusions by Calabresi depend upon the assumption that unless the cheapest cost avoider is liable for all the damages attributable to its activities, the damages will not be sufficient to provide the incentives necessary to reduce accident costs to a socially efficient level. If the imposition of liability arguably fails to create such incentives anyway because of the factors described earlier,[341] then our focus in designing accident compensation systems for handling latent diseases resulting from mass products should shift to a greater focus on secondary and tertiary cost avoidance.

If loss distribution and avoidance of administrative costs are relatively more important as goals, no-fault administrative compensation systems become more attractive as the vehicle for compensating victims for the damages caused by latent diseases, handgun violence, and similar losses caused by mass products. It is hardly a novel suggestion to argue that the traditional tort system does a poor job of handling mass torts or to propose an administrative compensation system as a solution.[342] Without addressing the details of the design of such no-fault administrative systems, I turn now to some of the basic issues that must be confronted in the context of handling the latent diseases used as examples in this Article.

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340. *See supra* Part III.C.

341. *See supra* Part IV.

342. Many commentators, including at least two who have presented at this Symposium, have suggested administrative compensation systems for mass torts. *See* Jon D. Hanson et al., *Smokers' Compensation: Toward a Blueprint for Federal Regulation of Cigarette Manufacturers*, 22 S. ILL. U. L.J. 519 (1998); Hanson & Logue, *supra* note 271; Robert L. Rabin, *Some Thoughts on the Efficacy of a Mass Toxics Administrative Compensation Scheme*, 52 MD. L. REV. 951 (1993) [hereinafter *Mass Toxics*].

B. Defining the Compensable Event

Each case in the traditional tort system generally requires an individualized determination of liability through analysis of concepts including whether the defendant's conduct has been tortious and has caused the victim's injury, whether the victim has been contributorily negligent, and whether the conduct of other parties constituted a superseding cause. Calabresi argues convincingly that "if finding the cheapest cost avoider is our aim, case-by-case decisions are not desirable, in which case a body like the jury is very unlikely to be suitable for selecting the cheapest cost avoiders."[343]

The parallel challenge for the administrative compensation system is to determine the boundary separating cases that are to be handled under the system and those that are to remain in the tort system, that is, to designate a "compensable event."[344] Each victim then would be required to prove that her harm had been caused by the product.[345] With many injuries and diseases resulting from exposure to harmful products causation is difficult to prove,[346] but in two of the mass products torts contexts discussed in this Article, the causation question is clear in most cases. Both the asbestos-related diseases of asbestosis and mesothelioma[347] and childhood lead poisoning[348] are "signature" diseases in which there is a clearly evident and exclusive causal connection between exposure to the toxic product and the disease. The situation with an administrative compensation system for tobacco-related illness is more complex. On one hand, the correlation between certain tobacco-related illness such as lung cancer and

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343. THE COSTS OF ACCIDENTS, *supra* note 1, at 161.

344. *See* Kenneth S. Abraham, *Individual Action and Collective Responsibility: The Dilemma of Mass Tort Reform*, 73 VA. L. REV. 845, 886-89 (1987) [hereinafter *Individual Action*]; Rabin, *Mass Toxics*, *supra* note 342, at 964.

345. Rabin, *Mass Toxics*, *supra* note 342, at 964.

346. *See, e.g.*, Sanderson v. Int'l Flavors & Fragrances, Inc., 950 F. Supp. 981 (C.D. Cal. 1996) (exposure to allegedly toxic perfumes); Hall v. Baxter Healthcare Corp., 947 F. Supp. 1387 (D. Or. 1996) (silicon breast implants).

347. *See* Gerald W. Boston, *A Mass-Exposure Model of Toxic Causation: The Content of Scientific Proof and the Regulatory Experience*, 18 COLUM. J. ENVTL. L. 181, 203 (1993) ("[A]sbestosis and mesothelioma are signature diseases of asbestos exposure.").

348. Childhood lead poisoning is a classic "signature" disease because its diagnosis results from the presence of elevated lead levels in the body. *See* WARREN, *supra* note 166, at 1. Defendants in childhood lead poisoning cases (whether against landlords or manufacturers) sometimes argue, however, that a child's cognitive impairment, behavioral difficulties, and other health problems result from environmental factors other than exposure to lead-based paint. *See* Jennifer Wriggins, *Genetics, IQ, Determinism, and Torts: The Example of Discovery in Lead Exposure Litigation*, 77 B.U. L. REV. 1025 (1997) (criticizing defendants' attempts in lead poisoning cases to attribute the intellectual deficiencies of victims to genetic causes).

other lung diseases and smoking is so strong that they could be regarded as "quasi-signature diseases."[349] On the other hand, smoking increases heart disease rates, but it would be difficult to automatically conclude that a smoker with heart disease necessarily was entitled to compensation from such a fund.[350] Similarly, the question of whether a former asbestos insulation worker who smoked and now suffers from lung cancer should seek his compensation from a tobacco compensation system or an asbestos compensation system is problematic.[351]

C. *Funding the Compensation System*

The second major issue is how the administrative compensation system for each disease or injury-causing mass product should be financed.[352] Calabresi's approach in *The Costs of Accidents* is first to identify *the* cheapest cost avoider, in order both to maximize the incentives for loss avoidance by placing the total financial liability on a single activity and to enable the party clearly assigned initial liability to identify and bribe other parties who potentially can avoid the loss at lesser cost to do so.[353] Elsewhere in *The Costs of Accidents*, however, he clearly anticipates that "all injurers should pay, in relation to their individual wrongdoing, into a fund to compensate all victims, in relation to their injuries and *their* wrongdoing."[354] Calabresi goes on to state that such a compensation pool could be funded by "fining wrongdoers, whether or not an accident occurs, to help pay for compensation of those who are injured, and even by taxing activities and people according to the likelihood of their involvement in accidents in which their conduct would be deemed blameworthy."[355] In the case of those

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349. Hanson et al., *supra* note 342, at 533-34.

350. *Id.* at 535.

351. *See* Falise v. Am. Tobacco Co., 94 F. Supp. 2d 316, 327 (E.D.N.Y. 2000) (Weinstein, J.) (asbestos trust sought contribution from tobacco manufacturers on the theory that the tobacco manufacturers contributed to the asbestos-related health problems of trust claimants).

352. *See* Abraham, *Individual Action*, *supra* note 344, at 889-94 (discussing the problems in developing financing for a fund, including the assessment structure, risk of insolvency, and retroactive liability); Rabin, *Mass Toxics*, *supra* note 342, at 976-78 (noting considerable divergence between funding schemes in no-fault systems).

353. THE COSTS OF ACCIDENTS, *supra* note 1, at 135.

354. *Id.* at 302.

355. *Id.* at 306. Elsewhere Calabresi urges caution in dividing the financial liability for accident costs among multiple parties and illustrates his concern with the following example:

> Assume that an accident involving two activities costs $80 each time it occurs. Assume also that such an accident could always be avoided by either activity through the installation of a safety device costing $60 per accident prevented. An involvement test would charge each of the activities $40 per accident. At first,

mass products torts where (1) the factors discussed in this Article make it unlikely that imposition of initial liability on the product manufacturer will result in accident reduction, (2) it is difficult or impossible for the manufacturer to identify and bribe the party who can minimize the loss at the least cost, and (3) parties engaged in other activities systemically contribute to the disease or injury, the fund used to compensate the victims should include contributions from parties other than the product manufacturers whose activities contributed to the diseases or injury.

Let us consider, at least in the broadest possible terms, the funding of compensation pools for victims of asbestos-related illness, tobacco-related illnesses, and lead poisoned children.

1. Tobacco-Related Diseases.—Recall that for tobacco-related illnesses, the candidates for the role of cheapest cost avoider included the tobacco companies, the smokers themselves, and, less plausibly, the government.[356] The context of tobacco-related illness is simpler than asbestos or childhood lead poisoning both because the manufacturers continue to engage in loss-generating activities and because either the manufacturer(s) whose products caused a specific illness is identifiable or, at least, the current proportions of each manufacturer's contribution to the harm may be ascertained.

Hanson, Logue, and Zamore have convincingly proposed a compensation system for tobacco-related illnesses that, at least implicitly, follows the analysis suggested by *The Costs of Accidents*.[357] Their approach, at least within limits to be defined subsequently, proceeds on the basis that tobacco manufacturers are the cheapest cost avoiders because "smokers typically begin smoking at a very early age, tend to underestimate the long-term health risks to themselves (and to others) of smoking, [and] often underestimate the addictiveness of cigarettes."[358] They therefore argue that the compensation system be

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> neither activity would install the safety device. Either might eventually do so as a result of transactions with the other. But if the cost of entering into such transactions was more than $20 per accident, no transactions would take place and the accidents would not be avoided, even though if *either* party were originally charged with the full costs of the accident the safety device would be installed, as it should be.

Id. at 158. The obstacles to primary cost avoidance in the context of latent diseases caused by exposure to mass products, however, simply overwhelm such highly calibrated, simplified examples.

356. *See supra* Part VI.B.

357. *See* Hanson et al., *supra* note 342.

358. *Id.* at 521 (footnotes omitted).

funded by assessments on cigarette manufacturers.[359] At the same time, Hanson, Logue, and Zamore's approach, implicitly at least, recognizes the smokers' potential role as the cheapest cost avoider—given contemporary appreciation of the risks of tobacco use—by limiting the victim's recovery to economic losses[360] and having the victims of tobacco-related illness bear the costs of their own non-economic damages, which they argue "will . . . encourage smokers to take reasonable precautions."[361] They note that having tobacco companies pay the economic losses resulting from tobacco-related disease should not decrease the incentives of potential victims to stop smoking or not to start smoking in the first place, because under the current system, the economic losses of victims generally are paid by health insurers or the government anyway.[362]

2. *Asbestos-Related Diseases.*—In many ways, the financing of an administrative compensation system for victims of asbestos-related disease would be more complicated than the previous example, largely because the manufacturers' activities contributing to the losses ended decades ago, as did the contributions of insulation contractors and other industrial purchasers who are also candidates to be the cheapest cost avoider. Similarly, the ability of manufacturers or insulation contractors to bribe others to minimize the losses ended decades ago along with the disease-causing exposure itself. On purely primary accident cost avoidance principles, it is plausible to argue that asbestos manufacturers and insulation contractors should not be required to contribute to a compensation fund for victims of asbestos-related illness because any such liability obviously cannot lead them to reduce accident costs in the specific context of asbestos-related illness.

I nevertheless conclude for several reasons that asbestos manufacturers and the intermediaries between the manufacturers and the workers, e.g., insulation contractors, should be assessed to contribute to a compensation fund. First, as previously noted, imposing liability on the manufacturers may serve to encourage manufacturers of other

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359. *Id.* at 522.

360. *Id.* at 556. The system would provide "medical benefits, partial but substantial disability benefits, and death benefits." *Id.*

361. *Id.* at 559.

362. *Id.* The Hanson, Logue, and Zamore compensation plan does not require government funding; indeed, the consequence of enactment of their plan probably would be to transfer the government's existing financial responsibility for the health care expenses of victims of tobacco-related illness to tobacco companies. Yet arguably there should be financial incentives to encourage the government to continue programs to reduce smoking. *See supra* Part VI.D.

products, now and in the future, to assure that their products do not cause disease, though even here the passage of time between the distribution of asbestos products and the imposition of liability undermines the likely deterrent effect.[363] Second, the activities of asbestos manufacturers, such as Johns-Manville, were particularly egregious—far worse than mere negligence. As the court concluded in *Fischer v. Johns-Manville Corp.*:

> It is indeed appalling to us that Johns-Manville had so much information on the hazards to asbestos workers as early as the mid-1930's and that it not only failed to use that information to protect these workers but, more egregiously, that it also attempted to withhold this information from the public.[364]

This indictment illustrates that Johns-Manville was the cheapest cost avoider at the time of the distribution of the product, even if the imposition of liability today would not directly and specifically reduce primary accident costs. Further, despite Calabresi's general criticism of a compensation system based upon fault principles,[365] this example suggests the intuitive appeal of granting corrective justice principles a role in determining liability.[366]

The funding of asbestos-related disease compensation systems by asbestos manufacturers, and possibly also insulation contractors or other industrial users, also provides a means of distributing losses, whether the funds ultimately come from the manufacturers and their sales of other, non-asbestos products, or from insurance.[367] This factor, however, in the asbestos-related disease context, may suggest that compensation should be limited to economic damages so that the limited resources of former asbestos manufacturers and their insurers are not exhausted by payments of punitive damages or other non-economic damages.[368] Again, Calabresi has argued that victims should be able to recover all the costs of their accidents, including non-economic damages, but his principal justification for doing so is that un-

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363. *See supra* note 192 and accompanying text.

364. 472 A.2d 577, 587 (N.J. Super. Ct. App. Div. 1984).

365. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 239-308.

366. *See supra* note 83 and accompanying text; *supra* text following note 339.

367. *But see supra* notes 240-243 and accompanying text (discussing the problems with this approach).

368. *But see* Fischer v. Johns-Manville Corp., 512 A.2d 466, 478-82 (N.J. 1986) (upholding an award of punitive damages against an asbestos manufacturer despite the "possibility that asbestos defendants' assets may become so depleted by early awards that the defendants will no longer be in existence and able to pay compensatory damages to later plaintiffs").

less the cheapest cost avoider pays all the losses, his incentives to avoid accidents will not be sufficiently great to yield socially efficient accident avoidance.[369] Where primary accident cost avoidance appears unlikely to result from the imposition of liability, this goal should yield to the compensation needs of those who will develop significant impairments from asbestos-related diseases in the future.

3. Childhood Lead Poisoning.—The activities of manufacturers of lead pigment and lead-based paint that have causally contributed to childhood lead poisoning, like the activities of asbestos manufacturers, ended decades ago.[370] These actors are neither in the position of cheapest cost avoider, nor are they likely to be in the best position to bribe others to minimize the losses. In contrast to the case of asbestos manufacturers, no court has found that lead pigment and lead-based paint manufacturers engaged in the egregious conduct of concealing the dangers of their products or affirmatively misrepresenting the safety of their product.[371] The only possible argument here for imposing liability on pigment and lead-based paint manufacturers is that the imposition of liability will provide incentives for them and other manufacturers in the future to assure that their products do not cause harm.

As previously discussed, the childhood lead poisoning context also includes other possible funding sources that arguably are the cheapest cost avoiders. Landlords and other property owners of pre-1978 houses, through assessments on their properties, should provide the bulk of funding for a no-fault compensation system.[372] These taxes should be assessed according to the degree of risk posed by the property: lead-free or lead-abated properties should pay nothing, properties that have undertaken measures to substantially reduce the risk of childhood lead poisoning should pay a lesser amount, and properties that are neither lead-free, lead-abated, nor have undertaken interim control measures, should pay a much greater assessment.[373] Further, as state and local governments today arguably are

369. *See supra* note 25 and accompanying text.

370. *See supra* note 72 and accompanying text.

371. *See supra* note 283 and accompanying text.

372. These assessments, of course, would be in lieu of further tort liability.

373. This proposal parallels Maryland's Lead Paint Poisoning Prevention Act, ch. 114, 1994 Md. Laws 1282 (codified as amended at MD. CODE ANN., ENVIR. §§ 6-801 to 6-852 (2002)). Under the statute, the liability of a landlord whose property is in compliance with standards designed to substantially reduce or eliminate the risks of childhood lead poisoning is limited to economic damages with statutory caps. §§ 6-839 to 6-840. As previously mentioned, I served as Chair of the Maryland Lead Poisoning Prevention Commission that proposed the Maryland scheme. *See supra* note 69.

the cheapest cost avoiders because they are in the best position to punish property owners who fail to reduce or eliminate the hazards of childhood lead poisoning, they should provide a portion of the funding for the compensation system.[374] This governmental funding would provide limited financial incentives for local and state governments to address the prevention of childhood lead poisoning more effectively.

One question that remains is whether recovery should be limited to economic losses. Lead poisoned children have not contributed to their illnesses and arguably are not the cheapest cost avoiders. On grounds of equity and corrective justice, this suggests that unlike the compensation to be paid to victims of tobacco-related illness, the lead poisoned child's recovery should not be limited to economic damages. The only justification for limiting recovery to either economic losses, or economic losses together with a scheduled sum of non-economic damages, would be as a tradeoff for allowing recovery without the proof of fault or other tortious conduct, or in order to avoid the administrative costs of determining non-economic damages.

D. Transition to an Administrative Compensation Plan

This Article has addressed the possible desirability and structure of no-fault administrative compensation systems only for victims of three high profile, contemporary product-caused latent diseases: tobacco-related illness, asbestos-related illness, and childhood lead poisoning. For the most part, the pragmatics of how such systems might be enacted, presumably by legislation, are beyond the scope of this Article. Further, I have not explicitly addressed in what circumstances an administrative compensation system should be employed to handle the costs of accidents resulting from other mass products torts. Hopefully working through the issues arising in the context of three selected mass product torts has illustrated the analysis that might be employed in the case of any latent disease resulting from exposure to mass products.

Professor Robert L. Rabin, in an excellent article in an earlier issue of this journal, has described the necessity of a "switching mechanism" that would divert traditional tort claims into an administrative compensation system once the claims resulting from a single product reached a critical mass.[375]

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374. *See supra* Part VI.D.

375. Rabin, *Mass Toxics*, *supra* note 342, at 968-69.

A number of very capable commentators, including my co-panelists,[376] have identified the challenging issues involved in designing an alternative no-fault compensation system for victims of mass torts—particularly the difficulty of defining the compensable event in the case of a latent disease such as cancer, where there often is more than a single possible alternative cause of the disease or where multiple factors contribute synergistically to causation. These are valid concerns. On one hand, it is reasonable that those proposing substantial change in the handling of compensation for victims of latent diseases caused by exposure to mass products should bear the burden of persuasion. Further, the very nature of adopting any alternative to the tort system requires the adoption, probably through legislative enactment, of a comprehensive plan with the structural details already resolved. At the same time, we must be careful not to demand exacting performance from an alternative compensation system while ignoring the failures of the current tort system in handling the claims of those suffering from latent diseases caused by exposure to mass products—failures to reduce accident costs and to distribute the costs of these diseases while controlling administrative costs.[377]

IX. CONCLUSIONS

In this Article, I have not taken sides in the dispute of whether tort liability generally deters harmful conduct and leads to accident cost avoidance.[378] Yet the conclusion that the inherent characteristics of latent diseases resulting from exposure to mass products—particularly when the disease-causing product is no longer being distributed

376. *See, e.g.*, Abraham, *Individual Action*, *supra* note 344, at 886-89; Rabin, *Mass Toxics*, *supra* note 342, at 982. In addition to concerns about the administrative feasibility of such systems, Professor Abraham also objects on the grounds that assessments to fund administrative compensation would not serve to further the goal of primary accident cost avoidance. Abraham, *Individual Action*, *supra* note 344, at 890. I have argued here, however, that the current tort system similarly fails to accomplish this goal. Professor Rabin concludes that "[a]dministrative compensation schemes offer greatest promise when the compensation-triggering 'event' features a relatively clear relationship between source, substance, and pathological condition." Rabin, *Mass Toxics*, *supra* note 342, at 982. This is best illustrated by the case of signature diseases such as mesothelioma, asbestosis, and childhood lead poisoning. *See supra* notes 347-349 and accompanying text.

377. *Cf.* Abraham, *Individual Action*, *supra* note 344, at 906 (describing the choice among the current tort system, an administrative compensation system, and expanded first-party insurance for compensating tort victims as "a choice among unsatisfactory alternatives").

378. *Compare, e.g.*, Sugarman, *supra* note 132 (arguing that tort law does not serve an important accident avoidance function and any influence it does have over behavior produces socially undesirable results), *with, e.g.*, Gary T. Schwartz, *Reality in the Economic Analysis of Tort Law: Does Tort Law Really Deter?*, 42 UCLA L. REV. 377 (1994) (concluding that tort law provides a meaningful amount of deterrence).

(not an uncommon situation with high-profile latent diseases such as asbestos-related illness and childhood lead poisoning)—may prevent the imposition of liability from being an effective deterrent, is a powerful one with implications for both tort theory and the real-world handling of claims for such diseases.

In *The Costs of Accidents*, Calabresi argues that an accident compensation system should be designed to achieve instrumental goals and that if we succeed in that endeavor, so long as we handle claims consistently, achieving the goal of justice will take care of itself.[379] Both the limited ability of an accident compensation system to reduce the harm caused by latent diseases[380] and the complexity—or inherently political or cultural nature—of determining which activity is the cheapest cost avoider[381] suggest that non-economic factors, e.g., justice, inevitably play a more important role in an accident compensation system than Calabresi's analysis suggests. For example, despite Calabresi's rejection of fault-based liability,[382] I would argue that at least in the context of latent diseases resulting from exposure to mass products, the culpability of the manufacturer should not be irrelevant. If asbestos manufacturers affirmatively misrepresented the safety of their products and concealed the risks, either knowingly or negligently, I would not find imposition of liability to be problematic, even if it cannot be shown that the prospect of such liability is likely to affect the conduct of manufacturers in the past, present, or future. Nor should we ignore the conclusion of Professor Gregory Keating, who has argued that the justification for enterprise liability rests "'not so much' on policies of accident prevention and loss spreading 'as in a deeply rooted sentiment that a business enterprise cannot justly disclaim responsibility for accidents which may fairly be said to be characteristic of its activities.'"[383] It is not that I am necessarily taking sides with the corrective justice theorists as opposed to Calabresi and other instrumentalists, but I do conclude that the complexities of handling at least some high-profile torts, those involving latent diseases, sometimes overwhelm the assumptions of the instrumental models of Calabresi and others.

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379. *See supra* notes 87-96 and accompanying text.

380. *See supra* Part IV.

381. *See supra* Part VI.

382. *See* THE COSTS OF ACCIDENTS, *supra* note 1, at 239-308.

383. Gregory C. Keating, *The Idea of Fairness in the Law of Enterprise Liability*, 95 MICH. L. REV. 1266, 1269 (1997) (quoting Ira S. Bushey & Sons, Inc. v. United States, 398 F.2d 167, 171 (2d Cir. 1968)).

The implications for the real-world handling of claims of those with latent diseases are equally significant. At least in this context, I think that Calabresi's mentor, Fleming James Jr.,[384] was correct. If he were alive today, James probably would conclude that it is doubtful whether the tort system is effective in deterring manufacturers' conduct that contributes causally to latent diseases, just as he was skeptical in his own time about the tort system's capacity to prevent conduct that caused more traditional accidental injuries.[385] The goals of reducing the incidence of such latent diseases and of compensating victims of such diseases, therefore, should be seen as separable objectives, unlikely to be accomplished by a single system. Instead, direct regulation of research and other aspects of the release of products where there is any foreseeable possibility that the product may cause latent diseases, should be strengthened.[386] Following James's more broadly applicable recommendations,[387] compensation for latent diseases resulting from exposure to mass products should focus on Calabresi's goals of secondary accident cost avoidance (loss distribution) and tertiary cost avoidance (reducing the costs of the accident compensation system).

In reality, most claimants who receive compensation from product manufacturers for their latent diseases do so through mechanisms that function very differently than the traditional tort litigation model. Many compensation systems operating in the real world, in fact, resemble the no-fault administrative compensation systems suggested in the Part VIII of this Article. In a few instances, these compensation systems are ones comprehensively enacted by legislation.[388] In other instances, however, the administrative compensation system has resulted from a class action settlement[389] or has been created by a bank-

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384. *See* Oscar S. Gray, *Introduction of Guido Calabresi*, 64 MD. L. REV. 734 (2005).

385. *See* Fleming James, Jr., *Accident Liability Reconsidered: The Impact of Liability Insurance*, 57 YALE L.J. 549, 569 (1948) ("As for that branch of the law which is concerned with civil damages or their equivalent, it is doubtful whether it contributes very much to accident prevention."); Fleming James, Jr., *Tort Law in Midstream: Its Challenge to the Judicial Process*, 8 BUFF. L. REV. 315, 331 (1959) ("[T]he pressure of civil liability yields little if anything in terms of accident prevention if exerted directly against individuals.").

386. *See supra* notes 336-338 and accompanying text.

387. *See* Fleming James, Jr., *Contribution Among Joint Tortfeasors: A Pragmatic Criticism*, 54 HARV. L. REV. 1156, 1157 (1941) ("The full blessings of distribution can best be attained by comprehensive social insurance . . . .").

388. *E.g.*, National Childhood Vaccine Injury Act of 1986, 42 U.S.C. §§ 300aa-1 to 300aa-34 (2000); National Swine Flu Immunization Program of 1976, Pub. L. No. 94-380, 90 Stat. 113 (originally codified at 42 U.S.C. § 247b(j)-(l) (repealed 1978)); Lead Paint Poisoning Prevention Act, MD. CODE ANN., ENVIR. §§ 6-801 to 6-852.

389. *E.g.*, Stephenson v. Dow Chem. Co., 273 F.3d 249 (2d Cir. 2001) (Agent Orange); *In re* Diet Drugs (Phentermine, Fenfluramine, Dexfenfluramine) Prods. Liab. Litig., MDL

ruptcy court in proceedings against a former manufacturer—now bankrupt—of asbestos or another product that has caused latent disease.[390] Even the state governments' payments of medical expenses for low-income victims of tobacco-related disease, followed by the states' pursuit of reimbursement from the tobacco manufacturers, can be seen as a form of no-fault compensation for some economic losses.

It might be, after all—as Calabresi and other law and economics scholars would have predicted—that the marketplace for latent disease compensation systems is working its way toward a socially efficient solution, even without a comprehensive design suggested by scholars or imposed by the government.

No. 1203, C.A. No. 99-20593, 2000 U.S. Dist. LEXIS 12275 (E.D. Pa. Aug. 28, 2000) (Fenphen).

390. *See In re* A.H. Robins Co., 880 F.2d 694 (4th Cir. 1989) (affirming the Chapter 11 reorganization plan of the Dalkon Shield manufacturer, which included a provision that set funds aside for future liabilities); Kane v. Johns-Manville Corp., 843 F.2d 636 (2d Cir. 1988) (upholding the creation of Johns-Manville's Chapter 11 fund for asbestos liability). *See generally* Alan N. Resnick, *Bankruptcy as a Vehicle for Resolving Enterprise-Threatening Mass Tort Liability*, 148 U. PA. L. REV. 2045 (2000).