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ARTICLE

PUNITIVE DAMAGES: AN ECONOMIC ANALYSIS

A. Mitchell Polinsky and Steven Shavell

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PUNITIVE DAMAGES: AN ECONOMIC ANALYSIS

A. Mitchell Polinsky and Steven Shavell*

The imposition of punitive damages is one of the more controversial features of the American legal system. Trial and appellate courts have struggled for many years to develop coherent principles for addressing the questions of when punitive damages should be awarded, and at what level. In this Article, Professors Polinsky and Shavell use economic reasoning to provide a relatively simple set of principles for answering these questions, given the goals of deterrence and punishment. With respect to the deterrence objective, on which their Article focuses, they argue that punitive damages ordinarily should be awarded if, and only if, an injurer has a significant chance of escaping liability for the harm he caused. When this condition holds, punitive damages are needed to offset the deterrence-diluting effect of the chance of escaping liability. (They mention as well a deterrence rationale for punitive damages that does not rest on the possibility of escape from liability — that punitive damages may be needed to deprive individuals of the socially illicit gains that they obtain from malicious acts.) Professors Polinsky and Shavell also discuss the tension between the implications of the deterrence objective and present punitive damages law, including the law's emphasis on the reprehensibility of a defendant's conduct and on a defendant's wealth. With respect to the punishment objective, Professors Polinsky and Shavell stress that the imposition of punitive damages on corporations may fail to serve its intended purpose (although the imposition of punitive damages on individual defendants accomplishes punishment in a straightforward manner). Punitive damages against corporations may be ineffective primarily because the payment of punitive damages awards by corporations often does not lead to greater punishment of culpable employees, but instead punishes the corporation's shareholders and customers.

I. INTRODUCTION

One of the more controversial features of the American legal system is the imposition of punitive damages. Courts have struggled for years to develop a rational set of principles for the imposition of punitive damages,¹ legislative bodies have passed or considered a variety of

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¹ The United States Supreme Court's struggle to develop coherent principles in this area is exemplified by the skeptical views expressed by various Justices on the rationality of punitive damages. Most recently, in *BMW of North America, Inc. v. Gore*, 116 S. Ct. 1589 (1996), Justice Scalia, in a pointed dissent, described the Court's guideposts for assessing punitive damages as "provid[ing] no real guidance at all." *Id.* at 1613 (Scalia, J., dissenting); see also *TXO Prod. Corp.*

statutes to remedy perceived problems with punitive damages,² academic commentators have debated the theory behind, and significance of, punitive damages,³ and the press has expressed strongly divergent

v. Alliance Resources Corp., 509 U.S. 443, 475 (1993) (O'Connor, J., dissenting) ("[T]he lack of clear guidance heightens the risk that arbitrariness, passion, or bias will replace dispassionate deliberation as the basis for the jury's verdict."); *id.* at 466-67 (Kennedy, J., concurring in part and concurring in the judgment) (arguing that the Court's vague formulation of a "reasonableness" standard for punitive damages awards is unsatisfactory and that "[t]his type of review, far from imposing meaningful, law-like restraints on jury excess, could become as fickle as the process it is designed to superintend. Furthermore, it might give the illusion of judicial certainty where none in fact exists.") (internal quotation marks omitted); *Browning-Ferris Indus., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 281 (1989) (Brennan, J., concurring) ("Without statutory (or at least common-law) standards for the determination of how large an award of punitive damages is appropriate in a given case, juries are left largely to themselves in making this important, and potentially devastating, decision."). Justice Brennan also noted that the instructions typically given to jurors, which advise them to consider the character and wealth of the defendant and the nature of the defendant's conduct, provide guidance that is "scarcely better than no guidance at all." *Id.*

² The statutes to which we are referring are generally aimed at reducing the number of punitive damages claims and the level of punitive damages awards. Notably, many states have enacted legislation imposing limits on the magnitude of punitive damages awards. Another type of statutory reform implemented by several states is the payment of a fraction of punitive damages to a state agency rather than to the plaintiff. Such legislation obviously reduces the incentive to bring suit for punitive damages (but does not impose a ceiling on defendants' payments). For a list of current and proposed statutes on punitive damages caps and payment of punitive damages to state agencies, see *Gore*, 116 S. Ct. at 1618-20 (Ginsburg, J., dissenting); RICHARD L. BLATT, ROBERT W. HAMMESFAHR & LORI S. NUGENT, *PUNITIVE DAMAGES: A STATE-BY-STATE GUIDE TO LAW AND PRACTICE* (1991). Also, one state has passed legislation requiring post-trial review of punitive damages awards. See MONT. CODE ANN. § 27-1-221(7)(c) (1996).

Additionally, as part of its tort reform efforts, Congress has considered legislation curbing punitive damages. Several bills have been proposed limiting punitive damages recovery to cases in which the plaintiff can demonstrate by "clear and convincing" evidence that the defendant displayed a conscious indifference to safety. See H.R. 956, 104th Cong. § 201(a) (1995); H.R. 955, 104th Cong. § 8(a), (c) (1995); H.R. 917, 104th Cong. § 6(c)(1) (1995). Most of the bills have proposed some sort of cap on punitive damages in civil cases, usually \$250,000 or three times the plaintiff's economic injury, whichever is greater. See H.R. 956, 104th Cong. § 201(b) (1995); H.R. 955, 104th Cong. § 8(b) (1995); H.R. 917, 104th Cong. § 6(c)(2) (1995); H.R. 10, 104th Cong. § 103(c)(2) (1995). The proposed tort reform legislation is reviewed in Note, "Common Sense" Legislation: *The Birth of Neoclassical Tort Reform*, 109 HARV. L. REV. 1765, 1769-82 (1996); see also Neil A. Lewis, *Senate, 61-37, Approves Narrow Punitive-Damages Curb*, N.Y. TIMES, May 11, 1995, at B10 (reporting that the House of Representatives voted to limit punitive damages to the greater of \$250,000 or three times the economic damages, and that the Senate voted for a narrower proposal that would limit punitive damages only in products liability cases to \$250,000 or twice the amount of economic damages and pain and suffering damages).

³ With respect to the theory of punitive damages, commentators have disagreed, for instance, about the relevance of the wealth of the defendant. Compare, e.g., Michael Rustad & Thomas Koenig, *The Historical Continuity of Punitive Damages Awards: Reforming the Tort Reformers*, 42 AM. U. L. REV. 1269, 1317-18 (1993) (endorsing the scaling of punitive damages to defendants' wealth because larger sanctions are required to influence the rich than the poor), with Kenneth S. Abraham & John C. Jeffries, Jr., *Punitive Damages and the Rule of Law: The Role of Defendant's Wealth*, 18 J. LEGAL STUD. 415, 415 (1989) (concluding that a "defendant's wealth is irrelevant to the goal of deterring socially undesirable conduct and is an improper consideration in assessing the basis for retribution"), and Clarence Morris, *Punitive Damages in Tort Cases*, 44 HARV. L. REV. 1173, 1191 (1931) (noting that evidence of a defendant's wealth, "instead of aiding the jury to assess a proper verdict, may prejudice them against the defendant and prevent an impartial judgment"). Additionally, commentators emphasize different goals in their consideration of punit-

opinions about the merits of punitive damages.⁴

tive damages. Compare, e.g., Thomas C. Galligan, Jr., *Augmented Awards: The Efficient Evolution of Punitive Damages*, 51 LA. L. REV. 3, 6-14 (1990) (proposing a system of extracompensatory damages based solely on deterrence), and Dan B. Dobbs, *Ending Punishment in "Punitive" Damages: Deterrence-Measured Remedies*, 40 ALA. L. REV. 831, 853-63 (1989) (same), with Marc Galanter & David Luban, *Poetic Justice: Punitive Damages and Legal Pluralism*, 42 AM. U. L. REV. 1393, 1432-40, 1447-51 (1993) (discussing both punishment and deterrence goals), and David G. Owen, *The Moral Foundations of Punitive Damages*, 40 ALA. L. REV. 705, 713 (1989) (same), and Jacqueline Perczek, Note, *On Efficiency, Punishment, Deterrence, and Fairness: A Survey of Punitive Damages Law and a Proposed Jury Instruction*, 27 SUFFOLK U. L. REV. 825, 856-64 (1993) (same).

The empirical importance of punitive damages is also the subject of dispute among academic commentators. A number of commentators suggest that punitive damages are widespread and problematic. See, e.g., Dorsey D. Ellis, Jr., *Punitive Damages, Due Process, and the Jury*, 40 ALA. L. REV. 975, 975-77, 987-88 (1989) (arguing that "courts . . . have continued to uphold ever larger awards in cases in which defendants' conduct falls far short of the intentionally injurious behavior that traditionally characterized punitive damages cases") (footnote omitted); Peter Huber, *No-Fault Punishment*, 40 ALA. L. REV. 1037, 1037-47 (1989) ("As the new tort revolution has taken hold, courts and juries have developed an even sharper, and for plaintiffs more lucrative, sense of outrage."); John Calvin Jeffries, Jr., *A Comment on the Constitutionality of Punitive Damages*, 72 VA. L. REV. 139, 139 (1986) (arguing that "punitive damages are out of control"); see also ERIK MOLLER, NICHOLAS M. PACE & STEPHEN J. CARROLL, *PUNITIVE DAMAGES IN FINANCIAL INJURY JURY VERDICTS 25-27* (Institute for Civil Justice, RAND Corp., No. MR-888-ICJ, 1997) (finding that, in lawsuits concerning financial injury, the percentage of verdicts in which punitive damages were awarded fell between the period 1985-1989 and the period 1990-1994, but that the average award and the portion of all damages represented by punitive damages rose); MARK PETERSON, SYAM SARMA & MICHAEL SHANLEY, *PUNITIVE DAMAGES: EMPIRICAL FINDINGS 65* (Institute for Civil Justice, RAND Corp., No. R-3311-ICJ, 1987) (concluding that punitive damages awards for business/contract cases are increasing, while punitive damages awards for personal injury cases are stable). Others suggest that the fraction of cases in which punitive damages are awarded is not significant. See Stephen Daniels & Joanne Martin, *Myth and Reality in Punitive Damages*, 75 MINN. L. REV. 1, 61-62 (1990) (concluding that the magnitude of the punitive damages problem is overstated by reformers); William M. Landes & Richard A. Posner, *New Light on Punitive Damages*, REGULATION, Sept.-Oct. 1986, at 33, 33 (suggesting that "the incidence of punitive-damage awards may be exaggerated"); Michael Rustad, *In Defense of Punitive Damages in Products Liability: Testing Tort Anecdotes with Empirical Data*, 78 IOWA L. REV. 1, 24 (1992) (concluding that there are very few punitive damages awards in product liability cases). These and other studies are reviewed by Marc Galanter, *Real World Torts: An Antidote to Anecdotes*, 55 MD. L. REV. 1093, 1126-40 (1996). The most thorough, recent empirical study of punitive damages also emphasizes this point. See Theodore Eisenberg, John Goerdts, Brian Ostrom, David Rottman & Martin T. Wells, *The Predictability of Punitive Damages*, 26 J. LEGAL STUD. 623, 623-25, 633 (1997). But see A. Mitchell Polinsky, *Are Punitive Damages Really Insignificant, Predictable, and Rational? A Comment on Eisenberg et al.*, 26 J. LEGAL STUD. 663, 664-71 (1997) (explaining in part that the study by Eisenberg et al. may understate the significance of punitive damages by ignoring the effects of such damages on settlements).

⁴ Compare *Curtailling Civil Justice*, N.Y. TIMES, Apr. 8, 1995, at 21 (noting that "[p]unitive damages are often the best deterrent to destructive corporate behavior" and arguing against arbitrarily low limits on awards), and Editorial, ST. PETERSBURG TIMES, May 23, 1996, at 14A ("Punitive damages clearly have a place in society. They are designed to punish and awaken."), and *Long Shadow of the Exxon Valdez*, N.Y. TIMES, Sept. 21, 1994, at A22 ("The jury . . . clearly understood that only a sizable civil penalty would accomplish the purpose for which punitive damages are designed: to penalize flagrant wrongdoing and deter others from similar gross negligence."), with *Trial Lawyers' Triumph*, WASH. POST, Mar. 19, 1996, at A16 (stating that "[l]egislation is needed because punitive damages are wildly unpredictable, so arbitrary as to be

Our goal in this Article is to develop a coherent and relatively simple set of principles for determining when punitive damages should be awarded and, in circumstances in which they are appropriate, what their level should be. We separately consider two social objectives: deterrence and punishment.⁵ Our methodology is economic in the sense that we organize our inquiry around an examination of how rational parties will respond to the threat of punitive damages, and whether their response will promote, or fail to promote, social welfare.⁶

The analysis of the deterrence objective comprises the first and major part of the Article. Our conclusions in this part flow from the basic principle that, to achieve appropriate deterrence, injurers should be made to pay for the harm their conduct generates, not less, not more. If injurers pay less than for the harm they cause, underdeterrence may result — that is, precautions may be inadequate, product prices may be too low, and risk-producing activities may be excessive. Conversely, if injurers are made to pay more than for the harm they cause, wasteful precautions may be taken, product prices may be inappropriately high, and risky but socially beneficial activities may be undesirably curtailed.

It follows from these observations that a crucial question for consideration is whether injurers sometimes escape liability for harms for

unfair"), and *Sue? Just Say No*, WALL ST. J., Sept. 28, 1994, at A18 (noting that punitive damages suits "have widespread, silent costs in frivolous filings being 'settled out' and legitimate business activities curtailed for fear of exposure to jury risk"), and *No Pains, No Gain*, ECONOMIST, May 25, 1996, at 67 (arguing that the current punitive damages system yields "bizarre" and excessive awards that keep useful products off the United States market and chill research and development of new products).

⁵ Deterrence and punishment are traditionally said to be the goals of punitive damages. See *City of Newport v. Fact Concerts, Inc.*, 453 U.S. 247, 266-67 (1981) ("Punitive damages . . . are . . . intended to . . . punish the tortfeasor whose wrongful action was intentional or malicious, and to deter him and others from similar extreme conduct."); *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 350 (1974) ("[Punitive damages] are . . . private fines levied by civil juries to punish reprehensible conduct and to deter its future occurrence.").

⁶ The concept of rationality in individual decisionmaking is discussed, for example, in Amartya Sen, *Rational Behaviour*, in 4 THE NEW PALGRAVE: A DICTIONARY OF ECONOMICS 68-76 (John Eatwell, Murray Milgate & Peter Newman eds., 1987). The notion of social welfare is reviewed, for instance, in DAVID M. KREPS, A COURSE IN MICROECONOMIC THEORY 149-82 (1990), and Amartya Sen, *Social Choice*, in 4 THE NEW PALGRAVE: A DICTIONARY OF ECONOMICS, *supra*, at 382-93. Social welfare is determined by the well-being of individuals. Thus, social welfare generally rises if individuals' well-being rises, and falls if individuals' well-being falls. In particular, social welfare reflects the deterrence objective of punitive damages, for the avoidance of harm preserves the well-being of persons; and social welfare reflects the punishment objective of punitive damages, for the punishment of wrongdoers may be desired by individuals. We should add that, from the viewpoint of economics, no objective basis exists for saying that a specific formulation of social welfare (such as utilitarianism, which defines social welfare as the sum of individuals' utilities) is correct. Any measure of social welfare can be studied to determine what social policies or legal rules are best with respect to that measure. However, certain relatively simple measures of social welfare are often investigated for analytical convenience.

which they are responsible. If they do,⁷ the level of liability imposed on them when they *are* found liable needs to exceed compensatory damages so that, on average, they will pay for the harm that they cause. This excess liability can be labeled "punitive damages," and failure to impose it would result in inadequate deterrence. In summary, *punitive damages ordinarily should be awarded if, and only if, an injurer has a chance of escaping liability for the harm he causes.*⁸

This principle often will have transparent implications for the circumstances in which punitive damages should be awarded in practice. Consider a company that is responsible for trucking toxic waste to a dump site where it will be charged disposal fees. To reduce its fees, suppose the company allows some of the waste to leak onto the highway, because it knows that the leak is unlikely to be noticed and traced to its source. Under our analysis, punitive damages obviously would be called for because of the significant chance that the company will escape liability for the harm it caused. Alternatively, suppose the gross negligence of the firm that is responsible for treating the waste at the dump site leads to a substantial and highly visible spill from the firm's waste storage tanks. Punitive damages would not be appropriate because the firm is unlikely to escape detection and liability for this harm.

When an injurer has a chance of escaping liability, the proper level of *total damages* to impose on him, if he is found liable, is the harm caused multiplied by the reciprocal of the probability of being found liable. Thus, for example, if the harm is \$100,000 and there is a twenty-five percent chance that the injurer will be found liable for the harm for which he is legally responsible, the harm should be multiplied by 1/.25, or 4, so total damages should be \$400,000. Because the injurer will pay this amount every fourth time he generates harm, his average payment will be \$100,000 (= \$400,000/4).⁹ Thus, on average, the injurer will pay for the harm he causes, and appropriate deterrence will result. Once the proper level of total damages is calculated in this way, punitive damages can be determined by subtracting compensa-

⁷ We discuss below several reasons that injurers might be able to escape liability: the difficulty of detecting harm, the inability to identify the injurer, problems in proving that the injurer is liable even if he can be identified, and the plaintiff's failure to sue because of the costs of litigation. See *infra* p. 888.

⁸ We say "ordinarily" because we discuss circumstances in which it might not be desirable or necessary to impose punitive damages even if a chance exists of escaping liability (punitive damages might not be desirable when the probability of escaping liability is low, see *infra* pp. 895-96, and they might not be necessary when harm occurs to purchasers of products, see *infra* section III.J). We also discuss reasons that punitive damages might be desirable even if there is no chance of escaping liability (specifically, when the injurer's act is malicious, see *infra* p. 875 and section III.A).

⁹ We are presuming here that the injurer engages in repetitive conduct. Our point, however, applies even if the injurer commits the harmful act only once. It is still true then that the probability-discounted or "expected" value of what he pays is \$100,000. See *infra* note 46.

tory damages from the total. In the example, because compensatory damages would equal the harm of \$100,000, punitive damages would equal \$300,000 (= \$400,000 - \$100,000).

If punitive damages are needed according to this theory, we believe that courts and juries often will be able to obtain enough information about the likelihood of escaping liability to apply the theory reasonably well. We will discuss how our analysis relates to several leading punitive damages cases,¹⁰ and we will provide model jury instructions that can be used to aid jurors in applying the principles that we develop.

We also will relate our analysis of the deterrence rationale for punitive damages to the criteria commonly applied by courts in imposing such damages. Importantly, we will explain that the reprehensibility of a corporate defendant's conduct generally should not be a factor in deciding whether, and to what extent, to impose punitive damages for purposes of promoting deterrence (although the reprehensibility of the conduct of a person who is a defendant may be relevant to punitive damages and deterrence). In addition, we will argue that the wealth of a corporate defendant presumptively should not be taken into account in determining the level of punitive damages (although again the conclusion may be different in the case of a person who is a defendant). We also will consider other aspects of punitive damages policy from the perspective of deterrence, including the appropriateness of caps on punitive damages, the relevance of potential harm for punitive damages, the insurability of punitive damages, and the importance for punitive damages of the distinction between victims who are customers of an injurer and victims who are strangers to the injurer.

One further observation about our analysis of deterrence is worth noting. We ordinarily assume that the benefits that injurers derive from engaging in the conduct that gives rise to harm is included in the calculation of social welfare. We also will discuss, however, the possibility that such benefits should not be included — notably, when a wrongdoer derives pleasure from his victim's suffering. We will explain that, if the injurer's benefits are excluded from social welfare, punitive damages may be needed for proper deterrence even when there is no chance of escaping liability.¹¹

In our discussion of the second objective of punitive damages — punishment — we focus on the assumption that the underlying goal of society is to penalize especially blameworthy *individuals*. Achieving this goal is reasonably straightforward if the defendant is a person who has been found to have acted culpably — after all, imposing punitive damages on that person punishes him. But if the defendant is a corporation, imposing punitive damages on it may or may not lead to

¹⁰ See *infra* section II.D.

¹¹ See *infra* section III.A.

the punishment of blameworthy individuals within the corporation, for a variety of reasons that we will discuss. To the extent that such individuals are not punished, imposing punitive damages on the corporation does not advance the punishment goal. Moreover, we will explain that much of the sting from imposing punitive damages on corporations may be borne by individuals who are usually not thought to be culpable, namely, shareholders and customers. In the light of these points, we conclude that the extent to which imposing punitive damages promotes the punishment goal may be significantly different when defendants are corporations from when they are individuals, and that the importance of punitive damages as a form of punishment may be considerably attenuated for corporate defendants.

The plan of our Article is as follows. In Part II, we review the economic theory of deterrence and develop the basic principles determining when punitive damages should be awarded, and at what level. We also apply these principles to certain aspects of punitive damages law and legislation, as well as to several prominent punitive damages cases. Part III relates the basic principles to a number of criteria that are employed by the courts to determine the appropriateness and magnitude of punitive damages awards, and also examines a variety of other factors and policies that bear on punitive damages. Part IV discusses the punishment goal of punitive damages. Part V briefly summarizes our main points.¹² An Appendix contains the model jury instructions for use in awarding punitive damages.

¹² Our article builds on many other contributions. The general point that, to achieve proper deterrence, sanctions must be inflated if injurers can escape liability dates at least from Bentham, see JEREMY BENTHAM, *Principles of Penal Law*, in 1 THE WORKS OF JEREMY BENTHAM 365, 401-02 (John Bowring ed., 1962) (1838-43), and has been applied to the subject of punitive damages by many commentators. The first explicit references to the factor of escaping liability as a justification for punitive damages apparently are RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 77-78 (1st ed. 1972), and Dorsey D. Ellis, Jr., *Fairness and Efficiency in the Law of Punitive Damages*, 56 S. CAL. L. REV. 1, 25-26 (1982). This justification for punitive damages has been developed most thoroughly by Robert D. Cooter, *Punitive Damages for Deterrence: When and How Much?*, 40 ALA. L. REV. 1143, 1149-66 (1989) [hereinafter Cooter, *Deterrence*].

In addition to the works cited in the previous paragraph, there are many others in which punitive damages are considered using economic analysis. Those in print include Darryl Biggar, *A Model of Punitive Damages in Tort*, 15 INT'L REV. LAW & ECON. 1 (1995); James Boyd & Daniel E. Ingberman, *Noncompensatory Damages and Potential Insolvency*, 23 J. LEGAL STUD. 895 (1994); Bruce Chapman & Michael Trebilcock, *Punitive Damages: Divergence in Search of a Rationale*, 40 ALA. L. REV. 741 (1989); Robert D. Cooter, *Economic Analysis of Punitive Damages*, 56 S. CAL. L. REV. 79 (1982) [hereinafter Cooter, *Economic Analysis*]; Richard Craswell, *Damage Multipliers in Market Relationships*, 25 J. LEGAL STUD. 463 (1996); Andrew F. Daughety & Jennifer F. Reinganum, *Everybody Out of the Pool: Products Liability, Punitive Damages and Competition*, 12 J.L. ECON. & ORG. 410 (1997) [hereinafter Daughety & Reinganum, *Products Liability*]; David Friedman, *An Economic Explanation of Punitive Damages*, 40 ALA. L. REV. 1125 (1989); Galligan, *supra* note 3; David D. Haddock, Fred S. McChesney & Menahem Spiegel, *An Ordinary Economic Rationale for Extraordinary Legal Sanctions*, 78 CAL. L. REV. 1 (1990); Jason S. Johnston, *Punitive Liability: A New Paradigm of Efficiency in Tort Law*, 87 COLUM. L. REV. 1385 (1987); Marcel Kahan & Bruce Tuckman, *Special Levies on Punitive Damages: Decoupling*,

II. DETERRENCE: THE BASIC THEORY

In this Part, we summarize the basic principles of the economic theory of deterrence and explain what these principles imply for the use of punitive damages. By deterrence, we mean what is often called *general deterrence*, namely, the effect that the prospect of having to pay damages will have on the behavior of similarly situated parties in the future (not just on the behavior of the defendant at hand).¹³

We should add that the basic theory that we are about to review is the standard theory of deterrence, on which economically oriented scholars widely agree.¹⁴ As noted, we will usually make the conven-

Agency Problems, and Litigation Expenditures, 15 INT'L REV. LAW & ECON. 175 (1995); William M. Landes & Richard A. Posner, *An Economic Theory of Intentional Torts*, 1 INT'L REV. LAW & ECON. 127 (1981); George L. Priest, *Insurability and Punitive Damages*, 40 ALA. L. REV. 1009 (1989) [hereinafter Priest, *Insurability*]; George L. Priest, *Punitive Damages and Enterprise Liability*, 56 S. CAL. L. REV. 123 (1982); Paul H. Rubin, John E. Calfee & Mark F. Grady, *BMW v Gore: Mitigating The Punitive Economics of Punitive Damages*, 5 SUP. CT. ECON. REV. 179 (1997).

Recent unpublished articles include James Boyd & Daniel E. Ingberman, *Do Punitive Damages Promote Deterrence?* (Mar. 20, 1996) (unpublished manuscript, on file with the Harvard Law School Library); Andrew F. Daughety & Jennifer F. Reinganum, *Settlement, Deterrence and the Economics of Punitive Damages Reform* (Mar. 1997) (Department of Economics & Business Administration, Vanderbilt University Working Paper No. 97-W04) [hereinafter Daughety & Reinganum, *Settlement*]; Peter Diamond, *Efficiency Effects of Punitive Damages* (Sept. 1997) (Department of Economics, Massachusetts Institute of Technology, Working Paper No. 97-17) [hereinafter Diamond, *Efficiency Effects*]; Peter Diamond, *Integrating Punishment and Efficiency Concerns in Punitive Damages for Reckless Disregard of Risks to Others* (Oct. 1997) (Department of Economics, Massachusetts Institute of Technology, Working Paper No. 97-19) [hereinafter Diamond, *Punishment and Efficiency*]; Keith N. Hylton, *Punitive Damages and the Economic Theory of Penalties* (Dec. 1997) (unpublished manuscript, on file with the Harvard Law School Library); Alan O. Sykes, *Constitutionalizing Punitive Damages* (Dec. 1997) (unpublished manuscript, on file with the Harvard Law School Library).

Our treatment of deterrence and punitive damages is more comprehensive than that of these earlier economically oriented articles, and our analysis of certain issues that have been considered previously differs from what has been written. Moreover, our examination of punishment and punitive damages is substantially different from what is found in the literature on punitive damages. We discuss the relationship between our Article and some of the preceding literature in notes 14, 48, 95, 118, 131, 165, 183, 194, 205, 207, 220, 244, and 272.

¹³ General deterrence may be contrasted with *specific deterrence*, which is the effect that the imposition of a sanction on a party will have on *that* party's future behavior. See generally BENTHAM, *supra* note 12, at 396 (contrasting particular and general deterrence); HERBERT L. PACKER, *THE LIMITS OF THE CRIMINAL SANCTION* 39-48 (1968) (discussing special and general deterrence as justifications for criminal punishment).

¹⁴ The theory of deterrence — the elaboration of the effect on rational actors of the possible imposition of sanctions for violations of law — was first articulated in detail by Jeremy Bentham, see BENTHAM, *supra* note 12, at 365-580, and has been developed intensively in the last several decades, stimulated largely by an important article by Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). This literature is synthesized and surveyed in, for example, R.A. CARR-HILL & N.H. STERN, *CRIME, THE POLICE AND CRIMINAL STATISTICS* (1979); WILLIAM A. LUKSETICH & MICHAEL D. WHITE, *CRIME AND PUBLIC POLICY* (1982); DAVID J. PYLE, *THE ECONOMICS OF CRIME AND LAW ENFORCEMENT* (1983). For a collection of more recent contributions, up to 1992, see *BIBLIOGRAPHY OF LAW AND ECONOMICS* 504-26 (Boudewijn Bouckaert & Gerrit De Geest eds., 1992).

Beginning with GUIDO CALABRESI, *THE COSTS OF ACCIDENTS* (1970), many writers have

tional assumption that the benefits that injurers obtain from engaging in the conduct that gives rise to harm are credited in social welfare.¹⁵ Thus, for example, we will assume that the time saved by a speeding driver, or the cost saved by a company that chooses not to purchase certain pollution control equipment, constitutes a social benefit that is to be weighed against the harm from speeding or polluting. We will consider the implications for punitive damages of the alternative assumption — that the benefits from harmful conduct do not count in social welfare — when we examine the reprehensibility criterion in section III.A.

We first discuss deterrence in a very simple setting in which a party will be sanctioned whenever he causes harm. We then discuss the situation in which parties sometimes escape sanctions for harms for which they are responsible. It is in this latter case, as we indicated above, that damages exceeding harm should be imposed, and punitive damages thus used.

A. Optimal Damages When the Defendant Is Found Liable with Certainty

The central point that we want to explain here is that, if a defendant will definitely be found liable for the harm for which he is responsible, the proper magnitude of damages is equal to the harm the defendant has caused.¹⁶ If damages are either lower or higher than the harm, various socially undesirable consequences will result, as described below. We first illustrate these points when liability is strict —

applied the general theory of deterrence to the subject of tort liability. For an integrated presentation of this literature, see WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* (1987), and STEVEN SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* (1987).

¹⁵ This assumption is consistent with a standard definition of social welfare employed in deterrence theory, in which social welfare equals the benefits that parties obtain from their activities, less various costs (including the expense of precautions taken to avoid harm, the harm that does occur, and any costs associated with the use of the legal system).

Note that this definition of social welfare does not incorporate the compensation of victims as a social benefit, even though most individuals consider compensation to be a social goal. Accounting for the compensation goal in measuring social welfare would be relatively straightforward, but doing so is unnecessary for our purposes for several reasons. First, and most importantly, punitive damages are generally extracompensatory; thus, whether or not they are paid typically does not affect fulfillment of the compensation objective. Second, victims often have insurance — so-called “first-party” insurance — that compensates them for their losses, at least partially, so that the extent to which it is necessary to rely on the liability system to achieve the compensation goal may be limited. Third, the insurance system is generally a much less expensive way to achieve compensation than the liability system. See, e.g., DON DEWEES, DAVID DUFF & MICHAEL TREBILCOCK, *EXPLORING THE DOMAIN OF ACCIDENT LAW: TAKING THE FACTS SERIOUSLY* 421–24 (1996) (summarizing empirical findings concerning the relative cost of the insurance system and the liability system in providing compensation to accident victims).

¹⁶ Readers familiar with the economic logic supporting this claim may want to proceed directly to section II.B.

an injurer is supposed to be liable for any harm caused¹⁷ — and then when liability is fault-based (in which case our conclusions are somewhat qualified). We assume for the purpose of this discussion that harm is properly measured.¹⁸

There are a number of reasons why it is best for damages to equal harm under strict liability. One concerns the *level of precautions* taken by parties when engaging in their activities. We interpret the term “precautions” very generally. For example, it can refer to safety devices — such as valves to release excess pressure on tanks used to store dangerous chemicals — or to the actions of individuals that reduce harm — such as inspecting the brakes of trucks. Additionally, and importantly, precautions include the variety of ways in which firms monitor and screen their employees — such as an airline testing its pilots for their use of controlled substances. Any action that reduces the risk or the level of harm constitutes a precaution under our interpretation.

If damages equal harm, potential injurers will in theory have socially correct incentives to take precautions. Specifically, they will be induced to spend money on precautions if the expenditure is socially worthwhile in the sense that the expenditure reduces the harm by a greater amount. Suppose, for example, that by spending \$50,000 on a precaution, a firm can prevent a harm of \$100,000. It is socially desirable that such a precaution be taken. If the level of liability is equal to the harm of \$100,000, a firm will be led to spend \$50,000 to prevent harm. But if the level of liability is less than \$100,000, a firm might not take precautions when it should. For instance, if the level of liability is only \$30,000, then a firm would not take the precaution costing \$50,000, even though this precaution is socially desirable.¹⁹

Conversely, if damages exceed harm, firms might be led to take socially excessive precautions. A socially excessive precaution is one that costs more than the reduction of harm produced by it. In the previous example, suppose that the precaution costs \$250,000 instead of \$50,000. Such a precaution would be socially excessive because it would be wasteful to spend \$250,000 to avoid a harm of \$100,000. Yet if damages exceed harm, a firm might be led to take the precaution. Assume, for instance, that punitive damages of \$200,000 are added to the compensatory damages of \$100,000, so that the firm's total damages will be \$300,000 if it does not take the precaution. Because the

¹⁷ For ease of analysis, we will presume that issues of contributory negligence do not arise.

¹⁸ We discuss below the possibility that compensatory damages do not correctly reflect the harm that actually occurred. See *infra* section III.L. We also observe that the total social harm caused by an adverse event includes litigation costs. See *infra* note 168. For simplicity, we will not take this refinement into account in Part II.

¹⁹ In this example, and in those in the remainder of the Article, we consider relatively simple fact situations. The principles that these examples illustrate apply to more complicated and realistic circumstances.

cost of the precaution is \$250,000, the firm will be led to take it, even though the precaution is socially wasteful.

Although the notion of excessive spending on precautions might seem counterintuitive to the reader, it is quite real, and often recognized as such. For example, commentators frequently make reference to "defensive medicine," by which is meant physicians' wasteful use of tests and diagnostic procedures in response to the threat of liability.²⁰ On reflection, it is not difficult to imagine that excessive expenditures could be made on safety precautions in almost any context. Consider, for instance, how much could be spent on cement traffic dividers for city streets (suppose that all streets had dividers), on additional personnel to monitor employees' safety practices at oil refineries (each employee at a refinery could be accompanied by another watching over his activities), or on sensors to detect switching problems on railroad tracks (a costly sensor might be installed on every switch on every track).²¹

In our numerical examples, we have discussed precautions as if they would completely eliminate the risk of harm. However, everything we have said applies to situations in which precautions reduce, but do not eliminate, the risk of harm. In particular, the proper magnitude of damages continues to be the harm the defendant has caused.²² This level of damages again induces potential injurers to take appropriate precautions, but the determination of appropriate precautions now involves a comparison of the cost of the precaution with the reduction in the *expected harm* that results if the precaution is

²⁰ Some studies show this to be an important phenomenon. See, e.g., Daniel Kessler & Mark McClellan, *Do Doctors Practice Defensive Medicine?*, 111 Q.J. ECON. 353, 386 (1996) (finding that malpractice "reforms that directly limit liability . . . reduce hospital expenditures by 5 to 9 percent" with no "consequential differences in mortality or the occurrence of serious complications"); Roger A. Reynolds, John A. Rizzo & Martin L. Gonzalez, *The Cost of Medical Professional Liability*, 257 JAMA 2776-81 (1987) (finding that defensive medicine has generated substantial costs). Other studies, however, have not found support for the notion of defensive medicine. See, e.g., Laura-Mae Baldwin, L. Gary Hart, Michael Lloyd, Meredith Fordyce & Roger A. Rosenblatt, *Defensive Medicine and Obstetrics*, 274 JAMA 1606, 1609 (1995) (finding no evidence of "an association between the malpractice claims experience or exposure of individual physicians and an increase in the use of prenatal resources or cesarean deliveries for the care of low-risk obstetric patients").

²¹ For example, the Federal Railroad Administration has studied proposals for sensor systems to prevent derailments on railroad bridges, but it concluded that they would cost as much as \$40,000 per bridge to install. Overall, the cost could be billions of dollars for installation and \$60 million more per year for operation and maintenance. See Richard Pérez-Peña, *Rail Accident Stirrs Debate About Sensors*, N.Y. TIMES, Nov. 29, 1996, at B1. The Federal Railroad Administration determined that the cost was too high because of the low frequency of railroad accidents that occur on bridges. See *id.*

²² This proposition assumes that individuals are *risk neutral*. We discuss the meaning of this assumption, and the justification for making it below. See *infra* pp. 886-87.

taken, where expected harm refers to the harm multiplied by the probability of its occurrence.²³

Note that, even when proper precautions are exercised, some accidents will occur because of residual, hard-to-eliminate risks. For example, even the safest automobile tire may blow out and cause an accident. That a blowout occurs does not necessarily mean that the manufacturer took inadequate precautions in the design and manufacture of the tire. Likewise, even if employers screen and monitor employees with appropriate vigilance, occasional employee misbehavior will still occur, possibly egregious in character.²⁴ It is important to stress that such misbehavior does not necessarily signal a lack of proper oversight by the employer.²⁵

Let us now turn to a second reason that it is best for damages to equal harm. This reason concerns the extent to which individuals and firms participate in risky activities — what we will refer to as their *level of activity*.²⁶ A party's level of activity affects the magnitude of expected harm, whatever precautions the party takes when engaging in the activity. For example, the more miles a person drives — his level of activity — the greater the number of accidents that he is likely to cause, whatever his level of care when he drives. (Of course, the more care he takes when driving, the lower will be the expected number of accidents per mile driven.) Similarly, the more units of a risky product a firm produces and sells — its level of activity — the greater the number of accidents that will be caused by the product, whatever are its safety features.

²³ For example, if a harm of \$10,000 occurs with a probability of 20%, the expected harm is \$2,000 ($= 20\% \times \$10,000$). This expected harm also can be interpreted as the average harm per instance of some conduct that, each time it occurs, has a 20% chance of causing a \$10,000 harm. More generally, the expected harm is the sum of products of each possible magnitude of harm and its probability. Thus, if there is a 20% chance of a \$10,000 harm, as well as a 5% chance of a \$30,000 harm, the expected harm is \$3,500 ($= (20\% \times \$10,000) + (5\% \times \$30,000)$).

²⁴ An example may clarify this point. Suppose that 3% of the applicants for employment at a firm are "rotten apples" who will misbehave on the job and cause a \$100,000 accident; that by spending \$500 per applicant on investigating the applicant's background it is possible to detect one-third of the rotten apples; that by instead spending \$4,000 per applicant on more intensive screening, it is possible to detect two-thirds of the rotten apples; but that it is impossible to detect the remaining one-third of the rotten apples. In this example, it is socially desirable for the firm to spend \$500 per applicant on screening. A firm spending this much would have a 1% chance of detecting a rotten apple (because one-third of the 3% of rotten apples in the applicant pool are identified) and of thereby avoiding a \$100,000 harm. In other words, it would reduce the expected harm by \$1,000 ($= 1\% \times \$100,000$) per applicant screened in this way. It is not socially worthwhile, however, to spend \$4,000 per applicant, because spending this higher amount would reduce the expected harm by only \$2,000 ($= 2\% \times \$100,000$) per applicant. Significantly, whichever amount is spent, there will still be at least a 1% chance of employee misconduct.

²⁵ In the example in the previous footnote, the occurrence of employee misconduct does not necessarily imply that the employer's screening activity was improper because, under the best available screening process, at least 1% of the rotten apples will remain undetected.

²⁶ The distinction between level of activity and level of care to be explained here was first emphasized by Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1 (1980).

If damages equal harm, potential injurers will have the socially correct incentives to engage in risky activities. In particular, they will engage in an activity if and only if the benefit they derive exceeds the additional harm caused by their decision to engage in it. If damages equal harm, an individual will tend to participate in an activity such as hunting if and only if the benefit he obtains from this activity exceeds the expected accident costs that hunting imposes on others. Likewise, a firm will produce a product if and only if the product's value, as reflected in the willingness of customers to pay for it, exceeds the full costs of its production, including accident losses. Specifically, if damages equal harm, the cost of production will include the harm. To cover its costs, a firm will have to sell its product at a higher price — a price that reflects the average harm caused per unit of output. Therefore, consumers will only buy the product if they value it more highly than its full cost of production, including the harm. Their consumption of the product will therefore be socially correct. In other words, the fact that the product price will rise in response to the firm's liability costs is desirable because, if damages equal harm, this price increase appropriately discourages consumers of the product from, in effect, causing an excessive number of accidents by consuming too much of the product.

It follows that, if damages are less than harm, parties will engage in activities to an excessive extent — that is, they will engage in activities even when the benefits are outweighed by the harms caused. Conversely, if damages exceed harm, parties may be led to curtail their activities to an inappropriate extent — to refrain from engaging in them even when the benefits exceed the harms caused. In particular, a firm might be induced to withdraw its product from the marketplace even though consumers place a higher value on the product than its full cost of production, which includes the average harm caused by the product.

The preceding possibilities — engaging excessively or inadequately in activities that cause harm — are realistic. For instance, some studies indicate that much of the harm from automobile pollution is not reflected in the price of gasoline or automobiles.²⁷ Hence, individuals will tend to drive too much.²⁸ Conversely, some evidence suggests that manufacturers of certain socially desirable products — for example,

²⁷ See, e.g., Kenneth A. Small & Camilla Kazimi, *On the Costs of Air Pollution from Motor Vehicles*, 29 J. TRANSP. ECON. & POL'Y 7, 27 (1995) (demonstrating that an additional tax of about 50% on the price of gasoline would be required to account for air pollution costs).

²⁸ See JAMES J. MACKENZIE, ROGER C. DOWER, & DONALD D.T. CHEN, *THE GOING RATE: WHAT IT REALLY COSTS TO DRIVE 5* (1992) ("The net effect of [federal and state] policies is to make driving seem cheaper than it really is and to encourage the excessive use of automobiles and trucks.").

childhood vaccines — may have stopped selling their products because of the prospect of damages exceeding harm.²⁹

We have now explained the fundamental reasons that damages should equal harm under strict liability. We next discuss why we assume that damages should equal harm under the negligence rule.

By definition of the negligence rule, if a potential injurer fails to take proper precautions — does not meet the negligence standard — he is said to be negligent and must pay damages.³⁰ The economic interpretation of the proper negligence standard involves comparing the cost of taking the precaution with the expected reduction in harm that results from taking it: if the former amount is less than the latter, the precaution should be taken and the failure to do so is negligent.³¹ It would be negligent not to take a precaution costing \$50,000 that would prevent a harm of \$100,000.

²⁹ A number of articles have discussed the withdrawal of products from the marketplace in response to actual or prospective liability costs (including liability insurance premiums). See DEWEES, DUFF & TREBILCOCK, *supra* note 15, at 241–42 (1996) (discussing the reduction of vaccine manufacturing because of the expansion of liability); W. KIP VISCUSI, REFORMING PRODUCTS LIABILITY 8 (1991) (noting product liability litigation has forced some companies to stop producing private airplanes); Louis Lasagna, *The Chilling Effect of Product Liability on New Drug Development*, in THE LIABILITY MAZE: THE IMPACT OF LIABILITY LAW ON SAFETY AND INNOVATION 334, 337–41 (Peter W. Huber & Robert E. Litan eds., 1991) (describing the litigation that led to the voluntary withdrawal of the anti-morning sickness drug, Bendectin); Robert Martin, *General Aviation Manufacturing: An Industry Under Siege*, in THE LIABILITY MAZE: THE IMPACT OF LIABILITY LAW ON SAFETY AND INNOVATION, *supra*, at 478, 478 (concluding that product liability litigation “threatens the very existence” of the corporate and private airplane industry). These discussions do not address the question whether the reduction in productive activity was due to the imposition of damages exceeding harm. However, if, as some commentators believe, product liability is socially excessive, see, e.g., PETER W. HUBER, LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES 9–11 (1988) (arguing that the sharp increases in tort awards in the 1980s have led to the curtailment of socially beneficial activities such as vaccinations, ambulance services, and waste cleanup), such reductions in the availability of products may be partially attributable to excessive damages.

³⁰ See RESTATEMENT (SECOND) OF TORTS § 282 (1965) (“[N]egligence is . . . conduct which falls below the standard established by law for the protection of others against unreasonable risk of harm.” (citation and internal quotation marks omitted)); PROSSER AND KEETON ON THE LAW OF TORTS, § 31, at 169 (Dan B. Dobbs, Robert E. Keeton, W. Page Keeton & David G. Owen eds., 5th ed. 1984) (“[N]egligence is not necessarily the absence of solicitude for those who may be adversely affected by one’s actions but is instead behavior which should be recognized as involving unreasonable danger to others.”).

³¹ Judge Learned Hand’s algebraic formula for determining the due care standard encapsulates the economic interpretation of the negligence rule. In his opinion in *United States v. Carroll Towing Co.*, 159 F.2d 169 (2d Cir. 1947), Judge Hand said that a party is negligent if he fails to take a precaution when the burden of the precaution is less than the reduction of the expected loss occasioned by taking the precaution — in other words, if $B < PL$, where B is the burden of taking the precaution, P is the probability of the loss if the precaution is not taken, and L is the magnitude of the loss. See *id.* at 173. For further development of this idea, see, for example, John Prather Brown, *Toward an Economic Theory of Liability*, 2 J. LEGAL STUD. 323 (1973). See also William M. Landes and Richard A. Posner, *The Positive Economic Theory of Tort Law*, 15 GA. L. REV. 851, 892–903 (1981) (arguing that judicial practice is consistent with the economic interpretation of the negligence rule).

Under the negligence rule, if damages equal harm, potential injurers will be led to comply with the negligence standard (assuming that it is chosen properly) and thus to take appropriate precautions. If a precaution costing \$50,000 would prevent a harm of \$100,000, the threat of having to pay damages of \$100,000 for not taking the precaution would induce a party to spend \$50,000 on the precaution. However, if damages are less than harm, the negligence standard might not be met and underdeterrence would result. In the example, if damages are only \$40,000 (even though harm is \$100,000), the party would not be led to take the precaution costing \$50,000.³² Conversely, if damages exceed harm, a potential injurer will have a stronger motive to meet the negligence standard than if damages equal harm. If damages are \$200,000 (even though harm is \$100,000), a party will have a greater incentive to spend \$50,000 on the precaution than if damages are \$100,000. But he will not take more precautions than are required to meet the negligence standard, assuming that the negligence determination is not erroneous. In the absence of errors, a party has no incentive to do more than satisfy the negligence standard, even if the damages that would be imposed if negligence is found far exceed the harm, because there is no chance that such damages will be imposed against him.

Realistically, however, errors will occur in the negligence determination, which suggests that damages exceeding harm could lead to excessive precautions. For several reasons, parties attempting to act non-negligently may be found liable under the negligence rule. Notably, they may inaccurately assess what the negligence standard is, or courts may inaccurately observe the parties' behavior and find them negligent when they were not. Because of the risk of mistakes, parties may well have an incentive to take greater precautions than they otherwise would have, in order to reduce the chance that they will incorrectly be found negligent.³³ If, as a result, they take socially excessive precau-

³² Note that damages must be sufficiently less than the harm before the party would find it worthwhile to act negligently. If damages exceeded the \$50,000 cost of the precaution, the party would be induced to take the precaution even if damages were less than the harm of \$100,000.

³³ Although parties will generally reduce the chance of being found negligent by mistake by taking greater care, they will not necessarily take more care than they would if there were no mistakes in the determination of negligence. The reason is that, to the extent that there is a random component in the assessment of care, the exercise of greater care will be only partially rewarded. For instance, if half the time a party's care is not observed and courts make a guess about its level, increasing the level of care would benefit the party only half the time. The condition under which parties will take greater care is, roughly, that the assessment of care is not too imprecise. For details, see John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance with Legal Standards*, 70 VA. L. REV. 965 (1984), and Richard Craswell and John E. Calfee, *Deterrence and Uncertain Legal Standards*, 2 J.L. ECON. & ORG. 279 (1986). See also SHAVELL, *supra* note 14, at 93-99 (arguing that injurers will exercise more than due care in the presence of errors in the assessment of their level of care). But see Mark F. Grady, *A New Positive Economic Theory of Negligence*, 92 YALE L.J. 799, 817-21 (1983) (showing that, under a different but plausible interpretation of the negligence rule, mistakes will not cause parties to take excessive care);

tions, raising the level of damages imposed on them will only exacerbate this problem.

Next, consider the relationship between damages and the level of activity under the negligence rule. In this regard, observe that, in the absence of mistakes, the negligence rule may result in parties participating in risky activities to a socially excessive extent.³⁴ This excessive participation results because, once a party takes the precautions required by the negligence standard, he will not be found liable for any harms that he causes. For example, a person who drives with reasonable care will not be found negligent, and therefore will not have to pay for any harm caused by his driving; consequently, he will drive more than is socially desirable. Or a manufacturer that takes appropriate care in the design of its product will not be liable under a negligence rule for harms that result if its product nonetheless turns out to be flawed; as a result, too much of the product will tend to be produced.³⁵

However, because non-negligent parties sometimes will be found liable by mistake, they will sometimes bear damages. In principle, this erroneous imposition of liability could mitigate the problem that the negligence rule may induce parties to participate in risky activities to an excessive degree. However, finding parties negligent by mistake may result in their bearing damages in excess of the harm they have caused,³⁶ and thereby discourage their participation in the activity to an inappropriate extent. This effect, if it occurs, will be exacerbated by raising the level of damages.

This discussion of the negligence rule shows that the optimal level of damages is not as easily determined as under the strict liability rule.

Marcel Kahan, *Causation and Incentives To Take Care Under the Negligence Rule*, 18 J. LEGAL STUD. 427, 437-39 (1989) (same).

³⁴ The result that the negligence rule leads to socially excessive participation in risky activities was originally developed in Shavell, cited above in note 26. See also A. Mitchell Polinsky, *Strict Liability vs. Negligence in a Market Setting*, 70 AM. ECON. REV. 363 (1980) (demonstrating the result in market settings).

³⁵ The point of this paragraph may be clarified by a numerical illustration. Suppose that taking proper precautions would cost an individual \$100 each time he engages in an activity and would reduce to 1/2% the risk of an accident that would cause harm of \$100,000. Assuming that the individual would take the precautions in order to avoid liability for negligence, he will engage in the activity whenever the benefit to him exceeds the \$100 cost of precautions. However, each time he engages in the activity, he causes total social costs of \$600: the \$100 cost of precautions, plus the expected harm of \$500 ($= 1/2\% \times \$100,000$). Consequently, from society's perspective, he should engage in the activity only if his benefit exceeds \$600. If his benefit lies between \$100 and \$600, however, he will engage in the activity even though doing so is socially undesirable.

³⁶ More precisely, expected damages could exceed harm for two reasons. First, a party who caused harm but who was not negligent might be found negligent by mistake and made to pay such a high level of damages that, on average, he will pay for more than the harm he caused. Second, a party who did not cause harm might mistakenly be found both to be the cause of harm and to be negligent. Obviously, any damages imposed on such a party are excessive and will chill participation in activities in which such mistakes occur.

Under strict liability, we concluded that damages should equal harm. Under the negligence rule, we have observed that, in the absence of mistakes, damages equal to harm will appropriately encourage parties to take precautions, but so will higher levels of damages.³⁷ In the presence of mistakes, the optimal level of damages under the negligence rule is difficult to ascertain, although it is clear from what we have said that if damages are set too high, parties will tend to be induced to take excessive precautions; moreover, they will not participate in their activities to an appropriate degree. In the light of the preceding points, and recognizing that there is not a simple, theoretically correct answer to the question of what level of damages is optimal under the negligence rule, we will assume for the purpose of our analysis that optimal damages under the negligence rule equal harm.³⁸

This concludes our review of the implications of deterrence theory for the optimal level of damages under the rules of strict liability and negligence when injurers will be found liable with certainty. Because damages should equal harm under the strict liability rule, and because we assume that damages should equal harm under the negligence rule for the reasons given, we generally will not distinguish between the rules in our subsequent discussion.

In passing, we want to note that the principal conclusion reached in this section — that damages should equal harm — depends on how potential injurers respond to risk. We have implicitly assumed that they are *risk neutral*. This means that, in considering situations of risk, parties care only about the expected value of a risky situation — that is, the magnitude of a potential loss or gain multiplied by the probability of the loss or gain occurring.³⁹ If injurers are *risk averse* (they dislike uncertainty itself)⁴⁰ and cannot purchase liability insurance, the optimal level of damages tends to be lower than the harm: setting damages below the harm reduces the imposition of risk on in-

³⁷ Some lower levels of damages also will properly induce parties to take precautions provided that these levels still exceed the cost of precautions. See *supra* note 32.

³⁸ This assumption is made mostly for convenience and does not affect our main point that the benchmark level of damages — the level that would be appropriate for deterrence if injurers were definitely found liable — should be inflated using a specific multiplier formula if injurers can sometimes escape liability. If the benchmark level of damages is different from harm, this benchmark quantum, whatever its magnitude, should be inflated by the multiplier we give below in order for deterrence to be appropriate when injurers can escape liability. See *infra* section II.B.

³⁹ A risk-neutral injurer would be indifferent between paying certain damages of, say, \$10,000, and facing a risky situation in which he will have to pay either nothing or \$20,000 with equal probability, because the risky situation involves an expected payment of \$10,000 ($= 50\% \times \$20,000$). See generally ROBERT S. PINDYCK & DANIEL L. RUBINFELD, MICROECONOMICS 146 (3d ed. 1995) (discussing the concept of risk neutrality).

⁴⁰ A risk-averse injurer would prefer to pay certain damages of \$10,000 than to face a risky situation in which he will have to pay either nothing or \$20,000 with equal probability, even though the risky situation involves an expected payment of \$10,000. See generally *id.* (discussing risk aversion).

jurors, and damages do not need to be as great as the harm to induce injurers to behave appropriately.⁴¹

Notwithstanding this last point, we will usually assume in our subsequent analysis that, when injurers are found liable for sure, the level of damages that is optimal with respect to deterrence is equal to harm,⁴² for two reasons. First, even if parties are risk averse, if they can purchase liability insurance, it can be shown that the optimal level of damages still equals harm.⁴³ Second, it can be demonstrated that publicly held firms should be treated as approximately risk neutral — implying that damages should equal harm — if their shareholders have well-diversified portfolios, which often, if not usually, will be the case.⁴⁴

B. Optimal Damages When the Defendant Can Sometimes Escape Liability

The main point that we will develop in this section is that *if a defendant can sometimes escape liability for the harm for which he is responsible, the proper magnitude of damages is the harm the defendant has caused, multiplied by a factor reflecting the probability of his escaping liability.* As we will explain, use of such a multiplier will make defendants pay on average for harm actually done and thus will lead

⁴¹ This result is demonstrated in SHAVELL, cited above in note 14, at 218–21, and Steven Shavell, *On Liability and Insurance*, 13 BELL J. ECON. 120, 124–26 (1982). The optimal level of damages depends on the degree of risk aversion of injurers and on whether victims are insured or, if not, how risk averse they are.

⁴² In Part III, we will discuss two situations in which this assumption is not appropriate. One is, as we have noted, when behavior is malicious; then optimal damages may exceed harm. See *infra* section III.A. The second situation is when victims of harm are customers of the defendant and are relatively well informed about risk, in which case it may not be necessary to impose damages equal to harm to achieve optimal deterrence. See *infra* section III.J.

⁴³ This conclusion is formally demonstrated in SHAVELL, cited above in note 14, at 222–27, and Shavell, cited above in note 41, at 126–30. It should seem intuitively plausible if injurers purchase full coverage against liability, for then their risk aversion is irrelevant. If injurers do not purchase full coverage (suppose there is coinsurance or a deductible), the conclusion is not obvious because injurers do bear residual risk, but it is true nonetheless for reasons explained in the sources cited in this note.

⁴⁴ The point that diversified shareholders will want a firm to be operated in an approximately risk-neutral manner is well-accepted in the economic literature concerning corporate finance. See, e.g., RICHARD A. BREALEY & STEWART C. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 148–49 (4th ed. 1991). The reason shareholders desire that firms operate in a risk-neutral manner is, roughly speaking, that each shareholder, holding a diversified portfolio, will not worry about the riskiness of any particular firm in which he has ownership rights; thus, he will vote to have the firm maximize its expected return. The result that the optimal level of damages equals harm when shareholders want the firm to act in a risk-neutral way follows directly from reasoning in Harry A. Newman & David W. Wright, *Strict Liability in a Principal-Agent Model*, 10 INT'L REV. L. & ECON. 219 (1990). This result holds even though employees of firms will generally be risk averse and cannot be controlled perfectly by shareholders. (The point of this footnote may not apply if the wealth of the owners of a particular firm depends in a significant way on the profitability of that firm, as would often be the case for privately held firms owned by relatively few individuals.)

to socially desirable behavior in terms of precautions and participation in risky activities.

There are several reasons that injurers sometimes escape liability for harms for which they should be liable. First, the victim may have difficulty determining that the harm was the result of some party's act — as opposed to simply being the result of nature, of bad luck. For instance, an individual may develop a form of cancer that could have been caused by exposure to a naturally occurring carcinogen, such as radon gas, but which was in fact caused by exposure to a manmade carcinogen that was released by the injurer.

Second, even if the victim knows that he was injured by some party's conduct, he may have difficulty proving who caused the harm. The owner of a parked car that was damaged might know that it had been struck by another vehicle, but not be able to identify the injurer. Those living near a polluted lake might know both that pollution is responsible for an unusually high rate of disease in their neighborhood and who the polluters are, but not be able to establish causation in court.

Third, even if the victim knows both that he was wrongfully injured and who injured him, he might not sue the injurer. A person will tend not to bring a suit if the legal cost and the value of the time and effort he would have to devote to the suit exceed the expected gain. The decision to forgo suit will often occur when the harm the victim has suffered is relatively small or the likelihood of establishing causation is low. (Additionally, a victim might not sue if he has a distaste for the legal process.)

For one or more of the above reasons, injurers will sometimes be able to escape liability for harms for which they should be held responsible.⁴⁵ The consequences of this possibility are clear: *if damages merely equal harm, injurers' incentives to take precautions will be inadequate and their incentive to participate in risky activities will be excessive.* Suppose that there is only a one-in-four chance that an injurer will be found liable for a \$100,000 harm, for which he would have to pay damages of \$100,000. On average, then, the injurer will

⁴⁵ Consider, for example, the following evidence. The likelihood of obtaining compensation for medical negligence has been found to be about 6%. See HARVARD MEDICAL PRACTICE STUDY, PATIENTS, DOCTORS, AND LAWYERS: MEDICAL INJURY, MALPRACTICE LITIGATION, AND PATIENT COMPENSATION IN NEW YORK 7-1 (1990). The average probability that an oil spill in excess of 10,000 gallons will be detected and traced to its source is approximately 60%. See Mark A. Cohen, *Optimal Enforcement Strategy To Prevent Oil Spills: An Application of a Principal-Agent Model with Moral Hazard*, 30 J.L. & ECON. 23, 44-45 (1987). The average probability of the detection of fraud is estimated to be 30%. See Jonathan M. Karpoff & John R. Lott, Jr., *The Reputational Penalty Firms Bear from Committing Criminal Fraud*, 36 J.L. & ECON. 757, 789-90 (1993).

We should also note that parties may sometimes be found liable for harms for which they are not responsible. Although we do not consider this possibility in our analysis, were we to do so, it would often lower the level of damages that otherwise would be optimal.

pay \$25,000 when he causes the harm — only a fraction of the harm caused. If the harm could have been prevented each time by taking a \$50,000 precaution, the injurer will not have an adequate incentive to take the precaution, because the precaution cost will exceed his average liability cost by a substantial margin. Moreover, because the injurer will pay only \$25,000 on average for a \$100,000 harm, he will engage in the risky activity to an excessive degree. If the injurer is a firm, the price of its product will rise by an amount reflecting only one-quarter of the harm caused, leading consumers of the product to buy more of it, and thereby cause more harm, than is socially desirable.

To remedy these problems of underdeterrence, damages that are imposed in those instances in which injurers are found liable should be raised sufficiently so that injurers' average damages will equal the harm they cause. In the example in the preceding paragraph, in which the chance of being found liable for having caused a \$100,000 harm is only one in four, damages should be raised to \$400,000. Then, on average, the injurer will pay \$100,000 when he causes the harm — on average, every four times he causes harm, he will be found liable once for \$400,000. Equivalently, his total damages will tend to equal the total amount of harm that he has caused.⁴⁶ As we emphasized above,⁴⁷ making injurers liable for the harm they cause will induce them to take proper precautions and participate appropriately in risky activities.

This discussion suggests a simple formula for assuring that injurers will pay for the harms they cause: *the total damages imposed on an injurer should equal the harm multiplied by the reciprocal of the probability that the injurer will be found liable when he ought to be.*⁴⁸ We will refer to this multiplier as the *total damages multiplier*. In the example in the preceding paragraph, the probability that the injurer would be found liable was one in four, or .25; thus, the multiplier is $1/.25$, or 4. Because the harm was \$100,000, this formula will result in total damages imposed on the injurer of \$400,000. Similarly, if the in-

⁴⁶ If the injurer does not engage in an activity repeatedly, but, say, only once, the injurer obviously will not pay for the harm done, even approximately: he either will pay \$400,000 in this one instance (more than the \$100,000 harm he caused) or will escape liability altogether. However, the injurer's *expected* damages — the damages he will have to pay if he is found liable, multiplied by the probability of being found liable — equal the harm of \$100,000 (because he has a one-in-four chance of being found liable and made to pay \$400,000).

⁴⁷ See *supra* section IIA.

⁴⁸ It may be helpful to state this formula algebraically. If H is the harm and P is the probability of being found liable, then the injurer should pay $H \times 1/P$ — that is, H/P — when he is found liable. Thus, the injurer's expected damages will be $P \times (H/P) = H$. The earliest reference to this formula (although in words) apparently is in Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation*, in *THE UTILITARIANS* 173 (1961) (1789). For other references to this formula, see ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 391–92 (1st ed. 1988); POSNER, cited above in note 12, at 77; and SHAVELL, cited above in note 14, at 148, 161–62.

jurer would be found liable with a one-in-two chance, damages should be \$200,000 — the \$100,000 harm multiplied by 2 ($= 1/.5$). And if the chance of liability is only one in ten, damages should be \$1,000,000 — the \$100,000 harm multiplied by 10 ($= 1/.1$). The application of this formula will guarantee that, on average, injurers will pay for the harm they cause, and therefore take proper precautions and appropriately participate in risky activities.⁴⁹

It is important to stress that the level of damages given by the formula is optimal not only because this level remedies problems of underdeterrence, but also because it avoids problems of overdeterrence. The latter problems, described above,⁵⁰ would arise if damages were to exceed the optimal amount.

We will refer to the excess of total damages over compensatory damages as *punitive damages*. Thus, the *optimal* level of punitive damages from the perspective of deterrence is the level of total damages determined by the formula, less compensatory damages. If an injurer has a one-in-four chance of being found liable for causing a \$100,000 harm, the formula implies that total damages should be \$400,000. Because \$100,000 of this total represents compensatory damages, the \$300,000 remainder is the optimal amount of punitive damages.

The optimal level of punitive damages also can be described as a multiple of harm or, equivalently, a multiple of compensatory damages. Specifically, punitive damages should equal the harm multiplied by a factor that we will refer to as the *punitive damages multiplier*: the ratio of the injurer's chance of escaping liability to his chance of being found liable.⁵¹ In the example in the previous paragraph, the injurer has a three-in-four chance of escaping liability and a one-in-four chance of being found liable. The punitive damages multiplier is therefore $.75/.25$, or 3. Because the harm was \$100,000, punitive damages should be three times this amount, or \$300,000.

Although we refer to the excess of total damages over compensatory damages as punitive damages, the adjective "punitive" may sometimes be misleading. This is because extracompensatory damages may

⁴⁹ Two qualifications should be mentioned. First, total damages should be less than the amount given by the formula in this paragraph if injurers are risk averse and cannot obtain liability insurance. This conclusion follows from our discussion above. See *supra* pp. 886-87. Second, if an injurer's subjective belief about the probability of being found liable differs from the true probability, the former should in principle be used in the formula. For simplicity, we assume in this Article that parties are aware of the actual probability of being found liable.

⁵⁰ See *supra* section II.A.

⁵¹ To see that this level of damages is the correct one, recall from note 48, above, that the proper level of total damages is H/P , where H is the magnitude of harm and P is the probability that the injurer will be found liable. This amount would comprise a payment of H in compensatory damages and $(H/P) - H$ in punitive damages. The punitive payment can be rewritten as $[(1 - P)/P]H$. The term in brackets is the punitive damages multiplier to which we refer in the text.

be needed for deterrence purposes in circumstances in which the behavior of the defendant would not call for *punishment*. As we have explained, the deterrence goal leads us to impose such damages when injurers may escape liability. But injurers might escape liability even when their conduct is not strongly blameworthy. Suppose an injurer accidentally (perhaps even non-negligently) causes harm, but the victim does not sue, either because he is unable to trace the harm to its source or because of the cost of litigation. In other words, non-blameworthy conduct might still call for punitive damages to achieve proper deterrence.⁵² Despite a certain inappropriateness, therefore, in using the label "punitive damages" to refer to extracompensatory damages needed for deterrence reasons, we will continue to employ it because it is the common term for extracompensatory damages in private civil litigation.⁵³

We have several comments to make about the punitive damages formula presented in this section. First, judges and juries⁵⁴ often will be able to apply the formula without difficulty because the formula transparently (if trivially) implies that no punitive damages are needed. In other words, in many situations, it will be obvious that the injurer has virtually no chance of escaping liability — say because the harm occurred openly and the magnitude of the harm is such that the victims almost surely will bring suit. Examples of such situations are when a building collapses as a result of a plainly defective design⁵⁵ and when a supertanker runs aground and spills a large quantity of oil on the shoreline, where the oil is observed by many people.⁵⁶ In such cases, the proper total damages multiplier is one — that is, total damages should equal harm. Punitive damages are not needed for proper deterrence, and imposing them would result in the problems of over-deterrence discussed above.⁵⁷

Second, in other circumstances, when the chance of escaping liability is clearly positive, the probability of liability still might be relatively easily calculated. For example, suppose a firm dumps toxic waste at night along an infrequently used road, but is caught as a result of the report of a driver who happened to notice the firm's activities. In such a case, pressure-sensitive recording devices laid across the

⁵² We will elaborate on this point when we discuss the reprehensibility criterion in the context of deterrence. See *infra* section III.A.

⁵³ For essentially the reasons we have given, Galligan prefers the term "augmented awards" to "punitive damages." See Galligan, *supra* note 3, at 12-13.

⁵⁴ For simplicity, we sometimes will refer hereafter to courts, when we mean both courts and juries.

⁵⁵ Consider, for example, the collapse of two pedestrian skywalks at the Hyatt Regency Hotel in Kansas City in 1981. See *In re Federal Skywalk Cases*, 97 F.R.D. 380 (W.D. Mo. 1983). The defendants in that case agreed not to contest liability. See *id.* at 389.

⁵⁶ See *infra* pp. 903-04 (discussing the Exxon Valdez oil spill litigation).

⁵⁷ See *supra* section II.A.

road could be used to determine the volume of traffic on the road at night, and the resulting data could be employed to calculate the odds that someone would drive by during a particular interval of time. The reciprocal of this probability could then be used as the total damages multiplier.⁵⁸ In general, a careful consideration of the facts in a case often will allow a jury to make a reasonable estimate of the probability of escaping liability.⁵⁹ The testimony of expert witnesses also may be helpful in calculating this probability.⁶⁰

Third, circumstances in which the chance of escaping liability is difficult to estimate will inevitably arise. To reduce the decisionmaking burden on jurors, a judge could present them with a table with a limited number of values for the probability, such as 0.1 through 0.9 by increments of one-tenth, from which to choose.⁶¹ Although such a simplification would not directly resolve the problem of determining the probability of detection, it may aid jurors in settling on a single number.⁶² Even if jurors make significant errors in estimating the probability, such errors will not necessarily create a serious problem for achieving optimal deterrence: provided that the errors are not systematically biased upwards or downwards, a potential injurer will know that the assessment of juries will be approximately correct on average, which will induce the injurer to behave properly. Another

⁵⁸ Some estimate also would have to be made of the probability that a driver who observed suspicious behavior would report it. Obviously, the lower this probability, the higher the proper damages multiplier. (If this consideration is ignored because of the difficulty of estimating the probability, the multiplier discussed in the text would be a lower bound for the ideal multiplier.)

⁵⁹ We discuss a number of punitive damages cases below and explain how the facts in those cases bear on determining the appropriate damages multiplier. See *infra* section II.D.

⁶⁰ It should be noted that juries are often required to consider and determine probabilities in contexts other than those discussed here, for example in assessing negligence. In deciding whether a person is negligent, a jury must ascertain how much an additional precaution would lower the probability of harm. If the reduction in the probability, multiplied by the harm, exceeds the cost of the precaution, it is negligent not to have taken it. See RESTATEMENT (SECOND) OF TORTS § 291 (1965) ("Where an act is one which a reasonable man would recognize as involving a risk of harm to another, the risk is unreasonable and the act is negligent if the risk is of such magnitude as to outweigh what the law regards as the utility of the act or of the particular manner in which it is done."). Thus, when a jury considers whether the failure to install a safety device was negligent, it must determine how much the device would have lowered the accident probability. No reason exists to believe that juries would have more difficulty in appraising probabilities in the context of calculating punitive damages than in the context of determining negligence, which is not thought to be especially problematic. However, some evidence suggests that individuals do have problems with estimating probabilities in many circumstances. See, e.g., JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 3-20 (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982) (documenting the manner in which people rely on heuristics to facilitate the assessment of probability).

⁶¹ Such a table is provided below. See *infra* Appendix.

⁶² A byproduct of restricting attention to a limited number of probabilities is that this prevents the jury from picking a damages multiplier above a certain value — for example, the damages multiplier cannot exceed 10 if the lowest probability offered is 0.1. We discuss caps on punitive damages below and point out that they cannot be justified as a matter of principle. See *infra* p. 900.

option is for the legislature to set damages multipliers for separate categories of wrongful conduct, based on rough assessments of the different chances of escaping liability in the various settings. This approach might be desirable if one believes that jury determination of the probabilities, and therefore of the damages multipliers, would be systematically biased. (Such an approach, however, would prevent juries from making use of any information they have about particular cases.⁶³)

Fourth, it might seem problematic for the application of the multiplier formula that the probability of escaping liability, and thus the multiplier, may depend on the way in which an accident is categorized. For example, consider a spill of dangerous chemicals from a tanker truck on a highway. Such a spill can be categorized either relatively narrowly — one category might be a spill resulting from the rupture of the tank and another category might be a spill resulting from a slow leak of the tank — or relatively broadly — one category encompassing both types of accident. A spill obviously will be much more easily detected if it is the consequence of a rupture than of a slow leak. Thus, if a rupture-caused spill is treated as a separate category, a lower multiplier would be used than if it is treated as an instance of a broader category of spills that includes leaks. How, then, should the categorization of an accident be determined for the purpose of deterrence? Should categorization be narrow, with separate multipliers employed for different types of chemical spills, or be broad, with a single multiplier employed? The answer is, essentially, that narrow definitions of accidents and separate multipliers should be used, other things being equal. Otherwise, incentives to prevent specific types of chemical spills would tend to be distorted. This is because the multiplier used for a specific type of accident would not be tailored to it, but instead would reflect the likelihood of escaping liability for a broader category of accidents. If a single multiplier is employed for all chemical spills, then, because it would exceed one, firms would have excessive incentives to avoid chemical spills for which they would definitely be found liable; thus, they might spend excessively on reinforcing the tanks or on testing the tanks' pressure (say, every fifteen minutes rather than every trip). Further, because the multiplier would be lower than is appropriate for slow leaks that are very likely to escape notice, firms would have inadequate incentives to prevent these spills; for instance, they might not check frequently enough for cracks in difficult-to-inspect parts of the tanks. The general point, then, is that when actors

⁶³ Juries could be given limited discretion to use such information if legislatures select a range for the punitive damages multiplier rather than a specific multiplier.

can take precautions that are particular to a type of accident, the categorization of the accident should be narrow.⁶⁴

Fifth, an important question about the multiplier formula arises in cases in which the defendant is a firm: should the damages multiplier be based on the probability that the firm will be found liable, or on the generally lower likelihood that the responsible employee will be found liable? The answer is that the firm's probability is the relevant one. Consider a situation in which a firm definitely would be found liable for a harm resulting, say, from an explosion of a chemical storage tank, but the employee whose actions led to the explosion might be difficult to identify. Because the firm will have to pay for the harm for sure, punitive damages are not needed: the firm's product price and its incentives to take precautions will be correct because it will be paying for all of the harm it causes if it pays just compensatory damages. That the particular employee who caused the explosion might not be caught does not alter this point — the employee's escaping responsibility does not free the firm from liability. Were the firm to face puni-

⁶⁴ If, however, all precautions are general rather than specific to a kind of accident, it does not matter whether accidents are categorized narrowly. Failing to categorize narrowly will not distort which type of precaution is taken if there are no specific types of precaution to take.

To illustrate, suppose that there is one type of precaution and two kinds of accident, *A* and *B*; that the two kinds of accident are equally likely to occur; that each would cause harm of \$10,000; that if *A* occurs, no likelihood of escaping liability exists; and that if *B* occurs, the likelihood of escaping liability is 50%. Under these assumptions, we will show that an injurer's expected damages if an accident occurs will equal the harm of \$10,000 regardless of whether accidents are categorized narrowly or broadly. If the categorization is narrow, the multiplier for an accident of type *A* will be 1, and the multiplier for an accident of type *B* will be 2. Thus, if an accident of type *A* occurs, the injurer's expected damages will be \$10,000 because he will definitely pay \$10,000; and if an accident of type *B* occurs, his expected damages will also be \$10,000 because he will pay \$20,000 with a probability of 50%. If the categorization is broad, including both kinds of accident, the multiplier will be 1.3333 because the probability of being found liable for an accident of some type is 75% (the average of 100% and 50%). Hence, damages when the injurer is found liable will be \$13,333 ($= 1.3333 \times \$10,000$). The injurer's expected damages for an accident will again be \$10,000, comprising a 50% chance that a type *A* accident will occur, in which case the injurer will definitely be found liable for \$13,333, plus a 50% chance that a type *B* accident will occur, in which case the injurer will be found liable for \$13,333 with a 50% probability (in other words, $[50\% \times (100\% \times \$13,333)] + [50\% \times (50\% \times \$13,333)] = \$10,000$). Accordingly, whichever categorization is used to determine the multiplier, the injurer's incentives will be correct, and no issue of distortion of the types of precaution taken will arise because, by hypothesis, only one type exists.

If there were two separate types of precaution, one reducing the frequency of type *A* accidents and the other reducing the frequency of type *B* accidents, then under the broad categorization, with a multiplier of 1.3333, a potential injurer would take an excessive degree of care to reduce type *A* accidents and too little care to reduce type *B* accidents. (We note, however, that the following point can be demonstrated: if the single multiplier used under the broad categorization is always adjusted to reflect the relative likelihoods of type *A* and type *B* accidents — they would not necessarily be equally likely when there are different types of precaution — use of a single multiplier would not distort incentives to take different types of precaution. Nevertheless, making such an adjustment would be administratively difficult, to say the least.)

tive damages because of the employee's chance of escaping liability, overdeterrence would result.⁶⁵

Sixth, it should be observed that the award of punitive damages may itself raise the probability of suit, which would reduce the probability that the defendant will escape liability. This effect, when applicable, must be taken into account and will tend to lower the appropriate level of punitive damages. Suppose, for example, that the probability of suit for a \$100,000 harm for which a party should be liable would be one-third if damages are compensatory, but would rise to one-half if damages are twice compensatory damages, \$200,000. Suppose also that, if a suit is brought, the plaintiff will definitely prevail. If the damages multiplier is based on the one-third probability of suit, it would call for total damages of \$300,000. But this level of damages would be too high because the probability of suit increases to one-half (or greater) when damages are \$300,000: expected damages would be \$150,000 (or greater), far exceeding the harm. In fact, damages of \$200,000 would be appropriate because the probability of suit would then be one-half and expected damages would be \$100,000. In general, a level of damages will exist that, given the resulting probability of suit, will lead to optimal deterrence.⁶⁶ Basing punitive damages on the relatively low probability of suit that would occur if only compensatory damages were awarded, however, will tend to lead to excessive damages.

Seventh, it might seem that the analysis in this section would virtually always call for *some* punitive damages award, because some chance of escaping liability will almost always exist.⁶⁷ But such a conclusion ignores a factor that we have not yet mentioned, namely, the costs associated with the use of the legal system.⁶⁸ Were every case to involve the calculation of the proper multiplier of harm, a new and potentially costly-to-decide issue would be introduced into litigation. This additional cost suggests that the domain of cases in which the multiplier inquiry is made should be limited. Specifically, our formula should be applied only if the likelihood of escaping liability surpasses some threshold, for that is when the problem of dilution of deterrence

⁶⁵ Although punitive damages should not be imposed on the firm, the firm may want, in effect, to impose punitive internal sanctions on its employees in order to deter them from acting in ways that cause harm. Additionally, the greater the likelihood that employees would escape such sanctions, the more the firm may want to spend on its monitoring and screening efforts.

⁶⁶ To state matters formally, let D be damages and let $P(D)$ be the probability of suit, which rises as D rises and which is less than one. The claim in the text is that there exists a D such that $P(D)D = H$, where H is the harm. Because the function $P(D)D$ is continuous in D , there must exist such a D between H and $H/P(H)$ because $P(H)H < H$ and $P(H/P(H))(H/P(H)) > P(H)(H/P(H)) = H$ (the asserted D is unique because $P(D)D$ is strictly rising in D). We comment further on the connection between damages and the probability of suit below. See *infra* section III.E.

⁶⁷ See David G. Owen, *Civil Punishment and the Public Good*, 56 S. CAL. L. REV. 103, 113 (1982).

⁶⁸ We discuss this consideration in more detail below. See *infra* section III.E.

will be significant, making it socially worthwhile to incur the additional litigation costs associated with calculating a corrective multiplier.⁶⁹

Finally, it should be noted that we have assumed that when parties are found liable, they pay for all of the harm that they have caused. In practice, though, parties may escape having to pay for some of the harm. To the extent that this occurs, an argument can be made that the level of damages should be higher than that called for by our multiplier formula, to make up both for the chance of escaping liability altogether and for the chance of not having to pay for the full harm. The most likely circumstance in which the full harm would not be assessed against the defendant arises when a particular component of harm (say, some type of non-pecuniary loss) is excluded from compensatory damages. For reasons explained below, however, we believe that punitive damages should not be raised to make up for an excluded component of harm.⁷⁰

C. Consistency of Punitive Damages Law with the Basic Theory of Deterrence

We now will relate our analysis to certain important aspects of legal doctrine concerning punitive damages, and also to legislation imposing caps on punitive damages.

As noted above,⁷¹ one of the two main purposes of punitive damages is deterrence. The courts state, for example, that punitive damages are intended "to deter the wrongdoer and others from committing similar wrongs in the future."⁷² Given that achieving proper deterrence is an avowed goal of courts, *it follows from the logic of deter-*

⁶⁹ Actually, this statement oversimplifies matters. To decide when it is worthwhile to calculate a damages multiplier, one would in principle need to take into account not just the probability of escaping liability, but also the magnitude of the harm and the costs of precautions. For even if the probability of escaping liability is high, if the harm is very low or if the costs of additional precautions are very high, it may not be worthwhile to incur the additional litigation costs in order to determine the proper damages multiplier.

Additionally, if the determination of punitive damages is not done on a case-by-case basis, it might be desirable to award punitive damages even when the probability of escaping liability is low. Suppose a fixed multiplier is applied in all cases in which the probability is small but positive. Then no additional litigation costs would be associated with calculating the multiplier in each case; and if the fixed multiplier is set appropriately, incentives will be improved overall relative to what they would be if no multiplier were employed.

⁷⁰ See *infra* section III.L.

⁷¹ See *supra* p. 873.

⁷² *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 222 (Ala. 1989). The United States Supreme Court has endorsed the criteria for evaluating punitive damages discussed in this case. See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 20-24 (1991). For further support for the proposition that deterrence is one of the central purposes of punitive damages, see also the cases cited above in note 5. Indeed, in Maine, deterrence is the only justification for punitive damages. See *Foss v. Maine Turnpike Auth.*, 309 A.2d 339, 345 (Me. 1973) (citing *Allen v. Rossi*, 146 A. 692, 694 (Me. 1929)).

rence theory that courts should take the punitive damages formula presented above into explicit account. Otherwise, courts cannot responsibly weigh the proper punitive damages amount for achieving deterrence against the proper amount for achieving the other main purpose of punitive damages, punishment.⁷³

However, courts' determinations of punitive damages do not reflect in any clear manner the formula that achieves optimal deterrence. Although courts do consider the magnitude of harm in assessing the proper level of punitive damages, they do not use harm as the base to be multiplied by an appropriate damages multiplier. Rather, courts take harm into account in a vague way, through application of the general principle that punitive damages should bear a "reasonable relationship" to compensatory damages.⁷⁴ They do not explain what this relationship should be and, even when they identify a ratio of punitive damages to compensatory damages that they find excessive, they do not supply a basis for selecting the particular ratio identified.⁷⁵

⁷³ How the deterrence goal and the punishment goal should be reconciled when they are in conflict is discussed below. See *infra* Part V and Appendix.

⁷⁴ 1 LINDA L. SCHLUETER & KENNETH R. REDDEN, PUNITIVE DAMAGES § 6.1(C), at 334 (3d ed. 1995). "As a general rule, the punitive damages award must bear a reasonable relation to the amount of actual damages awarded." *Id.* The United States Supreme Court has endorsed the reasonable-relationship notion in its decisions. See, e.g., *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1601 (1996) (stating that "[t]he principle that exemplary damages must bear a 'reasonable relationship' to compensatory damages has a long pedigree," and citing cases dating from 1852); *Haslip*, 499 U.S. at 21-22 (endorsing Alabama's criteria for the post-verdict review of punitive damages, which include "whether there is a reasonable relationship between the punitive damages award and the harm likely to result from the defendant's conduct as well as the harm that actually has occurred," and stating that the "review ensures that punitive damages awards . . . have some understandable relationship to compensatory damages").

⁷⁵ The United States Supreme Court has recently presented three "guideposts" for determining whether a punitive damages award is excessive. See *Gore*, 116 S. Ct. at 1598. "The second [of these guideposts,] and perhaps [the] most commonly cited indicium of an unreasonable or excessive punitive damages award is its ratio to the actual harm inflicted on the plaintiff." *Id.* at 1601. The Court, however, rejects the possibility that excessiveness can be determined by "a simple mathematical formula, even one that compares actual and potential damages to the punitive award." *Id.* at 1602 (citing *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443, 458 (1993)). In his concurrence in *Gore*, Justice Breyer points to problems with the reasonable-relationship standard, arguing that, at least as it is interpreted by the Alabama courts, it "does little to guide a determination of what counts as a 'reasonable' relationship To find a 'reasonable relationship' between purely economic harm totaling \$56,000, without significant evidence of future repetition, and a punitive award of \$2 million is to empty the 'reasonable relationship' test of meaningful content." *Id.* at 1606 (Breyer, J., concurring).

Courts often make statements of the following sort: "[A]lthough there is no fixed ratio by which to determine the propriety of a punitive damage award, punitive damages should bear a reasonable relationship to the compensatory damages awarded." *Little v. Stuyvesant Life Ins. Co.*, 136 Cal. Rptr. 653, 663 (Cal. Ct. App. 1977). The *Little* court followed that sentence with the observation that "[h]ere, the ratio of punitive damages to compensatory damages is in excess of 14 to 1 and in dollar amount the punitive damage award exceeds the compensatory award by almost two and a third million dollars," and the court relied on these facts, among others, in concluding that the punitive damages award in the case was excessive. *Id.* at 664.

In an important early article on punitive damages, Clarence Morris criticized approaches like that of the *Little* court:

As the reader knows, our analysis implies a simple and precise relationship between punitive damages and harm: punitive damages should equal the harm multiplied by what we refer to as the punitive damages multiplier. If punitive damages are to achieve appropriate deterrence, the "reasonable relationship" criterion must be interpreted in this specific way. Any other relationship between punitive damages and compensatory damages will lead to either inadequate or excessive deterrence.

Courts also do not pay systematic attention to the probability of escaping liability, even though this probability is the central element in determining the appropriate damages multiplier for the purpose of achieving proper deterrence. Courts sometimes allude to the possibility of escaping liability, but they rarely recognize its importance with respect to deterrence. For example, in determining the level of punitive damages, courts occasionally consider whether the defendant has attempted to conceal his conduct.⁷⁶ Courts usually do so, however, in assessing the reprehensibility of the defendant's conduct;⁷⁷ they generally do not appreciate that evidence of attempted concealment should influence the calculation of the defendant's chance of escaping liability. Additionally, courts sometimes mention that the cost of litigation should be taken into account "so as to encourage plaintiffs to bring wrongdoers to trial."⁷⁸ This factor is obviously related to the injurer's chance of escaping liability because one reason an injurer might not be

Courts often insist that "punitive damages must bear some relation to actual damages," and attempt to test verdicts in terms of mathematical ratios. The opinions contain statements to the effect that a verdict for punitive damages x times as great as the actual damages is clearly excessive. . . .

This test is probably more often a rationalization of results than a means of obtaining them. The proper ratio between actual damages and punitive damages is placed at a figure which supports the judge's view of the verdict

Clarence Morris, *Punitive Damages in Tort Cases*, 44 HARV. L. REV. 1173, 1180 (1931).

⁷⁶ See, e.g., *Green Oil*, 539 So. 2d at 223 (considering concealment and cover-up in determining degree of reprehensibility, which influences the level of punitive damages); *Gamble v. Stevenson*, 406 S.E.2d 350, 354 (S.C. 1991) (establishing "defendant's awareness or concealment" as one factor to consider in the post-trial review of jury awards of punitive damages).

⁷⁷ See, e.g., *Green Oil*, 539 So. 2d at 223; see also *Garnes v. Fleming Landfill, Inc.*, 413 S.E.2d 897, 909 (W. Va. 1991) (stating that, in determining the reprehensibility of defendant's conduct, the jury should consider "whether he attempted to conceal or cover up his actions or the harm caused by them").

⁷⁸ *Green Oil*, 539 So. 2d at 223; see also *Garnes*, 413 S.E.2d at 909 (instructing trial courts to consider the costs of litigation in reviewing punitive damages awards, because "[w]e want to encourage plaintiffs to bring wrongdoers to trial"). In the same vein, a Texas Court of Appeals affirmed an award of \$4500 in exemplary damages, in an action for invasion of privacy from telephone harassment, when actual damages were \$2 and attorney fees were \$4462.52. See *Donnel v. Lara*, 703 S.W.2d 257, 258, 262 (Tex. App. 1985), *superseded by* TEX. CIV. PRAC. & REM. CODE ANN. § 41.004 (West 1997). The court noted that the plaintiffs "had obligated themselves to pay reasonable attorney fees as a necessary prerequisite for obtaining relief through the courts," and held that "the amount exemplified an accurate application of the purposes for exemplary damages — to punish and deter similar wrongs in the future." *Id.* at 262.

found liable is that he is not sued.⁷⁹ Thus, courts occasionally refer to considerations that bear on the probability that a defendant would have escaped liability. But they rarely explain in a direct and systematic way how this probability should be used to determine the proper level of damages for deterrence purposes.⁸⁰

Further, courts generally pay insufficient attention to the potential problem of overdeterrence. Judicial opinions mention this issue only infrequently,⁸¹ and none of the lists of factors used by courts in determining punitive damages includes overdeterrence as a consideration.⁸² As we have emphasized,⁸³ however, damages that exceed the level in-

⁷⁹ See *supra* p. 888.

⁸⁰ A few courts have explicitly recognized the importance of the defendant's chance of escaping liability. See, e.g., *Kemery v. Peters*, 79 F.3d 33, 35 (7th Cir. 1996) (Posner, C.J.). In that case, the court noted:

When a tortious act is concealable, a judgment equal to the harm done by the act will underdeter. Suppose a person who goes around assaulting other people is caught only half the time. Then in comparing the costs, in the form of anticipated damages, of the assaults with the benefits to him, he will discount the costs (but not the benefits, because they are realized in every assault) by 50 percent, and so in deciding whether to commit the next assault he will not be confronted by the full social cost of his activity.

Id.; see also *Zazú Designs v. L'Oréal, S.A.*, 979 F.2d 499, 508 (7th Cir. 1992) (Easterbrook, J.) ("Punitive damages are appropriate when some wrongful conduct evades detection; a multiplier then both compensates and deters.")

In *FDIC v. W.R. Grace & Co.*, 877 F.2d 614 (7th Cir. 1989) (Posner, J.), the court stated: The most straightforward rationale for punitive damages . . . is that they are necessary to deter torts or crimes that are concealable. Suppose the average defrauder is brought to book only half the time. To confront him with a sanction that will make fraud worthless to him and thus deter him, it is necessary that when he is caught he be made to pay twice as much as his profits.

Id. at 623; see also *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1602 (1996) (Stevens, J.) ("A higher ratio [of punitive damages to compensatory damages] may also be justified in cases in which the injury is hard to detect . . ."). Justice Breyer's concurrence in *Gore* mentions economic theories of punitive damages that focus on ensuring that a wrongdoer pays for the total cost of the harm caused. See *id.* at 1607 (Breyer, J., concurring). He correctly interprets these theories as permitting juries "to calculate punitive damages by making a rough estimate of global harm [and] dividing that estimate by a similarly rough estimate of the number of successful lawsuits that would likely be brought." *Id.*

⁸¹ One exception is Justice Breyer's concurrence in *Gore*, in which he observes that damages greater than the total harm caused will "over-deter" by leading potential defendants to spend more to prevent the activity that causes the economic harm, say, through employee training, than the cost of the harm itself." *Gore*, 116 S. Ct. at 1607-08 (Breyer, J., concurring); see also *Jones v. Reagan*, 696 F.2d 551, 554 (7th Cir. 1983) (Posner, J.) ("[I]f considerations of deterrence are to be brought to center stage, the potential for overdeterrence must also be considered . . ."); *Roginsky v. Richardson-Merrell, Inc.*, 378 F.2d 832, 839-41 (2d Cir. 1967) (Friendly, J.) (noting that allowing multiple punitive damages awards for negligence in the manufacture of goods gives rise to the danger of "overkill" and "needless" deterrence).

⁸² For example, the *Green Oil* factors, which were endorsed by the United States Supreme Court in *Pacific Mutual Life Insurance Co. v. Haslip*, 491 U.S. 1, 21-22 (1991), fail to mention overdeterrence. See *Green Oil*, 539 So. 2d at 223-24. Nor do state statutes outlining the factors to be considered in awarding punitive damages include the danger of overdeterrence. See KAN. STAT. ANN. § 60-3701(b) (1994); MINN. STAT. ANN. § 549.20 subd. 3 (West 1988); MONT. CODE ANN. § 27-1-221(7)(b) (1995); OR. REV. STAT. § 30.925(2) (1995).

⁸³ See *supra* section II.A.

dictated by the formula may result in wasteful precautions and the withdrawal of socially valuable products and services from the marketplace.

Not only do courts usually fail to consider correctly the factors that *are* relevant to proper deterrence, but they also err in considering a variety of factors that generally *are not* relevant to deterrence, including the reprehensibility of defendants' conduct and defendants' wealth. We will discuss at some length why these factors ordinarily should not be taken into account if the goal is to promote proper deterrence,⁸⁴ but the point we want to make here is that consideration of these factors in awarding punitive damages causes such damages to deviate further from the level given by our formula.

Some aspects of legislation governing punitive damages are also inconsistent with deterrence theory. Notably, many states have imposed caps of various kinds on punitive damages awards: an absolute ceiling (for example, \$350,000 in Virginia), a maximum ratio of punitive damages to compensatory damages (for example, three times compensatory damages in Florida), or both.⁸⁵ Such caps cannot be justified on deterrence grounds because they might preclude the proper award of punitive damages. For example, suppose that the harm caused by an injurer is \$100,000 and that he has only a one-in-ten chance of being found liable. The optimal level of punitive damages is then \$900,000, or nine times compensatory damages (because the optimal level of total damages, including compensatory damages, is ten times the harm). This absolute amount and this ratio would exceed punitive damages caps in the majority of states that have them,⁸⁶ yet under the circumstances posited, a punitive damages award of this magnitude, and that has this relationship to compensatory damages, is needed for proper deterrence.

Our criticism of caps is not meant to deny that, if jury awards of punitive damages are thought to be systematically excessive, caps might beneficially constrain such awards.⁸⁷ But in the absence of systematic bias, caps are inappropriate.

⁸⁴ See *infra* Part III.

⁸⁵ See *Gore*, 116 S. Ct. at 1618-19 (Ginsburg, J., dissenting) (surveying state caps on punitive damage awards).

⁸⁶ Justice Ginsburg lists 16 states in which caps on punitive damages have been enacted or proposed. In 13 of those states (Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Maryland, Nevada, New Jersey, North Dakota, Texas, and Virginia), the award described in the text would exceed the cap. See *id.*

⁸⁷ See, e.g., Dan Quayle, *Civil Justice Reform*, 41 AM. U. L. REV. 559, 564-65 (1992) (arguing that "the current approach to punitive damages will continue to generate disproportionately high awards in a random and capricious manner" and that one aspect of reform should be to limit the amount of punitive damages to "the full amount of compensatory damages").

D. Punitive Damages Cases

We briefly consider here three prominent punitive damages cases in the light of the deterrence principles discussed above. Our primary objective is to state what deterrence theory suggests about the appropriate level of punitive damages in these cases, given their facts and circumstances, not to analyze the legal doctrines that were applied or developed in them.⁸⁸

1. *BMW of North America, Inc. v. Gore*.⁸⁹ — In this case, the plaintiff, Ira Gore, Jr., purchased a new BMW sedan from an Alabama dealer. He subsequently learned that the defendant, BMW of North America, had repainted part of the car because of damage to the car before its arrival in the United States, although BMW had not disclosed this fact. The jury awarded Gore compensatory damages of \$4000 for diminution in the value of the car, and punitive damages of \$4 million. The Alabama Supreme Court reduced the punitive award to \$2 million, but the United States Supreme Court held even this award to be grossly excessive. On reconsideration, the Alabama Supreme Court reduced the punitive award to \$50,000.⁹⁰

Consider the probability that BMW would escape liability for having sold a repainted car as new. The determination of this probability involves two factors. One is the possibility that BMW would escape notice for having repainted a car, and the other is the likelihood that a purchaser who did discover that his car had been repainted would sue. Gore drove the car for nine months without detecting any abnormalities in the paint on his car. It was only after he took his car to a detail shop that he learned that it had been repainted. It seems reasonable to suppose, therefore, that many purchasers of repainted cars sold as new would never discover that their cars had been repainted.

Whether an owner who did discover that his car had been repainted would sue depends on the costs to him of suit (time and out-of-pocket expense) and the amount that he could collect. If the harm is as low as the jury found in *Gore*, \$4000, it would seem that many owners — or the lawyers they might hire on a contingency fee — would not have a sufficient financial incentive to sue. There may have been a significant chance, therefore, that BMW would have escaped liability if damages were merely compensatory, because of victims' inadequate motive to sue.

In *Gore*, information that would be useful in estimating the probability of BMW's being found liable was provided. Among the facts

⁸⁸ We have commented on the legal doctrine governing punitive damages to some degree above in section IIC and will discuss it more extensively below in Part III.

⁸⁹ 116 S. Ct. 1589 (1996).

⁹⁰ See *Alabama Court Slashes Punitive Award in Case Involving Repainted BMW Car*, WALL ST. J., May 12, 1997, at B10.

established at trial were that fourteen new BMW cars in Alabama had been repainted, including Gore's, and one prior suit had been brought against BMW by an owner of one of these cars.⁹¹ If none of the other Alabama victims of repainting were to sue,⁹² the probability of detection and liability might be thought to be two in fourteen,⁹³ in which case the total damages should be seven times the \$4000 harm, or \$28,000.⁹⁴ Of that total, \$4000 would represent compensatory damages, and \$24,000 would represent punitive damages. By this reasoning, the \$2 million punitive award initially approved by the Alabama Supreme Court was grossly excessive, and the reduced award of \$50,000 was much more reasonable.⁹⁵

2. *Pacific Mutual Life Insurance Co. v. Haslip*.⁹⁶ — This case involved an insurance agent who misappropriated premium payments. The insurance policy in question was a group health plan sold to the municipality of Roosevelt City, Alabama. When Cleopatra Haslip, a city employee, was hospitalized, she apparently did not know that the policy had lapsed because of the agent's misappropriation. When the hospital and her physician sought payment from her, she and other Roosevelt City employees sued the agent and the Pacific Mutual Life Insurance Company for fraud.⁹⁷ The jury awarded her total damages

⁹¹ See *Gore*, 116 S. Ct. at 1593. The other plaintiff, Thomas Yates, was awarded \$4600 in compensatory damages but nothing in punitive damages. See *Yates v. BMW of N. Am., Inc.*, 642 So. 2d 937, 938 (Ala. Civ. App.), *cert. quashed*, 642 So. 2d 937 (Ala. 1993). It should be noted that in the entire United States, BMW had sold 983 cars as new after repainting. See *Gore*, 116 S. Ct. at 1593. In this example, we are restricting our attention to the subset of cars sold in Alabama because the Alabama Supreme Court, in reviewing *Gore*, limited consideration in this way. It essentially makes no difference whether the multiplier is calculated separately for each state or instead is calculated for the entire country (based on appropriate national statistics, such as the figure of 983 cars in *Gore*). Under either method, a firm's expected damage payments would equal the harm caused nationally.

⁹² In fact, other suits were brought. See *BMW of N. Am., Inc. v. Gore*, 646 So. 2d 619, 626 n.4 (Ala. 1994) (listing the 25 cases brought by Gore's attorney against BMW for similar conduct). The assumption in the text that only two suits were brought is made for illustrative purposes.

⁹³ In general, the proper approach to calculating the probability of liability would be to use all available information about the likelihood of detection and suit. Such information might include, for example, information about the frequency of suit against BMW under similar circumstances in other states, the frequency with which car owners take their cars to detail shops, and the likelihood of lawyers taking cases with higher or lower stakes.

⁹⁴ In fact, the calculation of the multiplier may be more complicated because the award of punitive damages will itself affect the probability of suit. As we observed above, total damages should be such that the probability of suit induced by that award of damages results in expected damages equal to harm. See *supra* p. 895. Therefore, if an award of \$28,000 would induce more than two plaintiffs to sue, the proper multiplier might be less than seven.

⁹⁵ For another economically oriented discussion of *Gore*, see Rubin, Calfee & Grady, cited above in note 12. Their discussion, however, does not emphasize the point that we make here.

⁹⁶ 499 U.S. 1 (1991).

⁹⁷ See *id.* at 4-5. In fact, the insurance policy that lapsed was not Pacific Mutual Life's policy, but rather the policy of another company, Union Fidelity Life Insurance Company, which the agent was also representing. See *id.* However, premiums for the Union policy were collected through Pacific Mutual Life's Birmingham office. See *id.* at 5. Pacific Mutual Life was sued for fraud under a theory of respondeat superior. See *id.* at 6.

of \$1,040,000, of which \$200,000 appears to have been assessed as compensatory damages and \$840,000 as punitive damages.⁹⁸ The award was affirmed by the trial court, the Alabama Supreme Court, and the United States Supreme Court.⁹⁹

The key issue relating to deterrence in this case is whether a significant chance exists that an insurance company whose agent misappropriates premiums will escape liability for coverage that individuals expected to have. (The focus should be on the company's chance of escaping liability, rather than the agent's, for the reason we explained above.¹⁰⁰) Obviously, if a policy has been invalidated because of an agent's misappropriation of premium payments, the invalidation will come to the attention of a person who applies for coverage under that policy. If the insurance company does not pay the individual voluntarily, the individual probably would sue the company, provided the amount at stake is large enough.

In the present case, the compensatory damages were, as noted, \$200,000. However, less than \$4000 of this amount represented out-of-pocket expenditures, the rest apparently consisting of non-economic losses such as emotional distress.¹⁰¹ It seems reasonable to suppose that recovery of the \$4000 out-of-pocket loss is more probable than recovery of the \$196,000 non-economic loss. If the likelihood of the latter recovery is sufficiently low, an individual probably would not bring a lawsuit. Conversely, if this likelihood is high, a lawsuit would be much more certain. A related consideration is that three other Roosevelt City employees joined Haslip in suing the defendants. Their awards totaled approximately \$38,000.¹⁰² Clearly, the prospect of obtaining this additional amount would increase the incentive to sue. On balance, therefore, although a suit seems reasonably likely in the circumstances of *Haslip*, some countervailing considerations might justify a modest punitive damages award, to offset the chance that a lawsuit would not be brought.

3. *In re The Exxon Valdez*.¹⁰³ — In this case, the defendant's supertanker, the Exxon Valdez, ran aground on a reef in Prince William Sound in Alaska, spilling 11 million gallons of oil¹⁰⁴ and polluting over

⁹⁸ Although it was not entirely clear how the jury apportioned the total award between compensatory and punitive damages, the United States Supreme Court presumed that not more than \$200,000 of the total represented compensatory damages and not less than \$840,000 represented punitive damages. *Id.* at 7 n.2.

⁹⁹ See *Pacific Mutual Life Ins. Co. v. Haslip*, No. CV-82-2453 (Ala. Cir. Ct. Jefferson County 1987); *Pacific Mutual Life Ins. Co. v. Haslip*, 553 So. 2d 537, 543 (Ala. 1989); *Haslip*, 499 U.S. at 24.

¹⁰⁰ See *supra* pp. 894-95.

¹⁰¹ *Haslip's* out-of-pocket expenses were "less than \$4,000." *Id.*

¹⁰² The jury awarded compensatory damages for the other respondents in the following amounts: Hargrove \$10,288; Craig \$12,400; and Calhoun \$15,290. See *id.* at 7.

¹⁰³ No. A89-0095-CV (D. Alaska Sept. 24, 1996).

¹⁰⁴ See, e.g., Charles McCoy, *Exxon Corp.'s Settlement Gets Court Approval*, WALL ST. J., Oct. 9, 1991, at A3.

1,000 miles of Alaskan coastline.¹⁰⁵ The supertanker's captain, Joseph Hazelwood, had previously been treated for alcohol abuse and, in connection with the accident at issue, was found to have violated regulations governing alcohol consumption.¹⁰⁶ In the private civil litigation against Exxon stemming from the accident, the plaintiffs — various classes of fishermen and Alaskan natives — were awarded several hundred million dollars in compensatory damages¹⁰⁷ and \$5 billion in punitive damages.¹⁰⁸ The punitive damages award was affirmed by the trial judge and is being appealed.¹⁰⁹

It seems clear that in the circumstances of the Exxon Valdez accident, there was essentially no chance that the defendant company, Exxon Corporation, could escape liability. An accident of this magnitude obviously would have been noticed. Moreover, because the tanker was stuck on a reef, the identity of the injurer was plain. And given the substantial compensatory damages involved, in the hundreds of millions of dollars, a lawsuit certainly could be expected. Thus, according to our analysis, no punitive damages are needed, or appropriate, in the circumstances of this case because the injurer could not have escaped liability for compensatory damages. (In other contexts involving oil spills — such as the intentional dumping of small amounts of waste oil that is unlikely to be detected or traced to the spiller — some punitive damages would be appropriate.¹¹⁰)

III. DETERRENCE: EXTENSIONS OF THE BASIC THEORY

In this Part, we will discuss several important doctrinal and policy issues in punitive damages law from the perspective of the deterrence principles developed above.¹¹¹ Most of these topics (such as the repre-

¹⁰⁵ See *Fishermen Block Tankers*, WASH. POST, Aug. 22, 1993, at A9 (noting that the Exxon Valdez "polluted thousands of miles of coastline").

¹⁰⁶ See Seth Mydans, *Captain in Alaska Oil Spill Loses License for Nine Months*, N.Y. TIMES, July 26, 1990, at A12 (noting that an administrative law judge for the Coast Guard found Hazelwood guilty of consuming alcohol within four hours of sailing and that Hazelwood had pleaded no contest to the charge); *A Question Recurs: Was Hazelwood Drunk?*, N.Y. TIMES, Feb. 25, 1990, at 29.

¹⁰⁷ The jury awarded \$287 million as compensation for fishing losses. See *In re The Exxon Valdez*, No. A89-0095-CV, 1995 WL 527988, at *5 (D. Alaska Jan. 27, 1995). The court noted that, including other verdicts and settlements, the dollar amount of harm caused by the spill was between \$288.7 million and \$418.7 million (including the \$287 million verdict). See *id.*

¹⁰⁸ See Caleb Solomon, *Exxon Is Told To Pay \$5 Billion for Valdez Spill*, WALL ST. J., Sept. 19, 1994, at A3.

¹⁰⁹ In June 1997, Exxon appealed the \$5 billion punitive damages award entered against it in the Exxon Valdez case. See *Exxon Corp. Submits Brief Outlining Valdez Appeal*, WALL ST. J., June 20, 1997, at A4.

¹¹⁰ Punitive damages would be appropriate, for example, in the circumstances described in Matthew L. Wald, *Royal Caribbean Cruise Line Indicted on Charges of Dumping Oil*, N.Y. TIMES, Dec. 20, 1996, at A26 (cruise line indicted for "routinely dump[ing] waste oil from five of its ships for years and falsify[ing] its log books to hide its activities").

¹¹¹ See *supra* Part II.

hensibility of the defendant's conduct) have received substantial attention in judicial opinions, others (whether the state should receive a portion of a punitive damages award) have been considered primarily in a legislative context, and still others (the status of the plaintiff as a customer or a third party) apparently have not been addressed in either setting.

A. *Reprehensibility of Conduct*

The law requires that a defendant be found to have acted in a reprehensible manner — in a way that is egregious, malicious, or undertaken with reckless disregard for the rights of others — before punitive damages can be imposed on him.¹¹² If a defendant is found to have so acted, the degree of his reprehensibility is often treated as a key factor in determining the level of punitive damages.¹¹³ Indeed, the United States Supreme Court in *Gore* observed that this factor is “[p]erhaps [the] most important” indicium of the reasonableness of a punitive damages award.¹¹⁴ The reprehensibility of the defendant's conduct was also one of the factors listed by the Court in *Haslip*.¹¹⁵

Should reprehensibility per se affect the imposition of punitive damages, given the goal of deterrence?¹¹⁶ In this section, we explain

¹¹² See 1 SCHLUETER & REDDEN, *supra* note 74, at 264 (“In order to receive punitive damages, a plaintiff must show that the defendant acted with malice, either actual or legal.”); see also *Masaki v. General Motors Corp.*, 780 P.2d 566, 570 (Haw. 1989) (noting that punitive damages “are awarded only when the egregious nature of the defendant's conduct makes such a remedy appropriate”); *Barnhouse v. Hawkeye State Bank*, 406 N.W.2d 181, 184 (Iowa 1987) (“An award of punitive damages is appropriate when a party acts with actual or legal malice.”) (citations omitted); *Nappe v. Anshelewitz, Barr, Ansell & Bonello*, 477 A.2d 1224, 1230 (N.J. 1984) (“To warrant a punitive award, the defendant's conduct must have been wantonly reckless or malicious.”) (citations omitted); *Hood v. Fulkerson*, 699 P.2d 608, 611 (N.M. 1985) (“[Punitive damages] may be awarded only when the conduct of the wrongdoer may be said to be maliciously intentional, fraudulent, oppressive, or committed recklessly or with a wanton disregard to the plaintiffs' rights.” (quoting *Loucks v. Albuquerque Nat'l Bank*, 418 P.2d 191, 199 (N.M. 1966) (internal quotation marks omitted))).

¹¹³ See, e.g., *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 223 (Ala. 1989) (“The degree of reprehensibility of the defendant's conduct should be considered” when “determining whether the jury award of punitive damages is excessive or inadequate”), *endorsed in Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 21 (1991); *Neal v. Farmers Ins. Exch.*, 582 P.2d 980, 990 (Cal. 1978) (stating that, among factors to consider in assessing punitive damages is “the particular nature of the defendant's acts in light of the whole record; clearly, different acts may be of varying degrees of reprehensibility, and the more reprehensible the act, the greater the appropriate punishment, assuming all other factors are equal.”); *McNeill v. Allen*, 534 P.2d 813, 820 (Colo. Ct. App. 1975) (“[T]he purpose of punishment and deterrence may best be served by relatively higher or relatively lower exemplary damages according to the nature of the wrongful conduct.”) (citation omitted); *Ultimate Chem. Co. v. Surface Transp. Int'l, Inc.*, 658 P.2d 1008, 1012 (Kan. 1983) (listing among the factors to consider in assessing punitive damages “the nature, extent, and enormity of the wrong”).

¹¹⁴ *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1599 (1996).

¹¹⁵ See *supra* note 113.

¹¹⁶ As previously noted, we discuss below the significance of the reprehensibility criterion to the punishment goal of punitive damages. See *supra* pp. 952–953.

that it generally should not.¹¹⁷ However, an important exception to this conclusion occurs when injurers' gains do not count in social welfare, which we believe is often the case when injurers act maliciously.¹¹⁸ This exception, we will suggest, only possibly applies to individual defendants, and not to corporate defendants.

As discussed above,¹¹⁹ under standard assumptions, the imposition of damages equal to harm, appropriately multiplied to reflect the probability of escaping liability, achieves proper deterrence. That a defendant's conduct can be described as reprehensible is in itself irrelevant. Rather, the focus in determining punitive damages should be on the injurer's chance of escaping liability.

Making punitive damages depend on reprehensibility will distort deterrence in two ways. First, excessive damages may be imposed when reprehensible conduct occurs in situations in which an injurer is virtually certain to be found liable. Suppose that a surgeon, through extreme negligence, fails to remove a surgical tool from the body of a patient and that this omission leads to great pain and suffering. If a high probability exists that the surgeon will be sued and found liable because of the magnitude of the patient's harm and the unmistakable error of the surgeon, extracompensatory damages are neither necessary nor appropriate. Similarly, consider a newspaper reporter who, out of reckless disregard for the truth, confuses one firm's safe product with another firm's dangerous product, substantially damaging the former firm's business reputation and profitability. Here, too, we might expect that suit and a finding of liability would be very likely, in which case extracompensatory damages would be excessive. Thus, *even for conduct that is reprehensible*, if little chance of escaping liability exists, compensatory damages alone will achieve appropriate deterrence, and punitive damages will result in overdeterrence.

One might wonder, though, how overdeterrence of reprehensible acts can occur, because society evidently has an interest in deterring such acts completely. To illustrate that overdeterrence still can occur, consider the example of the surgeon. If the magnitude of damages is very high, we can imagine that, to reduce the chance of leaving a surgical tool in a patient, he might hire another medical professional to monitor his actions or he might dramatically increase the time he

¹¹⁷ For the most part, other commentators who have considered punitive damages in terms of the deterrence goal have agreed that the reprehensibility of the defendant's conduct is not a relevant factor. See, e.g., Dobbs, *supra* note 3, at 860-63; Galligan, *supra* note 3, at 62-64.

¹¹⁸ In their respective discussions of punitive damages, Dorsey Ellis and Robert Cooter also find that the reprehensibility of a defendant's conduct is relevant to deterrence when injurers' gains do not count in social welfare — that is, when their gains are socially illicit. See Cooter, *Economic Analysis*, *supra* note 12, at 86-89; Ellis, *supra* note 12, at 31-33. For more formal treatments of illicit utility, also in the context of punitive damages, see SHAVELL, *supra* note 14, at 146, 159-61; Diamond, *Efficiency Effects*, *supra* note 12, at 8-12.

¹¹⁹ See *supra* Part II.

spends on each operation. Even if such responses would succeed in preventing the recurrence of this event, they may be at too great a cost, especially if the likelihood of leaving a surgical tool in a patient is very low anyway. In other words, it might not be socially worthwhile for the surgeon to take the measures needed to eliminate the possibility of his being extremely negligent. Yet a level of liability in excess of that given by the damages formula would improperly encourage him to take these measures.¹²⁰

The problem of overdeterrence also can arise in connection with the reprehensible acts of employees of corporations. Employees obviously cannot be controlled perfectly by a corporation, even though a corporation can improve its ability to prevent employees from committing reprehensible acts by screening them before hiring them and monitoring their conduct afterwards. If damages exceed the level determined by the damages formula, however, the corporations may be led to spend excessively on screening and monitoring efforts in order to forestall reprehensible behavior.¹²¹ This might be true of a newspaper, for instance, if it faced punitive damages for false reporting because of extreme negligence, as in our example of the reporter who confused two firms' products. In response, the newspaper might assign two reporters to every story even if doing so is not socially worthwhile given the cost of this practice and the reduction in risk of reprehensible behavior that would be accomplished.

Not only can attention to reprehensibility result in the imposition of punitive damages that are excessive, but such attention may also lead to the converse problem: the failure to employ punitive damages when they are needed for proper deterrence. This problem will occur if an individual engages in conduct that is harmful, though *not* reprehensible, and he is likely to escape liability. Suppose that a toxic waste disposal truck develops a leak (say, from rust) that results in waste spilling onto a highway at night, when no one is likely to notice it. The driver of the truck may have performed a proper inspection before de-

¹²⁰ If, unlike in the example we have been discussing, a reprehensible act is purely intentional, overdeterrence cannot occur. Suppose a surgeon intentionally left a surgical tool in the patient. (Although this example may seem unbelievable, we use it to contrast the conclusion in this footnote with that in the text.) Threatening the surgeon with punitive damages in addition to compensatory damages would further discourage the surgeon from intentionally leaving the surgical tool in a patient. Overdeterrence could not occur. But if the surgeon's act was the result of his failure to take adequate precautions — that is, if his act was accidental — the imposition of punitive damages can affect the level of care he exercises. As we explained in the text, this level of care can be excessive.

¹²¹ For example, in the illustration of a firm's screening decision in note 24, above, if damages exceed the amount determined by the damages formula, the firm might be led to spend \$4000 per applicant on screening, which would be socially excessive given the assumed benefit from this level of screening. On the point that the imposition of punitive damages may lead corporations to spend excessively in order to forestall reprehensible behavior by their employees, see Daniel R. Fischel & Alan O. Sykes, *Corporate Crime*, 25 J. LEGAL STUD. 319, 348 (1996).

parting, and the company may have reasonable maintenance policies. Although the leak is not caused by anyone's reprehensible behavior, substantial extracompensatory damages may be appropriate if the leak is discovered, to offset the significant likelihood that the injurer would not be identified and held responsible for the harm.

It is clear from the foregoing discussion that the stress courts place on reprehensibility of conduct in considering punitive damages cannot be justified on grounds of deterrence. A minor qualification of this point is that, as we observed earlier,¹²² courts treat attempts by the defendant to conceal wrongdoing as a factor that enhances reprehensibility, and thus the level of punitive damages. This response makes rough sense because such behavior clearly reduces the probability of liability. But, as suggested above, the link that courts make between this behavior and punitive damages is vague in nature.¹²³ We believe that it would be preferable to use evidence of concealment directly to aid in the determination of the chance that the defendant might have escaped liability, rather than as a factor in determining reprehensibility.

Finally, although the reprehensibility of a defendant's conduct should not be used per se as a basis for imposing punitive damages to achieve proper deterrence, such conduct may sometimes provide useful information about the defendant's chance of escaping liability. Everything else being equal, the lower the chance of being found liable, the lower will be an individual's level of care. Therefore, a low care level may suggest a low probability of liability¹²⁴ and thus a higher level of punitive damages according to our formula.

Let us now turn to the important exception to our general conclusion about reprehensibility, which, as noted above, arises if injurers'

¹²² See *supra* section II.C.

¹²³ See *supra* pp. 898-99. For example, in *Green Oil Co. v. Hornsby*, 539 So. 2d 218 (Ala. 1989), because reference to concealment occurs in the context of the reprehensibility criterion, see *id.* at 223, it is difficult to infer how such behavior should affect punitive damages. This difficulty is partially due to the *Green Oil* court's failure to discuss how the degree of reprehensibility should affect the level of punitive damages. See *id.* at 223-24. Additionally, *Green Oil* offers no guidance concerning how evidence of concealment should affect the degree of reprehensibility, including how much weight concealment should be given in relation to the other factors mentioned that bear on the degree of reprehensibility (such as the duration of the conduct). See *id.* Thus, although *Green Oil* suggests that concealment should be a basis for raising the level of punitive damages, the extent to which punitive damages should be raised is unclear.

¹²⁴ For example, consider a firm that believes that any pollution that it generates will be very difficult to detect. Such a firm might not invest in any pollution control equipment — and thus its conduct would be considered reprehensible. In contrast, an otherwise identical firm that believes that its pollution will be detected with a high probability would make reasonable investments in pollution control equipment — its conduct would not be reprehensible. Consequently, if a court does not have direct information about a firm's chance of escaping liability, the court might be able to infer from a firm's level of investment in pollution control equipment — that is, from whether its conduct was reprehensible or not — whether the firm faced a low or high chance of escaping liability.

gains are not counted in social welfare. Suppose that a person, out of spite, punches another individual; his purpose is to cause harm to the victim. Society might well treat the pleasure the injurer obtains from this act as *socially illicit*, not to be counted in social welfare.¹²⁵ If so, the act should be deterred completely because it produces no social gain, only harm. To achieve this goal, damages must exceed the injurer's utility from committing the act. Because the injurer's illicit utility could be greater than the harm suffered by the victim, the level of damages needed for proper deterrence might be in excess of harm.¹²⁶ In other words, punitive damages might be socially desirable even if there is no chance that the injurer could have escaped liability.

When are the benefits from harmful conduct likely to be considered socially illicit? We suggest that benefits tend to be treated as illicit when the injurer's utility derives from causing harm itself, as when a person punches another out of spite or defames another to see him suffer. The injurer benefits *because* the victim suffers harm. Situations with this characteristic fit under the general rubric of maliciousness and would be considered reprehensible. Thus, *some reprehensible conduct — malicious conduct — could give rise to gains that are not counted in social welfare, in which case punitive damages may be justified even in the absence of a chance of escaping liability*, for the reasons discussed in the previous paragraph.

But many acts that are reprehensible do not seem to be associated with socially illicit utility; they are not undertaken with malice. Consider a person who drives at 60 miles per hour through a residential area in order to arrive at work on time and causes a fatal accident. We would call this act reprehensible because of the driver's wanton disregard for the safety of others. Yet because the purpose of the act is not to cause harm, but rather to arrive at work on time, a perfectly legitimate objective, it does not appear that the utility from the act would be classified as socially illicit. In general, we surmise that reprehensible acts that are not undertaken with the objective of causing

¹²⁵ We believe that the notion of socially illicit utility reflects how people often would characterize the utility that individuals derive from certain reprehensible acts (such as rape). But because no theoretical basis exists for determining which categories of utility are socially illicit, we are not suggesting below that particular categories of utility are necessarily socially illicit. Which categories of utility from wrongful conduct are socially illicit is an empirical question, determined by what society wants to count in social welfare. The notion of socially illicit utility has been considered by some commentators in the context of punitive damages. See sources cited *supra* note 118. It also has been mentioned in the economic literature on law enforcement. See, e.g., George J. Stigler, *The Optimum Enforcement of Laws*, 78 J. POL. ECON. 526, 527 (1970).

¹²⁶ For example, suppose an individual obtains a utility gain worth \$2000 to him from maliciously hitting someone in the nose, and that the harm to the victim is equivalent to \$500 (because \$500 would fully compensate the victim for his pain and medical costs). Then, even if the injurer would definitely be found liable, punitive damages of at least \$1500 would be required to deter him. (Clearly, if there is a chance that he can escape liability, the punitive damages amount would have to be higher.)

harm, but rather that happen to cause it as a highly likely byproduct, usually are not associated with socially illicit utility. Thus, for these kinds of acts, punitive damages should not be imposed unless the injurer has a significant chance of escaping liability — our usual conclusion.¹²⁷

Note that because the goal of corporations is to make a profit, rather than to cause harm to others, their gains presumably do count in social welfare. Hence, by the foregoing reasoning, if a corporation engages in conduct labeled as reprehensible, this fact per se should not affect the level of its damages. Rather, its damages should be based on the harm it caused and the chance that it might have escaped liability, with punitive damages awarded only if the latter chance is significant.

In summary, we believe that the reprehensibility of a defendant's conduct generally should not be taken into account for the purpose of determining optimal damages for deterrence. The notable exception to this conclusion occurs when the defendant is an individual whose conduct is motivated by malice and whose gains consequently are not included in social welfare.

B. *Wealth of Defendants*

The courts often state that a defendant's financial condition is a relevant factor in setting a punitive damages award, with the understanding that higher punitive damages may be appropriate for defendants with higher wealth.¹²⁸ Jury instructions also frequently include the defendant's wealth as a factor that jurors may take into account in determining the level of punitive damages.¹²⁹ Not surprisingly, plain-

¹²⁷ We do not mean to suggest that an injurer's gain necessarily counts in social welfare if his conduct is undertaken without malice. It may well be that the utility from certain types of *non-malicious* reprehensible conduct also would be treated as socially illicit. Consider, for example, a person who gets pleasure from "joyriding" on city streets (driving on them at high speed for fun). Our conclusions regarding the appropriateness of punitive damages for malicious conduct would apply to any category of conduct in which an injurer's gain does not count in social welfare.

¹²⁸ See, e.g., *Green Oil*, 539 So. 2d at 222 ("The defendant's financial position is . . . a consideration essential to a post-judgment critique of a punitive damages award." (citation omitted)). The United States Supreme Court endorsed the *Green Oil* approach of including the defendant's financial position as one factor to consider in determining whether an award of punitive damages is excessive or inadequate. See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 22 (1991). Other state court decisions have endorsed the consideration of wealth in punitive damages assessments. See, e.g., *Neal v. Farmers Ins. Exch.*, 582 P.2d 980, 990 (Cal. 1978) ("Also to be considered is the wealth of the particular defendant; obviously, the function of deterrence . . . will not be served if the wealth of the defendant allows him to absorb the award with little or no discomfort."); *Ultimate Chem. Co. v. Surface Transp. Int'l, Inc.*, 658 P.2d 1008, 1012 (Kan. 1983) (stating that among the factors to consider in assessing punitive damages is the "defendant's financial condition").

¹²⁹ See, e.g., ARK. MODEL JURY INSTRUCTIONS § 2217 (West Supp. 1995); CAL. JURY INSTRUCTIONS: CIVIL § 14.71 (8th ed. 1994); WIS. JURY INSTRUCTIONS: CIVIL § 1707.1 (1995).

tiffs tend to emphasize this factor when defendants are wealthy, especially when the defendants are large corporations.¹³⁰

Should defendants with greater wealth pay higher punitive damages? Our main conclusion in this section is that, from the perspective of achieving proper deterrence, a defendant's wealth generally should not be considered when the defendant is a corporation. We also conclude that the wealth criterion frequently should not be considered when the defendant is an individual, although we discuss certain circumstances in which an individual's wealth should be taken into account in imposing punitive damages.¹³¹

We explained above that, if damages equal harm multiplied by a factor reflecting the chance of escaping liability, defendants, including corporations, would be induced to take optimal precautions and to participate in risky activities to the proper extent.¹³² It follows from this basic conclusion that, if damages are raised above the magnitude given by our formula when corporations are relatively wealthy, those corporations will be led to take excessive precautions, will undesirably curtail their activities, and will set prices above the proper level, chilling consumption of their products. In an extreme case, such corporations might even withdraw their products from the marketplace despite the value of the products to society.

An additional point reinforces the conclusion that corporate wealth should not influence punitive damages: imposing punitive damages on the basis of corporate wealth effectively imposes a tax on corporate size and success, thereby discouraging growth and development. This effect can be important in industries in which liability costs are a significant component of total cost (such as in the pharmaceutical and

¹³⁰ For example, in the Exxon Valdez case, Exxon's wealth was "virtually the exclusive focus of plaintiffs' Phase III [punitive damages] case." *In re The Exxon Valdez*, No. A89-0095-CV, 1995 WL 527988, at *7 (D. Alaska Jan. 27, 1995). The evidence of Exxon's wealth introduced by the plaintiffs included Exxon's 1990 Annual Report, which claimed that "Exxon's consistently strong earnings performance has enabled the company to achieve and maintain a position of extraordinary financial strength and flexibility. For example, over the past ten years, Exxon's internal cash generation from operations amounted to more than \$100 billion." *Id.* at *8 n.16.

¹³¹ Our conclusions about punitive damages and wealth are similar to those of other economically oriented writers on punitive damages. See Abraham & Jeffries, *supra* note 3, at 415 ("In our view, the defendant's wealth is irrelevant to the goal of deterring socially undesirable conduct . . ."); Chapman & Trebilcock, *supra* note 12, at 824 ("In the case of economic wrongs, the conventional economic theory of deterrence . . . suggests no role for corporate wealth in structuring an optimal deterrence regime . . .") (footnote omitted); Cooter, *Deterrence*, *supra* note 12, at 1177 (stating that the total assets or wealth of the defendant "is typically inappropriate to deterrence of economically self-interested decisionmakers"); Galligan, *supra* note 3, at 65 ("Considering the defendant's wealth has simply no articulable efficiency justification."); Gary T. Schwartz, *Deterrence and Punishment in the Common Law of Punitive Damages: A Comment*, 56 S. CAL. L. REV. 133, 140 (1982) ("The wealth of the defendant bears no obvious relationship to deterrence goals . . .") (internal quotation marks omitted).

¹³² See *supra* Part II.

general aviation aircraft industries).¹³³ Of course, retarding the natural growth of corporations can have adverse consequences, notably, that society forgoes economies of scale in production and in research and development. It also may mean that the risk of harm increases, because small firms may not have enough at stake to make it worthwhile to them to spend a socially proper amount on precautions.

Our discussion of the inappropriateness of taking corporate wealth into account presumes that all corporations — large and small — will, if required to pay for the harms they cause, tend to balance correctly the costs of precautions against the resulting reduction in harm. An argument sometimes is made, however, that because bigger corporations are more bureaucratic, they will not adequately respond to liability risks unless the damages imposed on them are especially high. According to this argument, higher damages are needed against large corporations to attract the attention of senior management.¹³⁴ This view is mistaken, as we now discuss.

Although large corporations typically have complicated organizational structures, with senior management at some remove from the level of operations, it does not follow that large corporations will tend to be insufficiently attentive to the reduction of risk. If the cost of a precaution is less than the damages incurred by not taking it, a large firm will want someone employed by it to recognize that fact and take the precaution — because the firm's goal is to maximize profits. A large grocery chain, for example, will want some employee at each of its stores to inspect that store's floor after it is mopped in order to ensure that it is safe. The company will delegate this responsibility to an employee low in the corporate hierarchy, such as an assistant store manager. That this task does not receive the attention of top management, as it might in the case of a firm consisting of only one or two grocery stores, does not mean that the task will be neglected or attended to inadequately. As long as a corporation — large or small — expects to have to pay for the harms it causes, it will have a socially appropriate incentive to reduce the harms.¹³⁵

¹³³ See *supra* note 29 (describing industries in which productive activity may have declined as a result of liability costs).

¹³⁴ Sometimes this view is expressed as a need to send a message to headquarters. See, e.g., *Browning-Ferris Indus., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 261 (1989) ("Kelco's attorney urged the jury to return an award of punitive damages, asking the jurors to 'deliver a message to Houston [BFI's headquarters].'" (quoting trial transcript)).

¹³⁵ Although we have just emphasized the point that large corporations will take appropriate steps to reduce risk through the delegation of risk-reduction responsibilities, we are not claiming that large corporations will necessarily take the *same* precautions that small corporations do. They may take different precautions — perhaps greater, perhaps not — as a result of their different organizational and decisionmaking structures. But the precautions taken by large corporations will still be socially appropriate because of the basic principle that parties will behave properly if they are made to pay for the harms their actions cause.

Now consider the question of the relevance of wealth for the imposition of punitive damages on individuals. Again, the general arguments we made above imply that punitive damages should not depend on an individual's wealth; rather, punitive damages should depend only on the level of harm and the chance of escaping liability, so that, applying the damages multiplier formula, expected damages equal harm.¹³⁶ However, two qualifications to this conclusion suggest that wealth might be relevant in certain circumstances.

The first concerns risk aversion and the unavailability of insurance against punitive damages. We noted above that if potential injurers are risk averse and do not have access to liability insurance, appropriate deterrence will be accomplished with a lower level of damages than if they are risk neutral.¹³⁷ Further, the more risk averse an individual is, the lower the optimal level of damages. Assuming that poor individuals are more risk averse than rich ones,¹³⁸ the optimal level of punitive damages will be lower for poorer individuals. Equivalently, punitive damages should be higher for wealthier individuals. However, even for the wealthiest individuals, punitive damages should not exceed the level determined by our formula.¹³⁹ The relevance of these observations, we reiterate, is limited to situations in which insurance against punitive damages is not available.

The second circumstance in which the level of an individual's wealth may be relevant to the calculation of punitive damages is when the individual's gain from committing the harmful act is socially illicit. We explained above that punitive damages may be needed to offset illicit benefits.¹⁴⁰ To accomplish this, punitive damages generally will have to rise with the wealth of an individual, because the value of money tends to decline with wealth.¹⁴¹ For example, to offset the utility a rich person would obtain from slandering someone he disliked, we might need to impose \$10,000 in punitive damages, whereas to deter a person with only modest assets, \$1000 in punitive damages might suffice.

¹³⁶ See *supra* section II.B.

¹³⁷ See *supra* pp. 886-87.

¹³⁸ This proposition means, for example, that a poor person would be more averse to a 50% chance of losing \$100 than a rich person.

¹³⁹ The explanation for this claim is that the bearing of risk by uninsured risk-averse individuals makes it socially desirable to *reduce* damages from the level implied by our formula. See pp. 886-87. Thus, although damages should rise with wealth for the reasons just discussed, the highest level of damages — imposed on the wealthiest individuals, who are presumed to be the least risk averse — should still not exceed the level called for by our formula.

¹⁴⁰ See *supra* section III.A.

¹⁴¹ That the value of a dollar declines with the level of wealth is a standard assumption of economists, reflecting the view that individuals first fulfill their most important needs and desires, then spend on successively less important things. See, e.g., PINDYCK & RUBINFELD, *supra* note 39, at 144-45.

We believe that the foregoing point underlies the common intuition that punitive damages should be linked to wealth. However, this point has a very limited scope, applying only to individuals whose benefit from causing harm is socially illicit, which we generally associate with conduct whose goal is to cause harm. Otherwise, the point of the previous paragraph does not apply to individuals. Moreover, the point does not apply to firms because firms are motivated by profits, rather than by a desire to cause harm.

C. Potential Harm

In reviewing the appropriateness of a punitive damages award, some courts have considered not only the harm that has actually occurred, but also the harm that might have occurred — the potential harm.¹⁴² According to these courts, the higher the potential harm, the higher the level of punitive damages that can be justified.¹⁴³ The United States Supreme Court endorsed this idea in *Haslip*, as well as in *TXO Production Corp. v. Alliance Resources Corp.*¹⁴⁴ Potential harm also served as a basis for the trial court's upholding the \$5 billion punitive damages verdict in the Exxon Valdez oil spill litigation; the court noted that, although 11 million gallons of oil spilled, another 45 million gallons in the Exxon Valdez could have spilled, making the potential harm much higher.¹⁴⁵

We conclude, however, that a policy of taking potential harm into account in the determination of punitive damages is undesirable given the goal of deterrence. To explain the reasoning behind this conclusion, it will be convenient first to discuss why damages should be

¹⁴² See, e.g., *Bemer Aviation, Inc. v. Hughes Helicopter, Inc.*, 621 F. Supp. 290, 300 (E.D. Pa. 1985), *aff'd*, 802 F.2d 445 (3d Cir. 1986) (stating that, in assessing an award of punitive damages, juries may consider "the potential harm that a defendant's conduct poses"); *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 223 (Ala. 1989); *Levine v. Knowles*, 197 So. 2d 329, 331 (Fla. Dist. Ct. App. 1967) ("The seriousness of the probable result of the defendant's conduct . . . is the yardstick for determining the advisability of discouraging such behavior in the future, rather than the seriousness of the damage actually caused.").

¹⁴³ The first of the seven *Green Oil* factors for evaluating punitive damages awards states: Punitive damages should bear a reasonable relationship to the harm that is likely to occur from the defendant's conduct as well as to the harm that actually has occurred. If the actual or likely harm is slight, the damages should be relatively small. If grievous, the damages should be much greater. *Green Oil*, 539 So. 2d at 223 (quoting *Aetna Life Ins. Co. v. Lavoie*, 505 So. 2d 1050, 1062 (Ala. 1987) (Houston, J., concurring specially)).

¹⁴⁴ See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 21-22 (1991) (endorsing the *Green Oil* factors); see also *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443, 460 (1993) ("It is appropriate to consider the magnitude of the potential harm that the defendant's conduct would have caused . . .").

¹⁴⁵ "The evidence established that the *Exxon Valdez* spilled 11,000,000 gallons of crude oil, approximately one-fifth of its cargo. Had the remaining 45,000,000 gallons of oil spilled, the disaster and harm would have been many times greater." *In re The Exxon Valdez*, No. A89-0095-CV, 1995 WL 527988, at *6 (D. Alaska Jan. 27, 1995).

based on actual rather than potential harm when there is no chance of escaping liability and the issue of punitive damages does not arise.

Consider an example in which an injurer's act will result in either a low or high level of harm, and the injurer does not know in advance which level will occur. Let the two levels of harm be \$1 million and \$5 million, which occur with equal probability. This example raises the issue of potential harm because, when a \$1 million harm occurs, the harm could have been \$5 million. Note that the injurer's act entails an expected harm of \$3 million ($= (.5 \times \$1 \text{ million}) + (.5 \times \$5 \text{ million})$). To achieve proper deterrence, therefore, the injurer's expected damages should equal \$3 million.

Given our assumption that injurers will be found liable when they cause harm, observe that *deterrence will be optimal if damages are always set equal to actual harm*. For when an injurer engages in the harmful activity, he will expect to have to pay \$1 million in damages half of the time and \$5 million in damages half of the time. Hence, his average damage payment will be \$3 million or, stated differently, the expected value of his damage payment is \$3 million ($= (.5 \times \$1 \text{ million}) + (.5 \times \$5 \text{ million})$). As noted in the previous paragraph, this amount is what is needed for proper deterrence.

Nevertheless, if actual harm turns out to be low, one might wonder why basing damages on actual harm does not result in inadequate deterrence. In our example, if the harm is \$1 million and the injurer is made to pay this amount, he will be paying relatively little compared to the \$5 million harm that his act might have caused. (The difference between actual harm and potential harm could be much greater — indeed, a person may act very dangerously but cause *no* harm, and thus pay *no* damages, if damages are based on actual harm.) The reason that inadequate deterrence is not a problem, however, should be apparent: when a potential injurer chooses whether to engage in a harmful act, he *does not know* what the harm — and therefore what his damages — will be. The injurer in our example cannot predict whether his damages will be \$1 million or \$5 million. Consequently, he will decide whether to commit the harmful act on the basis of having to pay the average or expected damage amount, which is \$3 million. It would be a mistake, therefore, to think that he will be inadequately deterred if the actual harm in a particular case turns out to be \$1 million, and he has to pay only this amount. The possibility that the harm and his damages might have been \$5 million also will influence his behavior, in an appropriate way.

Now suppose that, instead of basing damages solely on actual harm, courts take potential harm into account by raising damages when the actual harm is unusually low — because it could have been much higher — but do not lower damages when the actual harm is high. (Such an interpretation of how courts use the potential harm factor in practice is plausible, at least in the context of punitive dam-

ages.¹⁴⁶) The point we want to emphasize is that such a policy imparts a systematic upward bias to the level of damages and results in injurers bearing damages in excess of actual harm. Suppose that damages in the example are raised to \$3 million when the actual harm is \$1 million — on the ground that the former amount is the average harm — but that damages are not lowered when the actual harm is \$5 million. Then the injurer will pay on average \$4 million (\$3 million half of the time and \$5 million half of the time), even though the average harm is \$3 million. Making injurers pay damages in excess of harm will have the undesirable consequences associated with overdeterrence that we have discussed previously.

Potential harm could be taken into account in another way, however, that would not cause damages to exceed harm systematically. Specifically, suppose that damages are set equal to the average, or expected, harm *regardless* of whether the actual harm is below or above this amount. Thus, in the example, damages would be set equal to \$3 million regardless of whether the actual harm is \$1 million or \$5 million. In effect, this policy recognizes both that, when actual harm is low, it could have been higher, and that, when actual harm is high, it could have been lower. Such a policy would result in proper deterrence because the injurer will be paying on average for the harm he causes: each time he commits the harmful act he pays \$3 million and causes, on average, harm of \$3 million. Whether this policy would be employed in practice is questionable, however. One might be skeptical that, when the actual harm is high, juries and courts would reduce damages because the harm might have been lower.¹⁴⁷

Even if a policy of basing damages on average or expected harm were applied consistently, a strong argument exists, based on administrative considerations, for relying solely on actual harm. For the courts to be able to calculate *expected* harm, they would have to determine each level of harm that could have occurred and its probability of occurrence. Such amounts ordinarily would be far more difficult to establish than the harm that actually did occur.¹⁴⁸ Additionally, the more open-ended scope of inquiry into expected harm seems likely to lead to more disputes between the parties, for it is easier to disagree

¹⁴⁶ For example, Judge Holland observed that more oil might have spilled from the Exxon Valdez, see *supra* note 145, but he did not mention the possibility that less might have spilled.

¹⁴⁷ To illustrate, imagine the response to the Union Carbide Company if, in the Bhopal disaster in which 4,000 people were killed and thousands of others were injured, see Kenneth J. Cooper, *Slums Sprawl in Shadow of Bhopal Gas Leak*, WASH. POST, June 27, 1996, at A19, Union Carbide had argued that damages should be reduced because a gas leak of the kind that occurred ordinarily would be expected to kill and injure a much smaller number of people. See also *supra* note 146 (discussing related issues in the Exxon Valdez case).

¹⁴⁸ In some cases, however, it might be easier to calculate expected or average harm than the particular harm in the case at hand. For example, it might be easier to determine the average value of the contents of a house that burned down than to ascertain the actual value of the contents (because much of the contents may have been consumed in the fire).

about what might have happened, and the odds of it happening, than about what actually did happen. These observations suggest that the courts will bear greater administrative expense, and the parties will bear greater litigation costs, if the goal is to calculate expected harm rather than to ascertain only the actual harm in the instant case.¹⁴⁹

To summarize, there are two reasons that potential harm generally should not be taken into account in determining damages. First, we envision that the potential harm factor would be used in practice to raise damages when harm is low but not to lower damages when harm is high, thus causing overdeterrence. Second, even if potential harm were considered in the theoretically correct way — by always setting damages equal to average or expected harm — such a policy would require an inquiry into what might have occurred, and is therefore likely to increase the public and private costs of resolving legal disputes.¹⁵⁰

As noted at the beginning of this section, we assumed for simplicity that the injurer is definitely found liable. The arguments for basing damages on actual harm rather than on potential harm or expected harm are essentially the same if the injurer might escape liability. The discussion then would be framed in terms of a comparison between actual harm, appropriately increased to make up for the chance of escaping liability, and potential harm or expected harm, also so increased. Our point about courts' tendencies to apply the potential harm factor in a way that leads to overdeterrence still holds, as does the point about the greater administrative complexity of determining expected harm. Thus, when the injurer has a significant chance of escaping liability, and punitive damages therefore are needed to achieve proper deterrence, such damages generally should be an appropriate multiple of actual harm, not of expected harm or potential harm. In punitive damages law, potential harm usually should be ignored.

¹⁴⁹ This conclusion also would apply if courts attempt to take potential harm into account in some other, less sophisticated, way than by calculating the expected harm.

¹⁵⁰ We have discussed what we believe to be the main arguments bearing on the desirability of taking potential harm into account in calculating damages, but there are other considerations, some of which reinforce our conclusions and some of which do not. Among these additional points, we note two. The first point, which supports our conclusion, is that if damages are based on potential harm rather than on actual harm, the incentive to limit actual harm will be dulled. For example, an oil company would have less incentive to curtail the leakage of oil from a grounded tanker if damages are based on the total amount of oil in the vessel rather than on the amount that actually leaks. The second point, which favors basing punitive damages on potential harm, is that such a policy can reduce the dilution of incentives because of the judgment-proof problem. Specifically, because consideration of potential harm in determining damages means that parties will pay larger amounts than otherwise when actual harm is low, their not being able to pay higher damages when actual harm is high (because of the judgment-proof problem) will tend to be counteracted.

D. Gain of Defendants

When punitive damages are imposed, their level is sometimes influenced by application of the principle that the defendant should not gain from his wrongful conduct.¹⁵¹ If setting damages equal to harm would not remove the defendant's gain, the argument is that damages should include a sufficient punitive component to offset his gain. The notion that the defendant's gain should be a factor in calculating punitive damages was endorsed by the United States Supreme Court in *Haslip*.¹⁵²

Does it make sense in terms of deterrence to ensure that the defendant's gain is disgorged, or should damages be based solely on harm (abstracting from the issue of the chance of escaping liability¹⁵³)? We conclude in this section that setting damages equal to harm generally results in proper deterrence even when the harm is less than the defendant's gain; a policy of removing the defendant's gain may result in overdeterrence. An exception arises, however, when the defendant's gain is socially illicit, in which case extracting the defendant's gain is desirable.¹⁵⁴

The question whether punitive damages should be imposed to remove the defendant's gain arises only when his gain exceeds the victim's harm (otherwise, compensatory damages would eliminate the gain). One situation in which gain could exceed harm is when the

¹⁵¹ The third *Green Oil* factor states: "If the wrongful conduct was profitable to the defendant, the punitive damages should remove the profit and should be in excess of the profit, so that the defendant recognizes a loss." *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 223 (Ala. 1989) (quoting *Aetna Life Ins. Co. v. Lavoie*, 505 So. 2d 1050, 1062 (Ala. 1987) (Houston, J., concurring)) (internal quotation marks omitted); see also *Estate of Hartz v. Nelson*, 437 N.W.2d 749, 755-56 (Minn. Ct. App. 1989) (noting that, under MINN. STAT. § 549.20 (1994), punitive damages should be measured, in part, by "the profitability of the misconduct to the defendant"); *Tindall v. Konitz Contracting, Inc.*, 783 P.2d 1376, 1382-83 (Mont. 1989) (noting that, under MONT. CODE ANN. § 27-1-221(7)(b)(iv) (1997), the awarder of punitive damages must consider "the profitability of the defendant's wrongdoing, if applicable").

¹⁵² See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 21-22 (1991) (citing favorably the third *Green Oil* factor).

¹⁵³ The arguments that we make in this section do not depend on whether a defendant might escape liability. See *infra* note 161. Thus, for convenience, we assume here that defendants never escape liability.

¹⁵⁴ Although there has been some scholarly discussion regarding whether to base liability on harm or gain, the points developed in this literature differ from the points that we present here. Our focus, as the reader will see, is on a measure of damages equal to the greater of gain or harm. Previous literature studies the measure of damages equal to the gain and compares it to the measure of damages equal to the harm. See Richard S. Gruner, *Just Punishment and Adequate Deterrence for Organizational Misconduct: Scaling Economic Penalties Under the New Corporate Sentencing Guidelines*, 66 S. CAL. L. REV. 225, 234-66 (1992); Jeffrey S. Parker, *Criminal Sentencing Policy for Organizations: The Unifying Approach of Optimal Penalties*, 26 AM. CRIM. L. REV. 513, 552-81 (1989); A. Mitchell Polinsky & Steven Shavell, *Should Liability Be Based on the Harm to the Victim or the Gain to the Injurer?*, 10 J. L. ECON. & ORG. 427 (1994); Donald Wittman, *Liability for Harm or Restitution for Benefit?*, 13 J. LEGAL STUD. 57 (1984); Donald Wittman, *Should Compensation Be Based on Costs or Benefits?*, 5 INT'L REV. LAW & ECON. 173 (1985).

level of harm is uncertain and, by chance, turns out to be low — and less than the injurer's gain.¹⁵⁵ Such a situation could occur even though the *expected harm* exceeds the gain. For example, suppose that a firm would save \$100,000, and thus would gain that amount, by not purchasing a safety device; that the expected harm from failing to purchase the device is \$1 million; but that only \$10,000 in harm occurs. Here the firm's \$100,000 gain exceeds the unusually low harm of \$10,000.

Using this example, we first want to show that basing damages on harm *will* accomplish proper deterrence even though the defendant's gain exceeds the harm: at the time the firm decides whether to buy the \$100,000 safety device, it does not know what the harm will be. If damages always are set equal to harm and the expected harm is \$1 million, then the firm's *expected* damages will be \$1 million, which of course will induce it to spend \$100,000 on the safety device. It is not necessary to impose punitive damages just because the harm turns out to be unusually low and below the injurer's gain. (Note that the point of this paragraph is analogous to the point we made above about potential harm.¹⁵⁶)

If the standard policy of imposing damages equal to harm appropriately deters, is there a disadvantage of imposing higher damages — namely, to remove the defendant's gain — when gain turns out to exceed harm? The answer is in the affirmative because overdeterrence may result. Specifically, if damages are set equal to harm when the harm exceeds the injurer's gain, but damages are set equal to gain when gain exceeds harm, then expected damages will exceed the expected harm, resulting in the usual problems of excessive liability.

If damages are set so as to remove gains, an additional reason that overdeterrence may result is that the basis for measuring the injurer's gains might be interpreted too expansively. In the example above, the firm's gains might be construed to be its profits from the entire line of activity that gave rise to the accident (say, the profits from manufacturing automobiles at a particular plant), rather than just the saving from not taking the particular precaution (say, not purchasing a \$100,000 instrument to test the integrity of the automobiles' brakes). If gains are erroneously measured in this way, a policy of setting damages equal to gain will be even more likely to result in excessive liability.

¹⁵⁵ If both harm and gain were certain, it would be unlikely that the gain would exceed the harm in a punitive damages case: if the gain is known to exceed the harm, the act would likely be regarded as socially desirable, or at least not one calling for imposition of punitive damages. Hence, we here consider the possibility that harm is uncertain, and below that gain is uncertain. See *infra* p. 920.

¹⁵⁶ See *supra* section III.C.

Another circumstance in which a defendant's gain might exceed the victim's harm is when the level of gain is uncertain¹⁵⁷ and, by happenstance, turns out to be high even though the expected gain is low and less than harm.¹⁵⁸ For example, suppose that the cost of re-engineering an assembly line to make production safer ordinarily is \$200,000, but unforeseen complications could raise the cost to \$800,000. If the assembly line is modified, harm of \$500,000 will be avoided. Thus, although the expected gain from forgoing the safety improvements is less than the \$500,000 harm,¹⁵⁹ the actual gain could be \$800,000 and greater than the harm. The analysis of this situation is similar to that when the uncertainty concerned harm; again, it can be shown that setting damages equal to harm will create appropriate deterrence and that imposing punitive damages to remove injurers' gains will tend to result in overdeterrence.

Finally, consider the possibility that the injurer's gain is socially illicit, as when a person acts out of malice. We noted above that it is desirable to deter an injurer whose gain is illicit even if his gain exceeds the victim's harm, and that such a goal implies that punitive damages may be needed to offset the injurer's gain.¹⁶⁰ Thus, in the case of socially illicit utility, the notion of using punitive damages to ensure that the defendant's gain is removed is justifiable with respect to the goal of deterrence. As we also observed previously, this justification for removing the defendant's gain does not apply to individuals acting non-maliciously or to corporations.

In sum, then, removing the defendant's gain is potentially appropriate and necessary only when the defendant is an individual who acted maliciously and obtained a socially illicit gain. Otherwise, the usual policy of setting damages equal to harm is desirable for achieving deterrence, and imposing damages so as to remove gains will tend to cause overdeterrence.¹⁶¹

¹⁵⁷ For simplicity, we assume now that harm is certain.

¹⁵⁸ If the expected gain exceeded the harm, imposition of punitive damages would be unlikely.

¹⁵⁹ This statement will be true if the \$200,000 cost of re-engineering the assembly line is more likely than the \$800,000 cost, which is what we mean by saying that the cost ordinarily is the lower amount. For then the expected cost will be less than \$500,000, which is equivalent to saying that the expected gain from not re-engineering the assembly line is less than \$500,000.

¹⁶⁰ See *supra* section III.A.

¹⁶¹ We suggested above in note 153 that the arguments in this section apply without substantial modification to situations in which defendants might escape liability. To illustrate, consider the initial point that imposing damages equal to harm, whatever its magnitude, will cause expected damages to equal expected harm. The analogue of this point when defendants can escape liability is that imposing damages according to our multiplier formula will result in expected damages equal to expected harm, essentially for the reasons given in the text.

E. Litigation Costs

Several courts have suggested that the plaintiff's litigation costs should be a factor in the determination of punitive damages,¹⁶² and, as noted previously, some have stated that such costs should be included as a component of punitive damages in order to encourage victims to sue injurers.¹⁶³

Should litigation costs bear on the calculation of punitive damages to achieve proper deterrence? Our answer in this section emphasizes two points. The first is that litigation costs may cause the probability of suit to be low and thus justify a punitive damages award according to the damage formula presented earlier.¹⁶⁴ The second point is that punitive damages generally should not be augmented for the purpose of inducing suits that otherwise might not be brought because of the cost of litigation. Raising the probability of suit is usually unnecessary to achieve proper deterrence, and encouraging suits has the disadvantage of increasing the litigation costs borne by society. Indeed, we argue that a policy adopted in many states of *decoupling* punitive damages — giving the plaintiff only a fraction of the punitive damages paid by the defendant, with the remainder going to the state — may be desirable because it can reduce the volume of litigation without compromising deterrence.¹⁶⁵

The first point, that litigation costs may be relevant to the calculation of punitive damages because they influence the probability of suit, and therefore the chance of escaping liability, is one that we have made previously.¹⁶⁶ We observed that, if litigation costs are significant relative to the expected gain from suit, the probability of suit may be low, and this fact may justify imposing punitive damages on the injurer. For example, we suggested that in the circumstances of *Gore*, litigation costs may have led to a low likelihood of suit because the

¹⁶² See, e.g., *Ultimate Chem. Co. v. Surface Transp. Int'l, Inc.*, 658 P.2d 1008, 1012 (Kan. 1983) ("A jury may also consider . . . the probable litigation expenses."); *Fischer v. Johns-Manville Corp.*, 512 A.2d 466, 482 (N.J. 1986) (explaining that "the plaintiff's litigation expenses" is a factor to be considered in determining the size of a punitive damages award).

¹⁶³ See *supra* note 78.

¹⁶⁴ See *supra* section II.B.

¹⁶⁵ A number of articles on the economics of litigation are relevant to the conclusions that we reach in this section. On the general topic of how to structure the legal system given that litigation is costly, see A. Mitchell Polinsky & Yeon-Koo Che, *Decoupling Liability: Optimal Incentives for Care and Litigation*, 22 RAND J. ECON. 562 (1991); A. Mitchell Polinsky & Daniel L. Rubinfeld, *The Welfare Implications of Costly Litigation for the Level of Liability*, 17 J. LEGAL STUD. 151 (1988); Steven Shavell, *The Fundamental Divergence Between the Private and the Social Motive To Use the Legal System*, 26 J. LEGAL STUD. 575 (1997) [hereinafter Shavell, *Divergence*]; Steven Shavell, *The Social Versus the Private Incentive To Bring Suit in a Costly Legal System*, 11 J. LEGAL STUD. 333 (1982). See also Friedman, *supra* note 12 (suggesting that punitive damages may beneficially lower litigation costs by discouraging harmful behavior); Kahan & Tuckman, *supra* note 12 (addressing specifically the decoupling of punitive damages).

¹⁶⁶ See *supra* section II.B.

harm to the plaintiff was found to be only \$4000. However, in other circumstances, like those in the Exxon Valdez case, litigation costs are likely to be insignificant in relation to the expected gain from suit, so that the probability of suit may be presumed to be very high. Then, consideration of litigation costs does not provide a basis for imposing punitive damages.

Note that when punitive damages are justified because of litigation costs, they should not necessarily be set equal to litigation costs. Proper punitive damages are determined by the multiplier formula, which calls for a level of punitive damages that generally differs from litigation costs. For instance, suppose harm is \$10,000 and the plaintiff's litigation costs are \$5000 and lead to a twenty-five percent likelihood of suit. Then total damages should be four times the harm, or \$40,000, and punitive damages should be \$30,000, not the \$5000 amount of litigation costs.

Let us now turn to our second point. Because the punitive damages formula is *designed* to achieve appropriate deterrence when suit does not always occur, it is not necessary to raise punitive damages awards for the specific purpose of raising the probability of suit (provided that at least some suits are brought).¹⁶⁷ If suit occurs only half of the time because of the discouraging effect of litigation costs, total damages according to our formula would be twice the harm, and deterrence will be appropriate; there is no need to increase punitive damages to make suit occur more frequently. Moreover, encouraging lawsuits would increase social costs. Obviously, the greater the number of suits, the higher the legal costs borne by the parties and the administrative costs borne by the court system.¹⁶⁸ Raising damages to induce suits also will cause parties to spend more litigating each suit.¹⁶⁹ Thus, awarding punitive damages to spur suit is socially undesirable, other things being equal.

¹⁶⁷ If no suits are brought, deterrence obviously cannot be achieved. But if a positive probability of suit exists, deterrence will be optimal if damages are set according to our formula. There are two reasons, however, that the probability of suit should not be too low, or equivalently, that the level of punitive damages implied by our formula should not be too high. One reason is that high damages impose risk, which lowers social welfare to the extent that parties are risk averse. See generally A. Mitchell Polinsky & Steven Shavell, *The Optimal Tradeoff Between the Probability and Magnitude of Fines*, 69 AM. ECON. REV. 880, 884-85 (1979) (demonstrating that risk aversion may make moderate sanctions optimal). The other reason is that high damages might exceed the assets of injurers, rendering the damages ineffective as a deterrent. Assuming that the likelihood of suit is great enough so that neither of these reasons is important, our point is that there is no need for it to be higher in order to accomplish proper deterrence.

¹⁶⁸ Indeed, because litigation is costly, the full social harm due to an accident is the direct harm plus the costs associated with use of the legal system. Hence, for the injurer to have correct incentives, he should, in principle, pay damages equal to the direct harm plus these additional costs. See Shavell, *Divergence*, *supra* note 165, at 588. As noted previously, we have ignored this refinement in the text for simplicity. See *supra* note 18.

¹⁶⁹ This intuitively plausible proposition has been confirmed in research undertaken by scholars at the Institute for Civil Justice at the RAND Corporation. See JAMES S. KAKALIK, PATRICIA

The tendency of higher damage awards to increase litigation costs lends appeal to the policy of decoupling punitive damages. As noted above, under this policy, the plaintiff is awarded only a part of the punitive damages judgment paid by the defendant, with the remainder going to the state.¹⁷⁰ Decoupling mitigates the propensity of punitive damages awards to encourage unnecessary litigation, but does not dilute deterrence because defendants' damage payments are unaffected.¹⁷¹

Several states have adopted statutes that decouple punitive damages.¹⁷² For example, in Iowa, twenty-five percent of the punitive damages amount paid by the defendant in certain circumstances is given to the plaintiff, and in Kansas, fifty percent is given to the plaintiff.¹⁷³ For the reasons stated in the previous paragraph, decoupling schemes of this sort are beneficial.

In summary, the main justification for considering litigation costs is in connection with estimating the chance that a defendant might have escaped liability because he would not be sued. Punitive damages should be awarded to make up for the chance of escaping liability for this reason, but not as a general matter to encourage the bringing of lawsuits. Decoupling punitive damages may allow proper deterrence to be achieved without inducing needless litigation.

F. Related Private Litigation

A defendant sometimes may be the subject of multiple suits because he engages in the same type of harmful conduct repeatedly, or because he commits a single act that injures many individuals. The circumstances of *Gore* exemplify the former possibility: a car manufacturer that engages in the practice of repainting damaged cars and selling them as new may be sued by different purchasers of these cars. A case involving the dumping of toxic waste that infiltrates an aquifer illustrates the latter possibility: the dumping, a single act, may give rise

A. EBENER, WILLIAM L.F. FELSTINER, GUS W. HAGGSTROM & MICHAEL G. SHANLEY, VARIATION IN ASBESTOS LITIGATION COMPENSATION AND EXPENSES 86-91 (Institute for Civil Justice, RAND Corp., No. R-3132-ICJ, 1984).

¹⁷⁰ When we use the term "decoupling," we presume that the defendant pays more than the plaintiff receives, even though, as a logical matter, the plaintiff could be awarded more than the defendant pays.

¹⁷¹ Because some of the damages paid by defendants go to the state, plaintiffs' incentives to sue will lessen. However, the punitive damages amount determined by our formula will automatically rise to reflect any decrease in the probability of suit. Thus, the expected damages borne by defendants will not decline if our formula for punitive damages is applied.

¹⁷² See generally *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1619 app. (1996) (Ginsburg, J., dissenting) (listing state provisions that allocate a portion of punitive damages awards to state agencies). Although the statutes that describe these allocation arrangements do not use the term "decoupling," this term is employed in some of the economic literature analyzing litigation. See, e.g., Polinsky & Che, *supra* note 165, at 562.

¹⁷³ See IOWA CODE ANN. § 668A.1(2)(b) (West 1987); KAN. STAT. ANN. § 60-3402(e) (1994).

to suits by many different parties who have been harmed. When there have been prior judgments against a defendant for the same conduct, the United States Supreme Court has endorsed the notion that these judgments should be taken into account in mitigation of a punitive damages award against the defendant.¹⁷⁴

In this section, we discuss the application of our punitive damages formula when multiple plaintiffs bring suits against the same defendant, and we observe that the formula's implications generally comport with the view that punitive damages should be lowered in the light of other private judgments against a defendant. We also note that multiple punitive damages claims against a defendant for the same or related conduct may result in his paying for more than the harm he caused, and we discuss a mechanism — punitive damages escrow accounts — that can be used to address this problem.

Let us first consider the proper level of punitive damages when multiple suits may be brought because of repeated harmful conduct, as in *Gore*. Whether prior suits have been brought may be relevant in assessing the probability of suit, and thus in determining the punitive damages multiplier. If few (or no) suits have been brought even though harm had occurred in the past, that fact suggests that the likelihood of suit is low, implying that the multiplier should be high. Conversely, if a large number of prior suits have occurred, the usual inference would be that the likelihood of suit is significant, and therefore the multiplier should be low. Note that these points mean that punitive damages in a particular case should be mitigated on the basis of the number of prior suits.¹⁷⁵

That few (or no) suits have been brought prior to the instant case does not necessarily mean, however, that there will be a paucity of liti-

¹⁷⁴ The seventh *Green Oil* factor states: "If there have been other civil actions against the same defendant, based on the same conduct, this should be taken into account in mitigation of the punitive damages award." *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 224 (Ala. 1989) (quoting *Aetna Life Ins. Co. v. Lavoie*, 505 So. 2d 1050, 1062 (Ala. 1987) (Houston, J., concurring specially). The United States Supreme Court endorsed the *Green Oil* test in *Haslip*. See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 22 (1991). This factor is echoed in the Restatement:

Another factor that may affect the amount of punitive damages is the existence of multiple claims by numerous persons affected by the wrongdoer's conduct. It seems appropriate to take into consideration both the punitive damages that have been awarded in prior suits and those that may be granted in the future, with greater weight being given to the prior awards.

RESTATEMENT (SECOND) OF TORTS § 908 cmt. e (1979). However, when the harm that originates from the defendant's conduct is repetitive, as in *Gore*, it is not clear whether prior judgments against the defendant would be taken into account. See *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1607 (1996) (Breyer, J., concurring) (noting that the existence of prior actions was not a factor in *Gore*).

¹⁷⁵ It is not just the number of prior suits that matters to the punitive damages multiplier in a case. The magnitude of the awards in prior suits matters as well. The higher the prior awards, everything else being equal, the lower punitive damages should be in the case in question, because the goal of deterrence is to make the injurer's payments equal to the total harm.

gation in the future. For example, publicity about the current suit may engender future suits, or an award of punitive damages in the current suit may stimulate litigation.

Because of the difficulty of predicting the amount of future litigation, courts might mistakenly believe that relatively few suits will be brought, and therefore perceive a greater need for punitive damages than is appropriate. (Although courts also could incorrectly expect that many suits will occur in the future, this error does not give rise to the problem we are about to discuss.¹⁷⁶) If such a mistake occurs, a defendant may be made to pay more than the harm that he caused. For example, in circumstances like those in *Gore*, suppose that the court in which the first case is filed believes that only ten percent of similarly harmed car purchasers will sue in the future. The punitive damages formula then would imply that the court should impose total damages on the manufacturer equal to ten times the current plaintiff's harm. If, however, the truth is that much more than ten percent of the other victims will eventually bring suit, the car manufacturer may ultimately pay for more than the harm that it has caused, because of the excessive initial award of punitive damages.

A way to avoid the problem of excessive damages when there are multiple suits is to use *escrow accounts* for punitive damages. Under this approach, the defendant would pay punitive damages into an escrow account rather than immediately to the plaintiff.¹⁷⁷ If, over time, more plaintiffs bring suits than the court had anticipated, the damage awards to the plaintiffs can be financed from the escrow account rather than charged to the defendant. In this way, the defendant will not be made to pay more in total damages than the harm done. If, at some natural termination date,¹⁷⁸ funds remain in the escrow account, they can be distributed to plaintiffs whose punitive damages awards had been placed in escrow.¹⁷⁹

Finally, let us turn briefly to the situation in which multiple suits arise because the defendant has committed a single harmful act that injured many individuals (as in the example involving the dumping of

¹⁷⁶ If courts overestimate the likelihood of suit in the future, punitive damages will be lower than they should be in the case at hand. This problem can be corrected, however, by raising punitive damages in future cases. See *infra* note 179.

¹⁷⁷ See Margaret I. Lyle, Note, *Mass Tort Claims and the Corporate Tortfeasor: Bankruptcy Reorganization and Legislative Compensation Versus the Common-Law Tort System*, 61 TEX. L. REV. 1297, 1349 n.250 (1983) (suggesting that a court might order "an equitable stay on collection of a punitive damage award for a number of years if it seems likely that the collection of too many of these awards early in the litigation of a mass tort might deprive later plaintiffs of compensatory damages").

¹⁷⁸ For example, a termination date might be the expiration of the statute of limitations period for the bringing of suits.

¹⁷⁹ Conversely, if the funds in the escrow account are exhausted before the termination date, a defendant could be made to pay additional punitive damages so that his total payments over time to the escrow account equal the total harm caused.

toxic waste). Here, our points are analogous to those discussed above. Again, whether prior suits have been brought may be relevant to evaluating the probability of suit: a greater number of prior suits should raise the estimated likelihood of suit, reduce the punitive damages multiplier, and thereby lead a court to impose lower punitive damages. Similarly, an escrow account for punitive damages can be used to avoid imposing excessive damages on the defendant.

G. Related Public Penalties

Another question of interest is whether public penalties that may be imposed for the type of wrongful conduct at issue in a private suit should affect the determination of punitive damages in that suit. Courts have answered this question in two ways. First, some have stated that punitive damages should be reduced to reflect any public penalties that the defendant has paid for the same conduct.¹⁸⁰ Second, the United States Supreme Court has argued in *Gore* that the level of punitive damages should reflect the level of public penalties that *could* be imposed for comparable misconduct — the higher the possible public sanctions, the higher punitive damages should be.¹⁸¹

How do these positions relate to our conclusions about punitive damages and deterrence? In this section we observe that the view that courts should reduce punitive damages if the defendant has already paid public sanctions has a straightforward justification. However, we

¹⁸⁰ The sixth *Green Oil* factor states: "If criminal sanctions have been imposed on the defendant for his conduct, this should be taken into account in mitigation of the punitive damages award." *Green Oil Co. v. Hornsby*, 539 So. 2d 218, 223-24 (Ala. 1989) (quoting *Aetna Life Ins. Co. v. La-voie*, 505 So. 2d 1050, 1062 (Ala. 1987) (Houston, J., concurring specially)). The United States Supreme Court has endorsed the use of this factor. See *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 22 (1991).

¹⁸¹ In *Gore*, the Court expressed this as follows: "Comparing the punitive damages award and the civil or criminal penalties that could be imposed for comparable misconduct provides a third indicium of excessiveness." *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1603 (1996).

Lower courts have applied this standard. For example, in *Lee v. Edwards*, 101 F.3d 805 (2d Cir. 1996), the court found that punitive damages of \$200,000 awarded by the jury in a § 1983 claim were excessive. See *id.* at 813. In reducing the award to \$75,000 (if plaintiff agreed to remittitur), the court noted the plaintiff's assertion that the defendant's conduct "could have exposed him to a charge of making a false statement"; if convicted, the defendant "would have faced imprisonment of up to one year and/or a fine of up to \$2,000." *Id.* at 811. The court noted that although imprisonment is "a serious sanction, . . . the maximum fine of \$2,000 gives little warning that the offense could entail a \$200,000 civil award." *Id.* The award of \$75,000 was justified in part because the defendant was a police officer and therefore on "notice as to the gravity of misconduct under color of his official authority." *Id.* Also, in *Management Computer Services, Inc. v. Hawkins, Ash, Baptie & Co.*, 557 N.W.2d 67 (Wis. 1996), involving the unauthorized copying and use of computer software, the court reduced a punitive damages award from \$1.75 million to \$650,000. See *id.* at 83. As part of its *Gore* analysis, the court noted that the defendant's wrongdoing resulted in damages of \$65,000 to the plaintiff, and that "the potential criminal penalty for copying computer programs if the damage is greater than \$2,500 is a fine not exceeding \$10,000." *Id.* at 82-83.

suggest that the view taken in *Gore*, that potential public penalties should serve as a benchmark for punitive damages, is problematic.

To begin, there is an obvious basis for subtracting any public penalties already incurred by the defendant from the level of punitive damages that otherwise would be appropriate: such a policy is necessary to ensure that the defendant's total payment is the proper amount for the purpose of deterrence. As the reader knows, the defendant's total payment should be such that his expected payment equals the harm done. If punitive damages are not reduced from the amount implied by our formula to reflect public penalties borne by the defendant, the defendant's combined private and public payments would result in his expected payments exceeding the harm done.¹⁸²

Now consider the use of public penalties as a benchmark for setting punitive damages, as suggested in *Gore*. This role for public penalties makes sense only if their level conveys information relevant to determining the proper amount of punitive damages. The question naturally arises, therefore, whether the level of public penalties implies something about, among other things, the chance of escaping liability. Ostensibly, the answer is yes. For example, suppose that significant public penalties are imposed on restaurants for food poisoning because food poisoning often will not lead to suit. A court reviewing a punitive damages judgment in a case against a restaurant for food poisoning might use this information about the likelihood of suit, inferred from the magnitude of the public penalties, to justify the award.¹⁸³

Nevertheless, we are skeptical whether the information that generally can be inferred from public penalties will be very useful, given the information that courts already will have about a case. In the course of a trial, a court will typically obtain information particular to that case about the defendant's likelihood of escaping liability. For example, a court might learn whether it would be easy to link harm from food poisoning to the defendant's restaurant (the type of poisoning

¹⁸² This statement presumes for simplicity that the outcomes of the private and the public suits are identical — they either both succeed or they both fail. Otherwise, the proper adjustment of the amount implied by our formula does not necessarily involve simply subtracting the amount paid as a public penalty. To illustrate, consider the following example. Suppose that the harm suffered by the victim is \$5000 and that the injurer has a 10% chance of being found liable as a result of a private suit. Suppose also that the government will impose a \$1000 fine on the injurer with certainty. (It is not essential to this example that the fine is certain, only that it is imposed with a higher probability than the private plaintiff's probability of prevailing against the defendant.) Let A be the amount awarded to the private plaintiff if he prevails, with A set such that the defendant's combined expected public and private payments equal the harm caused. In other words, A is set such that $\$1000 + .1A = \5000 . Solving for A yields \$40,000 as the proper private award. If instead our formula were applied and the public penalty were simply subtracted from the amount implied by our formula, the private award would be \$49,000: the \$50,000 award implied by our formula ($= \$5000/.1$), less the \$1000 public penalty.

¹⁸³ The point of this paragraph — that public penalties can serve as useful guidelines for the setting of punitive damages — is discussed by Cooter, *Deterrence*, cited above in note 12, at 1179–80.

may or may not make identification straightforward), or whether the magnitude of the harm from the poisoning would be sufficient to induce suit (the poisoning may or may not result in expensive hospitalization and substantial lost wages). In contrast, the information implicit in public sanctions for food poisoning reflects, one presumes, only the average likelihood of liability over the range of cases of food poisoning.

Further difficulties are involved in inferring useful information from the level of public penalties. Such penalties are influenced in part by political factors — interest group pressures, logrolling, and the like. Consequently, courts would find it hard to determine in any precise way what legislators thought about the likelihood of escaping liability when they set the level of public sanctions. Another complication is that public penalties may themselves be influenced by the possibility of punitive damages awards in private suits: public penalties might be low precisely because legislators believed that punitive damages awards would create effective deterrence. If the courts then constrain such awards on the ground that public penalties for comparable conduct are low, deterrence will tend to be inadequate, because of a kind of circularity — the legislature relying on the courts and the courts relying on the legislature.¹⁸⁴ Because of the possibility of such circularity, the information that courts infer from the level of public penalties may be misleading.

For the foregoing reasons, we believe that courts generally should not use public sanctions as a benchmark in setting punitive damages. Such sanctions should be used, however, as an offset: any public penalties paid for the same conduct at issue in a private suit should reduce the magnitude of punitive damages calculated according to our formula.

H. Tax Treatment of Punitive Damages

If a defendant bears punitive damages as a result of his engaging in some business or other income-earning activity, he generally can deduct such damages from taxable income, just as he can deduct compensatory damages in those circumstances.¹⁸⁵ But neither punitive nor compensatory damages are deductible if they are incurred as a result of the defendant's engaging in a non-business or personal activity.¹⁸⁶

¹⁸⁴ A different type of circularity could result in excessive deterrence. Suppose the legislature sets public penalties at high levels because it expects inadequate use of punitive damages. If the courts then impose substantial punitive damages because public penalties are high, deterrence could be excessive.

¹⁸⁵ See 2 STUART M. SPEISER, CHARLES F. KRAUSE & ALFRED W. GANS, *THE AMERICAN LAW OF TORTS* § 8:64, at 297 (Supp. 1997); ROBERT W. WOOD, *TAXATION OF DAMAGE AWARDS AND SETTLEMENT PAYMENTS* ¶ 6.392, at 6-14 to 6-15 (1991 & Supp. 1996).

¹⁸⁶ See WOOD, *supra* note 185, ¶ 6.6, at 6-31.

We explain here that these policies are desirable, given the goal of creating appropriate deterrence.¹⁸⁷ In the business context, the essence of the argument for the deductibility of punitive damages is that, were they not deductible, overdeterrence would result because the punitive damages component of liability would be more significant than it should be. Conversely, in the non-business or personal context, if punitive damages were deductible, underdeterrence would result.¹⁸⁸

To see why damages should be deductible in a business context, consider a simple example in which a harm of \$10,000 can be prevented by taking a precaution. It is socially desirable that the precaution is taken only if it costs less than \$10,000. We first will show that if the injurer always will be sued and have to pay \$10,000 in compensatory damages, precautions will be taken precisely when they should be if the damage payment is deductible. Suppose that the precaution costs \$8000 and it is not taken. Then the defendant will pay damages of \$10,000, and if these are deductible at, say, a forty percent tax rate, the defendant will bear after-tax damages of \$6000. If the defendant does take the precaution, he pays \$8000 for it, but because this is a deductible expense, the after-tax cost of the precaution is \$4800. Hence, he will take the precaution. Alternatively, if the precaution costs more than \$10,000, the defendant is better off paying damages of \$10,000 and deducting this amount than spending more on the precaution. Thus, the defendant will act optimally.

To put the point differently, because the defendant is able to deduct all of his expenses, whether damages or precautions, he will want to act so as to minimize his after-tax costs and thus will choose the precaution if and only if its cost after taxes is less than the damages the defendant would bear after taxes. Because the tax rate is the same whether applied to deducting precaution costs or damages, the defendant's behavior is equivalent to his choosing the precaution if and only if its cost is less than the damages (putting tax considerations aside), which is the behavior that is desired.

If damages were not deductible, a business actor might take precautions even when they cost more than the harm. Consider a firm in a forty percent tax bracket that is deciding whether to take a precaution that costs \$15,000 and would prevent a harm of \$10,000. The

¹⁸⁷ Because our focus is on properly deterring potential injurers, we do not consider the tax treatment of *plaintiffs' receipts* of punitive damages awards. However, whether punitive damages are taxable income to the recipient may affect a plaintiff's incentive to sue. In this indirect way, the tax treatment of the receipt of punitive damages might affect deterrence.

¹⁸⁸ See I.P.L. Png & Eric M. Zolt, *Efficient Deterrence and the Tax Treatment of Monetary Sanctions*, 9 INT'L REV. L. & ECON. 209, 209 (1989) (noting the different possible tax treatments of monetary sanctions and arguing that, to avoid overdeterrence, monetary sanctions should be deductible or the amount of the sanction should be adjusted to account for the offender's tax rate); Eric M. Zolt, *Deterrence Via Taxation: A Critical Analysis of Tax Penalty Provisions*, 37 UCLA L. REV. 343, 364-68 (1989) (expanding on the analysis presented in the Png & Zolt article).

firm will take the precaution if damages are not deductible: the after-tax cost of the precaution is \$9000, which is less than the after-tax cost of non-deductible compensatory damages, \$10,000. This decision is socially undesirable because the cost to society of the precaution is \$15,000, while the benefit to society is \$10,000.

The reason that the firm is led to take a socially wasteful precaution is that damages are not deductible, but the precaution cost is, so that the effective cost of the damages to the firm is heightened. Indeed, with a tax rate of forty percent, damages appear to be one-and-two-thirds as important to eliminate as they would be if they were deductible, meaning that the firm would be willing to spend up to \$16,667 to eliminate a \$10,000 harm.¹⁸⁹

The explanation that we have provided for the desirability of allowing compensatory damages to be deducted in a business context applies equally to punitive damages. Punitive damages are just another form of damages that are intended to make the expected damages of injurers equal to the harm they cause. If punitive damages were not deductible, but precaution costs were, overdeterrence would result for essentially the same reason as that discussed above: the non-deductibility of punitive damages would make causing harm more costly to business actors than expenditures to prevent harm, so that such actors would be induced to spend too much to reduce harm.¹⁹⁰

¹⁸⁹ To demonstrate this point, let C be the cost of the precaution, H the harm, and T the tax rate. Ideally, the precaution should be taken if $C < H$. If both the precaution cost and damages are deductible, the firm will take the precaution if $(1 - T)C < (1 - T)H$, which is equivalent to $C < H$. But if damages are not deductible, the firm will take the precaution if $(1 - T)C < H$, which is equivalent to $C < H/(1 - T)$. Thus, if $H = \$10,000$ and $T = .4$, the firm would be willing to spend up to $\$10,000/(1 - .4) = \$16,667$ to eliminate the harm. In other words, for every dollar of harm, the firm would be induced to spend up to $\$1/(1 - .4) = \1.67 to eliminate it. Hence, damages appear to be one-and-two-thirds more important to eliminate than they would be if they were deductible.

Note that the logic of our discussion in the text implies that, if damages were not deductible but were reduced appropriately, the firm could be induced to take optimal precautions. If the tax rate is 40% and the harm is \$10,000, reducing damages to \$6000 and not allowing damages to be deductible would be equivalent to keeping damages at \$10,000 but allowing their deductibility. Reducing damages by the precise amount that would be necessary to avoid distortions is functionally equivalent to allowing deductibility. But a policy of allowing deductibility may be preferable on administrative grounds because it obviates the need to determine the defendant's marginal tax bracket in order to calculate damages properly.

¹⁹⁰ For instance, in the example that we considered in which the harm is \$10,000, suppose that the defendant is caught one time out of three, so that a third of the time he pays \$30,000, consisting of \$10,000 in compensatory damages and \$20,000 in punitive damages. If the punitive damages component is not deductible and the defendant is in a 40% tax bracket, his after-tax liability cost if a judgment is rendered against him is \$26,000 (the sum of an after-tax cost of \$6000 associated with the compensatory damages component and an after-tax cost of \$20,000 associated with the punitive damages component). Because there is a one-third chance that he will bear this amount, his expected after-tax liability cost is \$8667 (that is, \$26,000 divided by 3). Because his precaution expenditures are deductible and he is in a 40% tax bracket, he would be willing to spend up to one-and-two-thirds of this amount in order to avoid this liability cost. In other words, he would be willing to spend up to \$14,445 ($= (5/3) \times \8667). But the harm is only

The importance of allowing punitive damages to be deductible in a business context may be substantial because the tax rate for corporations and other business actors is relatively high. As we noted, at a tax rate of forty percent,¹⁹¹ if damages were not deductible, a potential injurer might be induced to spend up to one-and-two-thirds the harm to prevent it.¹⁹² Thus, if the deductibility of punitive damages in a business setting were disallowed, significant overdeterrence could result.

The explanation for why punitive damages should not be deductible in a non-business or personal context is the converse of that for why they should be deductible in a business context. In a non-business or personal setting, the cost of precautions is not deductible. Hence, if punitive damages also are not deductible, a potential injurer will properly balance the cost of precautions against the reduction in harm from taking the precaution. If punitive damages were deductible, a potential injurer would not give sufficient weight to the reduction in harm from taking precautions, resulting in underdeterrence.

I. Insurability of Punitive Damages

Policies regarding the insurability of punitive damages vary among states. Most states allow punitive damages to be covered by liability insurance, but some do not.¹⁹³

\$10,000, so many instances could arise in which he will be induced to spend substantially more than \$10,000 in order to avoid imposing a harm of \$10,000 — a socially wasteful outcome caused by the non-deductibility of punitive damages.

¹⁹¹ Under the federal tax code, taxable corporate income in excess of \$75,000, but not in excess of \$10 million, is taxed at a 34% rate. See 26 U.S.C. § 11(b)(1)(C) (1994). Taxable corporate income in excess of \$10 million is taxed at a 35% rate. See *id.* § 11(b)(1)(D). The use of a 40% tax rate as an illustration in the text is reasonable in light of the additional state income taxes that corporations often have to pay. See, e.g., CAL. REV. & TAX. CODE § 23151(e) (West Supp. 1997) (8.84% of net income for 1997 and beyond); 35 ILL. COMP. STAT. 5/201(b)(7), (d) (West 1996) (7.3% of net income); N.Y. TAX LAW § 210.1(a) (McKinney 1986 & Supp. 1997) (9% of net income).

¹⁹² The explanation for why the injurer would be induced to spend up to one-and-two-thirds of the harm now is complicated by the fact that the fraction of total damages that is accounted for by punitive damages — and therefore the portion of total damages that is not deductible — depends on the chance of escaping liability. In note 190, above, we showed that, if the chance of catching the injurer is one in three, he would be induced to spend \$14,445 in order to prevent a harm of \$10,000 — that is, 1.44 times the harm. By similar logic, it can be demonstrated that if the chance of detection is sufficiently small — so that nearly all of the damages paid by the injurer are punitive damages and not deductible — the injurer will be induced to spend up to 1.67 times the harm to prevent it.

¹⁹³ A majority of jurisdictions follow the approach exemplified in *Lazenby v. Universal Underwriters Insurance Co.*, 383 S.W.2d 1 (Tenn. 1964), under which punitive damages are insurable. See *id.* at 5; see also Ellis, *supra* note 12, at 71 (noting that most, though not all, courts have held that punitive damages are insurable). In general, however, insureds cannot indemnify themselves against punitive damages assessed for intentional misconduct. See, e.g., *Harrell v. Travelers Indem. Co.*, 567 P.2d 1013, 1017-19 (Or. 1977) (en banc). A minority of jurisdictions follow the approach taken in *Northwestern Nat'l Cas. Co. v. McNulty*, 307 F.2d 432 (5th Cir. 1962), under which insurance coverage of punitive damages is disallowed because it would violate public policy (on the ground that such coverage would permit wrongdoers to escape punishment and also would compromise deterrence). See *id.* at 442. Even these jurisdictions, however, generally allow

Should punitive damages be insurable? The basic answer to this question is yes, although we qualify this conclusion below. The reason that it is generally desirable to allow insurance for punitive damages is best understood by recognizing that punitive damages are, according to our theory, a way to make defendants pay for the harm they do when they have a chance of escaping liability. Thus, the question whether punitive damages should be insurable is essentially the same as the question whether compensatory damages should be insurable.¹⁹⁴

Of course, compensatory damages *are* insurable, but what reason can be given for allowing them to be? Consider this question when liability is strict and harm is entirely monetary. In this case, allowing the purchase of liability insurance is socially desirable. Liability insurance raises the well-being of potential injurers, which is why they choose to buy it, and the availability of such insurance does not affect the welfare of victims, who will be fully compensated anyway. Even if the purchase of liability insurance causes injurers to take less care and thereby increases the frequency of accidents, victims will not be affected because they are fully compensated.¹⁹⁵

However, if losses are nonmonetary, victims might not be fully compensated, or if the negligence rule applies, might not be compensated at all.¹⁹⁶ Consequently, their welfare would be adversely affected if liability insurance leads to an increase in the frequency of accidents. Nevertheless, it can be shown that such insurance often is socially desirable even then, because the value of the insurance to insureds may exceed the loss of welfare to victims.¹⁹⁷ Further, the victims' losses are mitigated because liability insurers have a financial incentive to structure coverage and premiums to control risks. For example, insurers may make insurance premiums depend on an in-

insurance coverage of punitive damages in cases of vicarious liability. See, e.g., *Ohio Cas. Ins. Co. v. Welfare Fin. Co.*, 75 F.2d 58, 59-60 (8th Cir. 1934). For further discussion of the insurability of punitive damages, and summaries of the relevant law among the states, see generally ROBERT G. SCHLOERB, RICHARD L. BLATT, ROBERT W. HAMMESFAHR & LORI S. NUGENT, *PUNITIVE DAMAGES: A GUIDE TO THE INSURABILITY OF PUNITIVE DAMAGES IN THE UNITED STATES AND ITS TERRITORIES* 32-46, 61-308 (1988); 2 SCHLUETER & REDDEN, cited above in note 74, § 17.2, at 233-47; 2 SPEISER, KRAUSE & GANS, cited above in note 185, § 8:54, at 907.

¹⁹⁴ For economically oriented discussion of the question of the social desirability of liability insurance for punitive damages, see Chapman & Trebilcock, cited above in note 12, at 821-22; Cooter, *Deterrence*, cited above in note 12, at 1182-85; Ellis, cited above in note 12, at 71-76; and Priest, *Insurability*, cited above in note 12, at 1011-14.

¹⁹⁵ The argument in this paragraph is based on Shavell, cited above in note 41, which first formally analyzed the social desirability of liability insurance. See also SHAVELL, *supra* note 14, at 206-27 (extending the argument). These references show that, in the standard model of accidents, both injurers and victims will be made better off if the sale of liability insurance is permitted.

¹⁹⁶ Victims might not be fully compensated if their losses are nonmonetary because, among other reasons, full compensation may be impossible (for instance, if the loss is of a person's life). Victims may not be compensated at all under the negligence rule because the injurer may not have been negligent.

¹⁹⁷ See SHAVELL, *supra* note 14, at 251-52.

sured's history of claims, may only offer partial coverage, or may require that the insured take certain steps to reduce risks. As a result, the purchase of liability insurance may not significantly reduce the insured's incentives to exercise precautions.

Moreover, if liability insurance were disallowed, not only would the well-being of potential injurers decrease, but such injurers also might forgo engaging in some socially beneficial activities that pose liability risks. For example, surgeons might refuse to perform certain operations, or general-aviation aircraft companies might cease making planes. Even when services and products continue to be offered, prices would rise to cover the liability risks that such providers would now have to bear directly, and the resulting price increase generally would exceed that which would have resulted from the purchase of liability insurance.¹⁹⁸ Both of these consequences of disallowing liability insurance — the possible withdrawal from certain activities and the increased price of other activities — hurt consumers of the affected products and services. This consideration lends support to the case for allowing the sale of liability insurance.

A major complication in the preceding discussion concerning the desirability of liability insurance arises from the judgment-proof problem.¹⁹⁹ If injurers can avoid having to pay for some of the harm they cause because their assets are limited, they will have a reduced incentive both to take precautions and to moderate their participation in risky activities. (In the extreme case, an injurer with no assets would have no liability-related incentive to reduce risks.) Depending on insurers' ability to control insureds, the sale of liability insurance could either worsen or ameliorate this problem. If insurers are substantially unable to control the risky behavior of insureds because insurers cannot easily observe insureds' risk-taking behavior and link policy features, such as premium rates, to insureds' behavior, liability insurance would tend to exacerbate the judgment-proof problem. It might then be beneficial to forbid the sale of such insurance. Conversely, if insurers can relatively easily observe and control the behavior of insureds, liability insurance could lessen the judgment-proof problem. For in-

¹⁹⁸ To illustrate, suppose that a risk-averse firm with direct production costs of \$20 per unit purchases liability insurance whose premium equals the expected damages of \$10 per unit of the product sold. In a competitive environment, the price of the product will equal \$30, including the \$10 liability insurance cost. If the firm cannot purchase liability insurance, the price it charges must not only compensate it for the \$10 in expected damages it bears directly, but also for being subject to risk — something it does not like, being risk averse. Thus, the price of the product would have to exceed \$30 for the firm to be willing to sell it.

¹⁹⁹ Before discussing this complication, we want to observe that a common view is that, if there is a chance that injurers will be unable to pay for harm, liability insurance is socially desirable because it enhances the ability of victims to collect damages from injurers. We do not consider this reason for liability insurance to be a strong one; as we have noted previously, we believe that first-party insurance is a superior way to provide compensation to victims because it is administratively cheaper than the tort system. See *supra* note 15.

stance, insurers might require that a restaurant install fire extinguishers and a sprinkler system to reduce fire risks. In this case, not only might it be desirable to allow the sale of liability insurance, but it might even be beneficial to require its purchase.²⁰⁰

We have now explained that, with some qualifications, it is generally desirable to allow potential injurers to purchase liability insurance for compensatory damages. Because punitive damages, by our formula, substitute for compensatory damages when injurers can escape liability, essentially the same arguments support the conclusion that it is generally desirable also to allow the sale of insurance for punitive damages, as the majority of states already do.

J. Third Party Versus Consumer Victims

Our analysis of punitive damages has assumed implicitly that the parties harmed by the injurer are "third parties" — that is, parties who have no market or contractual relationship with the defendant. Such was the case, for example, with respect to the fishermen and Alaskan natives whose livelihood was affected by the Exxon Valdez oil spill. In many situations, however, the victims are customers of the defendant, as in *Gore*, in which the plaintiff was a purchaser of a car made by the defendant.²⁰¹

When determining punitive damages, courts devote little attention to whether the plaintiff was a third party or a consumer.²⁰² The list of factors in *Haslip*, for example, does not include this distinction, nor does any other similar list or authoritative source of which we are aware.²⁰³

²⁰⁰ The conclusions of this paragraph are based on an economic analysis of the judgment-proof problem and insurance in Steven Shavell, *The Judgment Proof Problem*, 6 INT'L REV. LAW & ECON. 45 (1986), which is distilled in SHAVELL, cited above in note 14, at 240-43.

²⁰¹ See *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1593 (1996); see also *Sears, Roebuck & Co. v. Harris*, 630 So. 2d 1018, 1022 (Ala. 1994) (customer harmed from self-installed gas water heater); *Moore v. Jewel Tea Co.*, 253 N.E.2d 636, 639 (Ill. App. Ct. 1969) (customer harmed when unopened can of drain cleaner exploded), *aff'd*, 263 N.E.2d 103 (Ill. 1970); *Leibeck v. McDonald's Corp.*, No. CV-93-2419 (N.M. Dist. Ct. 1994) (customer burned by hot coffee).

²⁰² This difference is not emphasized, for example, in any of the major United States Supreme Court cases on punitive damages. See *Gore*, 116 S. Ct. at 1589; *Honda Motor Co. v. Oberg*, 512 U.S. 415 (1994); *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443 (1993); *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991); *Browning-Ferris Indus. of Vt., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257 (1989). The *Gore* Court, however, mentioned the market relationship between the plaintiff and the defendant as a factor that would lessen the need for affirmative disclosure requirements "because the self-interest of those involved in the automobile trade in developing and maintaining the goodwill of their customers will motivate them to make voluntary disclosures or to refrain from selling cars that do not comply with self-imposed standards." *Gore*, 116 S. Ct. at 1596.

²⁰³ The Restatement (Second) of Torts does not mention this distinction explicitly, nor do commentators. See RESTATEMENT (SECOND) OF TORTS §§ 908-909 (1977); JAMES D. GHIARDI & JOHN J. KIRCHER, PUNITIVE DAMAGES LAW AND PRACTICE (1985); SCHLUETER & REDDEN, *supra* note 74. This distinction is also absent from cases that provide factors for the jury to consider in determining the amount of punitive damages. See, e.g., *Estate of Hartz v. Nelson*, 437

However, the status of victims as third parties or consumers is important to consider, for when victims are consumers, the need for punitive damages is lessened. The reason is that, when individuals might be harmed by the products (or services) they buy, producers will tend to be concerned that customers may not be willing to pay as much for the products or that they may stop purchasing the products altogether. Given that producers have this market-based incentive to be attentive to the risk of harm to their customers, the need for liability in general, and for punitive damages in particular, to control their behavior is diminished.²⁰⁴ Obviously, this market mechanism cannot operate if the victims are not customers of the defendant — that is, if they are third parties.²⁰⁵

The extent to which market forces reduce the need for liability as a deterrent depends on how much customers know about product or service hazards. In some circumstances, customers will not be able to discipline firms effectively because of their lack of knowledge of such risks.²⁰⁶ Because travelers probably would not know much about the chance of suffering food poisoning from eating at a family-owned restaurant at a turnpike stop, the restaurant would not be likely to fear loss of clientele if food poisoning were to occur. Thus, the threat of liability, including punitive damages, might be desirable to induce the restaurant to reduce this risk.²⁰⁷

In many settings, however, consumer information about the dangers of products and services is relatively good.²⁰⁸ This may be be-

N.W.2d 749, 755-56 (Minn. Ct. App. 1989); *Fischer v. Johns-Manville Corp.*, 512 A.2d 466, 481-82 (N.J. 1986).

²⁰⁴ To the extent that liability is unnecessary to promote product safety, imposing liability would be redundant and the costs associated with litigation would be socially wasteful.

²⁰⁵ Craswell discusses the role of damages multipliers in market relationships, although he does not emphasize the point that we do — that producers have a market-based incentive to be attentive to the risk of harm to their customers. See Craswell, *supra* note 12.

²⁰⁶ For the view that consumers are not well informed about product risks, see Howard Latin, "Good" Warnings, Bad Products, and Cognitive Limitations, 41 UCLA L. REV. 1193, 1234 (1994). Latin argues that knowledge of "the great majority of product risks cannot be available to product users." *Id.*

²⁰⁷ Daughety and Reinganum study the role of punitive damages in reducing product risks when consumers do not have direct information about the risks. See Daughety & Reinganum, *Products Liability*, *supra* note 12; Daughety & Reinganum, *Settlement*, *supra* note 12.

²⁰⁸ See Patricia M. Danzon, *Comments on Landes and Posner: A Positive Economic Analysis of Products Liability*, 14 J. LEGAL STUD. 569, 572 (1985) (arguing that the cost of obtaining information about product hazards could be low in many circumstances and that the value of such information is high for consumer goods that are purchased repeatedly, durable consumer goods, and producer goods); Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 YALE L.J. 353, 380 (1988) (arguing that "evidence drawn from surveys and actual market behavior more strongly supports the view that consumers are informed than the view that they are ignorant"). Even if consumer information about the risks of products and services is not widespread, markets may work reasonably well if a sufficiently large fraction of the population of potential consumers is well-informed. See Alan Schwartz & Louis L. Wilde, *Intervening in Mar-*

cause the risks have a fairly obvious character, because they have been publicized by the media,²⁰⁹ or because the customers are repeat purchasers and have learned about them from experience. In such circumstances, the threat of liability would be relatively unimportant in controlling risk. Indeed, if consumer information about risk were perfect, liability to improve product safety would be unnecessary: consumers would reduce their willingness to pay for a firm's product or service by precisely the amount of the expected harm to which the product or service exposed them, which in turn would cause firms to invest in any cost-justified precautions.

Our conclusion, therefore, is that in deciding on punitive damages, courts should take into account whether the victims are third parties or customers and, if the latter, whether market forces are likely to lead sellers to reduce risk properly. A skeptical approach to imposing punitive damages should be adopted when consumers are relatively well-informed about the risk of the seller's product or service.²¹⁰

K. Breach of Contract

Although we have been discussing the imposition of punitive damages in situations governed by tort law, punitive damages sometimes can be levied in contractual disputes as well.²¹¹ Indeed, there seems to be an increasing tendency to employ such damages in this context²¹² — for example, in employment termination and insurance litigation.²¹³

We will explain that the award of punitive damages sometimes can promote the interests of contracting parties — when a non-performing

lets on the Basis of Imperfect Information: A Legal and Economic Analysis, 127 U. PA. L. REV. 630, 637-39 (1979).

²⁰⁹ For example, we would expect problems with automobiles, as in *Gore*, see *supra* p. 901, to come to the attention of consumers through stories in newspapers, evaluations in *Consumer Reports*, and the like.

²¹⁰ A similar conclusion applies when the victims of accidents are employees, rather than customers. To the degree that employees are aware of workplace risks, they will insist on higher wages (or seek employment elsewhere). Thus, market forces will tend to induce employers to increase workplace safety even in the absence of liability.

²¹¹ Although punitive damages traditionally are not awarded in contract cases, exceptions often are made when the wrongful conduct is also considered to be a tort. See 1 SCHLUETER & REDDEN, *supra* note 74, § 7.2, at 371, § 7.3(A), at 377.

²¹² See *id.* § 7.0, at 369 ("Over the last twenty years, the courts have broken down the traditional doctrinal barriers between contracts and torts. The result is a growing list of exceptions to the general rule and a growing recognition of punitive damages within the law of contracts."); see also Mark Pennington, *Punitive Damages for Breach of Contract: A Core Sample from the Decisions of the Last Ten Years*, 42 ARK. L. REV. 31, 46-60 (1989) (noting departures from the traditional rule against awarding punitive damages for breach of contract); John A. Seibert, Jr., *Punitive and Nonpecuniary Damages in Actions Based upon Contract: Toward Achieving the Objective of Full Compensation*, 33 UCLA L. REV. 1565, 1600-47 (1986) (noting a trend toward allowing punitive damages in contract cases).

²¹³ See 2 SCHLUETER & REDDEN, *supra* note 74, § 13.3(B), at 118 (discussing punitive damages in the employment context); *id.* § 17.3(A), at 247-49, § 17.4(A), at 266 (discussing punitive damages in insurance cases with respect to contract theories).

party has a chance of escaping detection and liability. However, such circumstances do not give rise to the imposition of punitive damages in contract cases in practice, with the result that the interests of contracting parties may be harmed by actual punitive damages policy.²¹⁴

Parties would benefit from the imposition of punitive damages when such damages are necessary to induce the promisor to perform adequately.²¹⁵ For example, consider a company that contracts with a city to replace its burned-out streetlights. Suppose that the company would have to pay punitive damages of \$200, in addition to compensatory damages of \$50, if the city discovers that a light was not replaced in a timely manner (say, one week after burning out). The reason we can imagine that the parties would want punitive damages in this situation is that they both recognize that the city will not discover most of the lights that burn out and that are not repaired on a timely basis. They realize that setting total damages for breach in excess of the loss from breach will give the repair company a stronger and more appropriate motive to search for and replace burned-out streetlights than would compensatory damages alone. Because the city will be willing to pay more to the company for its better service, both parties to the contract can benefit from imposition of punitive damages.²¹⁶

²¹⁴ Several commentators have discussed the general economic role of punitive damages in breach of contract disputes. See, e.g., Daniel A. Farber, *Reassessing the Economic Efficiency of Compensatory Damages for Breach of Contract*, 66 VA. L. REV. 1443 (1980); Barry Perlestein, *Crossing the Contract-Tort Boundary: An Economic Argument for the Imposition of Extracompensatory Damages for Opportunistic Breach of Contract*, 58 BROOK. L. REV. 877 (1992); Alan Schwartz, *The Myth That Promisees Prefer Supracompensatory Remedies: An Analysis of Contracting for Damage Measures*, 100 YALE L.J. 369, 370-72, 395-405 (1990).

²¹⁵ The argument that we are about to make, that parties might benefit from imposition of punitive damages, also means that they might benefit from including a penalty clause in their contract — that is, an extracompensatory level of damages for breach. In practice, however, provisions detailing the damages paid in the event of breach — liquidated damage clauses — are not enforced by courts if they are determined to exceed compensatory damages. See RESTATEMENT (SECOND) OF CONTRACTS § 356 (1979) (stating that a liquidated damages clause will be enforced if the contract specifies “an amount that is reasonable in the light of the anticipated or actual loss caused by the breach and the difficulties of proof of loss,” but “[a] term fixing unreasonably large liquidated damages is unenforceable on grounds of public policy as a penalty”); see also U.C.C. § 2-718(1) (1996) (allowing for liquidated damages provisions but rendering them void if unreasonably large).

²¹⁶ To illustrate, suppose that: (a) each light will definitely fail at some time during the year; (b) the value to the city of timely repair of a light is \$50; (c) the cost to the contractor of assuring timely repair is \$25; (d) the cost to the contractor of less-than-timely repairs is \$5 (the contractor does not have to check lights as frequently); (e) the likelihood that the city detects a breach (the contractor's failure to repair a light on a timely basis) is 20%; (f) the city's payment to the contractor is \$35 per light per year; and (g) the damages for breach are compensatory, equal to \$50 (the value of timely repair).

Note that the contractor will not be induced to spend an extra \$20 — \$25 instead of \$5 — to assure timely repair, because the extra cost to assure timely repair, \$20, exceeds the expected damages per light of \$10 (= 20% × \$50). Thus, the contractor's profit per light will be \$20 — the city's payment of \$35, less the \$5 cost of repairs and the \$10 expected damage payment. The city's total cost per light is \$75 — its \$35 payment to the contractor, plus its \$50 loss of value as a result of the contractor's failure to repair the light on a timely basis, less the \$10 it receives in expected

Note that the circumstances in this example are analogous to those in the tort settings in which we have said that punitive damages are desirable — namely, when there is a probability that a party will not be found liable if he does harm (in the present context, by committing a breach). Thus, the role of the penalty for breach in the example resembles the role of punitive damages in tort situations — to make up for the chance of escaping liability.²¹⁷

Parties may want punitive damages to be paid for breach in two contexts in which a breaching party may escape liability. The first situation is when the breached-against party does not automatically observe whether performance has occurred, as in the streetlight example.²¹⁸ The second situation is when the breached-against party knows that performance has been deficient, but may not be able to prove this in court or lacks a financial incentive to sue. For instance, if an insurance company fabricates a reason for not paying a small claim, the insured may not sue because of the uncertainty of success and the cost of a lawsuit. But because insureds would in principle be willing to pay higher premiums if an insurance company can be deterred from acting in this way, the insurer may benefit from an agreement to pay punitive damages when it is found liable for falsely denying a small claim.

In many circumstances, however, parties will not want damages for breach of contract to exceed the compensatory level because the breach is obvious, the nature of the breach is such that it easily can be proven in court, and the amount at stake is large enough to justify suit. To the degree that courts impose punitive damages in these situa-

damage payments.

We want to show that *both* parties can benefit if punitive damages of \$200 are also imposed for breach, so that total damages now are \$250. Given this level of total damages, the contractor will assure timely repair because the expected damages of \$50 (= 20% × \$250) exceed the extra cost of assuring timely repair, \$20. Consequently, no breach will occur, and no damages will actually be paid. Because timely repair is assured, the city will be willing to pay the contractor more. Suppose the payment is raised to \$55 per light. Then the contractor's profits per light will be \$30 (\$55 less the \$25 cost of repair), so he will be better off (because his profits had been \$20 per light). The city's cost per light now will be \$55 (just the fee), so it will be better off too (because its cost had been \$75).

The source of the mutual benefit for the parties is the threat of \$200 in punitive damages, which induces the contractor to create a \$50 benefit for the city at only an extra \$20 cost to itself. This enables the city to make a payment sufficiently higher to make the contractor better off and still leave itself better off.

²¹⁷ We should distinguish the present discussion from that in the previous section, which concerned injured parties who were customers. There we assumed that buyers' knowledge of product risks might induce sellers to take appropriate precautions. Here we are *not* making the analogous assumption. In our present example, we did not consider the possibility that the contractor would repair street lights on a timely basis out of a concern that his business reputation might otherwise suffer. Rather, we implicitly assumed that the prospect of damages for breach of contract is needed to motivate the contractor to repair lights on a timely basis.

²¹⁸ More generally, whenever a party buys a large quantity of a product and does not inspect every unit to determine whether the product complies with the specifications in the contract, a problem of detecting a breach can arise.

tions, such damages will result in excessive and expensive performance (the analogue of overdeterrence), thereby lowering the welfare of the contracting parties.

In conclusion, courts should be cautious about awarding punitive damages for breach of contract. This point is worth noting because the law governing the imposition of punitive damages for breach of contract does not restrict their award to cases in which the likelihood of escaping liability for breach is substantial.²¹⁹

L. Components of Harm Not Included in Compensatory Damages

It is often suggested that punitive damages should be awarded to compensate plaintiffs for non-economic and other losses that would not otherwise be incorporated into compensatory damages.²²⁰ Many courts have endorsed this justification for punitive damages.²²¹

Although we recognize that awarding punitive damages as a substitute for a missing component of harm has a potential rationale in terms of assuring proper deterrence, we suggest in this section that remedies for missing components of harm would be best pursued through revision of the rules used to calculate compensatory damages.

As the reader knows, our basic analysis of deterrence implies that injurers should have to pay for the entire harm they cause, in order that injurers take appropriate precautions and that prices and participation in risky activities are proper. Thus, if there is a component of

²¹⁹ For example, courts have awarded punitive damages in contract cases in which there exists a "special relationship between the parties." 1 SCHLUETER & REDDEN, *supra* note 74, § 7.3(A), at 388 (internal quotation marks omitted). These relationships include: "bank and depositor, employer and employee, franchiser and franchisee, lawyer and client, public utility and customer, and security broker and customer." *Id.* § 7.3(A), at 386 (footnotes omitted). The courts argue that punitive damages are appropriate because one party has greater bargaining power. *See id.* § 7.3(A), at 385. But this superior position, in and of itself, does not suggest that the party with the upper hand will escape liability for a breach of contract.

²²⁰ *See* Chapman & Trebilcock, *supra* note 12, at 768-69 (suggesting that punitive damages serve as a means of compensating for dignitary loss); Ellis, *supra* note 12, at 3 (noting that compensating victims for otherwise uncompensable losses and paying the plaintiff's legal fees are reasons often cited by legal commentators and courts for imposing punitive damages); Dorsey D. Ellis, Jr., *Punitive Damages in Iowa Law: A Critical Assessment*, 66 IOWA L. REV. 1003, 1007, 1010 (1981) (noting the use of punitive damages as compensation for nonpecuniary harms); Galligan, *supra* note 3, at 40-83 (emphasizing that compensatory damages generally should be augmented to reflect otherwise missing elements of harm); David G. Owen, *Punitive Damages in Products Liability Litigation*, 74 MICH. L. REV. 1257, 1295-96 (1976) ("[P]unitive damages do indeed play an important — even if usually residual — compensatory role.").

²²¹ *See* 1 SCHLUETER & REDDEN, *supra* note 74, § 2.2, at 27. For example, in Connecticut, "exemplary damages cannot exceed plaintiff's expenses, and therefore, in fact and effect are considered compensatory." *Id.* § 2.2, at 27 n.1 (citing *Doroaska v. Lavine*, 150 A. 692, 692-93 (Conn. 1930), and *Craney v. Donovan*, 102 A. 640, 641 (Conn. 1917)). In Michigan, "exemplary damages are granted to compensate the plaintiff and not to punish the defendant." *Id.* (citing *Oppenhuizen v. Wennersten*, 139 N.W.2d 765, 770 (Mich. Ct. App. 1966)).

harm that otherwise would be omitted, a policy of including it in the form of punitive damages would seem to be beneficial.²²²

Notwithstanding this point, employing punitive damages as a substitute for missing components of compensatory damages is problematic. Namely, a component of harm might be excluded from compensatory damages because of the difficulties and expense that would be encountered in estimating it. Consider, for example, the pain and suffering experienced by the friends of a person who dies. If this category of harm were included in compensatory awards, the number of claimants in cases of wrongful death could become quite large, and the cost of litigation would also increase as a result of parties contesting the magnitude of their psychological losses. It may be best, then, for the law to exclude from compensatory damages many such speculative, difficult-to-determine elements of harm, even though these elements are real and their omission does undesirably dilute deterrence.²²³

If a component of loss is excluded from compensatory damages for these reasons, it arguably should be excluded from punitive damages as well. The disadvantages of attempting to ascertain the missing component of harm would not be lessened just because it is calculated under a different head of damages. It will be no easier to determine the pain and suffering due to the death of a friend just because this loss is imported into punitive damages. Indeed, the accuracy of measurement of this loss would be expected to be worse because the calculation of punitive damages is not disciplined by the procedures and evidentiary requirements common to the determination of compensatory damages.²²⁴

Of course, if a component of loss should have been included in compensatory damages despite the costs of doing so, the natural response is to rectify the mistake by incorporating it in compensatory damages. If the component of loss is instead included as part of punitive damages, not only will it be less accurately measured for the reason noted in the previous paragraph, but there will also be another problem: the component will be omitted in the large majority of cases, those in which only compensatory damages are awarded. Specifically,

²²² More precisely, the principle would be to include a multiple of the missing component, with the multiplier determined by the defendant's chance of escaping liability.

²²³ The costs of estimating such elements of harm on a case-by-case basis could be largely avoided, however, if courts were to use a table listing standard values of the missing components. This method would be an inexpensive (essentially costless) way to include missing components of damages, and it would be preferable to excluding them.

²²⁴ Juries are given broad discretion over the award of punitive damages. See 1 GHIARDI & KIRCHER, *supra* note 203, § 5.38, at 132 ("It is a generally accepted rule that once a court determines that the evidence merits submission of the punitive damages issue to the jury, it is entirely within the discretion of the jury to determine whether those damages should be awarded and to determine the amount which should be awarded."); 1 SCHLUETER & REDDEN, *supra* note 74, § 6.1(A), at 331 (referring to the jury as "less restricted in awarding punitive damages than in awarding compensatory damages").

the component will be omitted in the approximately ninety-four percent of cases in which punitive damages are not awarded.²²⁵

M. Economic Loss Versus Personal Injury

Several courts have expressed the view that the level of punitive damages should depend on whether the plaintiff's harm involved personal injury or was entirely economic.²²⁶ For example, much was made of this distinction in *Gore*, in which the United States Supreme Court contrasted the "purely economic" harm inflicted by the defendant with instances of "reckless disregard for the health and safety of others," implying that the latter acts should be subject to higher punitive damages.²²⁷

Does it make sense for punitive damages to be influenced by whether the harm consists of a personal injury, as opposed to an economic loss? The answer is basically no. If the amount that courts award as compensatory damages in personal injury cases is proper,²²⁸ the formula that we have advanced for the determination of punitive damages should apply without modification: the level of compensatory damages for the personal injury should be multiplied by the inverse of the probability of being found liable.

We recognize, however, that the level of compensatory damages awards in personal injury cases may be too low in practice to accomplish proper deterrence.²²⁹ For example, it has been calculated that in

²²⁵ See Eisenberg, Goerd, Ostrom, Rottman & Wells, *supra* note 3, at 633 (finding that punitive damages are awarded in approximately 6% of the cases in which plaintiffs prevail).

²²⁶ See, e.g., *Lightning v. Roadway Express, Inc.*, 60 F.3d 1551, 1559 (11th Cir. 1995) ("In determining the reasonableness of an award of punitive damages, courts should consider whether . . . the misconduct caused personal injury or merely damage to property . . ."); *Eisert v. Greenberg Roofing & Sheet Metal Co.*, 314 N.W.2d 226, 229 (Minn. 1982) (stating that the nature of the plaintiff's injury "may reasonably be taken into account in deciding where punitive damages will be allowed Where that injury is limited to property damage, the public interest in punishment and deterrence is largely satisfied by the plaintiff's recovery of compensatory damages."); 1 SCHLUETER & REDDEN, *supra* note 74, § 9.5(A), at 536 ("[C]ourts distinguish between whether property damage or personal injury was the result of the defendant's wrongdoing.")

²²⁷ *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589, 1599 (1996).

²²⁸ In this context, by the proper amount of compensatory damages, we mean the amount of damages that induces a potential injurer to take optimal precautions to prevent personal injury. This amount might not compensate the victim for an injury — indeed, such compensation might be impossible, as in the case of loss of life. Thus, the term "compensatory damages" may be a misnomer when applied to personal injuries, but we employ it because it is used to describe the usual level of damages.

²²⁹ Notably, compensatory damages in wrongful death cases are generally calculated as a survivor's financial loss. See CHARLES T. MCCORMICK, *HANDBOOK ON THE LAW OF DAMAGES* §§ 93-106, at 335-74 (1935). This amount usually will not lead to proper deterrence. For example, if a child or a non-working spouse is killed, the financial loss will be low, but the event will be one for which expensive preventive measures are justified to reduce risk. Such measures may not be taken if damages are based solely on the financial loss. For discussion of this and related points about the distinction between optimal compensation for non-monetary losses and optimal deterrence, see SHAVELL, *supra* note 14, at 228-35; Philip J. Cook & Daniel A. Graham, *The Demand for Insurance and Protection: The Case of Irreplaceable Commodities*, 91 Q.J. ECON. 143,

wrongful death cases, the amount that an injurer should pay is between \$3 million and \$6 million,²³⁰ whereas actual awards are usually substantially lower.²³¹ If compensatory damages are too low in personal injury cases, they should be raised appropriately.²³² Punitive damages should not be awarded to correct for inadequate compensatory damages, for reasons analogous to those discussed in the previous section.²³³

N. Externalization of Risk Through Independent Contractors

An effect of imposing liability that we have not yet discussed is what we will call *externalization of risk*. By externalization of risk, we mean the ability of potential injurers to avoid liability by hiring independent contractors to undertake risky tasks that they would otherwise perform themselves. The motive to externalize risks results to some extent from the threat of compensatory damages alone, but it is accentuated if punitive damages are awarded. To our knowledge, courts do not consider this factor in the determination of punitive damages.²³⁴

In this section, we discuss two socially undesirable consequences of externalization of risk. First, the number of accidents that occur tends to be higher because the independent contractors who are engaged generally do not operate as safely as the firms hiring them. Second,

144-55 (1977); and A. Michael Spence, *Consumer Misperceptions, Product Failure, and Producer Liability*, 64 REV. ECON. STUD. 561, 563-71 (1977).

²³⁰ See VISCUSI, *supra* note 29, at 108 (using the observed risk-dollar tradeoff of blue-collar workers to calculate that the implicit value of life is between \$3 million and \$6 million); Michael J. Moore & W. Kip Viscusi, *The Quality-Adjusted Value of Life*, 26 ECON. INQUIRY 369, 386 (1988) (finding an implicit value of life of \$6 million).

²³¹ See, e.g., JAMES S. KAKALIK, ELIZABETH M. KING, MICHAEL TRAYNER, PATRICIA A. EBNER & LARRY PICUS, COSTS AND COMPENSATION PAID IN AVIATION ACCIDENT LITIGATION (Institute for Civil Justice, RAND Corp., No. R-3421-ICJ, 1988). In this study of 25 major airline accidents occurring between 1970 and 1984, *see id.* at 4, the authors calculated that the average compensation for airline accident deaths was \$321,300 from 1970 to 1976, and \$408,500 from 1977 to 1982 (measured in constant 1986 dollars), *see id.* at 20. See also Randall R. Bovbjerg, Frank A. Sloan & James F. Blumstein, *Valuing Life and Limb in Tort: Scheduling "Pain and Suffering"*, 83 NW. U. L. REV. 908, 920-23 (1989) (surveying Florida and Kansas City jury verdicts and finding the median loss of life award to be \$620,000, and the mean loss of life award to be \$1,224,000).

²³² We here presume that problems of implementation, or considerations of cost, do not subvert this recommendation. If they do, a table of standard values for different types of personal injuries could be used instead. See *supra* note 223.

²³³ Although the conclusion of this section is that, given the goal of deterrence, the award of punitive damages should not depend on whether the plaintiff's harm involved personal injury, the conclusion might be different with respect to the punishment objective. Notably, when personal injury occurs, members of society may well experience a stronger desire to see the defendant punished than when the harm caused by the defendant is purely economic.

²³⁴ For example, the issue of externalizing risk is not mentioned in any of the recent major Supreme Court cases discussing punitive damages. See *BMW of N. Am., Inc. v. Gore*, 116 S. Ct. 1589 (1996); *Honda Motor Co. v. Oberg*, 512 U.S. 415 (1994); *TXO Prod. Corp. v. Alliance Resources Corp.*, 509 U.S. 443 (1993); *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991); *Browning-Ferris Indus., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257 (1989).

society sacrifices the economic benefits that would have accrued if the firms had carried out certain tasks themselves instead of having them performed by independent contractors. We conclude that when externalization of risk is a relevant factor, it argues for lower punitive damages than would otherwise be appropriate.

Let us amplify on these points. It is well recognized that firms often can avoid liability by hiring independent contractors to undertake risky tasks.²³⁵ For example, a firm that is transporting its toxic waste in its own trucks may be able to hire another company to transport the waste and thereby avoid liability for spills.²³⁶

However, the incentive of a firm to transfer liability to an independent contractor is more complicated than may at first appear because, if an independent contractor assumes liability by undertaking risky tasks for a firm, the contractor will charge the firm more for performing these tasks. An independent contractor that is hired to haul a firm's toxic waste clearly will charge the firm an amount reflecting its expected damages for spillage of the waste. Thus, the firm might in the end pay for the accident risks it creates even though it hires an independent contractor. It is apparent, therefore, that the firm will want to hire an independent contractor only if the contractor would charge the firm less for assuming liability than the firm would have borne itself.

In fact, an independent contractor might be willing to charge a firm less. The reason is that an independent contractor might not have assets sufficient to cover the full liability it may incur, so that its effective expected damages would be lower than the firm's — assuming that the firm has sufficient assets to pay the full judgment it would have faced, or at least more assets than the contractor. For example, suppose that potential damages are \$10 million and that the risk of an accident and liability is five percent. If a firm with assets of \$10 million undertakes the risky task itself, its expected damages would be \$500,000 ($= 5\% \times \10 million). However, if the firm hires an independent contractor with assets of only \$1 million, the contractor's expected damages would be \$50,000 ($= 5\% \times \1 million). Hence, the in-

²³⁵ See RESTATEMENT (SECOND) OF TORTS § 409 (1965) ("[E]mployer of an independent contractor is not liable for physical harm caused to another by an act or omission of the contractor or his servants."); PROSSER AND KEETON ON THE LAW OF TORTS, *supra* note 30, § 71, at 509 ("For the torts of an independent contractor, . . . it has long been said to be the general rule that there is no vicarious liability upon the employer.")

²³⁶ However, this strategy may not always work. For example, in *Kenney v. Scientific, Inc.*, 497 A.2d 1310 (N.J. Super. Ct. Law Div. 1985), the court held the defendant liable for an independent contractor's transportation of toxic waste. See *id.* at 1323–24. The court stated that "[a] company which creates the Frankenstein monster of abnormally dangerous waste should not expect to be relieved of accountability for the depredations of its creature merely because the company entrusts the monster's care to another, even an independent contractor." *Id.* at 1320–21. Notwithstanding such exceptions, we will address situations in which it is possible to shift liability by hiring an independent contractor.

dependent contractor only needs to add \$50,000 to the price it charges the firm to be compensated for its expected damages. Accordingly, the firm could in effect reduce its expected damages from \$500,000 to \$50,000 by hiring the independent contractor.²³⁷

We have explained that firms might benefit by externalizing their liability risks to independent contractors with assets less than the harm resulting from accidents. It should be emphasized that because firms secure an advantage by dealing with such contractors, they will seek them out and favor them over contractors with greater assets, other things being equal.²³⁸

The externalization of risk to potentially judgment-proof contractors has an important implication. These contractors will tend to conduct their activities with less care than will actors with more at stake. In the example above, the independent contractor with assets of only \$1 million clearly will not have as great an incentive to invest in precautions as the firm that could pay \$10 million.²³⁹ Therefore, the frequency of accidents will increase as a result of the externalization of risk.²⁴⁰

²³⁷ The point of this example holds even if the firm does not have assets sufficient to pay for the full \$10 million in damages; as long as its assets exceed those of the independent contractor, a potential gain to the firm still exists from externalizing the risk to the contractor. For instance, suppose that the firm has assets of only \$5 million. Its expected liability would then be \$250,000 ($= 5\% \times \5 million), which still exceeds the independent contractor's expected liability of \$50,000. Thus, the firm will continue to have an incentive to externalize its risk. (The general condition for when it will be advantageous to the firm to use an independent contractor to externalize its risk is twofold: the contractor's assets must be less than the firm's, and there must exist a positive probability that the judgment will exceed the contractor's assets.)

²³⁸ Evidence from the oil industry is consistent with the view that firms have an incentive to externalize some of their liability risks to less well-capitalized independent contractors. For example, after the Exxon Valdez oil spill, Shell shifted some responsibility for the transport of oil from its own tanker fleet to vessels owned by independent contractors. See William J. Cook, *An Easy Way Out of This Mess*, U.S. NEWS & WORLD REP., June 25, 1990, at 15; Caleb Solomon & Joann S. Lublin, *Tanker Fire Raises Serious Questions About Liabilities in Oil Spills Off U.S.*, WALL ST. J., June 12, 1990, at A3. Such contractors, who might own just a few supertankers (or even only one), generally are vastly smaller than the major oil companies. See Eric Nalder, *Oil Firms Trying to Shield Assets from Liability for Costly Spills*, SEATTLE TIMES, Sept. 26, 1991, at A6 (stating that the assets of independent transporters "are about 25 times smaller than the holdings of the oil giants"). One can think of many other industries, including those involved in the transport or disposal of hazardous materials, in which risks can be externalized to independent contractors that are much smaller than the firms that hire them.

²³⁹ For instance, consider a safety device that would reduce the magnitude of harm from an accident from \$10 million to \$5 million. This device would be of value to the firm if the firm is exposed to liability, because it would reduce the firm's expected damages by half; however, the device would be of no value to the independent contractor, for the contractor is only capable of paying \$1 million. Similarly, consider a safety device that reduces the likelihood of a \$10 million accident by 1%. This device will be worth \$100,000 to the firm ($= 1\% \times \10 million), so the firm will pay up to \$100,000 for the device, but it will be worth only \$10,000 to the independent contractor ($= 1\% \times \$1 \text{ million}$), so that the contractor might not buy the device when the firm would have.

²⁴⁰ In the oil industry, for example, it is plausible that tankers owned by independent contractors are more prone to accidents than tankers owned by large oil companies. Compare Cook, *su-*

An increase in the number of accidents is not the only socially undesirable consequence of the externalization of risk. The economic advantages firms gain by undertaking certain tasks themselves, rather than contracting with others to perform the tasks, will be lost if firms hire independent contractors to avoid liability. In our example, the advantages that the firm would lose if it hires an independent contractor might include its ability (given its superior knowledge of its own situation) to purchase the most suitable truck for transporting its waste and the opportunity to schedule waste disposal more efficiently.²⁴¹

The two problems caused by the externalization of risk — the increased number of accidents and the loss of economic efficiencies — are exacerbated by the imposition of punitive damages, for such damages increase the desire of firms to externalize their risks. Moreover, the judicial tendency to impose higher punitive damages on wealthier firms²⁴² has the perverse consequence of increasing the incentive of such firms to externalize risks despite their being more likely to take appropriate precautions (because they are less likely to be judgment-proof). Our conclusion, therefore, is that the increased externalization of risk induced by punitive damages argues for a lower level of punitive damages than would otherwise be appropriate.

O. Encouraging Market Transactions

In some circumstances a potential injurer can communicate with a potential victim before causing harm, for example, when a firm deliberately infringes on another's copyright, or when an individual regularly trespasses on someone's property. If prior communication is possible, a potential injurer could negotiate in advance with the potential victim to purchase the right to engage in the harm-creating conduct, rather than first causing the harm and then paying damages. The firm contemplating a copyright violation could secure a license to use the copyrighted material, or the trespasser could obtain an easement. Obviously, the greater the level of damages that would be imposed on an injurer who causes harm without having purchased the right to engage in the harm-creating conduct, the greater the incentive to purchase the right. In this sense, punitive damages can be said to encourage market

pro note 238, at 15 (describing independent tankers as "clunkers" operating under "lax standards" with "badly trained crews"), with Daniel Southerland, *Mobilising the Fleet: Oil Giant Hopes Emphasis on Tanker Safety Also Will Produce Profits*, WASH. POST, June 23, 1996, at H1 (emphasizing the high safety standards maintained by Mobil's shipping subsidiary).

²⁴¹ For a discussion of the advantages of performing tasks within a firm, rather than delegating them to independent contractors, see, for example, R.H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386, 390-92 (1937); OLIVER HART, *FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE* 1-92 (1995); and JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* 15-60 (1988).

²⁴² See *supra* pp. 910-11.

transactions. To our knowledge, courts rarely mention this effect of imposing punitive damages.²⁴³

In this section, we explain that it may be desirable to impose punitive damages in order to encourage market transactions. The reason in essence is that inducing potential injurers to bargain may better lead them to take harm into account and may reduce parties' wasteful efforts to try to take and protect property. Additionally, market exchange may be cheaper than litigation. A qualification to this discussion, however, is that imposing punitive damages when the parties are *not* easily able to bargain may overdeter injurers. Note that the rationale for punitive damages discussed in this section does not presume that a party who causes harm is able to escape liability with positive probability. In other words, the present rationale is independent of the escaping-liability rationale for punitive damages that has been the focus of our Article.²⁴⁴

To elaborate, suppose that compensatory damages alone are employed and that they are underestimated. A potential injurer then might cause harm when doing so is socially undesirable — because the benefit to the injurer might be less than the harm done but greater than the low estimate of compensatory damages.²⁴⁵ In general, as we observed above,²⁴⁶ an excessive amount of harm will be caused if damages are too low.

Additional undesirable repercussions, similar to those associated with the theft of property, may arise when compensatory damages are underestimated. If injurers can take property from victims without having to pay for its full value, potential injurers will devote effort to identifying and taking such property, and potential victims will expend effort to prevent their property from being taken. Copyright violators, for example, will devote resources to copying others' protected material, and copyright owners will take steps to stop such illicit copying. Such efforts are socially wasteful.

²⁴³ The only reference to this effect of which we are aware is in *Kemery v. Peters*, 79 F.3d 33 (7th Cir. 1996), in which Chief Judge Posner noted in dictum that "[p]unitive damages are necessary in some cases to make sure that people channel transactions through the market when the costs of voluntary transactions are low." *Id.* at 34.

²⁴⁴ The point that inducing market transactions may better lead potential injurers to take harm into account was made by Guido Calabresi and A. Douglas Melamed. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1115-24 (1972). This point has been developed by others. See Biggar, *supra* note 12; Haddock, McChesney & Spiegel, *supra* note 12; Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996); Landes & Posner, *supra* note 12.

²⁴⁵ In these circumstances, a potential victim would have an incentive to pay a potential injurer not to cause harm. Such a payment might not occur, however. For example, if there are many potential injurers, paying one not to cause harm would not forestall others from causing harm. See Kaplow & Shavell, *supra* note 244, at 722.

²⁴⁶ See *supra* p. 879.

The foregoing problems — an excessive amount of harm and wasteful efforts to take and protect property — can be avoided if punitive damages are imposed. If punitive damages are set so that total damages substantially exceed the value of the attractive property, a person who might otherwise simply take the property will instead bargain with its owner, because it would be cheaper to pay an agreed-on price than to pay damages. Consequently, property will be exchanged only if the buyer values it more than the property owner, and the incentive to take and protect property whose value might be underestimated by compensatory damages will be eliminated.

Another possible reason to employ punitive damages in order to encourage market transactions concerns administrative costs. If compensatory damages are used alone, exchange often will be mediated through the legal system by the bringing of a lawsuit; the cost of exchange then will be the cost of litigation (though this cost is frequently reduced because of settlement). But if punitive damages are used in addition, exchange will be much more likely to occur through voluntary transactions, which may be much less costly than litigation.

The arguments that we have discussed in favor of using punitive damages to promote market exchange obviously do not apply if bargaining between parties is not possible or there are substantial impediments to bargaining. Suppose, for instance, that a hiker lost in the mountains discovers an unoccupied cabin. The benefit he would obtain from using the cabin and consuming the food in it presumably would exceed the loss borne by the cabin's owner. But because there is no opportunity for the hiker to bargain with the owner, the effect of punitive damages might be to discourage the hiker from using the cabin. Hence, when parties cannot bargain, it may be better to employ compensatory damages alone (despite the possibility of errors in estimation); punitive damages would tend to overdeter injurers' conduct. Moreover, even if bargaining is feasible, there may be other impediments to efficient exchange — such as bargaining failures due to strategic behavior — that also could justify relying solely on compensatory damages.²⁴⁷

We conclude that punitive damages may sometimes have appeal when it is possible for a potential injurer to communicate with a potential victim before causing harm, in order to encourage market transactions. As we noted above, this rationale for punitive damages, when applicable, is independent of the escaping-liability rationale.²⁴⁸

²⁴⁷ For example, suppose a seller holds out for a high price and ultimately refuses to sell to a potential buyer who places a much greater value on the item at issue. In such circumstances, it may be better to set damages equal to harm and allow the "buyer" to take the item and pay damages than to encourage bargaining. See Calabresi & Melamed, *supra* note 244, at 1106-07.

²⁴⁸ If there is a probability of escaping liability, the punitive damages amount that is appropriate for the purpose of encouraging market transactions should itself be inflated according to the multiplier formula that we developed above. See *supra* section II.B.

IV. PUNISHMENT

By the punishment objective we refer to society's goal of imposing appropriate sanctions on blameworthy parties.²⁴⁹ We equate blameworthiness with the reprehensibility of a party's conduct, that is, with its maliciousness or the extent to which it reflects disregard for the well-being of others.²⁵⁰ We assume that the punishment objective derives ultimately from the pleasure or satisfaction people obtain from seeing blameworthy parties punished²⁵¹ (although our essential conclusions do not depend on this assumption²⁵²).

When the defendant is an individual, the connection between the imposition of punitive damages and the accomplishment of the punishment objective is conceptually straightforward: if, after assessing the blameworthiness of an individual's act, appropriate punitive damages are levied, the punishment objective is achieved.²⁵³

However, when the defendant is a firm, the relationship between punitive damages and the punishment objective is more complex. In this regard, we will develop three points. The first is that there are different ways of viewing the objective of punishment: the goal may be to punish firms as *entities*, that is, independently of whether blameworthy individuals within the firms are penalized; or the goal may be

²⁴⁹ See GEORGE P. FLETCHER, *RETHINKING CRIMINAL LAW* § 6.3.2, at 417 (1978) ("[T]he offender is duty-bound to suffer punishment, for his offense creates an imbalance of benefits and burdens in the society as a whole." (citing HERBERT MORRIS, *ON GUILT AND INNOCENCE* 34-36 (1976))); WALTER MOBERLY, *THE ETHICS OF PUNISHMENT* 95 (1968) (stating that, under a retributive theory, "punishment should serve both to express and to deepen the horror with which certain types of action ought to be regarded"); HERBERT L. PACKER, *THE LIMITS OF THE CRIMINAL SANCTION* 37 (1968) ("The retributive view [of punishment] rests on the idea that it is right for the wicked to be punished: because man is responsible for his actions, he ought to receive his just deserts."); C.L. TEN, *CRIME, GUILT, AND PUNISHMENT: A PHILOSOPHICAL INTRODUCTION* 2 (1987) ("Punishment involves the infliction of some unpleasantness on the offender . . . made to express disapproval or condemnation of the offender's conduct which is a breach of what is regarded as a desirable and obligatory standard of conduct.").

²⁵⁰ It is not necessary for our purposes to settle on a more refined definition of blameworthiness or culpability.

²⁵¹ A formal interpretation of this assumption is that an individual's utility depends on, and increases with, the magnitude of a variable that measures the extent to which a party who committed a reprehensible act is appropriately punished. (To describe this variable — call it V — more precisely, let S denote the level of the actual sanction, let R be the reprehensibility of the act, and let $S(R)$ represent the ideal punishment given R . Then V is higher the closer S is to $S(R)$.) Because social welfare depends on individual welfare, social welfare is advanced by punishing reprehensible parties appropriately.

The relationship between the punishment objective and the deterrence objective is discussed below. See *infra* notes 272-273 and accompanying text.

²⁵² It will be evident that, for the most part, our arguments will also hold if the punishment objective derives its force not from individual pleasure and satisfaction at seeing blameworthy parties punished, but from an abstract philosophical principle calling for retribution.

²⁵³ A qualification to this statement concerns liability insurance. If the punished party is insured, the degree to which he is punished depends on the extent to which his coverage is incomplete (because of, for example, deductibles or coinsurance) and the possibility that his premiums will rise in the future.

to punish firms only as a means of punishing culpable *individuals* in the firms. Our second point is that the imposition of punitive damages on firms may not lead to the punishment of blameworthy individuals within them; thus, the goal of punishing blameworthy employees may not be well promoted by imposing punitive damages on firms. The final point is that the imposition of punitive damages on firms often penalizes individuals who are unlikely to be considered culpable, namely, shareholders and customers. We conclude that, to the extent that the goal is to punish culpable individuals within firms, and not firms as entities, the utility of punitive damages in achieving the punishment objective is significantly attenuated.

Consider the possibility that the punishment objective might be furthered because people obtain satisfaction directly from the punishment of a blameworthy firm as an organization, without regard to whether anyone within the firm behaved inappropriately or is punished.²⁵⁴ We find this conception of the punishment goal unappealing both because it requires a definition of blameworthiness of a firm that is divorced from the behavior of any individuals who are affiliated with it, and because it necessitates believing that people would, after reflecting on the matter, want to impose a penalty on what ultimately is an artificial legal construct. The notion that individuals would want to punish firms per se strikes us as not entirely different from the idea that individuals would want to punish inanimate objects for causing harm (such as trees that fall on people).²⁵⁵

Notwithstanding these reservations, it is possible that individuals do want to personify firms and punish them as entities, and the reader can make up his or her mind about the importance of this way of defining the punishment objective. To the extent that it is important, the

²⁵⁴ A number of authors have discussed the punishment rationale in relation to corporations as entities. See, e.g., Albert W. Alschuler, *Ancient Law and the Punishment of Corporations: Of Frankpledge and Deodand*, 71 B.U. L. REV. 307, 312 (1991) (arguing that corporate criminal responsibility is the unwise result of a "superstitious" hatred of the inanimate corporation); V.S. Khanna, *Corporate Criminal Liability: What Purpose Does It Serve?*, 109 HARV. L. REV. 1477, 1494 n.91 (1996) (describing "[t]he notion that society has a retributive need so great that it must punish nonhuman entities and label them criminal" as "implausible"); *Developments in the Law — Corporate Crime: Regulating Corporate Behavior Through Criminal Sanctions*, 92 HARV. L. REV. 1227, 1237 (1979) ("Even though deterrence clearly plays a critical role in the justification of corporate criminal sanctions, the argument that retribution cannot be involved is unconvincing."). As Christopher Stone notes:

Corporate penalties often impose losses in circumstances when no one appears blameworthy True, we allow some of these same innocents to suffer . . . when corporate agents wrongfully break a contract or commit a tort But it seems one thing to make a blameless investor help absorb ordinary damages . . . and quite another thing to reduce his investment further by imposing a penalty.

Christopher D. Stone, *The Place of Enterprise Liability in the Control of Corporate Conduct*, 90 YALE L.J. 1, 27 (1980).

²⁵⁵ For a similar reaction to the idea of corporate punishment, see Alschuler, cited above in note 254, at 312-13.

imposition of punitive damages on a blameworthy firm directly promotes the punishment objective, much as it does when the defendant is a culpable individual.²⁵⁶

Now consider the alternative reason for punishing firms — to punish blameworthy individuals within them. Supposing that this is the purpose of punishment, we turn to our second point, about the extent to which the imposition of punitive damages on firms will actually result in the punishment of blameworthy employees. Because firms clearly have an interest in discouraging culpable conduct by their employees that could give rise to punitive damages, they can be expected to seek to control such conduct through the use of internal sanctions, such as demotion or dismissal. However, two considerations suggest that the imposition of punitive damages on firms will lead to less punishment of blameworthy employees than might at first be supposed.

First, culpable employees may not be punished by firms because the firms may have difficulty identifying them. Such individuals may be able to obfuscate their role in decisionmaking or conceal their behavior in a variety of ways. For example, an employee responsible for checking a safety valve on a tank storing dangerous chemicals that subsequently explodes because of a defective valve may claim that he performed the inspection even if he did not, and may place a false entry in his record book attesting to the inspection. A manager whose judgment is impaired by alcohol and who gives oral instructions to a subordinate that lead to an accident may deny ever having told the subordinate to do what the subordinate did.²⁵⁷

Second, even if culpable individuals within a firm can be identified and punished by the firm, imposing punitive damages on firms often will have little or no *marginal effect* on their punishment. That is, the internal sanction imposed on such employees may not be much (if at all) greater as a result of the firm's bearing both punitive and compensatory damages than if the firm had borne compensatory damages alone. When a firm incurs high compensatory damages because of the blameworthy conduct of an identifiable employee, it may want to levy whatever sanctions on him that it can; imposing punitive damages on

²⁵⁶ Because the punishment objective is, according to our approach, derived from the desire of individuals to punish culpable parties, the importance of the view that corporations per se should be punished is an empirical matter, dependent on how many individuals hold this position and how strongly. We would not be surprised to find that many individuals firmly believe that it is proper to punish corporations as entities, but we also suspect that, were these individuals to consider seriously the distinction between that goal and the goal of punishing only culpable employees, they would soften, if not reverse, their position.

²⁵⁷ Although firms may have difficulty identifying culpable employees for the reasons discussed in this paragraph, imposition of punitive damages might induce firms to take additional steps to discover such individuals. If punitive damages have this effect, their imposition could help to satisfy the punishment objective.

the firm then would not result in additional punishment of the employee.²⁵⁸

The preceding discussion presupposed that there exist culpable employees in the firm. But in some situations there may not be any. If a significant delay occurs between misconduct and the manifestation of harm and litigation (as was the case, for instance, in connection with the use of asbestos in products), blameworthy individuals may have changed jobs, retired, or died.²⁵⁹ Also, because decisions in firms often are made by many individuals, it may be that no one individual has the requisite knowledge of risk and of the consequences of his behavior to be considered culpable. One person may decide to put a toxic liquid in a storage tank, believing that the tank can never leak, and another person may leave the tank in a state in which a leak can occur, thinking that the liquid in the tank is not toxic, so that a leak would not cause harm. Here, each decision considered by itself may not be blameworthy because each person believes that what he is doing does not create a risk of a harmful accident.²⁶⁰

Let us now consider the third point, concerning how imposing punitive damages on firms often penalizes the firms' shareholders and customers. Shareholders, as residual claimants of a firm's profits, obviously will be made worse off when punitive damages are levied on a firm.²⁶¹ Indeed, they usually can be expected to bear a major fraction of the burden of punitive damages.²⁶² Given that shareholders are punished by punitive damages, the question whether they are blameworthy must be considered. If a shareholder owns a significant fraction of a firm's stock, participated actively in the firm's decisions and acted egregiously, his position would be much like that of a blamewor-

²⁵⁸ It may be worth elaborating on this point. If employees are risk neutral (which we assume here for simplicity), a firm would seek to make an employee pay for any damages he caused the firm to bear; such a practice would make the employee's incentives to prevent harm correct from the firm's perspective. Thus, if damages are \$1000, the employee would pay this amount to the firm. But because an employee's assets are limited, the firm's ability to punish an employee will be exhausted as soon as the judgment against the firm exceeds the employee's assets. Thus, if the employee's assets are \$10,000, no marginal effect of higher damages will occur once the total damages exceed \$10,000. (The situation just described ignores other possible responses of the firm to higher damages. For example, firms might increase their efforts to detect employee misconduct and thereby increase the expected punishment of employees. But our basic point would still apply.)

²⁵⁹ However, individuals who have changed jobs or retired might be subject to punishment by their former employer because the employer might be able to sue them for acts done when employed.

²⁶⁰ Of course, some other person within the firm may have been responsible for directing the flow of information, but that person also may not have acted culpably.

²⁶¹ Other stakeholders of the firm also will suffer, such as unsecured creditors who are less likely to be repaid if the firm's assets are diminished because of the payment of punitive damages.

²⁶² Because blameworthy employees generally will bear only a small part of a punitive damages judgment (on account of their limited assets), shareholders and customers will suffer the major part. Under certain circumstances, moreover, customers will not bear much of the burden of punitive damages. See *infra* note 264.

thy employee with decisionmaking power; each would be culpable. But if a shareholder owns a minuscule fraction of the stock of the firm and was a passive investor with no direct involvement in the firm's decisionmaking processes, his degree of blameworthiness would be small, if not nonexistent.²⁶³

A firm's customers also will be made worse off as a result of the imposition of punitive damages on the firm if such damages cause the prices of the firm's products or services to rise. Firms may regard punitive damages as an additional cost of doing business — a cost that, with a positive probability, will be borne by them in addition to their ordinary costs. To cover the added cost of punitive damages, firms will tend to raise their prices, which will cause the welfare of their customers to decline.²⁶⁴ Customers, however, would not ordinarily be considered blameworthy, because they do not exert direct control over the actions of firms that pose risks to other persons.²⁶⁵ Consequently, to the extent that customers pay higher prices as a result of the imposition of punitive damages on firms, innocent parties are penalized.²⁶⁶

We can summarize our discussion of the punishment of firms as follows. The view that a firm should be punished per se — without reference to the punishment of individuals within it — is a possible view, but one that we find problematic. Another view is that the punishment goal is promoted *only* by punishing blameworthy individuals within firms. We have explained, however, that imposing punitive damages on firms often will not result in the punishment (or at least any additional punishment) of blameworthy employees, so the use of such damages might not advance the punishment goal very much. Moreover, imposing punitive damages frequently will penalize shareholders and customers, parties who are not likely to be considered blameworthy. This adverse consequence of punitive damages must be weighed against the beneficial effects of such damages in furthering the punishment goal.

Having addressed punitive damages and punishment in general terms, we now briefly consider how the reprehensibility of the defen-

²⁶³ If one does believe that each shareholder is slightly blameworthy, the fact that each bears a small portion of punitive damages might be thought to be desirable.

²⁶⁴ If, however, a particular firm bears punitive damages for a reason not generally applicable to other firms in its industry, these other firms would not have a reason to raise their prices. Consequently, the firm paying the punitive damages would not be able to raise the price of its products (because consumers would purchase from the other firms).

²⁶⁵ However, it might be thought that customers are partially blameworthy for harms caused by firms because, in the absence of customer interest in firms' products, production and harms would not occur.

²⁶⁶ For a complementary discussion of the effects of corporate sanctions on a firm's shareholders, bondholders, employees, and customers, see John C. Coffee, Jr., "No Soul to Damn: No Body to Kick": An Unscandalized Inquiry into the Problem of Corporate Punishment, 79 MICH. L. REV. 386, 401-02 (1981). Coffee observes that "the costs of [corporate] deterrence tend to spill over onto parties who cannot be characterized as culpable." *Id.*

dant's conduct and the wealth of the defendant should influence punitive damages with respect to the punishment objective.²⁶⁷ Regarding reprehensibility, we merely observe that the punishment objective will, by definition, be met if sanctions are imposed on those who have acted reprehensibly. Hence, determining the reprehensibility of the defendant's conduct is intrinsic to satisfaction of the punishment objective, and the law's focus on reprehensibility obviously makes sense given this objective. In the case of firms, however, the connection between reprehensibility and punishment may be attenuated for reasons discussed above — the imposition of punitive damages on a firm may not result in the punishment of individuals within the firm who acted reprehensibly.

Concerning defendants' wealth and the appropriate level of damages from the perspective of punishment, consider first the situation when defendants are individuals. In this case, the common belief that punitive damages should be higher for wealthier defendants can be justified. The punishment goal is furthered if a proper punishment is imposed on a culpable individual, which we interpret to mean reducing the individual's utility by a particular amount. To accomplish this, it is generally necessary to assess a higher penalty if the individual is wealthy than if he is poor, because money is worth less to him if he is wealthy.²⁶⁸

When the defendant is a firm, the relevance of the defendant's wealth depends on whether the punishment goal is viewed in terms of punishing the firm as an entity or punishing culpable individuals within the firm. Under the first view, the firm's wealth might be thought to be relevant to the proper level of damages for punishment purposes.²⁶⁹ Under the second view, however, the firm's wealth generally would not be relevant: the level of damages needed to induce a firm to punish its culpable employees ordinarily would not depend on its wealth. A \$100 million firm and a \$10 million firm would both be expected to impose the same sanction on an employee for misconduct that resulted in a punitive damages award of a given amount. The reason is that, as we have said, rational firms will develop a policy of

²⁶⁷ We will not, however, re-examine the other topics in Part III in relation to punishment. For the most part, what can be said about these topics is clear. Consider, for example, the issue of the tax deductibility of punitive damages. Allowing punitive damages to be deductible would reduce their sting, and so might be undesirable in terms of accomplishing the punishment objective. Likewise, allowing liability insurance coverage against punitive damages also might be undesirable from the perspective of punishment.

²⁶⁸ We mentioned this point above. See *supra* note 138 and accompanying text. How much the penalty must rise will be determined by the rate at which the marginal utility of money declines with wealth for the individual. In particular, there is no reason to believe that the proper penalty for purposes of punishment would be proportional to wealth.

²⁶⁹ We say "might" because the first view is not well articulated, and therefore it is unclear what this view would imply about the proper relationship between the level of punitive damages and a corporation's wealth.

punishing employee misbehavior to lower their liability expenses. This policy should depend on variables other than the firm's wealth — notably, the damages that the firm will bear as a result of employee misbehavior.²⁷⁰ To the extent that the internal sanctions that firms impose on culpable employees do not depend on the firm's wealth, the punishment objective will not be advanced by making punitive damages depend on its wealth.²⁷¹

V. CONCLUSION

In this Article, we have discussed the two fundamental purposes of punitive damages — deterrence and punishment — and have come to conclusions regarding each objective that we now briefly review.

Our central conclusion about punitive damages and deterrence is conceptually simple. Punitive damages should be imposed when deterrence otherwise would be inadequate because of the possibility that injurers would escape liability. In particular, punitive damages should be set at a level such that the expected damages of defendants equal the harm they have caused, for then their damage payments will, in an average sense, equal the harm. This implies a simple formula for calculating punitive damages, according to which harm is multiplied by a factor reflecting the likelihood of escaping liability. If punitive damages are calculated according to this multiplier formula, precautions will tend to be optimal — neither inadequate nor excessive — as will product prices and the incentive to participate in risky activities. These conclusions about punitive damages, and the importance of the role of the defendant's chance of escaping liability, flow from the standard and well-accepted theory of deterrence. We also discussed a deterrence rationale for punitive damages that is not based on the possibility of escaping liability: that punitive damages may be needed to offset the socially illicit utility that individuals obtain from committing malicious acts. This rationale, as we noted, does not apply to firms.

The theory of deterrence not only yields a multiplier formula for computing punitive damages, but also provides guidance regarding a range of important doctrinal and policy issues concerning punitive damages. Notably, we discussed the point that the reprehensibility of a party's conduct generally should not be a factor in the assessment of punitive damages (except in the case of an individual's malicious act),

²⁷⁰ The reasoning behind this statement is essentially that used above when we explained that a firm's wealth will not affect its incentive to invest in safety precautions. See *supra* section III.B.

²⁷¹ We have not addressed in this Part the institutional question of who should determine the proper level of damages for purposes of promoting the punishment goal of punitive damages. For an interesting empirical examination and discussion of this question, see Cass R. Sunstein, Daniel Kahneman & David Schkade, *Assessing Punitive Damages (With Notes on Cognition and Valuation in Law)*, 107 YALE L.J. (forthcoming May 1998).

as well as the point that the wealth of a defendant usually should not influence punitive damages (subject to the same exception).

A corollary of our analysis is that the imposition of punitive damages when they are not justified on deterrence grounds generally has socially detrimental consequences. These consequences can take the form of excessive precautionary measures and inappropriate discouragement of participation in socially beneficial activities. In the case of firms, the latter effect may manifest itself in the form of undesirably high prices and the withdrawal of products from markets.

With respect to the punishment objective, we observed that the connection between punitive damages and punishment is relatively straightforward if the defendant is an individual, or if the defendant is a firm and the goal is to punish firms as entities (although we found this latter goal problematic). We came to a different conclusion, however, when the defendant is a firm and the objective is to punish culpable employees. Because the imposition of punitive damages on firms may not result in the punishment of blameworthy employees, but often will penalize shareholders and customers — parties who are not likely to be blameworthy — the ability of punitive damages to advance the punishment goal in the case of firms is limited.

We have not yet commented on how the level of punitive damages should be determined when the objectives of deterrence and punishment have different implications for the proper measure of punitive damages. It is evident that the best level of punitive damages should be a compromise between the levels that are optimal when each objective is considered independently.²⁷² (The quantities of punitive damages that are separately optimal with respect to the two objectives should not be added to each other.²⁷³) The weights to be used in the

²⁷² For example, suppose that the level of damages that is best with respect to deterrence is \$1 million and that the amount that is best with respect to punishment is \$2 million. The optimal amount, taking account of both objectives, must be between \$1 and \$2 million. As damages are increased from \$1 million to \$2 million, overdeterrence occurs, but punishment is better promoted. It is optimal to stop raising damages when the marginal social loss from overdeterrence begins to outweigh the marginal social gain from better punishment. (To complete the explanation, observe that optimal damages cannot be less than \$1 million or more than \$2 million: were damages less than \$1 million, the outcome would be worse with respect to both the deterrence and the punishment goals than if damages were \$1 million; and were damages in excess of \$2 million, the outcome would be worse with respect to both goals than if damages were \$2 million.) For further discussion regarding the choice of the level of punitive damages that best balances the deterrence and punishment goals, see Diamond, Punishment and Efficiency, *supra* note 12, at 11–14.

²⁷³ In essence, the amounts should not be added because the punitive damages amount that is proper for the purpose of deterrence also punishes, and the punitive damages amount that is proper for the purpose of punishment also deters.

It is easy to see in the example in the preceding note that it would not be correct to add the \$1 million amount that is best for deterrence to the \$2 million amount that is best for punishment and impose damages of \$3 million. To amplify on what we stated parenthetically in that note, if damages of \$2 million are best with respect to punishment, then damages of \$3 million would

determination of the compromise will reflect the relative importance accorded to the goals of deterrence and punishment.

Whatever are the weights that policymakers, judges, or juries place on these two goals, we hope that the conceptual framework developed in this Article will aid them in determining the appropriate amount of punitive damages.

punish excessively and thus would be worse than damages of \$2 million; that is, damages of \$2 million are superior to \$3 million in terms of punishment. Also, damages of \$2 million are superior to damages of \$3 million in terms of deterrence, for \$3 million overdeters more than \$2 million overdeters. Hence, damages of \$3 million cannot be optimal: damages of \$2 million are superior from the perspectives of both punishment and deterrence (and, as we argued in the preceding note, the *optimal* level of damages must be between \$1 million and \$2 million).

APPENDIX: MODEL JURY INSTRUCTIONS

The following model jury instructions encapsulate many of the conclusions of our Article. Three sets of instructions are presented: for individuals who have not committed malicious acts; for individuals who have committed malicious acts; and for firms. With regard to the instructions for firms, we have assumed that the goal of punishment is to penalize blameworthy employees, not to punish firms as entities. (The instructions can be modified to reflect a different assumption.)

* * *

FOR INDIVIDUALS WHO HAVE NOT COMMITTED MALICIOUS ACTS

These instructions apply to defendants who have not committed malicious acts. An act is malicious only if it was done for the *purpose* of causing harm.

In considering the imposition of punitive damages on the defendant, you should determine three dollar amounts: (A) an amount to accomplish deterrence; (B) an amount to accomplish punishment; (C) a final amount — your punitive damages award — between the first two amounts.

A. Deterrence

1. Punitive damages fulfill the deterrence objective to the extent that they serve as a message and warning to the defendant and to other similarly situated individuals to take appropriate steps in order to prevent harm in the future. But punitive damages will not fulfill the deterrence objective if they cause individuals to take wasteful steps to prevent harm or if they cause individuals to refrain from engaging in socially desirable activities.

2. Your principal task is to estimate the likelihood that the defendant might have escaped having to pay for the harm for which he or she should be responsible. Thus, for example, if the harm was noticeable and likely to lead to a lawsuit, your estimate of the likelihood of escaping liability would be relatively low. But if the harm might not have been attributed to the defendant, or if the defendant tried to conceal his or her harmful conduct, your estimate of the likelihood of escaping liability would be relatively high.

3. You should use the Table below to determine the punitive damages multiplier that corresponds to your estimated probability of escaping liability. Then multiply the compensatory damages amount by your punitive damages multiplier. The resulting number is the *base punitive damages amount*.

4. The base punitive damages amount *should be lowered* if the defendant has paid other private judgments or settlements, or public penalties, for the harm at issue in the present case. If the defendant

has made such payments, the base punitive damages amount should be lowered by the amount of these payments.

5. The base punitive damages amount *should not be adjusted* because of any of the following considerations:

- (a) reprehensibility of the defendant's conduct;
- (b) net worth or income of the defendant;
- (c) potential harm, that is, the harm that might have been caused by the defendant's conduct;
- (d) gain or profit that the defendant might have obtained from his or her harmful conduct;
- (e) litigation costs borne by the plaintiff;
- (f) components of harm that you did not include in compensatory damages;
- (g) whether the harm included personal injury.

B. Punishment

1. Punitive damages fulfill the punishment objective to the extent that they penalize blameworthy defendants for reprehensible behavior. You should determine the amount of punitive damages that you believe will accomplish proper punishment.

2. In considering punishment, keep in mind that the defendant's payment of compensatory damages already punishes the defendant to some extent. The amount of punitive damages that you believe will accomplish proper punishment should be what you think must be added to compensatory damages to accomplish the punishment objective, if any additional damages are necessary.

C. Determination of Punitive Damages

Punitive damages should be an amount *between* the amount that you found appropriate for the purpose of deterrence and the amount that you found appropriate for the purpose of punishment. If you attach greater importance to the deterrence objective, punitive damages should be closer to the amount that you found best to promote deterrence. If you attach greater importance to the punishment objective, punitive damages should be closer to the amount that you found best to promote punishment.

* * *

FOR INDIVIDUALS WHO HAVE COMMITTED MALICIOUS ACTS

These instructions apply to defendants who have committed malicious acts. An act is malicious if it was done for the *purpose* of causing harm.

In considering the imposition of punitive damages on the defendant, you should determine three dollar amounts: (A) an amount to ac-

compish deterrence; (B) an amount to accomplish punishment; (C) a final amount — your punitive damages award — between the first two amounts.

A. Deterrence

1. Punitive damages fulfill the deterrence objective to the extent that they serve as a message and warning to the defendant and to other similarly situated individuals not to commit malicious acts in the future. But punitive damages will not fulfill the deterrence objective if they cause individuals to take wasteful steps to avoid possible liability or if they cause individuals to refrain from engaging in socially desirable activities.

2. Your principal task is to estimate the likelihood that the defendant might have escaped having to pay for the harm for which he or she should be responsible. Thus, for example, if the harm was noticeable and likely to lead to a lawsuit, your estimate of the likelihood of escaping liability would be relatively low. But if the harm might not have been attributed to the defendant, or if the defendant tried to conceal his or her harmful conduct, your estimate of the likelihood of escaping liability would be relatively high.

3. You should use the Table below to determine the punitive damages multiplier that corresponds to your estimated probability of escaping liability. Then determine the amount that you believe is equivalent to the gain that the defendant obtained from his or her conduct. Multiply this amount by your punitive damages multiplier. The resulting number is the *base punitive damages amount*.

4. The base punitive damages amount *should be lowered* if the defendant has paid other private judgments or settlements, or public penalties, for the harm at issue in the present case. If the defendant has made such payments, the base punitive damages amount should be lowered by the amount of these payments.

5. The base punitive damages amount *should not be adjusted* because of any of the following considerations:

- (a) potential harm, that is, the harm that might have been caused by the defendant's conduct;
- (b) litigation costs borne by the plaintiff;
- (c) components of harm that you did not include in compensatory damages.

B. Punishment

1. Punitive damages fulfill the punishment objective to the extent that they penalize blameworthy defendants for reprehensible behavior. You should determine the amount of punitive damages that you believe will accomplish proper punishment.

2. In considering punishment, keep in mind that the defendant's payment of compensatory damages already punishes the defendant to some extent. The amount of punitive damages that you believe will accomplish proper punishment should be what you think must be added to compensatory damages to accomplish the punishment objective, if any additional damages are necessary.

C. Determination of Punitive Damages

Punitive damages should be an amount *between* the amount that you found appropriate for the purpose of deterrence and the amount that you found appropriate for the purpose of punishment. If you attach greater importance to the deterrence objective, punitive damages should be closer to the amount that you found best to promote deterrence. If you attach greater importance to the punishment objective, punitive damages should be closer to the amount that you found best to promote punishment.

* * *

FOR FIRMS

In considering the imposition of punitive damages on the defendant, you should determine three dollar amounts: (A) an amount to accomplish deterrence; (B) an amount to accomplish punishment; (C) a final amount — your punitive damages award — *between* the first two amounts.

A. Deterrence

1. Punitive damages fulfill the deterrence objective to the extent that they serve as a message and warning to the defendant and to other similarly situated firms to take appropriate steps to prevent harm in the future. But punitive damages will not fulfill the deterrence objective if they cause firms to take wasteful steps to prevent harm, if they cause the prices of products and services to rise excessively, or if they cause firms to withdraw socially valuable products or services from the market.

2. To achieve the deterrence objective, your principal task is to estimate the likelihood that the defendant might have escaped having to pay for the harm for which it should be responsible. Thus, for example, if the harm was noticeable and likely to lead to a lawsuit, your estimate of the likelihood of escaping liability would be relatively low. But if the harm might not have been attributed to the defendant, or if the defendant tried to conceal its harmful conduct, your estimate of the likelihood of escaping liability would be relatively high.

3. You should use the Table below to determine the punitive damages multiplier that corresponds to your estimated probability of

escaping liability. Then multiply the compensatory damages amount by your punitive damages multiplier. The resulting number is the *base punitive damages amount*.

4. The base punitive damages amount *should be lowered* if the defendant has paid other private judgments or settlements, or public penalties, for the harm at issue in the present case. If the defendant has made such payments, the base punitive damages amount should be lowered by the amount of these payments.

5. The base punitive damages amount also *may be lowered* if the plaintiff was a customer of the defendant. If the plaintiff was a customer and you believe that customers are, or will become, aware of accidents of the type at issue in this case, the base punitive damages amount should be lowered. The more knowledgeable customers are, the more the base punitive damages amount should be lowered.

6. The base punitive damages amount *should not be adjusted* because of any of the following considerations:

- (a) reprehensibility of the defendant's conduct;
- (b) net worth, revenues, or profits of the defendant;
- (c) potential harm, that is, the harm that might have been caused by the defendant's conduct;
- (d) gain or profit that the defendant might have obtained from its harmful conduct;
- (e) litigation costs borne by the plaintiff;
- (f) components of harm that you did not include in compensatory damages;
- (g) whether the harm included personal injury.

B. Punishment

1. Punitive damages fulfill the punishment objective to the extent that they cause defendants to penalize their *blameworthy employees* for reprehensible behavior.

2. In considering punishment, you should keep in mind that the defendant's payment of compensatory damages already may lead to the punishment of blameworthy employees to some extent.

3. In considering how well the imposition of punitive damages will fulfill the punishment objective, you should also bear the following in mind:

(a) the extent to which you believe blameworthy employees can be identified and penalized by the defendant. The easier this identification is, the higher should be the level of punitive damages.

(b) the extent to which you believe that innocent parties will suffer as a result of the imposition of punitive damages on the defendant; such parties might include shareholders as well as customers, who may have to pay higher prices for the defendant's products or services. The more likely it is that innocent parties will be punished, the lower should be the level of punitive damages.

4. In the light of these considerations, you should determine the amount of punitive damages that you believe will accomplish proper punishment.

C. *Determination of Punitive Damages*

Punitive damages should be an amount *between* the amount that you found appropriate for the purpose of deterrence and the amount that you found appropriate for the purpose of punishment. If you attach greater importance to the deterrence objective, punitive damages should be closer to the amount that you found best to promote deterrence. If you attach greater importance to the punishment objective, punitive damages should be closer to the amount that you found best to promote punishment.

* * *

TABLE²⁷⁴

Probability of Escaping Liability	Punitive Damages Multiplier
0%	0
10%	.11
20%	.25
30%	.43
40%	.67
50%	1.00
60%	1.50
70%	2.33
80%	4.00
90%	9.00

²⁷⁴ The multipliers in the Table are derived as follows. Let P be the probability of being found liable; thus, the probability of escaping liability is $1 - P$. The multiplier then equals $(1 - P)/P$.

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