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Recommended Citation

Frank H. Easterbrook & Daniel R. Fischel, "Optimal Damages in Securities Cases," 52 University of Chicago Law Review 611 (1985).

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Optimal Damages in Securities Cases

Frank H. Easterbrook[†]

Daniel R. Fischel^{††}

Securities cases commonly entail claims for millions of dollars in damages. A securities violation may affect thousands of investors, and each may seek to recover the difference between the price paid for the stock and its current value. Because securities litigation typically accompanies some catastrophe in the fortunes of the firm, the claims quickly mount up.

Although securities cases are a staple of modern litigation, there are no accepted rules for the computation of damages. The principal statutes contain a number of different articulations, ranging from rescission to "profits" to unspecified "damages."¹ The cases contain a melange of rules. Some courts emphasize the plaintiff's out-of-pocket loss; some emphasize the defendant's profits; some award rescission and some restitution; all too often a court will give up and announce that the district court has discretion to

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^{††} Professor of Law, University of Chicago. This article is part of a larger project, which should appear under the title *THE ECONOMIC STRUCTURE OF CORPORATE LAW*. We thank Douglas G. Baird, Walter J. Blum, William M. Landes, Bernard D. Meltzer, A. Mitchell Polinsky, Richard A. Posner, Steven Shavell, Nicholas Wolfson, and the participants in the Law and Economics Workshop of Stanford University for helpful comments on earlier drafts.

¹ Section 12 of the Securities Act of 1933 (the 1933 Act) allows those who purchased unregistered securities (or who purchased from sellers who made material misrepresentations) to recover the price paid "less the amount of any income received thereon, upon the tender of such security, or . . . damages if he no longer owns the security." 15 U.S.C. § 77l (1982). Section 11(e) of the 1933 Act provides for the award of the price paid less value at the time of suit or sale, when there was a misrepresentation in the registration statement, but it creates a defense that the difference is not recoverable if it "represents other than the depreciation in value of such security" resulting from the event creating the liability. 15 U.S.C. § 77k(e) (1982). Section 9(e) of the Securities Exchange Act of 1934 (the 1934 Act) establishes "damages sustained" as the standard in certain manipulative-practices cases, 15 U.S.C. § 78j(e) (1982), and section 18(a) of the 1934 Act covers "damages caused" by reliance on misstatements in documents filed with the Securities and Exchange Commission (SEC), 15 U.S.C. § 78r (1982). The Insider Trading Sanctions Act of 1984, Pub. L. No. 98-376, § 2, 1984 U.S. CODE CONG. & AD. NEWS (98 Stat.) 1264, 1264-65 (amending § 21(d) of the 1934 Act, to be codified at 15 U.S.C. § 78u(d)(2)), allows a court to assess a penalty of up to three times the defendants' "profits" from inside trading. There are variations on each of these themes.

fashion "a remedy to suit the particular case"—as if there were no need for legal rules to evaluate the significance and effects of the facts of "the particular case."² The academic literature is little better. Scholars frequently observe that the rules are poorly articulated and inconsistent.³ But recognition of the problem does not lead to a neat solution. The American Law Institute's *Federal Securities Code*, designed to serve as a model for legislation and interpretation, contains all of the competing rules and caps off the confusion with a proviso that all of the rules "may be varied on a showing that a different definition of rescission or measure of damages would be plainly more appropriate on consideration of such factors as the plaintiff's loss, the defendant's profit, and the deterrent effect of the particular type of liability."⁴

Our thesis is that things appear to be more chaotic than they are. Some fairly simple principles lead to intelligible rules of damages. These rules are not only elegant in theory but also applied in practice. The rhetoric that appears in opinions does not always track the analysis we supply, but neither do the courts' judgments follow their rhetoric.

The principles we use are derived from the economics of sanctions. The economics of sanctions starts from the proposition that the objective of a legal rule is to deter certain undesirable behavior without simultaneously deterring (too much) beneficial behavior. We would like to design rules that minimize the sum of the losses from (a) undesirable behavior that the rules permit, (b) desirable behavior that the laws deter, and (c) the costs of enforcing the rules. The legal system balances these competing objectives through the choice of sanctions as well as through the choice of substantive doctrines. Indeed, a thoughtful selection of the sanction may promote desirable outcomes even though the substantive rule is necessarily incomplete or overbroad.

Though the terminology we use—optimal sanctions, allocative efficiency, and the like—is alien to securities law, the objective of deterrence is not. Legislators and judges commonly justify their

² *Hackbart v. Holmes*, 675 F.2d 1114, 1121 (10th Cir. 1982), is the source of the quotation. For compendia of the approaches of different courts, see THOMAS HAZEN, *THE LAW OF SECURITIES REGULATION* § 13.7 (1985); Jacobs, *The Measure of Damages in Rule 10b-5 Cases*, 65 GEO. L.J. 1093 (1977).

³ Thompson, *The Measure of Recovery Under Rule 10b-5: A Restitution Alternative to Tort Damages*, 37 VAND. L. REV. 349 (1984), is an especially effective dissection of the cases.

⁴ FEDERAL SEC. CODE § 1723(e) (1980). The commentary announces that perhaps "there is no law of damages under Rule 10b-5." *Id.* comment 1.

decisions in terms of desire for deterrence, fear of overdeterrence, and concern about the costs of the legal system. These are fundamentally economic concepts, and the economics of sanctions is therefore a suitable tool for understanding and shaping the content of the rules. The decision to buy, hold, or sell a security is based on a desire for economic gain. Securities often are traded in fairly well-functioning markets, so that the premises of economic analysis are satisfied more easily here than in many other parts of the law. Investors frequently are wealthy and sophisticated; other investors often are represented by agents (brokers, investment bankers, managers of pension funds and mutual funds) who not only are sophisticated but also can react on short notice to new information, opportunities, and rules. The stated objective of securities law is to make markets function efficiently—not to redistribute income or reshape preferences. True, people sometimes say that the function of securities law is “the protection of investors” or “compensation for wrongs,” but these are just restatements of the objective of efficient operation of the markets. When markets efficiently respond to information, the price of securities adjusts, and this protects all investors—even uninformed ones.⁵

The discussion proceeds as follows. Part I sets out the principles of optimal sanctions. We show why damages for ambiguous conduct (such as nondisclosure) should approximate the net loss that wrongful conduct imposes on others. Lower awards permit too many wrongs; higher awards deter too many beneficial transactions. The awards for some intentionally wrongful conduct (such as deliberate lies) should be higher, because there is no offsetting benefit. Often it is hard to compute net losses, but well-functioning securities markets produce much of the information that underlies this computation. We show how changes in the level of prices in the market affect damages and why different rules are appropriate for transactions in illiquid markets.

Part II applies these principles to many of the problems encountered in securities litigation. We discuss fraud in the issuance of securities of both public and close corporations, fraud and nondisclosure in the aftermarket, insider trading, and brokers' miscon-

⁵ Easterbrook & Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. Rev. 669, 693-94 (1984). This mechanism obviously works imperfectly even in the most liquid markets, and in markets for close corporations it may not work at all. See Gilson & Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. Rev. 549 (1984); J. Gordon & L. Kornhauser, *Efficient Markets, Costly Information, and Securities Research* (Dec. 20, 1984) (unpublished manuscript, N.Y.U. School of Law).

duct. We show that many of the legal treatments follow reasonably closely the distinctions implied in the economics of sanctions. The legal rules governing punitive damages and trading in the aftermarket do not correspond to the economic principles as closely as do other rules.

I. THE ECONOMICS OF OPTIMAL SANCTIONS IN SECURITIES MARKETS

A. The "Efficient Offense"

Securities are specialized contracts. Investors agree to contribute capital and bear the risk of the enterprise; in exchange they get promises of a role in running the business and a share of the returns. A "securities fraud" is a form of breach of contract. One party fails to furnish another with information required in the regular course of dealing, or he furnishes information but defaults in his duties, making the information inaccurate. We should expect a close relationship between damages in securities cases and damages in other contract cases.

Damages in most of contract law mediate among the costs of extreme positions. At one extreme, the legal rule could ensure that parties keep all their contracts. Draconian damages rules would do this. At the other extreme, the legal rule could permit breach whenever convenient to the breaching party. A rule of zero damages would have this effect. Courts do not adopt either extreme. Plaintiffs in contract cases commonly recover the lost value of the contract (the "expectation" measure of damages). A person who contracted for a ton of peas, at \$1 per pound, to be delivered on July 1 in New York, is entitled on breach to the difference between \$1 and the market price of peas on July 1 in New York—the price at which he can "cover" the contract. The aggrieved party cannot get "lost profits" or "consequential damages" recoveries unless the contract applies to a unique good.

The measure of damages in contract cases permits parties to a contract to commit "efficient breaches." Suppose the seller of the peas has them on hand in California, and the price of peas rises to \$1.10 per pound in California. The best disposition of these peas is to make them available to eat in California (where buyers value them more highly) rather than to ship them across the country to New York, where the current price may be only \$1.05. The damages rule induces the seller to divert the peas to California; the buyer may secure peas for \$1.05 in New York, and the seller will pay the buyer five cents per pound. The rule permits the parties to

take account of the costs of performance of their contract and of changing relative values. It acts as if the parties had the foresight to negotiate about such contingencies. Damages rules may approximate the results of contracts that provide for all contingencies.⁶

It is easy to see that there may be an "optimal level of breach" in ordinary contracts. It is not so obvious that this is so with securities contracts. Nevertheless, the same principles apply. "Truth," like all good things, is costly to produce. The person selling securities must investigate the business venture at hand and package the information in a form that investors can understand. The process of acquiring and packaging information can be exceptionally expensive. Whole industries—accounting, investment banking, much of the bar, much of the financial press—are the embodiments of the costs of investigation and certification of information about firms and their securities. For any complex business, it is impossible to find and present "everything material" in a space less than that of a decent-sized library.

B. Efficient Liability Rules and Efficient Damages Rules

Investors would like to reduce the costs of finding and presenting the truth about firms and their securities. Because there are benefits in less than total candor—ranging from a reduction in paperwork to the ability to hide vital facts from one's business rival—it is important to establish legal principles that recognize the value of nondisclosure. And there are two ways to do this, just as with other contracts. For ordinary contracts the two methods are increased specification of excuses and other contingencies in the contract (or implied in law), and the selection of the measure of damages. For securities contracts the two methods are increased specification of the substantive law (such as careful attention to "materiality" and other substantive doctrines), and the selection of the measure of damages.

The legal rules together tell people how much investigation to conduct, how much care to take, and when they need not disclose. Either freedom from liability or low damages in the event of liability will lead firms to conserve resources and not disclose. Yet the two approaches—substance and remedies—are not always equivalent. They have different implications for the treatment of uncer-

⁶ See Shavell, *The Design of Contracts and Remedies for Breach*, 99 Q.J. ECON. 121 (1984); Shavell, *Damage Measures for Breach of Contract*, 11 BELL J. ECON. 466 (1980); see also Kornhauser, *Reliance, Reputation, and Breach of Contract*, 26 J.L. & ECON. 691 (1983).

tainty. Suppose investors would agree that it is not worthwhile for managers to investigate and discuss every remote business contingency; the investors agree that it is better to take the chance that a remote (but undisclosed) bad event will come to pass than to incur the certain costs of investigating many remote possibilities. The legal system can permit this to occur either by defining a particular contingency as "not material" (hence nondisclosure is not a violation) or by saying that the nondisclosure is a violation but the damages nil.

The "materiality" approach requires courts to investigate just how likely an unlikely event may have been. Because the stakes of the case are apt to be high (damages in cases of undisclosed "material" facts must be high, or the withheld facts would not be deemed "material"), the parties will invest heavily in litigation. But it will prove hard to reconstruct after the fact the probability of not-well-investigated events, and so litigation of this sort is apt to be chancy as well as costly. The damages solution could reduce the importance of the answer to this difficult question. A low threshold of "materiality" requires the seller of securities to decide for itself whether the costs of additional investigation and disclosure are worthwhile in light of the damages that will be awarded if something goes wrong. If damages are set correctly, the seller will investigate and disclose up to the point where an additional dollar spent on this activity produces just one more dollar for investors. The person with the best access to information will make the decision on the spot, saving the resources that could be spent on ex post inquests years later in court. In many cases it will be much more efficient to use a damages rule to induce the seller to make the decision than to have a judicial inquiry into the optimal level of disclosure.⁷

Sellers of securities must continually decide how best to protect investors. They may investigate thoroughly and disclose all possibilities; they may hire experts (who may be more or less skilled); they may rely on financial intermediaries such as investment bankers to do the investigation and replace "complete" disclosure with the assurance of their reputations; they may choose

⁷ This is identical in principle to the use of damages in antitrust to induce manufacturers—which have the best access to information about the costs of production under different market structures—to trade productive efficiency gains against allocative efficiency losses. See Easterbrook & Fischel, *Antitrust Suits by Targets of Tender Offers*, 80 MICH. L. REV. 1155, 1157-59 (1982); Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652 (1983).

not to disclose certain things at all because they fear that disclosure could tip off rivals to ongoing developments; they may choose to leave certain investigating to the investors. All of these strategies have associated costs and benefits. Well-chosen damages rules can induce sellers to select the strategy with the greatest net benefits. This is what we mean by the commission of "efficient offenses." The legal system may call some nondisclosure an offense not for the purpose of extirpating all conduct of that class, but for the purpose of bringing home to the decisionmaker the costs of its conduct. The rules in securities cases may have the same function as the rules in contract cases (which are not designed to abolish breach) or tort cases (which are not designed to abolish risk-taking behavior). In contract and tort, like securities, rules may serve the purpose of inducing the most knowledgeable party to compare the costs and benefits of its acts.

Often, though, it is better to find no liability than to fine-tune damages rules. The assumption that liability rules are beneficial in securities law rests on answers to a series of difficult factual inquiries. Damages actions create costs as well as benefits. Though information is the basis of all contracts, many contracts are enforced best through self-help remedies rather than actions at law.⁸ Private actions for damages in securities cases create significant costs. Investors routinely sue managers whenever the price of stock falls dramatically, and it is very hard for a court to determine whether the decline was caused by some extrinsic event or by something known to managers, but not disclosed, at an earlier time. If courts equate bad outcomes with bad actions, the ensuing damages will do more to discourage the conduct of business enterprises than to encourage the revelation of important facts.⁹

A number of devices, some contractual and some imposed automatically by markets, create incentives for managers to disclose information no matter what the law of damages may be.¹⁰ The de-

⁸ See Klein & Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981); Knoeber, *An Alternative Mechanism to Assure Contractual Reliability*, 12 J. LEGAL STUD. 333 (1983); Telser, *A Theory of Self-enforcing Agreements*, 53 J. BUS. 27 (1980); Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519 (1983). For an application to the law of corporations, see Fischel & Bradley, *The Role of Liability Rules and the Derivative Suit in Corporate Law: A Theoretical and Empirical Analysis*, CORNELL L. REV. (forthcoming).

⁹ See Fischel, *The Business Judgment Rule and the Trans-Union Case*, BUS. LAW. (forthcoming).

¹⁰ We collect some of the reasons in Easterbrook & Fischel, *supra* note 5, at 673-77, 687-92. Easterbrook, *Managers' Discretion and Investors' Welfare: Theories and Evidence*, 9 DEL. J. CORP. L. 539 (1984), collects much of the data.

cision whether and how much information to disclose is one of a very large number of business decisions that managers must make. Each of these decisions affects the value of the firm and thus the price of its stock. Whether liability rules enforced by investors' litigation will cause managers to make decisions more favorable to investors is a difficult empirical question.

Most business decisions of managers are all but immune from judicial scrutiny. There is neither liability nor damages, so long as the managers' judgment is not affected by personal bias. Managers are not liable even for negligence. Securities law, though it contains some devices that limit the scope of liability,¹¹ permits damages to be awarded much more freely. Courts decline to defer to the sort of managerial judgments to which they routinely defer in other kinds of litigation. But in this article we do not question further the scope of the rules. We assume that the existing allocation of functions among liability rules, damages rules, and freedom from liability is roughly correct.

C. The Nature of Optimal Sanctions in Securities Transactions

1. *Damages as a Measure of Net Harm.* When a particular activity may have both costs and benefits, the optimal sanction is the net harm that activity imposes on other people divided by the probability that the activity will be detected and prosecuted successfully.¹² Suppose, for example, that a failure to investigate and disclose some contingency saves \$100 in the costs of investigation and has different effects on two classes of investors: one class loses \$200 if the contingency comes to pass, and another class gains \$50. We postpone for the moment whether money losses sustained by investors are the same as real economic harm. We also assume that investors want firms to maximize their expected value, which is equivalent to assuming that investors are risk neutral.¹³

¹¹ See, e.g., *Santa Fe Indus., Inc. v. Green*, 430 U.S. 462 (1977) (liability must be based on deception rather than mismanagement); *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438 (1976) (omitted information must be material); *Ernst & Ernst v. Hochfelder*, 425 U.S. 185 (1976) (plaintiff must establish wilful or reckless conduct to recover under Rule 10b-5); *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723 (1975) (only purchasers or sellers of securities may recover damages under Rule 10b-5); *Greenfield v. Heublein, Inc.*, 742 F.2d 751 (3d Cir. 1984), cert. denied, 105 S. Ct. 1189 (1985).

¹² Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968), is the seminal treatment. See also Landes, *supra* note 7; Friedman, *Efficient Institutions for the Private Enforcement of Law*, 13 J. LEGAL STUD. 379 (1984); Polinsky & Shavell, *The Optimal Use of Fines and Imprisonment*, 24 J. PUB. ECON. 89 (1984).

¹³ Investors in public corporations have a broad choice of investments and can hedge risk by purchasing a diversified portfolio of securities. Under these circumstances, they pre-

If the nondisclosure is sure to be detected and prosecuted, then the appropriate award is \$150, the net harm. The firm, observing that it must pay \$150 in damages to save \$100, will conduct the investigation. If the saving from not conducting the investigation is \$175, by contrast, the firm will save the costs of investigating and pay the damages. Investors as a whole will be \$25 better off as a result, because the investors ultimately are the beneficiaries of "the firm's" savings. If the probability of successful prosecution is one in two, the damages should be doubled. Then over a run of, say, ten similar cases, the firm would expect \$175 in savings per case (totalling \$1750) and would expect to pay \$300 in each of five cases (totalling \$1500) and would again save the resources. The firm would conserve the costs of investigation whenever the costs exceeded \$150, just as it should.

To say that "the firm" pays the award is to raise some interesting questions. Who is "the firm," when the investors and other participants change daily? Does "the firm" include accountants and others who participate in the decision about how much to investigate and disclose? These are important practical questions, but we put them to one side in this article. The people participating in the venture—whether as investors, managers, accountants, or lawyers—may enter into contracts for indemnity or insurance. These contracts may move liability from the target initially selected by the law to the person who can do the investigation and disclosure at least cost. In order not to complicate the presentation unduly, we use the fiction that there is just one actor, "the firm."

2. *Other Considerations of Optimality.* Although the "net harm" rule creates the right incentives for people deciding how much to investigate and disclose, it does not necessarily send the appropriate signals to the other actors. It may be essential to adjust the damages to avoid some collateral problems.

a. *Investors' incentives to take precautions.* Investors do not

fer rules that maximize the expected value of the securities whenever capital markets are competitive. See Makowski, *Competition and Unanimity Revisited*, 73 AM. ECON. REV. 329 (1983); Easterbrook & Fischel, *Corporate Control Transactions*, 91 YALE L.J. 698, 711-14 (1982). The capital markets are quite competitive; of all markets, they come closest to the atomistic ideal. True, not all investors diversify their holdings. But they can do so, and when they do not, they simply are acting as if not risk averse. Our approach does not require diversification; it is enough that those who are risk averse can diversify their holdings or purchase risk-free instruments such as T-Bills. The pool of investors in public corporations therefore will act as if risk neutral. Things may be otherwise for closely held corporations. Here it is difficult to diversify, and it may be appropriate to assume that investors are risk averse. We develop later on some other implications of the difference between public and close corporations.

respond to "net harm" directly. In the example we gave above, the nondisclosure of a fact helped some investors and harmed others. The investors who stood to lose \$200 might attempt to protect their own interests. They could hire agents (such as investment advisers) to investigate on their behalf. Yet they ought not to have such an incentive; by hypothesis the optimal investment in information is either zero or an amount less than \$150 to be spent by the firm. In general, expenses by investors on investigation are a substitute for effective private incentives or legal rules that induce optimal disclosures.¹⁴ It would be nice to arrange a damages measure that removes the incentive for private investigation. Yet in the example we have given, only a certain award of \$200 to the "losing" investors would remove their incentive to investigate. This is too large an award from the perspective of the firm. If it must pay \$200 to the "losing" investors, it will spend up to that amount on investigation itself, and again (by hypothesis) that is too much.

This example illustrates two things. First, it is important that the rule of damages compensate investors to at least some extent for their private losses, and not just for social or net loss. Too little compensation leads to too much private investigation. If the victim of a trespass could not obtain compensation for private harms, potential victims would spend money erecting unnecessary barricades; the award of damages prevents this.¹⁵ Second, a rule providing compensation for private injuries may lead firms to invest too much in investigation and disclosure. As a result, there may be no one "best" remedy. It is necessary to choose some system of sanctions that mediates these conflicting objectives.

b. *Investors' incentives to enforce the rules.* It is important to give people the right incentives to enforce the rules and thus compel others to pay the damages that induce them to make correct decisions. The structure of rewards should induce enforcers to expend resources finding and prosecuting violations until, at the margin, the last dollar of resources spent on enforcement reduces the social costs of nondisclosure by just one dollar. This is almost impossible to achieve, for at least three reasons.

First, only by accident will the damages in a particular case

¹⁴ See *Teamsters Local 282 Pension Trust Fund v. Angelos*, No. 84-2141, slip op. at 5-11 (7th Cir. May 13, 1985); Easterbrook & Fischel, *supra* note 5, at 673-77; Hirshleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 61 AM. ECON. REV. 561 (1971) (discussing net costs of acquiring information that predicts the future without changing it).

¹⁵ Landes & Posner, *An Economic Theory of Intentional Torts*, 1 INT'L REV. L. & ECON. 127, 131-32 (1981).

(the standard against which the enforcer will compare its expenditures) equal the social loss from future, similar decisions about disclosure. Second, the rule that damages be increased in response to a lower probability of successful prosecution implies an inverse relation between the multiplier and the probability of prosecution. But this cannot easily be achieved in a system of private enforcement. The higher the multiplier, the higher the payoff from suit; the higher the payoff, the more people will spend investigating and bringing suits. This may lead both to excessive net penalties and to excessive enforcement.¹⁶

Third, if the victims of nondisclosure or fraud own enforcement rights in proportion to their injuries, each will spend too little investigating and prosecuting the offense because each can obtain redress only for his own loss. Each person's activities in investigation and prosecution produce a gain for former and future victims, a gain that cannot be appropriated. One way around this is to assign the enforcement right to a single "entity"—usually the "class" in a class action. It turns out, however, that this just changes the locus of the problem. Now the question becomes: who speaks for the class? Each of the class's agents (attorneys and experts) faces the problem of unappropriable gains. It is possible to devise elegant mechanisms through which would-be enforcers could purchase enforcement rights for lump sum payments; quite a number of such mechanisms would in theory overcome the problems in question. These are not available in our legal system, however, and will not work if enforcers are risk averse (as most are, even plaintiffs' lawyers with portfolios of claims that help them hedge risk).

c. *Unconditional deterrence.* The "net harm" rule for damages applies only when there are efficient offenses. The "net harm" rule induces the firm to spend the right amount in investigation and dissemination of information. Many kinds of conduct have no associated savings. Take, for example, deliberate lying about the firm's assets. A firm puts out a prospectus saying that it has 10,000 tons of tobacco in inventory, when all of the firm's officers know that the actual amount is 1000 tons. The lie does not enable the firm to save the costs of investigation; to the contrary, it is usually

¹⁶ Compare Becker & Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. LEGAL STUD. 1 (1974), with Landes & Posner, *The Private Enforcement of Law*, 4 J. LEGAL STUD. 1 (1975). If the penalty were high enough, of course, it would deter all improper activity and there would be no over-enforcement, indeed no enforcement at all. But we are concerned about less draconian penalties.

more costly to fabricate a lie and cover up the traces than to tell the truth, and lies create incentives for others to investigate to pierce the disguise. Here the legal rule should be designed to deter unconditionally—not to force the firm to compare costs and benefits, but to channel its conduct into approved forms. The very stiff penalties for armed robbery channel behavior into the more accepted form of negotiation; the would-be robber can negotiate with merchants, and the rule induces him to do so rather than resort to force. One can safely ignore a claim of “efficient robbery,” and so too with many kinds of fraud. If we are certain enough that some kinds of conduct are always inappropriate, then no penalty is too high. (This is a big “if.” When the legal system makes mistakes, whether in choosing which conduct to proscribe or in concluding that the defendant committed the proscribed behavior, severe penalties often deter desirable conduct.)

d. *Marginal deterrence.* Not quite “no” penalty. It is necessary to preserve deterrence on the margin. If the expected penalty for telling a small lie is the dissembler’s entire wealth, then no one will stop with a small lie. If you’re going to tell a lie, you might as well tell a whopper. Any system of penalties must graduate the anticipated sanction with the seriousness of the offense in order to avoid driving offenders to the high end of the seriousness scale.¹⁷

e. *No right rule.* The upshot of this discussion is that the “net harm” rule, though a useful starting point for assessing the incentive to make appropriate disclosures, is not a satisfactory rule for all cases. It must be modified to preserve incentives to enforce the rules and to prevent excessive precautions by investors. It may be abandoned when the kind of statement or omission in question cannot be thought efficient. A few other modifications are appropriate when the firm in question is closely held. We return to these issues. Now, though, we specify what a “net harm” rule would use as a starting point.

3. *Finding the Net Harm.* There are at least four components of the net harm in securities transactions. First, and usually largest, is the net transfer to the offender. When *A* steals \$100 from *B* and keeps the money, the transfer of wealth is part of the harm. If *A* is Robin Hood and gives \$90 to *C*, then the net transfer to the offender is only \$10. To see why the net transfer rather than the gross transfer is the right measure, consider a variation of the example we presented above. Suppose the managers of a firm de-

¹⁷ See Stigler, *The Optimum Enforcement of Laws*, 78 J. POL. ECON. 526 (1970).

cide to skimp on investigating a contingency that affects the relative rights of two classes of investors. If the contingency comes to pass, Class #1 loses \$200, Class #2 gains \$40, and the managers gain \$10 personally. The net harm is \$150: the \$200 loss less the \$50 gain (\$40 + \$10). The parties as a group would like "the firm" to conduct the investigation and disseminate the information only if the costs of doing so are less than \$150.¹⁸ If the legal rule levies a judgment totalling \$150 (against the firm and the managers in any combination), the managers will take steps to avoid that result whenever they can do so for less than \$150. A higher penalty leads to excessive investment in information; a rule that lets those in charge of the decision keep personal profit also warps the judgment. So one can think of the first component of the net-harm rule this way: the harm is the gross loss minus any benefit created by the transaction (whether the benefit is a transfer to investors or the saving of resources in investigation).

The second source of harm from fraud and nondisclosure is the total cost of carrying out the offense, unmasking the offense, taking precautions against similar offenses, and litigating about offenses. The cost of hefty locks and burglar alarm systems is part of the cost of theft; the cost of extra resources spent investigating the truth of statements about securities is part of the social cost of securities offenses. These costs include the costs that "truthful" firms must spend to distinguish themselves from slipshod and untruthful firms. (Firms bear the costs of carrying out frauds "automatically," however; these are "costs of doing business." We need not include them a second time in the penalty for the offense.)

The final sources of harm are related reductions in the allocative efficiency of the economy. One is that incomplete or inaccurate disclosure about investments leads people to invest in the wrong projects. They will spend "too much" in resources to produce goods and services. The other is that incomplete or inaccurate disclosure can send the wrong signals about risk, and this distorts the choice between investment and consumption. To see these effects, consider three cases. In each case people invest in a firm that promises to make widgets. They have the option of purchasing

¹⁸ The two classes of investors and the managers contract with one another through the firm, which is a nexus of contracts. The costs of contracting are low, at least when deals are made in advance, and we therefore expect the participants to favor the rule that maximizes joint value. If the costs of transacting are low enough, they will produce this rule by contract. Coase, *The Problem of Social Cost*, 3 J.L. & Econ. 1 (1960). When costs are high, the legal system should select the rule closest to this joint-maximization outcome.

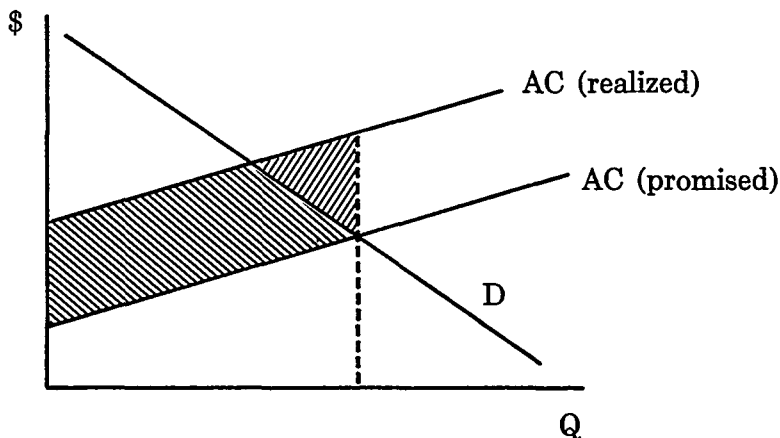
riskless securities (such as T-Bills) and will invest in a risky venture only if the firm yields enough of an increase in productivity to pay for the risk premium.

In the first case the manufacture of widgets is riskless. At a cost of \$1 per widget, anyone can make as many widgets as he wants. When there is no risk in the underlying technology, a securities offense would take the form of promising to build more widgets than the firm actually does. The firm might collect \$10 and build only 9 widgets. Here there is no reduction in the efficiency with which goods are produced: the firm spends \$9 to build 9 widgets, and the promoters keep \$1. The only injury is the creation of uncompensated risk. People fearing that this sort of thing could occur will demand a small amount of additional compensation for bearing risk, and this shifts a little investment out of risky endeavors. The "net harm" in a case such as this is the \$1 transfer plus the (small) increment to risk plus the costs of making, defending against, and unmasking frauds of this sort.

In the second case the manufacture of widgets is risky, and the promoters misrepresent the risk of the technology. Perhaps they represent that there is no risk, when in fact there is a 50% chance that an investment of \$10 would produce 8 widgets and a 50% chance that it would produce 12 widgets. Once more the only injury to the efficient conduct of the economy is the creation of uncompensated risk. The "net harm" is the (small) increment to risk plus the costs of making, defending against, and unmasking such misrepresentations. If the costs of making accurate representations about the risk of building widgets exceed this small sum, then this case is an "efficient offense." Setting damages equal to the net harm induces the promoters to incur the expense of investigation or pay the damages, whichever is less.

In the third case the manufacture of widgets is risky, and the promoters misrepresent the productivity of the technology. Perhaps they represent that an investment of \$10 in their new technology will on average produce 11 widgets, but in fact it will create only a 50% chance of producing 8 widgets and a 50% chance of producing 10 widgets. Here, too, there is uncompensated risk. This also creates a loss of efficiency as society spends \$10 to produce (on average) only 9 widgets; had the promoters told the truth, the investors would have insisted on using the risk-free technology guaranteed to produce 10 widgets for \$10. The "net harm" in this case is the \$1 reduction in productive efficiency plus the (small) increment to risk plus the costs of making, defending against, and unmasking fraud. If the promoters spent less than \$10 to build the

widgets, there is also a transfer that must be extracted as part of the net harm. Finally, this case also creates a loss in allocative efficiency. The consumer who would have valued the tenth widget at more than \$1 loses the value of that widget. This is the same sort of loss that arises in antitrust. The new elements of loss in this third case are the hatched areas on the following graph. The shaded triangle is the allocative loss, the reduction in consumers' surplus; the shaded trapezoid is the reduction in productive efficiency.



We cannot say how often securities offenses fall into these different categories. Moreover, neither we nor anyone else has a good way to determine the level of the costs involved. As a rule the cost of increased risk is small, and for many offenses the transfer of wealth will be far and away the largest element of the net harm. Some multiple of the net transfer payment therefore would be a useful starting point, with a further increase in cases that involve identifiable reductions in allocative and productive efficiency.

D. The Role of Liquid Markets

Often it is exceptionally difficult to apply the net-harm rule. In antitrust the net harm is the monopoly overcharge plus the allocative loss from the reduction in the monopolist's output. In order to determine either, we must first learn both the monopoly price and the competitive price for any level of demand. This is no small feat.¹⁹ Securities law, too, presents many problems of computation.

¹⁹ See Finkelstein & Levenbach, *Regression Estimates of Damages in Price-Fixing*

Sometimes, though, prices observable in markets supply much of the necessary information. Suppose the question is the amount of harm inflicted by a firm's decision not to release information about the risks of new medical imaging equipment. The technology may not work, or it may be subject to adverse regulations, or it may be displaced by newer technologies. Assessing and revealing these risks may be costly and chancy, so that a strategy of saying little may (or may not) be optimal. Ultimately something goes wrong (maybe new regulations limit to one per city the number of the costly machines), and the investors claim that the lack of disclosure was wrongful. It is possible to establish an upper limit on the net transfer by observing the change of price of the stock when the bad news is released.

Suppose everything happened in an instant. The firm decided to save the costs of investigation and issued stock for a price that reflected (undue) optimism. Moments later the bad news came out. The price of stock would fall to the level fully informed investors found appropriate in light of the news. The drop in price would be what courts often call the "out-of-pocket loss"—the difference between the price paid and the price that would have been paid had all the information that should have been released been released. This drop in price is a ceiling on the net harm. It is a ceiling because the losses here may be offset by other investors' gains, and because not all of the loss shows up in a reduction in society's wealth or profits to the decisionmakers. Recall from the discussion in Part I-C-3 that the "overpayment" for stock commonly is greater than the net harm. Much of the overpayment will be a transfer to people not responsible for the nondisclosure, and such transfers are not part of the net harm. As a rule, it is safe to assume that the net harm approaches but does not exceed the total loss.²⁰

Things do not happen in an instant, however, so we cannot know the exact overpayment for the stock. The problem is that many other things happen during the time between the sale of the

Cases, 46 LAW & CONTEMP. PROBS., Autumn 1983, at 145; Landes & Posner, *Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws? An Economic Analysis of the Rule of Illinois Brick*, 46 U. CHI. L. REV. 602, 615-21 (1979); Rubinfeld & Steiner, *Quantitative Methods in Antitrust Litigation*, 46 LAW & CONTEMP. PROBS., Autumn 1983, at 69.

²⁰ If the costs of making, avoiding, and detecting fraud are high enough, the price change may not actually be a ceiling, but we think this unlikely. The price change is a stake over which people may squabble, and fighting over the stakes by making and unmasking frauds could consume a decent share of them, but these expenses are unlikely to exceed the stakes unless people persistently miscalculate their own self-interests.

security and the release of the pertinent information. Events in the economy, and the fortunes of the firm in the interim, confound efforts to use price differences to find out the value of the missing information.

The solution is a technology that permits us to "take out the market," breaking the change in the price of a traded firm's stock into two components. One component is the degree to which the price changes with the market as a whole or with the industry of which the firm is a part. The market or industry will rise or fall with changes in the general economy, the rate of interest, foreign trade, and alterations in demand for the industry's product. The market-based change measures the contribution to today's price of events beyond the firm's control, and perforce attributable to something other than the missing information. The other component of the price difference may be attributed to firm-specific events. Which ones? If all of the critical information comes out at once, then the full change in price at the time of release (after taking out the market) may be attributed with reasonable assurance to the information. If the information leaks out in dribs and drabs, then it is necessary to examine a longer interval, during which other events may have intervened. The longer the interval during which information emerges, the less precise the reading.

The technology for performing these calculations is fairly well developed.²¹ It is possible to measure the historic relation between changes in the price of a firm's stock and changes in some larger basket of stocks (whether the market as a whole, an industry group, or some weighted mix). This relation takes the form $r_i = \alpha_i + \beta R_m + \gamma R_x + \epsilon$, where r_i is the total change in the price of a firm's stock, α_i is a firm-specific constant, βR_m is the market-firm relation (β) times the market's movement in the interval (R_m), γR_x is the industry-firm relation (γ) times the industry group's movement in the interval (R_x), and ϵ , the "residual," is the unexplained portion of the change in price. This is the portion we attribute to firm-specific information. With this relation in hand, and knowing how the market or other reference group behaved during a particular interval, we may determine the expected change in price of the

²¹ For reasonably accessible discussions, see Brown & Warner, *Measuring Security Price Performance*, 8 J. FIN. ECON. 205 (1980); Brown & Warner, *Using Daily Stock Returns: The Case of Event Studies*, 14 J. FIN. ECON. 1 (1985); Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities*, 38 BUS. LAW. 1 (1982); Schwert, *Using Financial Data to Measure Effects of Regulation*, 24 J.L. & ECON. 121 (1981); Note, *The Efficient Capital Market Hypothesis, Economic Theory, and the Regulation of the Securities Industry*, 29 STAN. L. REV. 1031 (1977).

firm's stock if nothing peculiar to the firm took place. If the firm's stock does not behave according to the prediction, we chalk up the difference to some firm-specific news. The shorter the interval over which the calculation is performed, the greater our ability to match particular pieces of news with the effects attributable to them.

This method obviously is not a perfect substitute for the ideal "instantaneous" price change. There are intervening events that may be hard to disentangle. Sometimes the event window (the period during which the information comes out) is uncomfortably large. The method works much better for actively traded securities than for thinly traded stocks; it does not work at all for stock in closely held firms. The method assumes a particular form of relation between the market and individual stocks that is necessarily an oversimplification. It leaves out some influences, and it will perform badly if there is a sudden change in β or γ , the coefficients relating this stock to others, during the interval in question.²² And even an "instantaneous" price change would not tell us one very important fact: whether managers knew or could have known the firm-specific information in order to disclose it at any particular time.

Economists have taken to this method more readily than lawyers and courts. One sometimes hears the objection that this method assumes that the market is "efficient" in the sense that "the price always accurately represents the real value of the security," while the person raising the objection knows that the price is *not* always right. The objection misses the point, because the method does not assume or depend on a belief that the price is always right. The method rests on three more modest beliefs: (1) that prices change quickly in response to new information; (2) that the quick change is "unbiased" (that is, it does not systematically overshoot or undershoot the change that ultimately will be deemed merited on the basis of more leisurely contemplation of the new information); and (3) that the degree to which the price reflects the underlying economic reality does not change substantially during short periods. The method "works," for example, if prices always reflect only fifty percent of a given firm's "true" value; any change in the price will give an accurate representation of the marginal

²² The technical problems are well understood in the economic literature, and some of the legal literature is also attentive. See, e.g., Note, *Rule 10b-5 Damage Computation: Application of Financial Theory to Determine Net Economic Loss*, 51 *FORDHAM L. REV.* 838 (1983) (a sophisticated study marred by misspecification of the objective of the process of computing damages).

more slowly than they, this also reflects bad news. It is therefore quite sensible to say that a plaintiff may allege that nondisclosure harmed investors because the stock did not rise fast enough; we return to this in Part II. The existence of liquid markets for many stocks has other consequences to which we also turn below. These consequences include the possibility of "cover" to stop the accumulation of damages and the elimination of "bargains" (and hence benefit-of-bargain damages).

II. THE LEGAL RULES AND THE ECONOMIC APPROACH

We are now in a position to put the economics of sanctions together with the law of securities. We start by discussing why some remedies are rarely used in securities cases. We look at the difference between sanctions that start from the plaintiff's "loss" and those that start from the defendant's "profit." Then we examine fraud in the issuance of stock, fraud and omissions in the aftermarket, insider trading, and deceit by brokers.

A. The Missing Remedies

Although courts apply a welter of remedies in securities cases, some of the remedies commonly used in other parts of the law are missing. With exceptions so rare as to be practically unimportant, courts do not award benefit-of-bargain damages, consequential damages, or punitive damages in securities cases. We think that these omissions from the arsenal fit the theory of optimal sanctions.

1. *Benefit-of-Bargain Damages.* Suppose a firm offers securities to the public for \$30 per share, representing that they are "worth" \$40 in light of the nature and prospects of the business. Someone buys the stock in reliance on that representation. Or suppose a firm announces, while its stock is trading for \$30, that it has concluded that the stock is "undervalued" by the market and is "worth" at least \$40 per share. Again someone buys stock in reliance on the representation. A while later, each investor finds that the stock is trading for only \$30, that the supposed elements of extra value are not worth very much (or never existed), and brings suit. Unless the investor can show that the stock was worth less than \$30 on the day of the purchase, he will lose. Even if he wins, the investor will get only the difference between the \$30 purchase price and the "value" of the stock on the day of the purchase.²⁶

²⁶ Compare *Levine v. Seilon, Inc.*, 439 F.2d 328 (2d Cir. 1971) (Friendly, J.) (no bene-

value of the new information, so long as this relation stays constant. The data collected by economists over the last twenty years quite strongly support these three modest claims, the only ones essential to the method.²³

At all events, there is no obstacle to using this method even if it relies on the assumption that the price accurately reflects all public information. This is, after all, the fundamental assumption of securities law. The Securities Act of 1933 (the 1933 Act) and the Securities Exchange Act of 1934 (the 1934 Act) stand for the proposition that disclosure of information is the basis of an efficient securities market and that whatever price the traffic will bear once the information is out is "right." Recall that we have introduced this method of getting information from the market in order to approximate the ideal, instantaneous measure of price change—which itself embodies the principle that "the price is right."

This assumption of securities law now has the support of a great deal of theory and evidence. The theory is straightforward. If the price of a stock at any given time is *not* "right" in relation to the price the stock will have once people wise up, then arbitrageurs can make a lot of money by buying "undervalued" stocks, selling "overvalued" ones, spreading the news, and selling once the price gets to the appropriate level. The more astute the arbitrageurs and other market professionals, and the more quickly they can move capital into and out of particular holdings, the faster this process will occur.²⁴ The process eventually makes it difficult even for professional traders to make money, unless they are the first to obtain and act on information. A great deal of data, including evidence that most professional traders are unable to "beat the market," supports the proposition that prices quickly and accurately reflect the public information about the firms.²⁵

We therefore think it appropriate to use the market method to pare away extraneous events and effects. The "residual" in the market model is a reasonable reflection of the effects of the firm-specific information. If the firm's stock sinks faster than other similarly volatile firms in the market, this reflects bad news; if it rises

²³ See, e.g., RICHARD BREALEY, *AN INTRODUCTION TO RISK AND RETURN FROM COMMON STOCKS* ch. 2 (2d ed. 1983); J. LORIE & M. HAMILTON, *THE STOCK MARKET: THEORIES AND EVIDENCE* ch. 4 (1973).

²⁴ See Gilson & Kraakman, *supra* note 5, at 569-72.

²⁵ See R. BREALEY, *supra* note 23, ch. 3; J. CRAGG & B. MALKIEL, *EXPECTATIONS AND THE STRUCTURE OF SHARE PRICES* (1982); J. LORIE & M. HAMILTON, *supra* note 23, ch. 4; Pearce & Roley, *Stock Prices and Economic News*, 58 J. BUS. 49 (1985) (effect across the market occurs within the day the news is released).

Why do courts not award investors the benefit of the bargain they suppose they are getting?

The principal answer is that there are no "bargains" in liquid securities markets. People continually search for "bargains," but the process of search ensures that bargains quickly vanish as prices adjust. If stock is trading for \$30 when the firm's management believes it should trade for \$40, the most likely explanation is that sophisticated investors think the managers unduly optimistic. Things are not quite so easy when the stock is the initial issue of a new firm. Here, however, there is a different reason to think that the price is not a "bargain." The promoters of a firm have no particular reason to give stock away for less than it is worth. An investor is not deeply harmed when he learns that the sellers' claim to be giving things away for a song is not true.²⁷ The buyer suffers no lost opportunity. Had he invested in another firm, he would not have had a bargain there either.

There is another definition of a bargain: the existence of consumers' surplus. If Perkins values a particular house at \$50,000 because it is uniquely suited to his tastes, and no one else would pay more than \$40,000 for the house, Perkins can purchase it for \$40,001 and enjoy a "bargain" of \$9999. Benefit-of-bargain damages in contract cases often are designed to compensate people for a loss of consumers' surplus. A breach of contract that prevents Perkins from occupying this house destroys the consumers' surplus, which is a real economic loss. But there is no similar consumers' surplus in securities markets. Money is fungible even if particular securities are not. The price an investor is willing to pay for securities in one firm depends on the rate of return available from some other investment. Professional investors move funds from one security to another until, at the margin, each produces the

fit-of-bargain damages in securities cases), *with* *Osofsky v. Zipf*, 645 F.2d 107 (2d Cir. 1981) (damages available to ensure that a seller of securities gets the consideration for which he contracted).

²⁷ A number of studies suggest that the securities of firms just going public are "bargains" in the sense that they appreciate faster than their apparent risk category implies. Economists have asked whether the investment bankers of these firms are taking advantage of their clients to funnel gains to favored customers. It may be, though, that the apparent "bargain" is nothing other than a substitute for additional expenses on investigating and promoting the firm; it is a trade of (undisclosed) risk for extra expected return, and hence no special bargain. We need not resolve the characterization of this new-issue discount, however. It is no more than a few percent on average, and no one believes that investors are entitled to *this* kind of bargain under the securities laws. The absence of a new-issue discount cannot be traced to any "wrongful" behavior, and hence it is not a problem in the design of optimal sanctions.

same anticipated return (adjusted for risk). The activities of these professionals set the price everyone receives. Because one share of a given firm's stock is the same as another, the marginal return from a stock is the same as the average return. This implies that every share of stock is a marginal one, and there can be no capital-market equivalent of consumers' surplus in other markets.²⁸

There *may* be consumers' surplus in close corporations, however. The holder of stock in such a corporation often does not want to diversify fully, so that marginal and average values may differ. The absence of a liquid market means that the price of stock may not reflect all information. Sometimes the price at which stock in a closely held firm is offered is designed to create a surplus; perhaps the stock is meant as a "bargain" in order to apportion returns among investors unequally. (Other investors may take their returns through higher salaries or perquisites in their roles as managers.) Thus it may be appropriate to use a benefit-of-bargain measure to implement the contractual arrangement designed for a particular close corporation. As it turns out, this is the only time such damages are awarded in securities cases.

2. *Consequential Damages.* In contract cases courts sometimes award consequential damages. Perkins contracts to sell a specialized machine to Smith. Smith plans to use the machine on an assembly line producing widgets. Perkins defaults, and Smith's assembly line lies idle for months while Smith obtains a replacement. Smith commonly can recover consequential damages such as the profits lost during the idling of the plant. These are parts of the "net harm" from the breach, because they represent the productive value of the equipment that was forced to remain idle.²⁹ In tort law consequential damages are the norm. Those who suffer business losses may recover profits lost in consequence.³⁰

²⁸ One small qualification. Some stocks may have special value in diversifying a portfolio. There are also transaction costs in trading stock that decline with the size of the trade. An investor thus will not be indifferent between 1000 shares of one firm and one share each of 1000 firms. These are not large effects, however, and it is therefore safe to compute damages on the assumption that there is no surplus value from inframarginal shares.

²⁹ The award of consequential damages in such cases is not automatic. It depends on the seller's knowledge of the purpose of the machine, so that the seller may take any cost-justified precautions. Even so, liability depends on an express or implicit undertaking to pay consequential damages, and trade customs may exclude consequential damages. *See, e.g., Western Indus., Inc. v. Newcor Canada Ltd.*, 739 F.2d 1198 (7th Cir. 1984); *see also* Perloff, *Breach of Contract and the Foreseeability Doctrine of Hadley v. Baxendale*, 10 J. LEGAL STUD. 39 (1981). The qualifications are not important for current purposes.

³⁰ There are interesting disputes about whether physical injury or other conditions are essential to such recoveries, but we need not pursue them here. *See Louisiana ex rel. Guste v. M/V Testbank*, 752 F.2d 1019 (5th Cir. 1985) (en banc) (physical damage required). *Com-*

In securities law, by contrast, there are no consequential damages. If Perkins claims that a decline in the price of stock (attributable to Smith's fraud) caused Perkins to miss out on some other profitable opportunity, Perkins will collect only guffaws for his trouble. The theory of optimal sanctions requires that Perkins lose, because changes in the price of securities do not themselves create economic injury. Unlike the missing machine, which can leave a plant useless, a change in prices does not affect the employment of real assets.

If Perkins owns a plant that needs a machine, he could sell securities to obtain the price for that machine. He may claim that the decline in price prevented him from raising needed funds. But if Perkins's plant produces goods worth the cost of keeping the plant in operation, Perkins also can borrow the funds needed to pay for the machine. There is no link between the use to which funds are put (here, buying a machine) and the source of those funds. A claim of consequential damages in securities litigation almost always supposes that there is some link between sources and uses of funds, and such claims properly fail.

3. *Punitive Damages.* Punitive damages are unavailable in securities law.³¹ This is puzzling at first glance because punitive damages, which give the plaintiff more than his actual loss, are one way of increasing the damages when required by the formula for optimal sanctions. The rule "net harm divided by the probability of successful prosecution" implies a multiplier, because prosecution is never certain. Most securities offenses are concealable. Fraud is concealment; omissions may not come to light; fraud and omissions that do not produce actual loss (or just temper the rate of gain) are not apt to be prosecuted.

The absence of punitive damages is anomalous. It may be defensible, though. We show below that many measures of damages—especially rescission and awards based on the plaintiff's out-of-pocket loss—have multipliers built in. Because these awards exceed the net harm, often by substantial amounts, it is inappropriate to make further adjustments through punitive damages. The

pare Bishop, *Economic Loss in Tort*, 2 OXFORD J. LEGAL STUD. 1 (1982), with Rizzo, *A Theory of Economic Loss in the Law of Torts*, 11 J. LEGAL STUD. 281 (1982).

³¹ See, e.g., *Byrnes v. Faulkner, Dawkins & Sullivan*, 550 F.2d 1303, 1313 (2d Cir. 1977); *Gould v. American-Hawaiian S.S. Co.*, 535 F.2d 761, 781 (3d Cir. 1976). A rough equivalent of punitive damages may be available under the Racketeer Influenced and Corrupt Organizations Act (RICO), 18 U.S.C. §§ 1961-1968 (1982), when the terms of that statute allow trebling, see *Sedima, S.P.R.L. v. Imrex Co.*, 105 S. Ct. 3292 (1985), but we disregard RICO in this article.

absence of punitive damages is no more than a second-best solution; it would be preferable to establish optimal damages for trading in the aftermarket and then allow a multiplier to take account of concealment.

B. The Choice Between Plaintiff's Loss and Defendant's Gain

"Injury" and "restitution" are the competing paradigms of damages in securities law. The "injury" measure, often called "out-of-pocket damages," looks to the plaintiff's loss. The court asks whether the investor got a security that was "worth" what he paid (or got what the security was worth, if he was a seller). If not, the defendant must make up the difference. There are quite a few ways to produce a damages remedy based on injury (including rescission, which forces the defendant to bear the entire risk of the transaction), but the difference is not important for current purposes. The restitution measure, by contrast, looks at the profit the defendant obtained from the transaction. The court requires the defendant to disgorge the profit, which may be greater or less than the other party's loss.

Courts seem to have great difficulty deciding when to set damages based on injury and when to set damages based on restitution.³² They wander back and forth with little explanation, and there is even authority for the rule that damages should be set as either plaintiff's loss or defendant's gain, whichever is larger.³³

As an economic matter, much of the dispute is of little moment. Losses and benefits often match one another. If *A* deceives *B* about the value of stock and so induces *B* to pay too much for the stock, *B*'s loss will equal *A*'s profit. If the promoters of a corporation (or the general partner of a limited partnership) tell fibs and so collect too much for the investment interests they sell, loss again equals profit. And profit is a pretty good starting point in the theory of optimal sanctions. The offender's profit is usually a transfer from the victim and thus part of the net harm, often the largest part of the net harm.

Profit-based remedies run into difficulty, though, because a simple rule requiring the offender to pay all his profit from the transaction would make the economic gains from the transaction part of the sanction. If the firm's promoter saved resources by not

³² See Thompson, *supra* note 3.

³³ See *Affiliated Ute Citizens v. United States*, 406 U.S. 128, 155 (1972); *Siebel v. Scott*, 725 F.2d 995, 1001-02 (5th Cir.), *cert. denied*, 104 S. Ct. 3515 (1984).

investigating some contingency, a rule that counted these savings as part of the "profit" would fail. The damages rule would no longer induce the promoter to compare the savings from reducing the scope of inquiry against the harms imposed on other people. It is therefore necessary to exclude from the definition of "profit" any savings that result from the transaction in question or other productive efforts of the defendant. This is indeed the legal rule.³⁴ If the filtering is done imperfectly (as it will be), this should not be cause for great concern, because profit-based remedies themselves are too low when detection and prosecution are not certain.

The hard question is why we should ever see loss-based remedies. Although some multiple of the defendant's gain is apt to be a good proxy for the net harm of a violation, the investor's loss in some kinds of cases could be wildly off the mark. Consider a case in which a manager of a firm recklessly announces that the firm has made a fabulous invention that will be worth billions. The price of the firm's stock soars. Two days later the manager sheepishly announces that it was all a false alarm, and the price returns to the original level. Everyone who bought stock during these two days suffers a substantial loss; neither the manager nor the firm gets any gain. Those who violated the rule get no profit. There is, of course, a match between profit and loss; the buyers' loss is exactly offset by gains realized by those who sold stock during the two days. These gainers have not violated any rule, however, and cannot plausibly be called on to pay their gains to the losers. A rule that required the firm to compensate the buyers for their full loss would impose damages far in excess of the net harm. Cases such as this one have *some* net harm—such episodes lead investors to do some investigating on their own, and they increase by a little the amount of uncompensated risk in the economy—but the harm is small. We therefore should expect to see a variety of devices by which even damages that are stated as loss-based are converted into recoveries tied to defendants' gains. We return to these limiting devices in Part II-D; we concentrate first on the most prominent of the subjects for which loss-based measures are used—the fraudulent issuance of stock.

³⁴ See *Seibel v. Scott*, 725 F.2d 995, 1002 (5th Cir.), *cert. denied*, 104 S. Ct. 3515 (1984); *Janigan v. Taylor*, 344 F.2d 781, 787 (1st Cir.), *cert. denied*, 382 U.S. 879 (1965).

C. Fraud in the Issuance of Securities

The doctrines that apply to fraud in the issuance of securities can produce quite spectacular recoveries. If securities are not properly registered, or the selling documents contain lies or material omissions, the ordinary remedy under section 12 of the 1933 Act is the purchase price less the value of the security at the time of trial or sale.³⁵ This "rescissionary" remedy not only compensates the investor for out-of-pocket loss but also may compensate the investor for an intervening drop in the market. It throws onto the defendant the entire risk of the market while the investor holds the security. If the firm fails or the market declines, the investor may recover; if the firm succeeds or the market rises, the investor will keep the security and the profit. It is a no-lose situation.

If the problem lies in the registration document rather than the selling documents—or if the investor seeks a remedy from someone other than the issuer or seller—the rule is a modification of rescission. Under section 11(e) of the 1933 Act any defendant may claim that the decline in the value of securities was caused by something other than the fraud or omission;³⁶ this permits use of the market model to correct the award, to filter out changes in the market as a whole.³⁷ No underwriter may be held liable for more than the amount it received; this liability is divided among members of the underwriting syndicate.

What accounts for the severity of these rules and for the fact that the sellers, which are liable under section 12, face higher penalties than other participants, such as accountants and law firms that are liable only under section 11? To a substantial extent the rules rest on the distinction between unconditional and conditional deterrence. There is no good reason for not registering stock required to be registered or for telling lies in the issuance of stock. By throwing all the risk on the defendants under section 12, the statute channels activity toward more appropriate routes.

The circumstances are ripe for unconditional deterrence in the issuance of stock. The SEC has an administrative process offering

³⁵ 15 U.S.C. § 77l (1982). We assume for purposes of analysis in the text that section 12 allows investors to be compensated for a decline in the overall market. This issue, however, has never been definitively resolved. Arguments could be made on both sides.

³⁶ *Id.* § 77k(e). We do not say that rescission is mandatory. The availability of devices to moderate this remedy remains to be resolved. But rescission is at least the presumptive rule.

³⁷ See *Feit v. Leasco Data Processing Equip. Corp.*, 332 F. Supp. 544, 586-88 (E.D.N.Y. 1971). But see *Beecher v. Able*, 435 F. Supp. 397, 407-09 (S.D.N.Y. 1977).

guidance to issuers before stock is sold, and a firm believing that it is appropriate to withhold certain information (or not to register the security) can ascertain whether its view is correct. The allocative efficiency loss from fraud or omission is greatest in the process of issuing stock—this is where resources may be diverted into businesses that are less efficient than the best available production process, which creates real loss. It is exceptionally difficult to measure this loss, which again suggests the utility of a rule that throws on the defendant the burden of uncertainty.

There are no third-party gainers in the issuance of securities. The net harm is therefore likely to be the gross harm, unlike the situation of the aftermarket, to which we turn below. There is also a substantial congruence between loss and profit. Suppose the promoters of a firm represent that they have put \$1000 in inventory into the firm, when in fact they have put in only \$200. They sell the stock for \$1000. The investors' loss of \$800 exactly matches the promoters' gain. We have discussed above the reason for thinking it a good idea to start with a gain-based measure of net loss, and the statutory remedy apparently does this.

There are two potential objections to this line of analysis. First, suits often are brought against the underwriters rather than the promoters, and the underwriters do not get the profits; second, the statute permits the recovery of \$1000 in the event the market falls, not just the \$800 the promoters extract as profit. The observation that defendants may be people other than the promoters is accurate, but it is not terribly important. The defendants will be in privity with the promoters and can arrange for indemnification, require the promoters to post a bond, or take the precautions necessary to ensure that they will not be liable. The potential defendants can apportion duties and liabilities to achieve compliance at the least total cost; this is yet another implication of the Coase Theorem. The observation that the recovery can exceed the profit is true only in part—many of the players, such as the accountants and law firms, can be liable only under section 11, which allows an adjustment for changes in the market. More to the point, even those who must stand by to compensate investors for a drop in the market can hedge against that risk. An underwriter that sells a new issue of stock can deal with the risk of a falling market by selling a market-index future short. The promoter, too, can hedge against the risk of a falling market and a consequent increase in his exposure. The existence of liquid public markets makes this hedging possible, so that ultimately there is not much (systematic) difference between the section 11 rescission remedy, which allows

an adjustment for the market, and the section 12 rescission remedy, which apparently does not.

It is nonetheless interesting that section 11(b) gives the issuer's assistants (such as accountants) defenses unavailable to the issuer.³⁸ This difference will be reflected in the terms of trade on which these specialists offer their services. Courts have been receptive to arguments through which these specialists substantially reduce their exposure in cases of material omissions (as opposed to fraud). Here the argument for unconditional deterrence is at its weakest. There may be benefits in reduced investigation and presentation of information. Accountants and other specialists perform valuable services, and a rule that imposed the equivalent of no-fault liability on these specialists would simply reduce the amount of specialists' services offered at the time a firm issues securities. Thus the courts' creativity in reducing the awards against these specialists. One court found the use of a rescission standard in a suit against accountants "unjust insofar as it compensates an investor for the nonspecific risks which he assumes by entering the market" and therefore ordered a reduction in the award to take account of changes in the market.³⁹ Another court held that an accountant may not be required to compensate investors for any element of loss attributable to business problems of the issuer (as opposed to the actual consequences of the misstatements).⁴⁰ Adjustments such as these, ad hoc from one perspective, make more sense from the perspective of the economics of sanctions.

We have so far treated the issuance of securities as if the firms were either closely held or going public. In such cases there is a close match between the profit received by the promoter and any excessive payment extracted from the investors. What of public corporations that issue new stock? Here the match breaks down. The "beneficiaries" of any wrongdoing will be the prior investors in the firm. These investors may sell their stock after the new issue hits the market, and they will realize the gains from any falsifica-

³⁸ 15 U.S.C. § 77k(b) (1982).

³⁹ *Huddleston v. Herman & MacLean*, 640 F.2d 534, 555 (5th Cir. 1981) (citations omitted), *rev'd in part on other grounds*, 459 U.S. 375 (1983).

⁴⁰ *Sharp v. Coopers & Lybrand*, 649 F.2d 175, 190-91 (3d Cir. 1981), *cert. denied*, 455 U.S. 938 (1982). The accountant misrepresented the tax consequences of investment in an oil exploration venture. 649 F.2d at 178-79. After many wells came up dry, the investors sued. The district court ordered the accountants to pay the investors the difference between the price of the securities and their "value" as of the date of investment, considering both (a) the adverse tax consequences, and (b) the fact that the wells were known, ex post, to be dry. *Id.* at 189-90. The court of appeals held that only element (a) was part of the damages. *Id.* at 190-91.

tion. When the issuer pays damages in a suit by the new investors, much of the compensation will come from other new investors—those who bought the first series of stock while its price was inflated by the misrepresentations made to the second wave of investors. The investors who bought the first series of securities in the aftermarket lose twice—their stock falls (just like that of the purchasers of the second series of securities) when the truth comes out, and it falls further because the firm must pay out assets preferentially to the purchasers of the second series.

This brings us back to the nagging problem of matched gains and losses. Some investors gain, others lose, and the gains and losses are approximately equal. The “net harm” may be small. In a case such as this, it is only the reduction in allocative efficiency caused by an increase in risk, the reduction in productive efficiency if the new sales are used to install an inferior productive technology, and the usual costs of making, defending against, and prosecuting fraud. It also turns out, however, that the *real* damages awarded in cases of sales by public corporations are small. The purchasers of the first issue in the aftermarket could bring their own suit against the issuer because (by hypothesis) the issuer’s misdeeds inflated the price they paid just as it inflated the price the purchasers of the new issue paid. If the issuer pays damages to almost all its investors at once, it is the next best thing to paying very little in damages; it becomes the equivalent of a dividend or partial liquidation. (If the defendant in these cases is an accountant or other specialist rather than the issuer, then the problem is fundamentally the same as with the firm going public. Damages computed with all market movements filtered out will give these specialists incentives to take the appropriate degree of precautions.)

D. Fraud and Nondisclosure in the Aftermarkets

When the offense in question concerns only trading in the aftermarket, it is impossible to get away from the problem of matched gains and losses. Recall the example in Part II-B of the manager who announces good news for the firm and two days later takes it all back. Here the investors who sold during the two days gained; those who bought during the two days lost what the sellers gained; those who neither bought nor sold were unaffected; and there was almost no net harm. Because the sellers are no longer investors in this firm, and because there are bystander-investors, a payment of damages by the firm would not be a wash. Damages computed on the basis of the loss of the investors who purchased

in the two days would greatly exceed the optimal sanction.

We cannot justify this by saying, as we did above, that the excessive remedy promotes desirable unconditional deterrence. A firm issuing securities can delay while investigating or it can be pessimistic with safety. A damages rule that "unconditionally" deters certain conduct is not likely to cut off valuable opportunities for very long. But a firm that discloses information in the after-market as it goes along inevitably takes the risk of excessive optimism and excessive pessimism. A rule that penalizes excesses in either direction would lead to quiet, not (necessarily) to an increase in the world's portion of truth. Investors would not want a rule that promoted silence whenever possible. If the firm is reticent, then other actors (investment bankers and advisers, brokers, and so on) will produce information. They have more difficulty getting access to the information, so this news will be more expensive and less accurate than that produced by the firm itself. It is therefore essential to have a rule that induces the firm to balance the costs of producing more (or more accurate) news against the net harms inflicted by error.

It is not possible to escape from this difficult problem by fixing the liability on the managers rather than "the firm." The firm is nothing but a complex set of contracts, and liability that is assigned to one actor will not stay there. It can be moved by contract. If the law prevents its movement (say, by prohibiting indemnification of managers), it will produce a change in relative prices. Managers will demand higher salaries in light of their increased risks, and they can use the new income to purchase insurance. The trick is to set the optimal *level* of damages, so that those who then transact against the background of the damages rule will be led to take the right amount of care.

There is another reason to be skeptical of proposals that fasten liability on managers for harms they inflict on the securities market. One common justification of damages rules is that they move losses to those best able to spread risks.⁴¹ Moving risks to those who are less risk averse (or more able to transfer the risk to a risk-neutral insurer) produces real economic gains. The structure of securities markets suggests, though, that differences in degrees of risk aversion do not support damages awards against managers. The public corporation as an institution is designed to move risk *away* from managers and toward investors. The equity investors

⁴¹ GUIDO CALABRESI, *THE COSTS OF ACCIDENTS* ch. 4 (1970); Polinsky, *Risk Sharing through Breach of Contract Remedies*, 12 J. LEGAL STUD. 427 (1983).

are purchasing risk; in exchange they obtain the residual returns of the venture. They have a comparative advantage as risk bearers because they can hold stock in many different firms at once. Diversified investors act substantially as if risk neutral. Well they should. An investor with a diversified portfolio will be the hidden gainer in a transaction like the example above as often as he will be a loser. Every losing buyer during the two-day period is matched with a gaining seller. Over the long run, any reasonably diversified investor will be a buyer half the time and a seller half the time. Such an investor perceives little good in a legal rule that forces his winning self to compensate his losing self over and over.

A manager, on the other hand, is undiversified and acts as if risk averse. Much of his human capital and a substantial portion of his wealth are tied up in a single firm. This lack of diversification induces the manager to work in the investors' interests; it ties his fortunes to those of the firm. It also makes the manager a singularly poor person for the bearing of additional risk. The more of the inevitable risks of the venture the manager bears personally, the more cautiously he behaves. Yet the effectively risk-neutral investors do not want overcautious managers.⁴²

This is not to say that the optimal damages in aftermarket cases are zero just because most gains and losses net out. There will be the usual net harms of the costs of guarding against and litigating about the wrong, and there will be an allocative efficiency loss if transactions of a particular sort create uncompensated risk. The larger the transfer among investors, the more they will spend guarding against the problem. Even a diversified investor would like to be on the winning side of every transaction. The very large size of the securities-information industry suggests that the costs of guarding against transfers are not small. The availability of compensation will lead to a reduction in these expenditures. But the optimal award is surely a good deal smaller than the gross

⁴² This is not to say that managers should never be held liable. Sometimes, especially when a firm is thinly capitalized in relation to the maximum risk a manager's acts can create, it is appropriate to impose personal liability in order to induce the manager to secure insurance. See Kraakman, *Corporate Liability Strategies and the Costs of Legal Controls*, 93 YALE L.J. 857, 868-76 (1984). Securities cases involving transactions in the aftermarket do not fall into this category because they affect only the wealth of the investors.

Insurance firms may decline to write (or business firms to purchase) insurance against certain types of misconduct by managers. Fraud is often uninsured or uninsurable. There is a moral hazard. If managers could shift the risk of liability for fraud to someone else, they would commit more frauds. The justification for awarding damages personally in case of fraud is that such awards do not create "too much caution," and failing to hold managers liable may create a moral hazard.

transfer of wealth. There should be a presumption in favor of netting out gains before computing the award.⁴³ That translates to a rule of the wrongdoer's profits, plus some measure of the costs of carrying out and thwarting these affairs and a measure of the costs of risk.⁴⁴

The question remains whether courts use a profit-based approach. Certainly so in cases involving close corporations. There the wrongdoer's profits almost always equal the other investors' losses, so that profit and loss measures collapse. Things are less clear for publicly traded corporations. For many years courts articulated a rule under which all investors who traded while the price of stock was affected by the firm's misstatements were entitled to the difference between the price they paid (or got) and the "true value" of the stock. That loss-based measure remains a verbal point of departure in the cases. Yet recent cases also express dissatisfaction with this measure.

For example, a firm gave some material and adverse corporate information to outsiders, who traded before the firm released the information generally. (This is nominally an insider-trading case, the subject of the next section. But because it was brought against the firm, and the gravamen of the claim was that the firm permitted its other investors to trade while inadequately informed, we treat it as a case of ordinary material omission in the aftermarket.) Those who bought in the market between the privileged release of information and the ultimate release sought to recover their losses from the firm. The district court used the loss-based measure of damages, but the Second Circuit reversed.⁴⁵ It ordered a remedy based on the profits the traders realized by getting out before the market dropped. The court worried that a full recovery of losses would be excessive (though on unarticulated grounds), and it also

⁴³ In antitrust law, similar considerations lead courts to disregard the monopoly profits garnered by "fringe" firms that raise prices to match those of a cartel. See *Mid-West Paper Prods. Co. v. Continental Group, Inc.*, 596 F.2d 573, 580-87 (3d Cir. 1979); Landes, *supra* note 7, at 666-68. Although this profit and the associated allocative-efficiency loss is part of the net harm of the cartel as consumers see things, the wrongdoers perceive the fringe firms' profits as a loss automatically. They are "benefits of the cartel" that are transferred from the cartelists to the fringe, and so there is no need to tax them away again via a damages remedy. So, too, with benefits transferred automatically from one group of investors to another—benefits never enjoyed by securities offenders.

⁴⁴ The best rule might be a mechanical one—say, one percent of the gross movement in the price of the firm's stock attributable to the wrong. This avoids the need to compute the real, and utterly unquantifiable, loss. Such a mechanical rule could be established only by statute, though, and we do not consider it further.

⁴⁵ *Elkind v. Liggett & Myers, Inc.*, 635 F.2d 156 (2d Cir. 1980).

doubted that there was a causal connection between the withholding and the losses. People would have traded (and some would have suffered loss) no matter whether some investors got tips, and the truth would have led to loss anyway. This is just another way of stating the point that gains and losses net out when the revelation of the truth is delayed.

It is difficult to know whether such profit-based measures are displacing loss-based measures because there are so few cases involving violations by firms in relation to trading in the aftermarket. Cases arising out of such circumstances are routinely settled before trial, sometimes for nuisance value and sometimes for substantial sums, but always without resolution of the question whether the court would have used loss or profit as the starting point for computing damages.

Litigators usually assume that the courts will continue to use loss-based measures. There continue to be examples of this remedy. In one recent case investors sued the firm for disseminating annual reports that were "too favorable."⁴⁶ Investors who bought during the three years affected by the reports claimed that they paid too much for the stock, and they recovered the difference between what they paid and the "true" value of the stock at the time of each purchase. The court used a market adjustment to set a cap on the amount of loss. Observing that when the truth came out, the price of the stock fell eleven percent, the court used that as the presumptive measure of recovery.⁴⁷ The use of price data from the market at least gives an accurate picture of loss; the use of market movements to subtract out market effects, leaving only firm-specific effects, is better still. But it is nonetheless an inappropriate starting point.

Maybe it is possible to justify loss-based remedies on a combination of grounds. First, they redress people's incentives to take

⁴⁶ *Sirota v. Solitron Devices, Inc.*, 673 F.2d 566 (2d Cir.), *cert. denied*, 459 U.S. 838, and *cert. denied*, 459 U.S. 908 (1982).

⁴⁷ 673 F.2d at 577. It reversed a valuation by the jury, which concluded that the stock was overpriced by 52% before the truth was revealed. The court did not use the complete model, though, because it did not account for the movement of the market during the period Solitron fell by 11%. (Apparently no one asked it to.) The court also used the jury's valuations for earlier years, concluding that the ultimate price adjustment did not reveal how the overstatements had affected price in the early years. *Id.* The court's distinction was roughly accurate. Doubtless information reached the market no matter what the annual reports said. As a result the extent to which a firm's misstatements could keep the price artificially high would decline steadily as information leaked out. The first purchasers' overpayments would exceed the overpayments of the last purchasers—who, as the court observed, could not have lost more than the 11% adjustment.

too much precaution, an incentive they would have if private losses were not compensable. Second, they serve as very rough multipliers of the real "net harm," increasing the anticipated penalty to take account of the fact that most wrongful omissions (and even most falsehoods) are not caught and prosecuted. Third, over the run of cases the "excess" of a loss-based measure is reduced by the fact that courts do not award damages for failure of people to gain. Suppose a material omission by a firm holds the price of that firm's stock constant while the market (or industry group) is rising. In our terminology, this is a real loss to investors; the failure to rise is no different from an actual decline.⁴⁸ Yet few investors litigate in such cases, and we have not found an award of damages based on a claim that the firm's misconduct caused the investors not to participate in a profitable advance. We have not found a use of the market model to increase damages in any fashion, although as a logical matter it should have this effect frequently.

All of these are excuses rather than explanations, however. A fourth ground may be more substantial. The private damages action based on Rule 10b-5 has a "scienter" requirement.⁴⁹ Wilful (or maybe reckless) misconduct is a condition of liability; negligence is insufficient. The wilfulness requirement is designed to filter out many cases in which there was wrongful conduct, but the plaintiff cannot adequately establish state of mind. The more cases are filtered out, the more appropriate it is to use a multiplier in the remaining cases of liability. If liability is confined to truly egregious acts, we no longer have as much worry about optimal deterrence. The interaction of the scienter requirement with the damages rule should get rid of excessive (or, what is the same thing, inaccurate) enforcement.⁵⁰ With employment of the substantive rules to handle marginal cases, it is more appropriate to move in the direction of unconditional deterrence for the rest. If the scienter rule does not filter out dubious cases, on the other hand—if it turns out always to be possible to find some culpable omission when things go bad⁵¹—then loss-based damages are far too high, and it is necessary to put a more modest remedy in their place.

⁴⁸ See *supra* pp. 625-30; see also Note, *supra* note 22, at 844.

⁴⁹ *Ernst & Ernst v. Hochfelder*, 425 U.S. 185 (1976).

⁵⁰ On the relation between inaccurate enforcement and damages rules, see Polinsky & Shavell, *Contribution and Claim Reduction Among Antitrust Defendants: An Economic Analysis*, 33 STAN. L. REV. 447 (1981); Easterbrook & Fischel, *supra* note 5, at 678-79.

⁵¹ As *Goldman v. Belden*, 754 F.2d 1059 (2d Cir. 1985), suggests.

E. Insiders' Trading

Insiders' trading is usually characterized as a form of misconduct in the aftermarket. The firm delays release of information, while insiders or tippees trade in advance of the price change that will occur when the news comes out. If the principal complaint is delay in the release of material information, then the analysis of the preceding section applies. Most delays are not actionable at all, and for actionable delays gains and losses should be offset. If the principal complaint is the trading rather than the fact of delay, it is necessary to look farther.

Suppose the parties agree that the firm released all necessary information to the public on schedule, and the only complaint is that some people traded before the release. It is hard to identify *any* harm in such a case. The insider's trading partners are not injured by the transaction; they were buying (or selling) anyway, and the insider's trading activity did not induce others to trade.⁵² In liquid markets, the insider's orders are matched against other preexisting orders. Even if the insider's activity had an effect on the price of the stock, that would not induce others to trade. A stock does not become less appropriate as part of an investor's portfolio just because its price moves a little.⁵³ The effect of the insider's activity therefore appears to be the same as the effect of the firm's decision to withhold release of the information.

This is not quite right, however. The insider's activities may lead the price to move in the direction implied by the undisclosed information, making the price a better indicator of value. The insider's trading also may compensate the insider for producing the information, which may be of value to the firm. For these and other reasons insiders' trading may be valuable to investors, in which event it should not be penalized at all.⁵⁴ On the other hand, the opportunity to trade may induce managers to take inappropriate risks (in order to increase the volatility of the stock's price) or to delay the release of information, and the lure of trading may lead insiders to release the news (if only by accident) or permit

⁵² In some cases involving close corporations the insider may stir up the trade by making false or misleading representations to the other investors. Here it is possible to identify an injured party, and long before Rule 10b-5 the "special circumstances doctrine" required the insider to surrender his gains. Cf. *Strong v. Repide*, 213 U.S. 419 (1909).

⁵³ A movement in price might attract close followers of a firm because the new price appears to be inappropriate in light of all the public information about the firm. But these professional investors could as easily decide to investigate or wait as to buy or sell.

⁵⁴ See HENRY MANNE, *INSIDER TRADING AND THE STOCK MARKET* (1966); Carlton & Fischel, *The Regulation of Insider Trading*, 35 STAN. L. REV. 857 (1983).

others to infer the news at a time when the firm's best interest lies in secrecy.⁵⁵ In that event the trading creates net harms—not losses incurred by investors trading in the market while the secret is still secret, but losses perceived by all investors in the firm. Each finds that stock sells for a little less because of the increased volatility (a form of risk) and because of the chance that insiders will appropriate gains or spill the beans without offering something of equal value to the firm.

If insider trading is harmful at all, then, the compensation should flow to all investors. As a practical matter this means to the firm itself. Again the net harm is the transfer in the wrongdoer's favor plus reductions in efficiency, all divided by the probability of successful prosecution. The law of insider trading has moved steadily in this direction. The remedy is now based squarely on the insider's "profit," not on any "loss" sustained by other traders, and the Insider Trading Sanctions Act of 1984 permits a court to increase the penalty up to threefold to take account of the substantial likelihood that a secret trader will not be caught.⁵⁶

This leaves some interesting questions about what "profit" might mean. The statute defines profit as "the difference between the purchase or sale price of the security and the value of that security as measured by the trading price of the security a reasonable period after" the nonpublic information has been disseminated.⁵⁷ The cases have used similar formulations. This approach is an application of the market model, because it defines the profit (the value of the information) as the difference between the market price of stock with information and the market price without. The use of a "reasonable period" after the release of information picks up the fact that the price of thinly traded stocks will not adjust as quickly or as accurately as the price of stocks such as IBM. It is therefore necessary to give the court discretion to ascertain how responsive the price of a given stock is to new informa-

⁵⁵ See Easterbrook, *Insider Trading, Secret Agents, Evidentiary Privileges, and the Production of Information*, 1981 SUP. CT. REV. 309, 331-37; Easterbrook, *Insider Trading as an Agency Problem*, in PRINCIPALS AND AGENTS: THE STRUCTURE OF BUSINESS 81, 86-87 (J. Pratt & R. Zeckhauser eds. 1985); Gilson & Kraakman, *supra* note 5, at 629-34; Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 VA. L. REV. 117, 148-52 (1982).

⁵⁶ SEC v. MacDonald, 699 F.2d 47 (1st Cir. 1983) (en banc), *after remand*, 725 F.2d 9 (1984); Elkind v. Liggett & Myers, Inc., 635 F.2d 156, 168-73 (2d Cir. 1980); Insider Trading Sanctions Act of 1984, Pub. L. No. 98-376, § 2, 1984 U.S. CODE CONG. & AD. NEWS (98 Stat.) 1264, 1264-65 (amending § 21(d) of the 1934 Act, to be codified at 15 U.S.C. § 78u(d)(2)(A)).

⁵⁷ 1984 U.S. CODE CONG. & AD. NEWS (98 Stat.) at 1264 (adding 1934 Act § 21(d)(2)(C), to be codified at 15 U.S.C. § 78u(d)(2)(C)).

tion. If there is a problem in this formulation, it is the lack of reference to an adjustment for the movement of the market in the interim. The statute implicitly assumes that the market and industry group remain constant. The longer the delay between the trade and the release of the information, the less accurate this assumption. The statute does not preclude an adjustment to remove market movements—an adjustment as likely to enhance the award as to reduce it. The adjustment is appropriate as an economic matter, and it can be implied in the statute as part of the computation of the purchase or sale price of the security.⁵⁸

Judges Coffin and Bownes have argued for a different definition of "profit." They maintain that the trader's profit is the difference between the price he pays and the actual price he realizes when he sells, even if the sale comes long after the release of information.⁵⁹ An insider buys stock for \$10; after the information comes out the price rises to \$12; a year later the insider sells the stock for \$20. They would compute the profit as \$10 rather than \$2. In some cases such a computation increases the damages in a rough offset for the fact that detection is unlikely. This is the only possible justification for what is otherwise an inaccurate computation. The insider's gain from his knowledge is \$2; after the news is out the insider is free to buy as much stock as he wants, and the remaining \$8 is a return to the insider's activity as a risk bearer.⁶⁰ There is no reason to treat the reward to risk bearing in this stock as a "profit" of the "inside information"; the insider's function here is no different from his role as investor in any other firm of which he had no knowledge. The stock might as easily have gone to \$4, or the insider might have sold at \$12, bought the stock again, and held. The gain from the prohibited conduct is \$2 in any of these cases. The insider's risk bearing, once the news is out, is a socially productive activity that should not be penalized through damages.

There is a nice parallel here to antitrust. If a firm joins a cartel

⁵⁸ This is how courts justify using a market adjustment in other parts of securities law. See, e.g., *Rolf v. Blythe, Eastman Dillon & Co.*, 637 F.2d 77, 84 (2d Cir. 1980); *Feit v. Leasco Data Processing Equip. Corp.*, 332 F. Supp. 544, 586 (E.D.N.Y. 1971).

⁵⁹ *SEC v. MacDonald*, 699 F.2d 47, 55-58 (1st Cir. 1983) (en banc) (Coffin, J., joined by Bownes, J., dissenting in part).

⁶⁰ This is a mirror image of the situation as the other investors see things. Those who sold to the insider at \$10 were free to reassess the wisdom of their sale and to buy new stock, once the news came out, if the price of \$12 appeared to be attractive. They did not "lose" more than \$2. The possibility of cover in the stock market—like cover in a contract for the sale of peas—cuts off the damages on the day when the violation becomes clear and the parties can secure in the market whatever quantities of the commodity they desire.

and increases its price, and at the same time implements a new technology to reduce the cost of production, it need not disgorge the profit from the latter activity. It pays as damages only its "monopoly profit"—the difference between the competitive price before the cartel and the new monopoly price. It keeps the profits generated by any cost-reducing innovations that were made possible by the cartel. The requirement that it pay the "net harm" as damages forces it to subtract from its calculation the monopoly overcharge and then compare the benefits of lower costs against the allocative efficiency losses of monopoly. The calculation would be spoiled if courts computed all of the defendant's gains as illegal profits. It is the same here; the calculation of illegal profit must be limited to the gains produced by the undesirable portion of the activity.

F. Brokers' Misconduct

We conclude with a brief look at misconduct by brokers in dealing with their customers, a subject that is related only incidentally to the principal purposes of the securities laws. Brokers often exercise discretion over trading in customers' accounts. When the value of the accounts falls, customers may charge the brokers with violation of duties. They may say that the broker "churned" the account to generate higher commissions, selected stocks not "suitable" for the customer's income and age, or induced the customer to buy stocks he would not have bought if left to his own devices. These complaints have nothing to do with the securities themselves and everything to do with the broker's breach of the promise to be an honest agent, but they raise a few issues of valuation.

For some years, the courts awarded damages based on the customer's gross losses. If the broker induced the customer to purchase stock in Firm Q, perhaps withholding the information that the broker made a market in Q's stock, and Q later fell in price, the court would award the difference between the price paid and the price realized.⁶¹ This is a rescissory measure of damages, putting on the broker the entire risk of the firm's success and the entire risk of the stock market as a whole. Yet this is not a subject on which deterrence should be absolute. How much disclosure to make to a customer of a given level of sophistication, how much trading to do in a discretionary account, and so on, is a judgment call. There may be savings in revealing less, and the selection

⁶¹ See, e.g., *Chasins v. Smith, Barney & Co.*, 438 F.2d 1167, 1173 (2d Cir. 1970).

of an appropriate damages rule may induce brokers to reveal the right amount to customers. A rule giving the customer the benefit of any increase in the security's value while calling on the broker to make up a deficit would not send appropriate signals. The customer's losses match someone else's gains. They are not part of the net harm.

Today courts almost never compute damages on the basis of the customer's trading losses. They instead assume that markets are reasonably efficient in pricing stock and that the customer therefore gets what he pays for, even if it is not what he wanted to buy. The risks of investment belong to the customer, who assumed them intentionally even if he would have preferred a different stock. One stock is as likely (*ex ante*) to rise or fall as another, and therefore the decline in the value of the portfolio is not part of the damages. On the other hand, any commissions generated by excessive trading must be returned to the customer.⁶² This tracks the line of optimal damages. The commissions are the bulk of the net harm in brokers' misconduct cases. The commissions are transfers away from the victims without offsetting benefit (except to the wrongdoer); that would be reason enough to require their surrender. The reason is reinforced by the fact that excessive trading consumes real resources—the time of brokers, exchanges, and transfer agents. (There is no need to assess this loss as a separate item of damages; the broker suffers these items as “automatic” costs because it must pay for them out of the commissions.)

Courts sometimes take a different approach that is close to the same thing. They say that the broker must compensate the customer for the reduction in the value of the portfolio but that they will “take out the market.” Thus if the portfolio drops ten percent and the market (or some other index) drops ten percent during the same period, the broker is free of liability. The damages equal only the amount by which the portfolio falls faster than the market.⁶³ At first glance, it looks like this is the same as a rule under which brokers simply return the commissions. On average, the clients' portfolios will do as well as the market. But of course not all clients will bring suit. Only those whose portfolios do worse than average sue, and brokers cannot recoup the shortfall from the other clients whose portfolios beat the market. Thus this measure of damages forces brokers to bear some of the risk of investment,

⁶² See *Costello v. Oppenheimer & Co.*, 711 F.2d 1361, 1372-74 (7th Cir. 1983); cf. *Arington v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 651 F.2d 615, 620-22 (9th Cir. 1981).

⁶³ See, e.g., *Rolf v. Blythe, Eastman Dillon & Co.*, 637 F.2d 77, 84 (2d Cir. 1980).

even though the courts set out to relieve them of that risk.

The courts that adjust for the market's movement in cases of brokers' misconduct proceed by asking how the client's portfolio did when compared with a larger portfolio of similar stocks. Suppose the broker bought some very risky stocks for the client, say stocks with β coefficients of 2. A stock with a β coefficient of 2 rises (and falls) roughly twice as fast as the market. To make things simple, suppose the broker put the client's entire assets in one such stock and the market promptly fell 10%. This stock would be expected to fall 20%. Assume it fell 25%. The court making the adjustment might reason: A portfolio of similar stocks would have fallen 20%, so subtract 20% from the purchase price of this stock, find the difference between that "adjusted purchase price" and the price realized from selling the stock, and award the difference to the client. This is fine if the client *wanted* a risky stock, one that would rise and fall faster than the market, even if the client did not want this particular stock. What if the client wanted a safe portfolio, one that would rise and fall with the market, or even more slowly than the market? Often the real problem in a brokers' misconduct case is that the broker exposed the client to much more risk than the client contemplated. If risk is the harm, then an adjustment like the one we have described leaves the client without compensation for the broker's default. Instead of comparing the client's portfolio against a similarly risky portfolio, the court should compare the client's portfolio against how the *target* risk classification would have done. In the example we gave, the adjusted purchase price should be only 10% less than the actual one, and the damages would be about 15% of the value of the initial investment.⁶⁴

⁶⁴ *Rolf v. Blythe, Eastman Dillon & Co.*, 637 F.2d 77 (2d Cir. 1980), shows how the court can miss this point. The broker put the client into an exceptionally high-risk group of stocks (mostly start-up companies not traded on major exchanges). During the time covered by this misconduct the Standard & Poors Industrial Index rose some 9.79%; the Standard & Poors Low-Priced Index fell 7.5%. *Id.* at 84 n.9. (Negative correlation of these indices is a rare but possible occurrence. The more volatile a group of stocks, the more likely something like this can happen.) The court concluded that the basket of stocks purchased by the broker was "like" the Low-Priced Index and so deflated the adjusted purchase price by 7.5%. *Id.* at 84. It would have been more appropriate to assume that the client wanted a safe portfolio. Had the broker given him such a portfolio, it would have appreciated rather than depreciated.

Rolf also illustrates another, though smaller, misfire. The court tried to make rough adjustments using stock indices, which are efforts to measure the average performance of a group of stocks. Indices have some notorious quirks, and they do not accurately represent either the market as a whole or the relation between a particular stock and the market. It is significantly more accurate to make adjustments of this sort using the market model de-

This illustration suggests what we think the best measure of net harm in brokers' misconduct cases: the excess risk produced by the brokers' choices. The court could compute the extent to which the portfolio the broker put together was riskier than an appropriate target portfolio⁶⁵ and award compensation that depends on how far a well-chosen portfolio would be expected to outperform the excessively risky one. Any client could obtain this compensation even if his portfolio later beat the market. The award should be based on excess risk viewed *ex ante*, not on how things turned out.

The client's object in giving a broker discretion over a securities account is to enable the broker to assemble a desirable portfolio. Portfolio management is a skill, and the client seeks to hire the broker's expertise. If the broker assembles a portfolio containing excess risk, when the risk could have been hedged by diversification or reduced by selecting different stocks, the broker has harmed the client. Almost as bad, if the client fears that the broker will not put together a well-designed portfolio, the client will try to supervise the broker more carefully. Because the purpose of the venture was to use the broker's comparative advantage, the client's supervision is another economic cost of the agency relation. Compensation based on excess risk is a substitute for excessive monitoring by clients, and it measures the real economic harm of poorly designed portfolios.

CONCLUSION

The law of damages in securities cases is not as chaotic as it first appears. The damages in cases involving the issuance of securities are based on some measure of "harm to investors," and whether the standard is rescissionary is almost a detail because adjustments for changes in the market convert rescissionary measures into more conventional out-of-pocket-loss measures. Damages in almost all cases arising out of problems in the aftermarket (both omissions and inside trading) are based on the wrongdoer's profit. The difference between the loss-based measures and the profit-based measures comes from the fact that trading in the aftermarket entails offsetting gains and losses. Optimal sanctions,

scribed in Part I-C than to do it in this seat-of-the-pants fashion.

⁶⁵ An "appropriate" target portfolio obviously depends on the degree of volatility the client wanted to accept. The broker can obtain this volatility—yet maintain diversification to avoid the costs of unsystematic risk—by careful decisions to borrow against or lend from the portfolio, or to augment the portfolio with investments in market-index futures.

based on the net harm an offender's acts cause to others, require the offsetting of gains and losses. The rules largely do this. The absence from securities law of benefit-of-bargain damages and consequential damages also has a sound basis in the theory of optimal sanctions. The congruence between theory and practice is not complete; it could not be in light of the substantial difficulty in measuring net harm even under the best conditions. It is nonetheless interesting that things are as close as they appear to be.