

# Why Shareholders Want Their CEOs To Lie More After *Dura Pharmaceuticals*

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## ABSTRACT

*The Supreme Court's recent Dura Pharmaceuticals decision requires a plaintiff to show a market decline (ex post losses), as opposed to price inflation at the time of purchase (ex ante losses), in order to maintain an action for securities fraud. Because fraud is actionable only where a market decline attributable to the fraud occurs under the ex post loss rule, firms that can bundle together disclosures or business projects are underdeterred by the antifraud regime: the success of one project may compensate for the failure of another, the firm can time the release of good and bad news to mask fraud's effect on price, and "other factors" that would have caused a loss of investment value even without the fraud can disallow a claim for damages. Strategically, firms may bundle to minimize exposure to liability. On the other hand, firms that value transparency may wish to unbundle. In this sense, the credibility of disclosure under an ex post loss rule depends on the extent to which firms can and do unbundle, whereas an ex ante regime is theoretically perfect in any case. This analysis also reveals two additional problems with an ex post rule: market tests for ex post damages awards (a chief purported benefit) are generally not available for bundled firms, and awarding ex post damages may overpunish small frauds but reward big ones.*

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#### INTRODUCTION

When is lying a good strategy? If the truth is certain never to emerge, lying makes a lot of sense. Ultimately, however, one expects that the truth often wins out, at least when enough people are paying attention. Lying on one’s resume,<sup>1</sup> fudging scientific research,<sup>2</sup> or even inventing a phony provocation for war<sup>3</sup> tend to be revealed as lies in the end. So, why lie in the first place? This question is particularly relevant in the securities context (the focus of this Article), where countless analysts, institutional investors, regulators, and, of course, plaintiffs’ lawyers keep close watch for disingenuous information. What explains, for instance, a spectacular deception such as WorldCom, where earnings overstatements in the billions of dollars would seem to have had no chance

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1. See, e.g., Andrew C. Revkin, *A Young Bush Appointee Resigns His Position at NASA*, N.Y. TIMES, Feb. 8, 2006, at A13 (detailing the resignation of George C. Deutsch from NASA after he falsely claimed to have a degree from Texas A&M on his resume).

2. See, e.g., Clive Cookson & Anna Fifield, *Seoul Searching: Koreans Find Their Rapid Development has Hard Scientific Limits*, FIN. TIMES, Jan. 19, 2006, at 15 (describing the discrediting of South Korean scientist Hwang Woo-suk during the stem-cell cloning hoax).

3. See, e.g., DANIEL ELLSBERG, SECRETS: A MEMOIR OF VIETNAM AND THE PENTAGON PAPERS (2002) (providing an account of the likely fabrication of the Aug. 4, 1964, Gulf of Tonkin incident, which precipitated America’s increased military involvement in Vietnam); Scott Shane, *Vietnam War Intelligence ‘Deliberately Skewed,’ Secret Study Says*, N.Y. TIMES, Dec. 2, 2005, at A11 (same). More recently, one might point to Britain’s infamous “dodgy dossier” that helped prompt Britain to war with Iraq, which contained, in the words of Tony Blair, “a vast amount of concealment and deception.” See FOREIGN AFFAIRS COMMITTEE, HOUSE OF COMMONS, THE DECISION TO GO TO WAR IN IRAQ, 2002–03, HC 813-I, at 41, available at <http://www.publications.parliament.uk/pa/cm200203/cmselect/cmfaif/813/813.pdf>.

of remaining secret for long?<sup>4</sup>

But, before getting into securities law, we can begin with some illustrative examples. First, put yourself in the shoes of a resourceful but somewhat lazy ten-year-old who has a particularly bad piece of news: because you failed to do the requisite homework, you are pretty sure you bombed your final exam in math. Besides immediately relaying the truth (non-study and bad grades) to your parents, which is almost certainly the *socially* optimal strategy, there are other options. Do you anxiously watch the mail, burn your report card, and work hard to get an A next term, hoping to balance things out with good news before the bad is discovered? Or could you wait for *really* bad news—say, Grandma dying—to make your announcement, in the hopes of slipping by unnoticed?

There are risks, of course, to such nondisclosure options, but there may be substantial benefits to the ten-year-old who possesses both skill and a bit of luck. And we could envision other strategies that minimize this risk. For one, we could time our math course to coincide with likely success in another area, such as baseball season, thus setting off probable triumph against failure. Just from this whimsical thought experiment, we might suppose under some conditions that honesty is not always the best policy.

Consider two more serious examples, involving not ten-year-olds but British prime ministers. In World War II, Winston Churchill followed the practice of withholding bad news until he had a piece of good news to offset it.<sup>5</sup> A particularly bad news day came on June 17, 1940: Nazi bombs sank the troopship *Lancastria* off the port of St. Nazaire, killing at least 3,500 British soldiers and civilians.<sup>6</sup> This was already a bad time for Britain: America had not yet entered the War and German victory appeared likely. Much like our hypothetical ten-year-old, Churchill ordered the news suppressed, reasoning that doing otherwise would lead the British people to “rationally” choose to surrender.<sup>7</sup> At some point in the future, Churchill supposed, there would be good news to offset the blow. As it turns out, an adequately good offsetting event was too long in coming, and Churchill forgot to announce the sinking. Despite that oversight (or perhaps even in part because of it), this strategy worked: never having heard about the sinking, British morale was unimpaired by the disaster, Churchill did win the war, and when the sinking was finally revealed, it left surprisingly little impression.<sup>8</sup> The *Lancastria* disaster—which cost more lives than the *Titanic*

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4. See Am. Inst. of Certified Pub. Accountants, *The WorldCom Fraud*, <http://www.aicpa.org/download/antifraud/121.ppt>.

5. This practice came about before Churchill was Prime Minister. When Churchill was still head of the Admiralty, Lord Lothian, the British Ambassador to the United States, lamented that Churchill's penchant for obfuscation of the truth (covering up the losses of the HMS *Nelson* and HMS *Barham*) was the reason “why he never becomes Prime Minister.” NICHOLAS JOHN CULL, *SELLING WAR: THE BRITISH PROPAGANDA CAMPAIGN AGAINST AMERICAN “NEUTRALITY” IN WORLD WAR II 40–41* (1995).

6. Max Hastings, *Hidden Horror*, *DAILY MAIL*, June 17, 2005, at 54.

7. Jonathan Fenby, *For Those in Peril*, *HIST. TODAY*, June 2005, at 6–7.

8. See *id.*

and *Lusitania* combined—became a mere “footnote of war.”<sup>9</sup>

The administration of a later prime minister, Tony Blair, has employed an alternative nondisclosure strategy: to wait for *really* bad news before dropping its own bad news bomb. Famously, in the wake of the World Trade Center attacks of September 11, a British Department of Transport memo—written within hours of the attack—advised that “it was ‘a very good day’ to bury any bad departmental news.”<sup>10</sup> Despite the furor caused when the memo leaked, the memo’s author (a Ms. Jo Moore) kept her job,<sup>11</sup> and pushed the same policy again upon the death of Princess Margaret, exhorting that any bad news be buried along with her.<sup>12</sup> While these explicitly cynical strategies aroused public ire when leaked, it seems that, *ex ante* at least, the Blair administration believed them to be sound practices.

Of course, with these sorts of situations, it is difficult to measure what the real payoffs and costs of such nondisclosure strategies are. Even though Churchill’s gambit worked, was he running unreasonable risks? Even though Blair’s information management backfired, were there sufficient expected gains to make it worthwhile? One cannot discard the possibility that such policies are profitable, and persons and entities often act as though they are.<sup>13</sup> But the data is limited and qualitative in nature, making precise cost-benefit calculations impossible.

This is, however, one advantage of studying securities law: costs and benefits are readily quantified (indeed, all we care about is money), and the market provides a ready way to value information and the impact of a lie. And because courts assign “punishment” through transparent and mechanical rules, one can ascertain whether one strategy, such as full and immediate truth telling, becomes personally disadvantageous compared to another: finessing, delaying, or obfuscating the truth.

So that brings us to the publicly traded firm in the United States: in a situation analogous to our hypothetical ten-year old, firms subject to the federal securities laws may, in some situations, rationally choose to obscure or delay

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9. Hastings, *supra* note 6, at 55.

10. James Harkin, *The Spin Cycle*, FIN. TIMES, May 15, 2004, at 10.

11. She, however, tied with her boss as the 59th “worst Briton” on the 2002 television show *100 Worst Britons*. See Channel 4 Television, *100 Worst Britons We Love to Hate—The Results!*, <http://www.channel4.com/entertainment/tv/microsites/G/greatest/Britons/results.html>; see also Wikipedia, Jo Moore, [http://en.wikipedia.org/wiki/Jo\\_Moore](http://en.wikipedia.org/wiki/Jo_Moore) (last visited Sept. 25, 2006).

12. See Harkin, *supra* note 10, at 10. It also has been alleged that the British government attempted to bury bad news after the Dunblane massacre. See Julie Hyland, *Blair Government Caught in Media Manipulation Row*, World Socialist, Oct. 13, 2001, [www.wsws.org/articles/2001/oct2001/moor-o13.shtml](http://www.wsws.org/articles/2001/oct2001/moor-o13.shtml).

13. Of course, one might suggest that some actors are subject to severe future discounting, which makes them value the present much more highly than the future. Or they may have short time-horizons, leading to final period problems. See M. Todd Henderson & James C. Spindler, *Corporate Heroin: A Defense of Perks, Executive Loans, and Conspicuous Consumption*, 93 GEO. L.J. 1835, 1839–40 (2005). But, as I will show, even in the absence of such problems, an *ex post* loss regime still makes fraud profitable.

negative information in order to maximize welfare of shareholders at the time of the fraud. More particularly, I argue that the Supreme Court's recent decision in *Dura Pharmaceuticals, Inc. v. Broudo*<sup>14</sup> makes lying optimal for firms with multiple business projects or multiple periods of reporting. All in all, the *Dura* rule fails to adequately internalize the costs of fraud onto the firm, making fraud profitable.

What did the *Dura* Court do to cause such a state of affairs? *Dura* requires a plaintiff to show a market decline (*ex post* "economic loss")<sup>15</sup> in order to maintain a claim of securities fraud—what we might call an "*ex post* loss rule."<sup>16</sup> This may not, at first, appear to be a problem, because awarding *ex post* damages in such cases does adequately internalize fraud when a firm has only one project and makes only one disclosure at a time: the market has the opportunity to adjust to, and price, every incremental piece of information.<sup>17</sup> However, an *ex post* loss rule fails to internalize fraud where a disclosing firm can bundle together projects or disclosures.<sup>18</sup> A firm may choose to undertake multiple projects (e.g., conglomerate), and can then lie about one of the projects in the hope that the other project will ultimately make up for it. Similarly, exogenous events, such as market fluctuations, can interrupt the chain of causation and deny plaintiffs a recovery.<sup>19</sup> Or a firm may fraudulently withhold news of bad performance in the hopes of "turning it around" in the future, preventing an *ex post* market decline.<sup>20</sup> An *ex post* loss rule makes these profitable strategies, while an *ex ante* rule—allowing a suit whenever there has been price inflation and awarding the amount of inflation as damages—would internalize the costs of fraud onto the firm.

Return to our analogy of the hypothetical ten-year-old who believes he has bombed his math exam. First, if punishments do not ensue so long as his observed grade point average is above a certain level, he can escape punishment in three instances: if his other grades cover the math shortfall, if he burns the current report card and does better next term, or if some catastrophic event renders exam performance moot. Second, thinking strategically, he may choose *ex ante* to make one of these scenarios more likely: for instance, taking his math course concomitantly with, say, woodshop (his ace-in-the-hole subject), which

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14. 544 U.S. 336 (2005).

15. *See id.* at 346–47.

16. This amount of loss is then the basic measure for calculating damages—what we might term "*ex post* damages." Congress enshrined this measure in the Private Securities Litigation Reform Act (PSLRA), codified as Section 21D(e) of the Securities Exchange Act of 1934, which, in cases where "the plaintiff seeks to establish damages by reference to the market price of a security," limits damages to the difference between the price paid for the securities and an average ninety-day trading price of the firm's trading price upon revelation of the fraud. Securities Exchange Act of 1934, § 21D(e) (codified at 15 U.S.C. § 78u-4 (2000)). *See infra* note 56 and accompanying text.

17. *See infra* Part III.A.

18. *See infra* Part III.B.

19. *See infra* Part III.C.

20. *See infra* Part III.D.

provides an easy A. This lowers his incentive to study math adequately, and leads him to overinvest in “gut” subjects. Note that if his parents employed a different rule—such as grounding him for bombing an exam no matter what the total grade point—his study incentives would be undistorted. This is equivalent to *Dura*’s choice between *ex post* and *ex ante* rules: by relying on an *ex post* market test of share price declines, instead of punishing fraud whether or not it results in *ex post* losses, *Dura* not only makes fraud profitable, but encourages firms to change the way they do business and report information.

In a sense, then, *Dura* largely eviscerates the mandatory disclosure regime that Rule 10b-5 jurisprudence imposed. Firms can choose structures or disclosure practices to minimize the impact of antifraud remedies. That ability to choose does, however, cut both ways: firms may choose to unbundle projects or disclosures, subjecting themselves to potentially *greater* liability, if it turns out that the market values a fully functioning antifraud rule. That is, if a firm values transparency or values the confidence that shareholders have when a firm is subject to strict antifraud penalties, firms can choose to unbundle their projects and disclosures. The extent to which firms can unbundle themselves and their disclosures may, however, be limited, and the costs of doing so may be significant even where possible.<sup>21</sup>

This analysis also reveals two additional problems with an *ex post* rule. First, in many or even most cases attempting to utilize an *ex post* loss rule, market tests will be flawed due to non-fraud-related events, and courts, in order to determine the right awards, are required to make the same sorts of valuation judgments as in an *ex ante* damages regime. Put another way, the promise of a readily administrable market test for an *ex post* fraud regime is largely illusory.<sup>22</sup> Second, an *ex post* rule tends to encourage bigger lies, because damages are based on *ex post* declines rather than the severity of the lie told.<sup>23</sup> This under-punishes firms that tell big lies, while over-punishing good firms who may run afoul of Rule 10b-5 in small and inadvertent ways.

This paper is organized as follows. Part I provides brief background on the fraud-on-the-market cause of action. Part II examines the *Dura* case and demonstrates how it requires an *ex post* market decline to satisfy loss causation under Rule 10b-5. Part III considers the substantive difference between *ex ante* and *ex post* loss rules: *ex post* loss fails to adequately internalize fraud in cases where the firm can bundle projects or disclosures, or even where the firm is subject simply to exogenous events, such as changing market conditions. Part IV describes how firms may attempt to unbundle or disaggregate themselves in order to maintain credibility in the face of an *ex post* rule. Part IV also describes two other problems with an *ex post* rule—the illusory nature of *ex post* market tests and the tendency of *ex post* damages to over-punish small lies but reward

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21. See *infra* Part IV.A.

22. See *infra* Part IV.B.

23. See *infra* Part IV.C.

big ones—that may make *ex ante* loss preferable.

### I. THE FRAUD-ON-THE-MARKET DOCTRINE

The main antifraud rule that we have is Rule 10b-5<sup>24</sup> under Section 10(b) of the Securities Exchange Act. From an economic perspective, the goal of Rule 10b-5, as with antifraud rules in general, is to enable credible communication between parties. Generally speaking, the trick is to impose expected costs of fraud onto communicators so that fraud is not a profitable strategy as compared to telling the truth. At the same time, some degree of fraud may remain optimal—perhaps because of errors in adjudication (“fraud by hindsight,” for instance),<sup>25</sup> or because at some point the costs of prevention, detection, and adjudication outweigh the costs of fraud<sup>26</sup>—such that it is important not to chill useful communications or business activities by imposing too great a penalty on suspected fraud. Thus, arriving at just the right level of fraud sanction requires making the fraudster internalize the costs that the fraud imposes on others, and not more. For instance, if a fraud can net the fraudster \$10, imposing an expected penalty of \$10 suffices to deter fraud and probably does a good job of maximizing social welfare.<sup>27</sup>

Assuming that the objective, then, of an antifraud rule is internalization of the costs of fraud, Rule 10b-5 attempts to accomplish that objective by requiring firms committing fraud to either disgorge their gains or compensate their

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24. 17 C.F.R. § 240.10b-5 (2004).

25. See Paul G. Mahoney, *Precaution Costs and the Law of Fraud in Impersonal Markets*, 78 VA. L. REV. 623, 627–28 (1992); James Spindler, *IPO Liability and Entrepreneurial Response* 7–11 (John M. Olin Law & Econ. Working Paper No. 243, 2d Ser. 2005), available at [http://ssrn.com/abstract\\_id=719768](http://ssrn.com/abstract_id=719768). The term “fraud by hindsight” refers to the problem where bad performance is indistinguishable from fraud in the eyes of the subsequent trier of fact. For instance, if a firm reports that it has rosy prospects but then performs very poorly over the next year, it will be difficult to determine whether the disclosure was unduly optimistic (that is, fraudulent) or whether the firm was simply unlucky. In practice, this means that firms are very often sued after disappointing results, and with some success. See generally Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497 (1991); James Bohn & Stephen Choi, *Fraud in the New-Issues Market: Empirical Evidence on Securities Class Actions*, 144 U. PA. L. REV. 903 (1996).

26. For instance, Ehud Kamar, Eric Talley & Pinar Karaca-Mandic, *Going-Private Decisions and the Sarbanes-Oxley Act of 2002: A Cross-Country Analysis* (Univ. S. Calif. Center in Law, Econ. & Org. Research Paper No. C06-05, 2006), available at [http://ssrn.com/abstract\\_id=901769](http://ssrn.com/abstract_id=901769), shows that the Sarbanes-Oxley Act imposes severe costs on smaller firms, leading them to leave the public markets altogether. In such a case, the prophylactic measures against fraud (strict penalties for fraud and strict mandatory internal controls) may cause greater harm than the frauds prevented.

27. The gains to the fraudster and the losses to society may be different amounts. For instance, a fraud may undermine confidence in the market, leading to harms that are much greater than the fraudster’s gains. On the other hand, the fraud itself may cause relatively little net loss to society. For instance, if the fraudster defrauds an irrational actor whose actions are unaffected by the threat of fraud (a “noise trader”), there is simply a transfer of wealth from victim to fraudster, without incurring any social harm. With rational actors, however, we would expect that potential victims would expend up to the amount of their loss on prevention, which is a social cost. See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 200 (1968).

victims. It renders fraudulent statements and omissions actionable<sup>28</sup> by both public enforcers and private plaintiffs.<sup>29</sup> As “fraud” is a component of a Rule 10b-5 claim, the common law elements applicable to fraud or deceit—materiality, reliance, causation,<sup>30</sup> and damages—are applicable to a Rule 10b-5 claim as well.<sup>31</sup> A plaintiff claiming he has been defrauded into buying company stock with fraudulent financials would find himself in the same boat as a plaintiff claiming she has been defrauded into purchasing a horse with windgalls, and would be required to carry the same burdens of proof.<sup>32</sup>

The so-called “fraud-on-the-market” doctrine is a particular twist on how a private plaintiff can prove fraud where the market efficiently incorporates information into price. The doctrine makes use of the efficient markets hypothesis and allows a plaintiff to look to the markets themselves to supply evidence of the fraud and the damages done.<sup>33</sup> As the Supreme Court stated when adopting the doctrine in the landmark *Basic Inc. v. Levinson* opinion in 1988:

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28. See THOMAS LEE HAZEN, *THE LAW OF SECURITIES REGULATION* § 12.3[1] (5th ed. 2005). Rule 10b-5 reads in full:

It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange,

- (a) To employ any device, scheme, or artifice to defraud,
- (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
- (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person,

in connection with the purchase or sale of any security.

17 C.F.R. § 240.10b-5 (2004).

29. Although a Rule 10b-5 private right of action was first enunciated by a federal court in 1946, the Supreme Court did not officially recognize a private right of action until 1971. See *Superintendent of Ins. v. Bankers Life & Cas. Co.*, 404 U.S. 6, 13 n.9 (1971).

30. Causation has traditionally been subdivided by the courts into transaction causation (essentially but-for causation) and loss causation (essentially proximate causation). As Professor Fox persuasively argues, these distinctions are not meaningful in the fraud-on-the-market context where the relevant variable is simply price paid for an expected level of risk and return. The courts’ clinging to this dual-causation framework amounts to “struggl[ing] to fit a square peg into a round hole,” giving rise to “tortured reasoning or bent facts.” Merritt Fox, *Demystifying Causation in Fraud-on-the-Market Actions*, 60 *BUS. LAW.* 507, 508 (2005).

31. See HAZEN, *supra* note 28, § 12.4, at 469.

32. See *infra* notes 82–85, 107, and accompanying text, for the discussions of the application of common law fraud principles in the *Dura* and *Bastian* opinions. One major difference, of course, between archetypal common law fraud cases and securities fraud cases is that the former often have no market price on which to benchmark a recovery (for example, what exactly would the buyer have been willing to pay for that particular horse had the windgalls been disclosed?). Public securities transactions often do have such a market benchmark, since liquidly-traded securities will re-equilibrate as new information enters the marketplace (for example, if profits are reported to be up, stock price will rise by some amount). To the extent that the common law elements exist for evidentiary purposes to show that valuations really were distorted by fraud, these elements are less applicable to securities fraud cases.

33. See HAZEN, *supra* note 28, § 12.10, at 502 (“The fraud-on-the-market presumption is borrowed from economic theory and the Efficient Capital Market Hypothesis.”).



The fraud on the market theory is based on the hypothesis that, in an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business . . . . Misleading statements will therefore defraud purchasers of stock even if the purchasers do not directly rely on the misstatements . . . .<sup>34</sup>

Under the fraud-on-the-market theory, a plaintiff need not show that she was even aware of the defendant's fraudulent statement or omission. Rather, the presence of an efficient market creates a presumption that the plaintiff relied on the accuracy of the firm's stock price, which a material fraud would affect. Thus, the plaintiff relies simply by transacting during the period in which the fraudulent information affected the market.<sup>35</sup>

While *Basic*'s fraud-on-the-market doctrine speaks explicitly to reliance, its application of efficient market theory also provides a means for demonstrating the overlapping elements of materiality, causation, and damages.<sup>36</sup> Materiality and reliance are directly linked: a plaintiff relies to her detriment on fraud only if that fraud has an effect on market price; thus, "reliance . . . is a corollary of materiality."<sup>37</sup> Material information is defined as that information for which "there is a substantial likelihood that a reasonable shareholder would consider it important."<sup>38</sup> Because the information that matters to a reasonable investor is necessarily what determines stock price in an efficient market, a material fact is one "which in reasonable and objective contemplation might affect the value of the corporation's stock or securities."<sup>39</sup> A plaintiff can then demonstrate a fraud's materiality in one of two ways. She can do so deductively by showing that an objective investor would care about such information, perhaps presenting expert testimony that a certain level of earnings would command a particular price.<sup>40</sup> Or, she can demonstrate materiality inductively, proving that the market<sup>41</sup> *did* care about the information by presenting evidence that the market

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34. 485 U.S. 224, 241–42 (1988) (alteration in original) (quoting *Peil v. Spelser*, 806 F.2d 1154, 1160–61 (3d Cir. 1986)).

35. A fraudulent statement that is corrected or counteracted by accurate information would not give rise to a fraud claim for a plaintiff transacting subsequent to the correction. As the *Basic* Court discussed, "if, despite [the defendants'] allegedly fraudulent attempts to manipulate market price, [the truth] credibly entered the market and dissipated the effects of the misstatements," the plaintiff's claim would fail. *Id.* at 248–49. Alternatively, a plaintiff who knew about the fraud but traded anyhow would be unable to maintain a claim. *See id.* at 249.

36. Daniel Fischel and Merritt Fox have previously made this same point. *See* Daniel R. Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities*, 38 BUS. LAW. 1, 12–13 (1982); Fox, *supra* note 30, at 520. *See also Basic*, 485 U.S. at 247 n.24 (citing to Fischel).

37. HAZEN, *supra* note 28, § 12.10, at 499 (citing *Semerenko v. Cendant Co.*, 223 F.3d 165, 180 (3d Cir. 2000)).

38. *Basic*, 485 U.S. at 231 (quoting *TSC Indus. v. Northway, Inc.*, 426 U.S. 438, 449 (1976)).

39. *Kohler v. Kohler Co.*, 319 F.2d 634, 642 (7th Cir. 1963).

40. *See Fischel*, *supra* note 36, at 6–7.

41. *Basic*'s definition of materiality would be unsatisfied by a market test in a market where market price movements are effectuated by unreasonable investors, or "noise traders," who react irrationally to

price of the security moved when the fraud was revealed<sup>42</sup> or at the time the fraud was perpetrated.<sup>43</sup>

The same methodologies suffice for causation and damages: as the *Basic* Court stated, “[r]eliance provides the requisite causal connection between a defendant’s misrepresentation and a plaintiff’s injury.”<sup>44</sup> When an investor transacts in the marketplace, changing her investment position, she relies on the veracity of the market price. A material fraud by definition affects the stock price; the investor therefore relies on the fraud by transacting her share at an incorrect price. The fraud causes an observable diminution in investment value to a particular investor when the truth enters the marketplace and the price is corrected. If the investor returns to the position she was in prior to the fraud (either by buying back a share after she has sold, or by selling a share after she has bought) prior to the time that the truth corrects the market price, she will not incur damages. Thus, an individual claimant must show that she does have standing to sue. By aggregating claims into a class action, however, the need to show individual harm is obviated, because it is a virtual certainty that, if a material fraud occurred, some shareholders in a properly constructed class suffered harm.<sup>45</sup> At the damages inquiry, in order to share in the class award, investors in the plaintiff class must show a detrimental net change in investment position spanning the end of the effective period of the fraud.<sup>46</sup>

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insignificant or irrelevant information. See Larry Ribstein, *Fraud on a Noisy Market* 148–49 (Ill. Law & Econ. Working Paper Ser., Working Paper No. LE05–022, 2005), available at [http://papers.ssrn.com/pape.tar?abstract\\_id=803064](http://papers.ssrn.com/pape.tar?abstract_id=803064).

42. See Fischel, *supra* note 36, at 17–19 (describing the method of determining whether a fraud was material by measuring abnormal returns around the event date of the fraud’s revelation).

43. Note, however, that this is essentially the price inflation approach the *Dura* Court explicitly rejected, as described later in this Article. Such a showing may still have evidentiary value at the stage of calculating damages. See *Robbins v. Koger Props., Inc.*, 116 F.3d 1441, 1447–48 & n.6 (11th Cir. 1997).

44. *Basic Inc. v. Levinson*, 485 U.S. 224, 243 (1988).

45. It is theoretically possible, though overwhelmingly improbable, that no investors would have changed their positions between the time of the fraud and the time of the correction. For example, suppose that while Sue holds a share of its stock, Pharma Co. overstates its earnings, inflating the price of its shares from \$7 to \$11. Sally then purchases the share of stock from Sue for \$11. Suppose then that Sally subsequently sells the share back to Sue for \$11, before the truth enters the marketplace. In such a case, neither Sally nor Sue has incurred damages, since neither had a net change in their investment position between the time that the price was inflated and the time that it was corrected. However, in an anonymous and liquid marketplace, it is a virtual certainty that some investors would have changed their position and been damaged by the fraud.

46. The securities class action mechanism currently does this. See, e.g., *In re St. Paul Travelers Securities Litigation*, Master File No. 04-CV-3801-JRT-FLN (D. Minn. Nov. 25, 2005) (on file with author). It is notable that the *Dura* decision spills considerable ink in discussing the worry that some plaintiffs may have exited their position in the securities before the corrective disclosure occurs. See *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 342 (2005) (“[I]f, say, the purchaser sells the shares quickly before the relevant truth begins to leak out, the misrepresentation will not have led to any loss.”); see also *Semerenko v. Cendant Corp.*, 223 F.3d 165, 185 (3d Cir. 2000) (“In the absence of a correction in the market price, the cost of the alleged misrepresentation is still incorporated into the value of the security and may be recovered at any time simply by selling the security at the inflated price.”). The *Dura* Court completely misses the point. Aside from the almost impossible instance where

Putting it all together: a plaintiff must show a material fraud and a detrimental net change in position over the effective period of that fraud. In making out a claim on a class basis, the plaintiff class then would only have to show a material fraud, since with an actively traded security there will be a net loss among the class members as long as the class is properly defined. For the damages calculation, the plaintiff class would have to demonstrate the “degree” of materiality—the amount of price change effected by the fraud—which also provides the computation of damages for each share<sup>47</sup> transacted during the effective period. Ultimately, a fraud-on-the-market class action resolves into merely a question of demonstrating the magnitude of the fraud perpetrated.<sup>48</sup>

Because materiality, the key element, can be proven in two ways—either a market price change or a bottom-up re-creation of a reasonable investor’s pricing decision—so, too, can a plaintiff make out a fraud-on-the-market claim on either basis (prior to the *Dura* decision, that is). For example, suppose a publicly traded firm claims it possesses an asset that it does not, in fact, have. A plaintiff could show that a reasonable investor would have, *ex ante*, paid, say, \$3 per share less for the firm without the asset or could show that the announcement of the asset corresponds with an immediate \$3 price rise. Alternatively, the plaintiff could look to the trading markets to see the magnitude of the drop in price, \$3, that occurred *ex post* when the fraud was revealed.<sup>49</sup>

Taking the *ex post* approach may often be easier, because a visible market reaction is likely to exist upon the revelation of fraud. Conversely, the *ex ante*

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*no* investor has a net change in position, *see supra* note 45, if one particular investor exits unscathed, all this means is that another investor suffers injury. The need for deterrence remains unaffected.

47. Because a single share may trade hands many times, an approximately correct measure of damages in a class action is given by taking each unique share transacted while the price was inflated, and summing the amount of price inflation in effect at the time of the first transaction during the period of each transacted share. For example, suppose that while Jack holds a share of stock, an earnings overstatement inflates Pharma Co.’s price to \$11 from a correct price of \$7, and the truth leaks into the market over time. If Joe buys stock from Jack at \$11, sells it to Sally at \$9, and Sally later sells it to Sue at \$8, Joe would stand to recover \$2, while each Sally and Sue would recover \$1. The total fraud recovery sums to \$4, the amount by which the material fraud overstated the value of the share at the time of the initial transaction. If Jack, the original owner of the share at the time of the fraud, had held the share through some or all of the decline occurring as the truth enters the marketplace, the recoverable amount is lower: that is, if Jack sells to Sally at \$9, Sally can recover \$2, while Jack can recover nothing.

48. As discussed above, *supra* note 45, this can somewhat overstate damages if some investors’ positions do not change despite transacting. Suppose that Jack holds the share at the time of Pharma Co.’s fraud, which inflates the price from \$7 to \$11. If Jack sells his share to Joe at \$11, then Joe sells it to Sally at \$9, and Sally then sells the share back to Jack at \$8, Joe and Sally would recover \$2 and \$1, respectively. But Jack would recover nothing, because he suffered no net harm from the fraud; on net, he benefited. The same result holds if Jack had bought not from Sally but from the open market. And, of course, had Jack simply held his share through the entire effective period, he would recover nothing. As discussed *supra* note 46, the class action mechanism requires plaintiffs to disclose the net change in portfolio position and the prices at which transactions occurred in order to recover.

49. Here, because of the nature of the fraud, the *ex ante* price inflation equals the *ex post* market reaction. This is not always going to be the case, particularly with frauds regarding contingent events. *See infra* Part III.A.

approach may have no market test available, such as when the firm conceals bad news to avoid a negative market reaction. The danger with an *ex ante* approach, according to commentators such as Professor John Coffee, is that allowing a suit to be filed without a market test of damage permits recovery by plaintiffs who have not actually suffered harm; Coffee therefore argues for a *per se* rule requiring a stock price decline to make out a Rule 10b-5 claim.<sup>50</sup> Market tests largely automate the trier of fact's tests of materiality and damages, whereas "[j]uries generally do not have a clue" about *ex ante* valuations of fraudulent information.<sup>51</sup> As a result, damages under a deductive *ex ante* regime are "too speculative and indefinite in the absence of any evidence that the market considered the stock to have been overvalued."<sup>52</sup>

However, a particularly large and important drawback of the inductive *ex post* approach is that it assumes that circumstances have not changed, other than the revelation of the truth, between the time of the purchase decision and the price drop.<sup>53</sup> If intervening events (including the resolution of a lied-about contingency)<sup>54</sup> affect share price, the inductive *ex post* market test becomes unreflective of the magnitude of the fraud perpetrated. It may be possible to control for those effects with sophisticated statistical analysis, but then again, it may not be. If not, then as Professor Merritt Fox has argued, it becomes preferable to focus on the amount by which the fraud led the plaintiff to overpay.<sup>55</sup> Perhaps following the same intuition, Judge Frank Easterbrook has opined that "[t]he securities laws approach matters from an *ex ante* perspective: just as a statement true when made does not become fraudulent because things unexpectedly go wrong, so a statement materially false when made does not

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50. See John C. Coffee Jr., *Causation by Presumption? Why the Supreme Court Should Reject Phantom Losses and Reverse Broudo*, 60 BUS. LAW. 533, 547 (2005).

51. *Id.* at 538.

52. *Id.* There is also, perhaps, a feeling that *ex ante* awards can result in "unjust enrichment" of the plaintiff. For instance, if the plaintiff overpays by \$3 for the security, but the security subsequently performs spectacularly, netting her \$10, it seems unfair to award her \$3 more. This view, however, neglects that bearing risk is a costly activity whether or not those risks actually materialize, and that by shunting off its risk onto the unwitting shareholder, the firm would unfairly gain. It is an elementary principle of financial economics that investors will bear higher risk only with a commensurate higher rate of return. See *infra* note 128.

53. For example, an intervening change in market prices could cause a firm's value to decline precipitously. See *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 343 (2005) ("[The subsequent] price may reflect, not the earlier misrepresentation, but changed economic circumstances, changed investor expectations, new industry-specific or firm-specific facts, conditions, or other events . . ."); see also, e.g., *Bastian v. Petren Res. Corp.*, 892 F.2d 680, 684 (7th Cir. 1990) (discussing in a direct reliance fraud case the probability that a drop in oil prices, and not fraud, subsequent to a plaintiff's investment, caused the defendant oil firm's value to decline).

54. For example, a firm might overstate the likelihood of patent approval from 50% to 80%. If the lie is discovered before the patent decision has been made, there is no intervening event. However, if the patent decision is made before the lie is discovered, then the resolution of that contingency is itself an intervening event that frustrates the market's reaction to the lie. Put another way, the market reacts to the approval or denial, not the revelation of the lie.

55. See Fox, *supra* note 30, at 519–20.

become acceptable because it happens to come true.”<sup>56</sup> With such an approach, it follows that the *ex ante* view applies to damages, as well: “[d]amages under § 10(b) . . . usually are the difference between the price of the stock and its value on the date of the transaction if the full truth were known.”<sup>57</sup>

To a large extent, the difference in philosophy between *ex ante* and *ex post* adherents is a disagreement regarding the importance of evidentiary and administrative ease: while an *ex ante* measure of materiality, causation, and damages is perhaps more theoretically sound, an *ex post* measure has the possible<sup>58</sup> administrative advantage of requiring little more from the trier of fact than subtracting *ex post* price from purchase price. In practical terms, administrative ease may result in fewer so-called “frivolous” lawsuits being filed,<sup>59</sup> because claims unaccompanied by hard market evidence are readily dismissible.<sup>60</sup>

In the courts, this difference of opinion has played out in terms of “loss causation,” that is, whether the fraud actually caused a loss.<sup>61</sup> The Eighth and Ninth Circuits found *ex ante* price inflation sufficient to satisfy loss causation,<sup>62</sup> while the Second, Third, and Eleventh Circuits all found *ex ante* price inflation insufficient, and require some *ex post* measure of damages.<sup>63</sup> Throwing its hat

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56. *Pommer v. Medtest Corp.*, 961 F.2d 620, 623 (7th Cir. 1992).

57. *Id.* at 628. Even this is, however, somewhat unclear: later on, Judge Easterbrook states that “[g]ood fortune may affect damages,” implying that a lying defendant may see damages reduced when other factors cause stock prices to rise—an *ex post* measure. *Id.* at 623; *see also supra* note 50 and accompanying text.

58. As I discuss in Part IV.B, this administrative ease is largely illusory because a jury would often have to conduct an *ex ante* analysis to determine the proper measure of damages even when a price drop does occur, because that drop may overstate losses attributable to the fraud.

59. Coffee is one of many to note the “considerable transactions costs extracted by the legal profession” in securities fraud actions. Coffee, *supra* note 50, at 534. *See generally* Alexander, *supra* note 25 (questioning whether the merits of securities fraud class actions affect ultimate settlement outcomes); Bohn & Choi, *supra* note 25 (same); Michael A. Perino, *Did the Private Securities Litigation Reform Act Work?*, 2003 U. ILL. L. REV. 913 (2003) (same); Stephen Choi, *The Evidence on Securities Class Actions* (Univ. of Cal., Berkeley Pub. Law Research Paper No. 528145, 2004), available at <http://ssrn.com/abstract=528145> (same).

60. Of course, if the cases dismissed are often not frivolous because a market test is a bad indicator of frivolity, then the market test is undesirable. For a better way of reducing litigation costs, see Steven Shavell & David Rosenberg, *A Simple Proposal to Halve Litigation Costs*, 91 VA. L. REV. 1721 (2005).

61. For a good discussion of the approaches of the various circuits from the defense bar’s perspective, see generally Richard A. Rosen & Vanessa Richards, *A Defendant’s Guide to Loss Causation*, INSIGHTS: CORP. & SEC. L. ADVISOR, Feb. 2004, at 1, 13.

62. *See, e.g.*, *Broudo v. Dura Pharms., Inc.*, 339 F.3d 933, 938 (9th Cir. 2003) (finding that the loss causation element is established if “the price at the time of purchase was overstated” and there is sufficient identification of the cause), *rev’d*, 544 U.S. 336 (2005); *Gebhardt v. ConAgra Foods, Inc.*, 335 F.3d 824, 831–32 (8th Cir. 2003) (assuming that material “misrepresentations inflated the stock’s price” and that “[p]aying more for something than it is worth is damaging”).

63. *See, e.g.*, *Emergent Capital Inv. Mgmt., L.L.C. v. Stonepath Group, Inc.*, 343 F.3d 189, 198 (2d Cir. 2003) (“[A] purchase-time loss allegation *alone* [cannot] satisfy the loss causation pleading requirement.”); *Semerenco v. Cendant Corp.*, 223 F.3d 165, 185 (3d Cir. 2000) (“Where the value of the security does not actually decline as a result of an alleged misrepresentation, it cannot be said that there is in fact an economic loss attributable to that misrepresentation.”); *Robbins v. Koger Props., Inc.*, 116 F.3d 1441, 1448 (11th Cir. 1997) (“[S]howing of price inflation . . . does not satisfy the loss causation requirement.”).

into the ring without really clarifying anything, Congress in 1995 passed the Private Securities Litigation Reform Act (PSLRA), which codifies the element of “loss causation,” requiring that the plaintiff “prov[e] that the act or omission of the defendant . . . caused the loss for which the plaintiff seeks to recover damages.”<sup>64</sup>

## II. THE *DURA* DECISION: MOVING TO AN *EX POST* RULE

Against this background, then enters *Dura Pharmaceuticals, Inc. v. Broudo*.<sup>65</sup> As this Part discusses, *Dura* moves to an exclusively *ex post* loss rule. Though the Court’s reasoning is confused, what is clear is that the Court requires that the plaintiff must show a market decline (*ex post* loss); paying an inflated purchase price because of the defendant’s fraud (*ex ante* loss) is not itself actionable. Both the lower court cases on which *Dura* relies and those that follow *Dura* reinforce this conclusion.

### A. *DURA PHARMACEUTICALS V. BROUDO*

*Dura* squarely addresses the issue of what a plaintiff must plead and prove in a securities fraud case in order to satisfy the loss causation requirement of Rule 10b-5 under Section 10(b) of the Securities Exchange Act of 1934, as amended by the PSLRA.<sup>66</sup> In *Dura*, defendant Dura Pharmaceuticals claimed falsely that it was likely to receive FDA approval of an asthma inhaler.<sup>67</sup> Subsequently, Dura announced that its earnings would be lower than expected, causing its stock price to decline about 46%.<sup>68</sup> Eight months later, Dura announced that the FDA denied approval of the asthma inhaler, after which its shares temporarily fell but almost completely recovered within the week.<sup>69</sup> The plaintiff class, representing purchasers between the time of the fraud and the 46% decline, sued on a 10b-5 fraud-on-the-market cause of action.<sup>70</sup> The Ninth Circuit, in overturning the district court’s dismissal of the case for failure to adequately plead loss

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64. 15 U.S.C. § 78u-4(b)(4) (2000). The full text of the loss causation section reads: “In any private action arising under this chapter, the plaintiff shall have the burden of proving that the act or omission of the defendant alleged to violate this chapter caused the loss for which the plaintiff seeks to recover damages.” *Id.*

65. 544 U.S. 336 (2005).

66. *See id.* at 338; *see also* 15 U.S.C. § 78(j)(b) (2000); 15 U.S.C. § 78u-4(b)(4) (2000). The statutory loss causation element at issue here (what the Court calls an “economic loss,” though that term is not defined in the statute) arises under the PSLRA, Section 78u-4(b)(4). The PSLRA was a response to perceived abuses of the private securities fraud litigation mechanism. It generally imposes stricter procedural and evidentiary requirements on plaintiffs and provides disclosure safe harbors for issuing or reporting firms. *See* H.R. REP. NO. 104-369, at 31 (1995) (Conf. Rep.), *as reprinted in* 1995 U.S.C.C.A.N. 730, 730 (“The private securities litigation system is too important to the integrity of American capital markets to allow this system to be undermined by those who seek to line their own pockets by bringing abusive and meritless suits.”).

67. *See Dura*, 544 U.S. at 339.

68. *See id.*

69. *See id.*

70. *See id.*

causation, stated that, in a fraud-on-the-market case, “plaintiffs establish loss causation if they have shown that the price on the date of purchase was inflated because of the misrepresentation.”<sup>71</sup> The Supreme Court, however, overturned the Ninth Circuit, finding it to be wrong “both in respect to what a plaintiff must prove and in respect to what the plaintiffs’ complaint here must allege.”<sup>72</sup>

What then, must a plaintiff prove? It was not enough, so the Court held, that Dura lied about the prospects of its pharmaceutical projects, inflating the price of its shares at the time that the plaintiff purchased them.<sup>73</sup> The Court disdained the Ninth Circuit’s approach, which “would allow recovery where a misrepresentation leads to an inflated purchase price but nonetheless does not proximately cause any economic loss.”<sup>74</sup> Rather, while a fraudulently higher purchase price may prove to be “a necessary condition” for showing economic loss,<sup>75</sup> the plaintiff must “prove the traditional elements of causation and loss.”<sup>76</sup> As to what suffices for causation and loss, the Court requires a showing of “economic loss,” a term not defined in the securities laws.<sup>77</sup>

What is an “economic loss?” It is clear that the Court means something more than price inflation due to fraud; there must be some sort of market test for actual damage. The Court describes as fatal the plaintiffs’ “failure to claim that Dura’s share price fell significantly after the truth became known.”<sup>78</sup> Persuasive proof of inflation is insufficient. For example, an expert witness could testify that the fraud would have increased the purchase price by \$6.<sup>79</sup> It would do no good, as price inflation no longer counts: “‘artificially inflated purchase price’ is not itself a relevant economic loss.”<sup>80</sup> Rather, “the most logic alone permits . . . is that the higher purchase price will sometimes play a role in bringing about a future loss.”<sup>81</sup>

What is perhaps most telling on the matter of what constitutes an “economic loss” is the Court’s harkening to the common law elements of an action in

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71. *Broudo v. Dura Pharms., Inc.*, 339 F.3d 933, 938–39 (9th Cir. 2003) (emphasis omitted) (internal citation omitted), *overruled by* 544 U.S. 335 (2005).

72. *Dura*, 544 U.S. at 338.

73. In considering defendant’s motion to dismiss, the Court took as true the plaintiffs’ allegation that “Dura falsely claimed that it expected the FDA would soon grant its approval” to the spray device, on which the plaintiff relied. *Id.* at 339. According to the complaint, the plaintiffs then “paid artificially inflated prices for Dura securities’ and the plaintiffs suffered ‘damages’ thereby.” *Id.* (emphasis and internal citation omitted).

74. *Id.* at 346.

75. *Id.* at 343.

76. *Id.* at 346.

77. *Id.*

78. *Id.* at 347.

79. *See Robbins v. Koger Props., Inc.*, 116 F.3d 1441 (11th Cir. 1997). In *Robbins*, the Eleventh Circuit overturned a plaintiff’s victory based on the testimony of an expert—and acceptance by the jury—that the price of the securities purchased had been artificially inflated by fraud. *Id.* at 1448–49. *See generally infra* notes 95–101 and accompanying text.

80. *Dura*, 544 U.S. at 347.

81. *Id.* at 343.

deceit or misrepresentation.<sup>82</sup> Citing with approval the *Restatement of Torts*, the Court implies that these requirements are applicable to Rule 10b-5 as well.<sup>83</sup> The common law requires “pecuniary loss” or “actual economic loss,” meaning that “damage must already have been suffered before bringing suit”—which means, according to the Court, “share value depreciat[ion].”<sup>84</sup> As the Court reasons, since a private Rule 10b-5 fraud-on-the-market claim is a “judicially implied cause of action with roots in the common law,” plaintiffs must “adequately allege and prove the traditional elements of causation and loss.”<sup>85</sup>

Thus, the plaintiff must have in hand an *ex post* market test for fraud. Perhaps an open question is whether the plaintiff would have to show an absolute decline or merely a relative one (such as showing that the firm’s securities appreciated less than some market index). The Court may have left that door somewhat ajar, mentioning the possibility of a shareholder suit alleging that “a share’s higher price is lower than it would have otherwise been—a claim we do not consider here.”<sup>86</sup>

#### B. THE *DURA*-CITED CASES

The lower court cases that the Court cites in *Dura* provide more evidence of the new direction of Rule 10b-5. There are four of them, each cited twice<sup>87</sup>—*Emergent Capital Investment Management, L.L.C. v. Stonepath Group, Inc.*,<sup>88</sup> *Semerenko v. Cendant Corp.*,<sup>89</sup> *Robbins v. Koger Properties, Inc.*,<sup>90</sup> and *Bastian v. Petren Resources Corp.*<sup>91</sup> Each of these cases supports the proposition that the Court’s intent is to move toward an *ex post* market test as the exclusive method of satisfying loss causation. *Bastian* and *Emergent* go further, denying

82. *Id.* at 344 (“[T]he Restatement of Torts . . . states that a person . . . becomes liable to a relying purchaser ‘for the loss’ the purchaser sustains ‘when the facts . . . become generally known’ and ‘as a result’ share value ‘depreciate[s].’”) (quoting RESTATEMENT (SECOND) OF TORTS § 548A cmt. b (1977)).

83. Professor Coffee sees this as a significant step toward requiring an *absolute* decline:

If the common law action for deceit is the template that a judicially implied cause of action must mirror, then it seems doubtful that a court could award damages when the price of a stock fails to increase significantly following the announcement of favorable news (and the plaintiff asserts that the lack of a greater response was because the market simultaneously learned of the original price inflation).

John C. Coffee Jr., *Loss Causation After Dura: Something for Everyone*, N.Y.L.J., May 19, 2005, at 5.

84. *Dura*, 544 U.S. at 343–44 (internal citations omitted).

85. *Id.* at 346. This getting back to Rule 10b-5’s common law roots is also a substantial part of the *Bastian* opinion, on which the Court relies. See *Bastian v. Petren Res. Corp.*, 892 F.2d 680, 683–84 (7th Cir. 1990) (examining the common law and espousing a rule of “[n]o hurt, no tort”).

86. *Dura*, 544 U.S. at 343. This statement has no exegesis in the opinion, and it is unclear whether the Court is discussing relative decline suits or, in quite the other direction, intervening exogenous events that might deny plaintiffs’ recovery. As discussed in Part II.C, the cases following *Dura* so far suggest that relative decline suits may be difficult to make out. See *infra* Part II.C.

87. See *Dura*, 544 U.S. at 340, 344.

88. 343 F.3d 189 (2d Cir. 2003).

89. 223 F.3d 165 (3d Cir. 2000).

90. 116 F.3d 1441 (11th Cir. 1997).

91. 892 F.2d 680 (7th Cir. 1990).



recovery even where *ex post* loss did occur but where other events would have also caused the loss.

In *Semerenko*, the Third Circuit states quite plainly that fraud is not actionable under Rule 10b-5 absent a decline in share price:

Where the value of the security does not actually decline as a result of an alleged misrepresentation, it cannot be said that there is in fact an economic loss attributable to that misrepresentation. In the absence of a correction in the market price, the cost of the alleged misrepresentation is still incorporated into the value of the security and may be recovered at any time simply by reselling the security at the inflated price.<sup>92</sup>

Thus, when the Third Circuit says that a plaintiff “must prove . . . an actual economic loss,”<sup>93</sup> it is talking about a decline in share price, which the facts of *Semerenko* bear out.<sup>94</sup>

*Robbins* provides a few distinct data points. First, the Eleventh Circuit’s problem (and hence, the Supreme Court’s problem) with *ex ante* price inflation is more than just a concern that price inflation be adequately proven: the *Robbins* plaintiff *did* prove it, and marshaled evidence showing that the share price would have been lower at the time of purchase but for the fraud. In *Robbins*, Koger Properties falsely overstated its cash flows by \$100 million, but continued to pay large dividends to shareholders by selling off real estate assets—essentially financing the façade of profitability through asset sales.<sup>95</sup> As Koger began to run out of cash and assets, it announced a massive reduction in dividends, precipitating a \$10.05 (approximately 56%) decline in share price.<sup>96</sup> Plaintiff claimed that the defendants had misled the market into believing that Koger’s “cash flow was sufficient to support the dividend,”<sup>97</sup> and plaintiff’s expert testified that Koger’s share price would have been approximately \$10.05 lower, assuming Koger would have had to cut its dividend if the financial statements had been correct.<sup>98</sup> Although the jury found in plaintiff’s favor, the

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92. *Semerenko*, 223 F.3d at 185. It is obvious, though not to the court, that the inflation must have dissipated by the time of suit. It may be that the court wished not to recompense the wrong plaintiffs; that is, it may be that the plaintiffs were able to bail out of the security before the price correction occurred. But this is a matter of proper class construction, not of loss causation. It appears that the Supreme Court and the *Semerenko* court are conflating issues of proving fraud and proving standing to sue.

93. *Id.* at 185.

94. Cendant Corporation and the other defendants made false representations regarding the financial well-being of Cendant, which was planning an acquisition of American Bankers Insurance Group. Plaintiffs purchased securities of American Bankers Insurance Group while the acquisition appeared viable (the price thus being falsely inflated by Cendant’s deception), and those securities subsequently declined when Cendant’s fraud was revealed and the acquisition had to be called off. *See id.* at 169–71.

95. *See Robbins*, 116 F.3d at 1444–45.

96. *Id.* at 1445.

97. *Id.*

98. *Id.*

court reversed on the rationale that “[p]laintiffs did not claim that [the] . . . dividend cut resulted from the discovery of any financial statement errors,”<sup>99</sup> because the falsity of Koger’s audited financials was not revealed until 1992, well after the suit was filed.<sup>100</sup>

Second, the facts of *Robbins* suggest that the new rule means that courts will be reluctant to award damages if the revelation of fraud and the decline in share price do not line up neatly (the Court echoes this sentiment in its own opinion<sup>101</sup>), even when it appears that the defendant may have leaked information prior to the revelation of the fraud. This is just the sort of case—where *ex post* causation is difficult to show because of subsequent events—when an *ex ante* inquiry would be useful.

Finally, both the *Emergent* and *Bastian* cases go further, finding that even when there is a material fraud and *ex post* loss, plaintiffs still may not recover due to subsequent intervening events. Each contains similar fact patterns. Both defendants committed material fraud: in *Bastian*, about management’s “competence and integrity,”<sup>102</sup> and in *Emergent*, about the size of its investment assets.<sup>103</sup> Also in each, intervening events—in *Bastian*, the collapse of oil prices;<sup>104</sup> in *Emergent*, the collapse of tech stocks<sup>105</sup>—suggested that plaintiffs would have lost their investments even if defendants’ businesses had been as

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99. *Id.* at 1445–46.

100. *Id.* at 1445. The plaintiffs had filed their lawsuit on the day the dividend cut was announced, which suggests that the suit was filed based on the share price drop, not on any substantive evidence of fraud. *See id.* at 1446 (stating that plaintiffs relied on a “fraud on the market theory, which presumes that plaintiffs’ class relied on an open, well-developed, and efficient market in purchasing” Koger stock. Thus, the Eleventh Circuit may well have been reacting to the fact that this is a plaintiff that appears to have gotten lucky.

It is worth noting (though the court does not) that by the time the falsity emerged, Koger had already defaulted on its debt and gone into Chapter 11, with its shares trading well into penny-stock territory. There certainly would have been nowhere else for the stock to go at that point; any possible price correction would have already occurred. *See* Jacqueline Bueno, *Trust at South Carolina School Isn’t a Gift That Keeps on Giving*, WALL ST. J., July 12, 1995, at S4 (indicating that the price of Koger stock traded “at less than 20 cents a share” in the early 1990s); *Koger Properties Debt Default*, WALL ST. J., Aug. 15, 1991, at C13 (reporting that Koger failed to make interest payments and was seeking new loans); *Koger Properties Inc. Files for Protection Under Chapter 11*, WALL ST. J., Sept. 27, 1991, at A6 (reporting that Koger had filed for Chapter 11 protection and was seeking to restructure its loans).

101. “When the purchaser subsequently resells . . . shares, even at a lower price, that lower price may reflect not the earlier misrepresentation, but . . . other events . . . . [T]hings being equal, the longer the time between purchase and sale . . . the more likely that other factors caused the loss.” *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 342–43 (2005).

102. *Bastian v. Petren Res. Corp.*, 892 F.2d 680, 682 (7th Cir. 1990).

103. *Emergent Capital Inv. Mgmt., L.L.C. v. Stonepath Group, Inc.*, 343 F.3d 189, 191 (2d Cir. 2003). One additional similarity is that both cases are direct reliance fraud cases (or face-to-face fraud, where plaintiffs’ investments were solicited personally), as opposed to fraud-on-the-market. The courts do not make anything of this distinction, however.

104. *See Bastian*, 892 F.2d at 684.

105. *See Emergent*, 343 F.3d at 197. The firm defendant’s holdings included such Internet wonders as Metacat.com (formerly an aggregator of specialty mail-order paper catalogs, later a cat-oriented web portal) and Swapit.com (an internet “barter” site, allowing users to swap used entertainment items with each other); *see also* Net Value Holdings, Inc., Annual Report (Form 10-K), at 3 (May 11, 2000). The particular asset at issue, an investment in Brightstreet.com, an e-marketing service, actually ended up

claimed.<sup>106</sup> *Bastian*, an opinion by Judge Posner that equates the Rule 10b-5 fraud with the common law tort of fraud,<sup>107</sup> states its rule quite concisely: “No hurt, no tort.”<sup>108</sup> More specifically, even though there was a “hurt,” when intervening events “cause” the loss, plaintiffs cannot recover even if they can prove that they were deceived into paying a high purchase price. At the extreme—for example, when the defendant lies about even the existence of the company in which the plaintiff purportedly invests—*Emergent* and *Bastian* would deny recovery to the plaintiff when some exogenous circumstance, market movement, or act of God (say, a comet striking the spot where the factory is supposed to have been) would have wiped out the plaintiff’s investment.<sup>109</sup> Although the facts before the *Dura* Court do not go quite so far, the *Dura* Court’s approval of *Bastian* and *Emergent*, as well as its language regarding intervening events—“other factors”<sup>110</sup>—suggests that this may be the subsequent interpretation.

### C. SUBSEQUENT CASES

In the time since *Dura* was decided, there have already been many cases implementing the *Dura* rule. These cases appear to be almost universally in line with the interpretation that *Dura* requires a market decline. Furthermore, perhaps because of the difficulty involved in doing so, it appears that relative decline cases are few and far between, and so far unsuccessful. (It must be noted, however, that the general applicability of this sample is limited because plaintiffs would not have had time to adjust their pleading strategies to *Dura*’s requirements.) Looking at the eighty cases up to June 2006 citing to *Dura* and dealing directly with loss causation, we see that all forty-seven cases in which loss causation was satisfied can point to an absolute price decline following the revelation of the truth or the materialization of the concealed risk.<sup>111</sup> Thirty-one

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being worth something: it was acquired by E-centives for just over \$2.3 million in mostly cash in December, 2001. See E-Centives, Inc., Current Report (Form 8-K/A), at 25 (Feb. 26, 2002).

106. The *Emergent* plaintiff ultimately passed the loss causation hurdle on the basis of pleading that the defendants operated a “pump-and-dump” scheme, meaning that defendants caused the share price collapse through direct manipulation by “dumping” their shares. See *Emergent*, 343 F.3d at 197–98. The Second Circuit ultimately went out of its way, however, to state that the price inflation theory would not suffice, and that an intervening event, such as the collapse of Internet stocks, could deny recovery. See *id.* at 197–99.

107. *Bastian*, 892 F.2d at 683 (“Indeed what securities lawyers call ‘loss causation’ is the standard common law fraud rule . . . merely borrowed for use in federal securities fraud cases.”).

108. *Id.* at 684.

109. The ramifications of this rule are examined *infra* Part III.C.

110. *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 343 (2005).

111. Cases alleging absolute decline, where loss causation is satisfied:

First Circuit: *Brumbaugh v. Wave Sys. Corp.*, 416 F. Supp. 2d 239, 256 (D. Mass. 2006); *Stumpf v. Garvey*, No. 03-CV-1352-PB, 2005 U.S. Dist. LEXIS 19154, at \*43, 44 (D.N.H. Sept. 2, 2005); *Sekuk Global Enters. v. KVH Indus., C.A.* No. 05-306ML, 2005 U.S. Dist. LEXIS 16628, at \*50 (D.R.I. Aug. 11, 2005).

Second Circuit: *In re Check Point Software Techs. Sec. Litig.*, No. 03 Civ. 6594 (RMB), 2006 U.S. Dist. LEXIS 24317, at \*18–19 (S.D.N.Y. Apr. 25, 2006); *In re ProNetLink Sec. Litig.*, 403 F. Supp. 2d

cases in which loss causation was unsatisfied either alleged mere price inflation or else alleged an absolute decline but still failed for other reasons (in many

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330, 332 (S.D.N.Y. 2006); *Montoya v. Mamma.Com, Inc.*, No. 05 Civ. 2313 (HB), 2006 U.S. Dist. LEXIS 13207, at \*22–29 (S.D.N.Y. Mar. 28, 2006); *In re Veeco Instruments, Inc. Sec. Litig.*, 235 F.R.D. 220, 234 (S.D.N.Y. 2006); *In re Winstar Commc'ns*, No. 01 CV 3014 (GBD), 2006 U.S. Dist. LEXIS 7618, at \*52 (S.D.N.Y. Feb. 24, 2006); *In re NTL Sec. Litig.*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,696, 98,169 (S.D.N.Y. Feb. 14, 2006); *In re Dynex Capital Secs. Litig.*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,710, 98,314 (S.D.N.Y. Feb. 10, 2006); *In re Geopharma, Inc. Sec. Litig.*, 399 F. Supp. 2d 432, 453 (S.D.N.Y. 2005); *Teamsters Local 445 Freight Div. Pension Fund v. Bombardier, Inc.*, No. 05 Civ. 1898 (SAS), 2005 U.S. Dist. LEXIS 19506, at \*57 (S.D.N.Y. Sept. 6, 2005); *In re Parmalat Sec. Litig.*, 376 F. Supp. 2d 472, 510 (S.D.N.Y. 2005); *Fraternity Fund Ltd. v. Beacon Hill Asset Mgmt. L.L.C.*, 376 F. Supp. 2d 385, 403 (S.D.N.Y. 2005).

Third Circuit: *In re Veritas Software Corp. Sec. Litig.*, No. 04 Civ. 831 (SLR), 2006 U.S. Dist. LEXIS 32619, at \*22–24 (D. Del. May 23, 2006); *Marsden v. Select Med. Corp.*, No. 04-4020, 2006 U.S. Dist. LEXIS 16795, at \*40–41 (E.D. Pa. Apr. 6, 2006); *In re Bradley Pharm., Inc. Sec. Litig.*, 421 F. Supp. 2d 822, 829 (D.N.J. 2006); *In re CIGNA Corp. Sec. Litig.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,640, 97,838 (E.D. Pa. Dec. 23, 2005); *In re Royal Dutch/Shell Transp. Sec. Litig.*, 404 F. Supp. 2d 605, 640 (D.N.J. 2005); *In re Loewen Group, Inc. Sec. Litig.*, 395 F. Supp. 2d 211, 218 (E.D. Pa. 2005); *In re Bristol-Myers Squibb Sec. Litig.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,507, 96,979 (D.N.J. Aug. 17, 2005); *In re Vicuron Pharms., Inc. Sec. Litig.*, No. 04-2627, 2005 U.S. Dist. LEXIS 15613, at \*42–43 (E.D. Pa. July 1, 2005).

Fourth Circuit: *Wiggins v. Janus Capital Group Inc.*, No. JFM-04-818, 2006 U.S. Dist. LEXIS 35461, at \*2 (D. Md. May 30, 2006) (reviewing *Wiggins v. Janus Capital Group Inc.*, No. JFM-04-818, 2006 U.S. Dist. LEXIS 12033, at \*3 (D. Md. Feb. 27, 2006), where the court found that causation was not satisfied by the original complaint); *In re BearingPoint, Inc. Sec. Litig.*, 232 F.R.D. 534, 544 (E.D. Va. 2006).

Fifth Circuit: *In re Enron Corp. Sec. Litig.*, No. H-04-0087, 2005 U.S. Dist. LEXIS 41240, at \*71–72 (S.D. Tex. Dec. 22, 2005).

Sixth Circuit: *In re Bridgestone Sec. Litig.*, 430 F. Supp. 2d 728, 741 (M.D. Tenn. 2006); *In re Cardinal Health, Inc. Sec. Litigs.*, 426 F. Supp. 2d 688, 761 (S.D. Ohio 2006); *In re CMS Energy Sec. Litig.*, 403 F. Supp. 2d 625, 631 (E.D. Mich. 2005).

Seventh Circuit: *Takara Trust v. Molex Inc.*, 429 F. Supp. 2d 960, 982 (N.D. Ill. 2006); *Lawrence E. Jaffe Pension Plan v. Household Int'l, Inc.*, No. 02 c 5893, 2006 U.S. Dist. LEXIS 36603, at \*11–12 (N.D. Ill. Apr. 24, 2006); *Asher v. Baxter Int'l, Inc.*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,673, 98,011–12 (N.D. Ill. Feb. 7, 2006); *Greater Pa. Carpenters Pension Fund v. Whitehall Jewellers, Inc.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,285, 96,424–5 (N.D. Ill. June 30, 2005).

Eighth Circuit: *In re Retek Inc. Sec.*, No. 02-4209, 2005 U.S. Dist. LEXIS 25986, at \*8–9 (D. Minn. Oct. 21, 2005); *Montalvo v. Tripos, Inc.*, No. 4:03CV9955NL, 2005 U.S. Dist. LEXIS 22752, at \*31 (E.D. Mo. Sept. 30, 2005); *In re Synovis Life Techs., Inc. Sec. Litig.*, No. Civ. 04-3008ADMAJB, 2005 WL 2063870, at \*4 (D. Minn. Aug. 25, 2005).

Ninth Circuit: *In re CornerStone Propane Partners*, No. C03-2522MHP, 2006 U.S. Dist. LEXIS 25819, at \*29 (N.D. Cal. May 3, 2006); *S. Ferry LP # 2 v. Killinger*, 399 F. Supp. 2d 1121, 1148 (W.D. Wash. 2005); *In re Daou Sys., Inc., Sec. Litig.*, 411 F.3d 1006, 1027 (9th Cir. 2005); *Plumbers & Pipefitters Local 572 Pension Fund v. Cisco Sys., Inc.*, 411 F. Supp. 2d 1172, 1177 (N.D. Cal. 2005); *Yanek v. Staar Surgical Co.*, 388 F. Supp. 2d 1110, 1132 (C.D. Cal. 2005); *In re Omnivision Techs.*, No. C-04-2297 SC, 2005 U.S. Dist. LEXIS 16009, at \*18–19 (N.D. Cal. July 29, 2005); *In re JDS Uniphase Corp. Sec. Litig.*, No. C 02-1486 CW, 2005 U.S. Dist. LEXIS 20216, at \*18–19 (N.D. Cal. July 21, 2005); *Zelman v. JDS Uniphase Corp.*, 376 F. Supp. 2d 956, 973 (N.D. Cal. 2005); *In re Immune Response Sec. Litig.*, 375 F. Supp. 2d 983, 1025 (S.D. Cal. 2005); *In re Silicon Storage Tech., Inc., Sec. Litig.*, No. C 05-0295 PJH, 2006 U.S. Dist. LEXIS 14790, at \*65 (N.D. Cal. Mar. 10, 2006).

Tenth Circuit: *In re ICG Commc'ns, Inc. Sec. Litig.*, No. 00-RB-1864 (BNB), 2006 U.S. Dist. LEXIS 6695, at \*30 (D. Colo. Feb. 7, 2006).

Eleventh Circuit: *Lagrasta v. First Union Secs., Inc.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,353, 96,820 (M.D. Fla. Aug. 8, 2005).

cases because of an inability to tie the decline to the revelation of the fraud).<sup>112</sup> Only two cases out of eighty allege a theory of relative decline, and both of these were found to fail to satisfy loss causation.<sup>113</sup> Thus, while only time will reveal conclusively *Dura's* impact, it seems probable at present that the case will make proving Rule 10b-5 fraud claims difficult absent some sort of absolute price decline.

Taking all this into account, then, we can draw the following inferences about what the Court meant to do in *Dura* and predict how *Dura* will subsequently be interpreted. First, a market test of both causation and damages is paramount: where share price does not decline in response to the fraud, plaintiffs will have a very difficult time making out and proving a claim. Second, the inadequacy of price inflation as an economic loss is not just a matter of proof: even where a

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112. Cases alleging either absolute decline or price inflation, where loss causation is unsatisfied:

Second Circuit: *Leykin v. AT&T Corp.*, 423 F. Supp. 2d 229, 248 (S.D.N.Y. 2006); *Wagner v. Barrick Gold Corp.*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,672, 98,006–07 (S.D.N.Y. Jan. 31, 2006); *Joffe v. Lehman Bros., Inc.*, 410 F. Supp. 2d 187, 194 (S.D.N.Y. 2006); *Catton v. Defense Tech. Sys.*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,671, 98,004 (S.D.N.Y. Jan. 3, 2006); *Pro Bono Invs., Inc. v. Gerry*, No. 03 Civ. 4347 (JGK), 2005 U.S. Dist. LEXIS 22348, at \*37 (S.D.N.Y. Sept. 30, 2005); *AIG Global Sec. Lending Corp. v. Banc of Am. Sec., L.L.C.*, No. 01 Civ. 11448 (JGK), 2005 U.S. Dist. LEXIS 21605, at \*36–37 (S.D.N.Y. Sept. 26, 2005); *In re Warnaco Group, Inc. Sec. Litig. (II)*, 388 F. Supp. 2d 307, 318 (S.D.N.Y. 2005); *In re WorldCom, Inc. Sec. Litig.*, 388 F. Supp. 2d 319, 347 (S.D.N.Y. 2005); *Malin v. XL Capital Ltd.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,516, 97,058 (D. Conn. Sept. 1, 2005); *Davidoff v. Farina*, No. 04 Civ. 7617 (NRB), 2005 U.S. Dist. LEXIS 17638, at \*52–53 (S.D.N.Y. Aug. 19, 2005); *In re Initial Pub. Offering Sec. Litig.*, 399 F. Supp. 2d 298, 309 (S.D.N.Y. 2005); *Kingsway Fin. Servs., Inc. v. Pricewaterhouse-Coopers, LLP*, 420 F. Supp. 2d 228, 233–34 (S.D.N.Y. 2005).

Third Circuit: *Payne v. DeLuca*, 433 F. Supp. 2d 547, 611 (W.D. Pa. 2006); *In re Tellium, Inc. Sec. Litig.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,505, 96,695–96 (D.N.J. Aug. 26, 2005).

Fourth Circuit: *In re First Union Corp. Sec. Litig.*, 2006 U.S. Dist. LEXIS 5083, at \*18 (W.D.N.C. Jan. 20, 2006); *In re Cree Sec. Litig.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,327, 96,695–96 (M.D.N.C. Aug. 2, 2005); *In re Acterna Corp. Sec. Litig.*, 378 F. Supp. 2d 561, 584 (D. Md. 2005).

Fifth Circuit: *In re Odyssey Healthcare, Inc. Sec. Litig.*, 424 F. Supp. 2d 880, 884–86 (N.D. Tex. 2005)

Sixth Circuit: *In re Compuware Sec. Litig.*, 386 F. Supp. 2d 913, 918–19 (E.D. Mich. 2005); *D.E. & J. Ltd. P'ship v. Conaway*, 133 Fed. App'x 994, 1001 (6th Cir. 2005).

Seventh Circuit: *Porter v. Consecro Inc.*, No. 02-cv-01332-DFH-TAB, 2005 U.S. Dist. LEXIS 15466, at \*14–15 (S.D. Ind. July 15, 2005).

Eighth Circuit: *Reding v. Goldman Sachs & Co.*, 382 F. Supp. 2d 1112, 1126 (E.D. Mo. 2005).

Ninth Circuit: *Knollenberg v. Harmonic, Inc.*, 152 F. App'x 674, 685 (9th Cir. Nov. 8, 2005); *In re Gilead Scis. Sec. Litig.*, No. C03-4999MJJ, 2006 U.S. Dist. LEXIS 32893, at \*28–29 (N.D. Cal. May 12, 2006); *Powell v. Idacorp, Inc.*, No. CV04-249-S-EJL, 2006 U.S. Dist. LEXIS 21831, at \*13 (D. Idaho Mar. 29, 2006); *Bennett v. H&R Block Fin. Advisors, Inc.*, No. C04-4848MHP, 2005 U.S. Dist. LEXIS 25273, at \*12 (N.D. Cal. Oct. 26, 2005); *In re Avista Corp. Sec. Litig.*, 415 F. Supp. 2d 1214, 1221 (E.D. Wash. 2005); *In re Bus. Objects S.A. Sec. Litig.*, No. C04-2401MJJ, 2005 U.S. Dist. LEXIS 20215, at \*27 (N.D. Cal. July 27, 2005).

Eleventh Circuit: *In re Teco Energy Sec. Litig.*, No. 8:04-cv-2561-T-24 EAJ, 2006 U.S. Dist. LEXIS 11527, at \*31 (M.D. Fla. Mar. 6, 2006); *Davidco Investors, L.L.C. v. Anchor Glass Container*, 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,732, 94,447–48 (M.D. Fla. Mar. 6, 2006); *In re Sawtek, Inc. Sec. Litig.*, No. 03-cv-294-Orl-31DAB, 2005 U.S. Dist. LEXIS 39223, at \*40 (M.D. Fla. Oct. 6, 2005).

113. Cases alleging relative decline, where loss causation is unsatisfied:

*Ray v. Citigroup Global Mkts., Inc.*, 2005 Fed. Sec. L. Rep. (CCH) ¶ 93,559, 97,364 (N.D. Ill. Oct. 18, 2005); *Collier v. Aksys Ltd.*, No. 3:04CV1232 (MRK), 2005 U.S. Dist. LEXIS 20300, at \*37 (D. Conn. Aug. 15, 2005), *aff'd* 2006 Fed. Sec. L. Rep. (CCH) ¶ 93,847 (2d Cir. May 3, 2006).

plaintiff proves that the price was inflated at the time of purchase, the *Dura* rule may deny recovery if there is no attendant loss. Finally, even an *ex post* loss may not be enough: where the fraudulently concealed risk materializes, intervening events can avoid plaintiff's claim.

### III. BUNDLING AND *EX POST* VERSUS *EX ANTE* LOSS

Consider the difference between an antifraud rule that assigns culpability and damages based on an *ex post*, as opposed to *ex ante*, basis: what matters is not whether the plaintiff paid too much for a particular asset, but whether a fraud caused an *ex post* diminishment of the plaintiff's wealth—the price of the asset declines relative to the purchase price or, possibly,<sup>114</sup> relative to a market benchmark of performance. Is there anything wrong with that?

There is significant support for such a system. As Professor John Coffee, for one, argues, the possibility of “phantom losses” and speculative court awards may encourage meritless litigation, and an overdeterrence of useful corporate risk taking. Coffee goes so far as to argue for a bright line rule requiring a “decline in value,” because “[p]rice inflation that is never corrected through a market decline is too hypothetical an injury.”<sup>115</sup> Indeed, to measure inflation at a past date requires that the finder of fact formulate a correct price as of the time of purchase, a task for which courts and juries are not well-equipped. The “speculative” component of damages could then constitute an extra tax upon business.

That *may* be true.<sup>116</sup> But as I show in this Part, even if that is true, an *ex post* rule has a particularly troublesome failing: it systemically underdeters fraud if firms can bundle together either projects or disclosures (even assuming perfect detection of fraud). The reason why is that the *ex post* rule excludes from recovery three cases of fraud: (1) when the lie is about a contingency that resolves favorably; (2) the contingency resolves unfavorably, but is bundled with positive news of projects that make up for it; and (3) the contingency resolves unfavorably, but is bundled with negative news of exogenous events that would have caused the loss anyhow. Even if a plaintiff could put forward a slam-dunk case of *ex ante* price inflation, the *Dura* rule would throw these cases out. Because of the exclusion of these cases and the way in which damages are calculated under the *ex post* rule, fraud becomes a profitable strategy.

This Part will examine that argument in more detail. First, in Part III.A, I use a simple example to show how both *ex post* and *ex ante* loss rules perfectly

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114. See *supra* notes 26–28 and accompanying text.

115. Coffee, *supra* note 50, at 546–47.

116. I am not aware of any evidence suggesting that settlements or jury awards are systemically too high. There is some literature suggesting that the range of potential damages is quite wide until late in the trial process, due to difficulty in aggregating the total class claims. See Janet Cooper Alexander, *Rethinking Damages in Securities Class Actions*, 48 STAN. L. REV. 1487, 1492–93 (1996); Donald Langevoort, *Capping Damages for Open Market Securities Fraud*, 38 ARIZ. L. REV. 639, 651 (1996). Although this uncertainty could conceivably result in more litigation, it is not clear whether it would militate toward bigger or smaller awards than would be optimal.

internalize fraud when a firm has only one project, and why *ex post* is, in fact, preferable in this limited case. In Part III.B, I show that the *ex post* rule fails to internalize fraud when firms have multiple projects. In Part III.C, I extend the analysis to show how the *Bastian* and *Emergent* variation<sup>117</sup> on the *ex post* loss rule fails when a single project firm is subject to exogenous events or market forces. Finally, in Part III.D, I show that the *ex post* loss rule fails when firms operate in multiple periods—even for single project firms not subject to exogenous events. In sum, it appears that an *ex post* loss rule would have quite far-reaching consequences.

#### A. *EX POST* IS IDEAL FOR SINGLE PROJECT FIRMS

The *ex post* loss requirement is met only if there has been some tangible loss to the plaintiff, such as an absolute decline in the value of her investment. *Ex post* loss works well in those instances where the firm has only a single project or disclosure, and in such cases it is preferable to the *ex ante* rule because of its recourse to a reliable market test. A simple numerical example: a medical device firm, Pharma Co., lies about a patent application, claiming it has already been approved, when in fact patent approval is still pending.<sup>118</sup> This is the firm's only project. Suppose that the true likelihood of approval is 50%, and the value of the patent, if approved, is \$20; if unapproved, it is worth zero. Thus, the lie about having already received patent approval will lead the plaintiff to pay an extra \$10.<sup>119</sup> Suppose that a court can observe whether fraud occurred, and that when the patent is either approved or denied (that is, the contingency is realized), it can also observe the returns of either \$20 or \$0.

In an *ex post* loss regime, the plaintiff recovers nothing if the firm ultimately receives the patent (she has lost nothing on the investment), and \$20 when the firm does not (her investment price of \$20 minus the realized value of \$0).<sup>120</sup> In

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117. See *supra* Part II.B.

118. These facts are loosely based on *Pommer v. Medtest Corp.*, 961 F.2d 620 (7th Cir. 1992), in which Judge Easterbrook distinguishes between *ex ante* and *ex post* losses.

119. This example assumes, for simplicity, that the new shareholder buys the whole firm, and can then sue the old shareholder for the sale—a direct reliance case. In reality, this is not how fraud-on-the-market liability works, because judgments are against the old shareholders who did not sell. A more realistic example would be where the old shareholder sells a fraction of the firm to the new shareholder; when the new shareholder sues under Rule 10b-5, the firm pays damages to the new shareholder only, thus diluting the old shareholder's holding. This simplifying assumption does not change the analysis except in the case of a firm inadequately capitalized to pay judgments against it.

120. Although some sources state that the proper measure for Rule 10b-5 damages is usually plaintiff's "out of pocket" costs, defined as "the extra amount the plaintiff pays because of the misstatement," this is far from a hard and fast rule. Fox, *supra* note 30, at 513 (citing *Randall v. Loftsgaarden*, 478 U.S. 647, 662 (1986)); *Estate Counseling Serv., Inc. v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 303 F.2d 527, 532 (10th Cir. 1962); see also HAZEN, *supra* note 28, § 12.12, at 508–10. There is a "relative paucity" of case law dealing with damages, and benefit-of-the-bargain, rescissionary, and modified rescissionary damages are all possible and vary across jurisdictions and contexts. *Id.*; Fox, *supra* note 30, at 513. This panoply of damages calculations arises from the various and conflicting theories of fraud recovery. As Fox notes, "the form of loss for which we make a causation determination should correspond to the measure of damages." Fox, *supra* note 30, at 513. Here, in this

an *ex ante* loss regime, the plaintiff recovers \$10 in either the good or the bad state of the world (her investment price of \$20 minus *ex ante* fair market value of \$10). Under both *ex ante* and *ex post* regimes, the cost of fraud is perfectly internalized onto the firm. With *ex post* damages, fraud gains Pharma Co. \$10 on the investor's purchase, but Pharma Co. stands to pay out \$20 with probability  $\frac{1}{2}$ . With *ex ante* damages, Pharma Co. gains \$10 from the fraud, but then has to pay out \$10 with probability 1.

The relative appeal here of *ex post* damages is that they provide a convenient and reliable market test of all the elements of a Rule 10b-5 fraud action: reliance, materiality, causation, and the level of damages are evident in market reaction when the corrective information hits the market. If the court can tell that fraud occurred and can tell what the level of price decline is (as we have assumed), then it can readily assign *ex post* damages.

With *ex ante* damages, on the other hand, a court must be able to assess the inflation in price that the plaintiff paid in the past, and often no market test of this sort will be available. In this example, in neither the good nor the bad state of the world does the court have a market test on which to base *ex ante* causation or damages; this is because the firm announces the project at the same time as it commits the fraud, and because it announces firm returns at the same time as, or before, the fraud is revealed.<sup>121</sup> With no market test available, the court would have to be able to observe the *ex ante* value of the firm (or the "true" or "fair" price that plaintiffs should have paid), which, in this example, means that the court would have to observe the probabilities and payoffs of the good and bad states.<sup>122</sup> Additionally, *ex ante* damages are not fully internalizing unless the court takes into account the dilution of plaintiff shareholders' shares that result from the payment of the liability award (*ex post* damages, on the other hand, are self-adjusting because the expected liability feeds back into share price); this can, however, be readily fixed.<sup>123</sup>

Thus, in this example, there is a greater chance that courts will get things

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example, assigning out-of-pocket damages (\$10) in an *ex post* regime would mean that fraud is underdeterred; instead, a rescissory measure (\$20) arrives at the optimal fine.

121. There would be a market test for *ex ante* damages if (a) the firm truthfully announces the project and then commits the fraud, or (b) the fraud is revealed before the contingency is resolved. For the first case, suppose that Pharma Co. announces its project truthfully (success and failure returns of \$20 and \$0 with a 50% chance of success), and then subsequently claims that the patent has already been granted. In such a case, Pharma Co.'s market price would rise from \$10 to \$20, which is the measure of *ex ante* price inflation. In the second instance, suppose that Pharma Co. lies about its project but then a corrective disclosure occurs prior to the time that returns from the project are realized (in other words, prior to the patent approval or denial). Share price would drop by \$10 (from \$20 to \$10), the value of the *ex ante* price inflation.

122. See *infra* Part IV.B (regarding what specifically a court must be able to observe to apply the *ex post* and *ex ante* loss causation rules).

123. That is, courts would need to compute a damages "multiplier," which is the total number of outstanding shares divided by the difference between the total number of shares and the number of plaintiffs' shares. Although courts do not currently do this, the necessary information is readily available at the damages stage of trial. For instance, if the plaintiff class comprises 25% of the total number of shares outstanding, the difference between the *ex ante* fair price and price paid would need



horribly wrong with an *ex ante* rule. This is the ground on which some commentators,<sup>124</sup> several courts,<sup>125</sup> and now the Supreme Court have preferred an *ex post* regime: a market test avoids the risk of “phantom losses”—that is, speculative *ex ante* price inflation awards—and frivolous securities fraud claims, which are presumed to endanger the business economy.<sup>126</sup>

#### B. INSUFFICIENCY OF THE *EX POST* RULE WITH MULTIPLE PROJECTS

Although both *ex post* and *ex ante* rules perfectly internalize fraud with a single project firm, consider the possibility that a firm may have multiple projects. In such a case, the success of one project can mask the losses from another project, frustrating an *ex post* loss rule.

Suppose Pharma Co. has two projects under development. Project 1 has a 50% chance of yielding a payoff of \$20, and a 50% chance of a zero payoff. Project 2 has a 50% chance of yielding a \$50 payoff, and a 50% chance of a zero payoff. Suppose further that the firm lies about Project 1, claiming that it has a 100% certainty of success (and hence a \$20 expected value), while telling the truth about Project 2.<sup>127</sup> In Period 1, the firm discloses to the investor and the investor invests. Given this information, the investor will pay \$45 for the firm. In Period 2, the firm realizes cash flows from the projects, which are observable. Possible values of the firm in Period 2 are as follows:

to be multiplied by  $\frac{1}{1-0.25} = \frac{4}{3}$  in order to fully internalize damages. Suppose that with 100 shares outstanding, the plaintiff class paid \$7 for 25 shares that are only worth \$4 each. Total firm value before the lawsuit is \$400. The correct damages award would be \$4, with \$100 total being paid out by the firm to the plaintiff class. Each plaintiff shareholder receives \$4 in the lawsuit, and each plaintiff shareholder also holds a share of the firm that is now worth \$3 per share  $\left(\frac{\$400 - \$100}{100}\right)$ , for a total of  $\$4 + \$3 = \$7$ . I explore this issue in more detail in another work. See James C. Spindler, When Does “Fraud on the Market” Work? (Oct. 2006) (unpublished manuscript, on file with author).

124. *E.g.*, Coffee, *supra* note 50, at 538 (noting that a phantom loss is “too speculative and too indefinite in the absence of any evidence that the market considered the stock to be overvalued”).

125. See generally *Emergent Capital Mgmt., L.L.C. v. Stonepath Group, Inc.*, 343 F.3d 189 (2d Cir. 2003); *Semerenko v. Candant Corp.*, 223 F.3d 165 (3d Cir. 2000); *Robbins v. Koger Props., Inc.*, 116 F.3d 1441 (11th Cir. 1997); *Bastian v. Petren Res. Corp.*, 892 F.2d 680 (7th Cir. 1990).

126. Such a litigation-cost rationale is, however, problematic, because the lack of a market test for *ex ante* loss could well cut in a defendant firm’s favor for two principal reasons. First, the difficulty in distinguishing meritorious from meritless suits could lead to the dismissal of meritorious suits. It is also hard for a plaintiff to discover fraud when the firm has performed well. For instance, if Pharma Co. gains approval for its medical device, the plaintiff may never have any inkling that Pharma Co. initially misrepresented the likelihood of approval. Second, and relatedly, in the event that the contingency resolves unfavorably, the plaintiff’s recovery is capped under the *ex ante* rule at the amount of price inflation. In this example, the plaintiff would be able to recover only \$10 against Pharma Co.

Thus, even after adding in litigation costs, and supposing that there might be more suits in an *ex ante* world than an *ex post* one, it does not necessarily follow that an *ex ante* regime is more costly to business.

127. As one can see from the outcomes below, the firm would not choose to lie about both projects because the expected gain from lying (a purchase price of \$70 that exceeds fair value by \$35) is offset—even under *ex post* damages—by the expected penalties ( $\$35 = 0.25 * \$70 + 0.25 * \$50 + 0.25 * \$20$ ). The firm could lie about only Project 2, which is still better than telling the truth, although lying about only Project 1 is the more profitable strategy.

Firm Payoffs		Project 2	
		Success (\$50)	Failure (\$0)
Project 1	Success (\$20)	<b>\$70</b>	<b>\$20</b>
	Failure (\$0)	<b>\$50</b>	<b>\$0</b>

In only one of four states of the world (the double failure, depicted in the lower-right quadrant) is the defendant required to pay damages—of \$20—to the plaintiff under an *ex post* loss rule. When Project 1 succeeds despite the lie, a plaintiff cannot show loss causation because the lied-about contingency resolved favorably.<sup>128</sup> When Project 2 succeeds, the share price of the firm does not decline even where Project 1 fails, because the above-expected gains from Project 2 more than make up for Project 1's failure—firm price is now \$50, as opposed to the price paid of \$45.

One might ask why, in the case of both projects failing, the defendant does not have to pay back the *full* difference between the purchase price (\$45) and realized value (\$0) under an *ex post* loss rule. The reason is that the loss causation requirement in a Rule 10b-5 claim means that the defendant could point to the failure of Project 2 as causative of \$25 worth of the loss.<sup>129</sup> (Of course, to arrive at this damages calculation, the court must be able to separate out the amount of loss attributable to Project 1 from that of Project 2, a problematic assumption discussed in Part IV.B.)

Under an *ex post* regime, even though there may be no absolute decline in the value of the firm's shares, we might suppose that (picking up on the Court's possible reference to relative market declines as proof of "economic loss")<sup>130</sup> there is a relative

128. It is worth noting that the emergence of the truth does not always result in a price decline; whether a price decline results depends upon whether the contingency has yet resolved, and if so, how. Here, where the lied-about contingency resolves favorably, price does not decline even if the market subsequently learns about the fraud. It is thus important to bear in mind the distinction between the price inflation and the movement of stock price: price inflation does not necessarily result in a diminution of investment value later on. Cf. Merritt B. Fox, *Understanding Dura*, 60 BUS. LAW. 1547, 1569 (2005) ("If the truth makes its way into the market, the initially inflated price *will* inevitably result in a loss."). Fox is correct that the investor has paid more than she should have, but incorrect to the extent that he means the investor would suffer an absolute decline in wealth because of it. This is because of the nature of contingent events: even though one lies about the probabilities of a contingency, sometimes one gets lucky.

However, this is not to say that the investor has not suffered a real injury: she has borne significant risk for which she has never received compensation. Investors generally demand a higher rate of return in order to bear risk. See RICHARD BREALEY & STEWART MYERS, *PRINCIPLES OF CORPORATE FINANCE* 186–210 (7th ed. 2003).

129. See 15 U.S.C. § 78u-4(b)(4) (2000). Had the defendant been on the hook for the whole \$45 decline in price, fraud would now be overdeterred, because the expected gain from fraud is \$10 and the expected penalty from fraud is  $\$45 * 0.25 = \$11.25$ . This is what the loss causation element of the PSLRA was meant to protect against. One effect of such a rule—allowing the recovery of the full \$45 loss in this case—would be to discourage firms from undertaking multiple projects.

130. See *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 343 (2005) (suggesting that a plaintiff could claim, presumably relative to a market index, that "a share's higher price is lower than it otherwise would have been" but for the lie). It is not clear that this is what the Court meant, however. See *supra* note 86.

decline on which a plaintiff could make out a case for fraud. Suppose we have a sophisticated plaintiff who constructs an index of identical (but independent)<sup>131</sup> firms in the marketplace against which to measure relative underperformance of this firm due to the lie. Is the defendant going to be liable under an *ex post* regime? In this example, the answer is still going to be no. The market index would have, under the facts given here, a return on investment of zero: the realized index price (the average of all the firms' returns) is going to be approximately the same as the expected value of the index prior to the realization. That is, because an index gives an average return, this average return is going to be the same as *ex ante* expected value, which is also the average return. So long as Pharma Co.'s Project 2 succeeds, its share price will have increased, thus having a relatively higher return than the index.<sup>132</sup> And as before, where Project 1 succeeds despite the lie, there is no *ex post* loss attributable to the fraud. Thus, the only case in which the defendant is liable is still if both projects fail.

So, just what are the gains from lying here? The firm's shareholders are able to receive a payment of \$45, instead of \$35 fair value, so the purchase price has

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131. That is, the outcomes of the firms are not correlated with one another. A simple example: Firm 1 and Firm 2 have identical projects: they each—separately—go to Las Vegas and put \$1 on the roulette wheel. Although the firms are, on these facts, *ex ante* identical, their outcomes are independent of one another.

Theoretically, one could construct an index of identical and *perfectly correlated* firms that would yield a measure of damages that perfectly internalizes fraud (this is essentially expectation damages). For instance, if there exists a firm that has an identical Project 1 and Project 2 and does not commit fraud, then a court could look to that firm to see how the defendant's share price would have performed but for the fraud. (In this example, an investment of \$35 dollars in the identical firm would lead to returns on investment of 100% in the case of the success of both projects, a negative return of 42.9% in the case of Project 1 succeeding and Project 2 failing, a positive return of 42.9% in the case of Project 1 failing and Project 2 succeeding, and a negative return of 100% in the case of double failure. Thus, a court could theoretically award damages of \$20, \$5.71, \$14.29, and zero, respectively in each case, which perfectly internalizes the fraud.)

This is not practicable in real life, however, because this would require courts to discern whether projects are identical and correlated, as well as the respective weights between the two projects. (For instance, if the index firm had a Project 2 that was larger than the defendant firm's, this would yield inaccurate results unless a court could adjust for this overweighting.) Furthermore, even if a court could undertake such inquiries, such damages appear incompatible with the PSLRA's damages cap, as codified in § 21D(e) of the Securities Exchange Act of 1934.

132. For example, suppose the index consists of 1000 firms that are identical to, but uncorrelated with, Pharma Co; the price of the index is given by the sum of valuations of all 1000 firms, divided by 1000. The expected value of any such firm is \$35, the same as the net present value of Pharma Co.; thus, the index price will be \$35. What will the price of the index be after all the projects of all the firms in the index come to fruition? It will still be (approximately) \$35, because on average we expect firms to perform according to their expected value. Thus, if Pharma Co.'s Project 1 has failed but Project 2 has succeeded, Pharma Co.'s stock price will have risen from \$45 to \$50, beating the market index's return of zero.

Consider what happens when Project 1 succeeds and Project 2 fails: Pharma Co.'s stock price would decline from \$45 to \$20. This now underperforms the index's return of zero. However, the fraud did not cause plaintiff's loss—the failure of Project 2 did. Thus, plaintiff would be unable to recover here. Again, the market test proves to be irrelevant.

Finally, consider the case where both projects fail. Pharma Co.'s stock price declines from \$45 to zero, substantially underperforming the index's return of zero. Although the plaintiff may recover here (because the fraud did cause a loss) the market test is *still* irrelevant because the proper measure of *ex post* fraud damages is only the \$20 attributable to the fraud, not the full \$45 decline that also incorporates that failure of Project 2.

been inflated by \$10. On the other hand, under an *ex post* regime, only 25% of the time will the firm have to pay damages of \$20 to the plaintiff: the expected penalty of lying here is \$5. Thus, from the firm's perspective, netting the \$10 gain against the expected penalty of \$5, lying adds \$5 of value. Fraud—lying about Project 1—has become a positive net present value strategy, because the variance of Project 2 is great enough to cover the potential shortfall.<sup>133</sup>

In contrast, with an *ex ante* loss regime, the plaintiff can recover \$10 in each of the four states by showing that the price was inflated by the lie told. Here, *ex ante* loss, assuming administrative feasibility,<sup>134</sup> is superior to an *ex post* rule because *ex ante* perfectly internalizes the fraud onto the firm: the expected gross gain from lying is \$10, while the expected gross cost of lying is \$10, for a net of \$0.

Thus, by virtue of being a multiproject firm, the firm can overrepresent its value and minimize the consequences. Consider the example of General Electric's conglomerate structure: when massive trading fraud at the recently acquired Kidder Peabody threatened to bring down GE's operating numbers, other GE businesses "offered to pitch in to cover the Kidder gap" by reopening their books and finding more money.<sup>135</sup> Ultimately, the unexpectedly good success of the sale of Paine Webber more than offsets the Kidder losses.<sup>136</sup>

### C. INTERVENING "OTHER FACTORS"<sup>137</sup>

The *Dura* rule may impact even single project firms that depend on exogenous market conditions or other factors. *Dura* relies heavily on both the *Bastian* and *Emergent* cases, which espouse a particular twist on the playground maxim of "no harm, no foul"; when harm does occur, but would have occurred even without the fraud at issue, Rule 10b-5 liability will not attach.<sup>138</sup> This means that firms can escape liability if an exogenous bad event occurs; unless there is appropriately higher liability in cases in which the bad event does not occur, fraud is underdeterred.

Abstracting somewhat from the facts of *Bastian*, suppose an oil extraction firm sells securities by falsely representing that its management is highly competent: that is, management is expected to be able to locate a high number of barrels (say, ten) of crude oil. In contrast, incompetent management would find zero barrels of oil.

133. High variance of Project 2 is also desirable because of the procedural way in which the *ex post* loss causation rule operates. The firm must eliminate any decline in share price—the "economic loss"—commensurate with the disclosure of fraud, or else the plaintiff satisfies loss causation and gets past the motion to dismiss. Once the case gets to the jury, the jury can use price inflation as a basis for damages. See *Robbins v. Koger Props., Inc.*, 116 F.3d 1441, 1447 nn.5–6 (11th Cir. 1997). A higher variance Project 2 makes it more likely that any failure of Project 1 will be completely covered.

134. This is, as described above, the chief complaint against *ex ante* damages. See *supra* notes 58–59 and accompanying text. In the instant numerical example, I assume that project values are costlessly observable and verifiable (that is, provable in court), which of course is not true. But as described in Part IV.B, *ex ante* damages are probably not any more difficult to administer than *ex post* damages.

135. JACK WELCH, *JACK: STRAIGHT FROM THE GUT* 224–26 (2001).

136. See *id.* at 228.

137. *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 343 (2005).

138. See *supra* notes 102–09.

However, that is not all there is to making money in the oil business: the market price of oil needs to exceed the cost of extraction (say, \$5 per barrel) in order to make extraction profitable at all. Thus, a firm will realize profits equal to the number of barrels located multiplied by the difference between the market price and the cost of extraction. Assuming that the market price of a barrel of oil is randomly determined as some number between zero and \$10, there is a 50% chance that extraction is unprofitable and hence will not be undertaken.

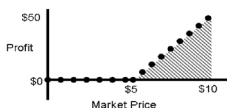
What happens, then, when a firm falsely claims that it has competent management? The fair market value of a competent oil firm is \$12.50, whereas the fair market value of an incompetent firm is zero.<sup>139</sup> If the price of oil is above \$5, the plaintiff would be able to make out a case for damages. If the market price were \$9, a competent firm would have realized \$40 profit, at \$4 per barrel; the plaintiff's damages will, however, be limited to the amount of her loss, which is \$12.50. On the other hand, if the price of oil is below \$6.25 (say, \$6), the plaintiff will be able to recover less (\$10) because, even had the oil firm been competently run, the firm would have realized only \$10 in profits. Finally, in the case that the market price of oil tanks to \$5 or below, the firm would realize a complete wipeout whether or not the firm was competent, and thus, as in *Bastian*, the plaintiff can recover nothing.

While the firm has increased its sale proceeds by \$12.50 by falsely claiming to be competent, it faces prospective Rule 10b-5 liability of only \$5.47—a dramatic difference.<sup>140</sup> This is because, under the *Bastian/Emergent* reasoning, the plaintiff's recovery in the bad state is capped by the amount of profit the firm would have made had it been as represented. At the same time, recovery in the good state of the world—high oil prices—is limited to the amount of

139. Here, the value of the competent firm is a function of the market price,  $p$ , of oil, specifically:

$$f(p) = \begin{cases} 10(p - 5), & p > 5 \\ 0, & p \leq 5 \end{cases}$$

Or, graphically:

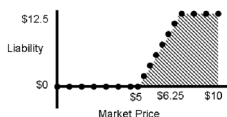


The expected value of the firm is the shaded area under the graph (125) divided by the magnitude of the range of possible outcomes (10) to arrive at an expected value of \$12.50.

140. Liability is a function of the market price of oil, specifically:

$$l(p) = \begin{cases} 12.5, & p \geq 6.25 \\ 10(p - 5), & 5 < p < 6.25 \\ 0, & p \leq 5 \end{cases}$$

Or, graphically:



Expected liability is the shaded area under the graph (54.7) divided by the magnitude of the range of possible outcomes (10) to arrive at an expected liability sanction of \$5.47.

plaintiff's investment; courts generally will not award expectation damages due to their "speculative" nature, nor are these types of damages generally allowed under the PSLRA's damages limitation.<sup>141</sup> Putting these together, the plaintiff can recover only the lesser of expected profits or the difference between purchase price and subsequent share price, which underdeters fraud.<sup>142</sup>

#### D. A SINGLE PROJECT IN MULTIPLE TIME PERIODS

Recall again the instance of Winston Churchill, who during Britain's World War II campaign would wait (and hope) for good news before releasing bad. The same intuition applies: if a firm has a project go badly in one period, by withholding that information the firm can falsely inflate its share price in the hopes of making up the loss in subsequent periods of success. Again, an *ex ante* rule will perfectly internalize the costs of fraud, while an *ex post* rule will not. This applies even to those firms that have only a single project with no "intervening events" as in *Bastian*.

Take the case of a firm that has a single project which yields payoffs of either \$20 or \$0 in each of two periods of operation. The fair market value of this firm would be \$20, because there is a 50% chance of receiving \$20 or nothing in Period 1, and a 50% chance of receiving \$20 or nothing in Period 2.

Consider the firm's choice upon realizing a negative payoff from the operation of the project in Period 1. If the firm discloses truthfully that the project has failed, the price of the firm will drop to \$10, which is the expected value of the project's payoff in Period 2. On the other hand, if the firm lies and claims success in Period 1, the market will price the firm at \$30: the \$20 realized payoff in Period 1, and a \$10 expected payoff in Period 2.<sup>143</sup> We might suppose that the firm would, *ceteris paribus*, greatly prefer the lying option, as it allows current shareholders the opportunity to cash out at a high price and permits management to maximize its options. Of course, the firm also faces Rule 10b-5 liability for fraud, which needs to be taken into account.

How much liability does the firm expect to incur from lying? Under the *Dura* rule, the firm avoids liability if it can keep its price at or above \$30. In order to

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141. See HAZEN, *supra* note 28, § 12.12[2] ("In 10b-5 cases, most courts have rejected a benefit-of-the-bargain measure of damages . . . because . . . proof of benefit-of-the-bargain damages is speculative."); Securities Exchange Act of 1934, § 21D(e) (codified at 15 U.S.C. § 78u-4 (2000)). Note that expectation damages in such a case would perfectly internalize fraud.

142. Depending on the timing of the good and bad news, expectation damages could still be recovered by at least some shareholders. Consider the case where the news of high oil prices (say, \$9) hits the market before the fraud is disclosed. In such a case, the share price of the firm would rise to \$40 before dropping to \$0 when the market learns of the fraud. Shareholders who purchase at the higher price of \$40 would be eligible to recover \$40 in damages. However, the firm can limit its liability by disclosing the fraud sooner rather than later, such that fewer shares can trade hands. In cases where the firm can control the timing of both the good and the bad news, releasing them at the same time avoids any liability in excess of the initial purchase price.

143. A potential third choice, not to disclose anything instead of affirmatively lying, would inflate the firm's price by \$10 to \$20. This may not always be possible because the market may rationally infer negative performance from the firm's silence.

get enough potential profit out of the second period project to maintain such a price level, the firm would have to increase the variance of the project in the second Period, which it can do through leverage. For instance, if the project is scalable, the firm could borrow \$10 from the bank to “double down” on the project. This changes the payoffs from \$20 or \$0 to \$30 or  $-\$10$ .<sup>144</sup> The *ex ante* expected value of the project is unchanged, though its volatility is greater. If the second Period project pays \$30, the firm incurs no liability because there is no price decline. If the second Period project yields  $-\$10$ , the firm faces liability of \$20, which is the amount of *ex post* loss attributable to the fraud regarding Period 1’s returns. The gain from fraud—the increase in price—is \$20, while the expected liability is only \$10, for a net gain of \$10.<sup>145</sup>

To conclude that this is profitable for the firm (or the manager) does require that we make some assumptions about what shareholders’ or managers’ incentives are. Consider then, the fairly likely case where the manager’s compensation is based off of the share price of the firm in each period. More concretely, suppose that the manager receives 10% of whatever the current stock price is. Suppose that the first round of the project is unsuccessful: if the manager discloses truthfully, the stock price will decline to \$10 and his bonus will be \$1. In the second Period, there is a 50% chance each of success or failure; thus, the manager’s second Period bonus (having told the truth in the first period) will be either \$2 or \$0. The total expected value of the manager’s bonus from telling the truth will therefore be  $\$1 + \frac{1}{2} * \$2 + \frac{1}{2} * \$0 = \$2$ .

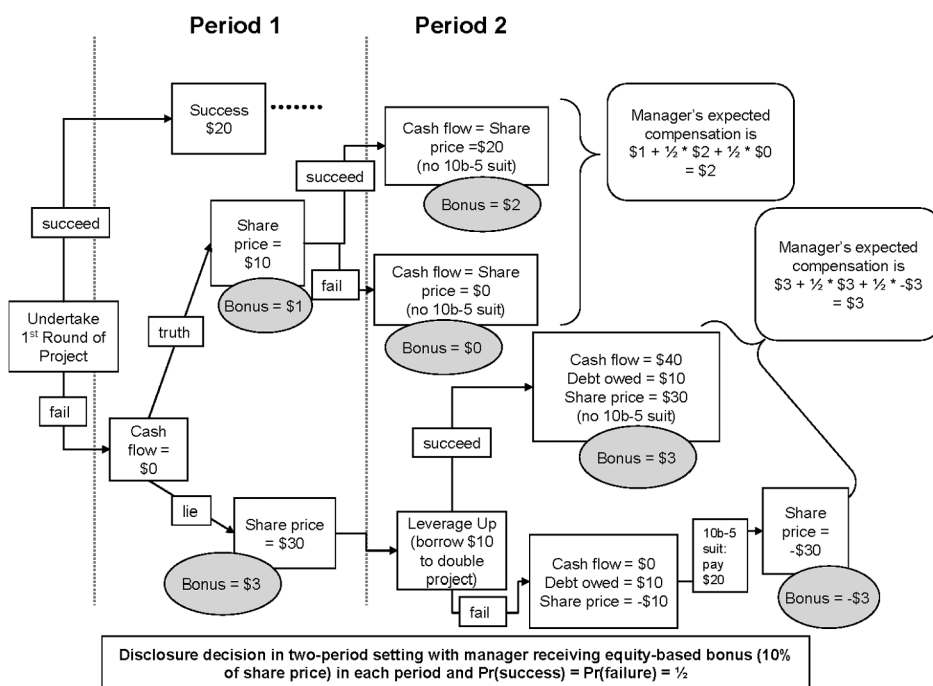
If the manager discloses fraudulently, on the other hand, the stock price will rise to \$30 in the first period and he will receive \$3. In the second Period, there is again a 50% chance of success or failure, with the added consideration that in the event of failure the firm will be sued for the *ex post* losses due to the fraud (\$20). Thus, the stock price in the second Period will be either \$30 or  $-\$30$ , with the manager’s corresponding bonus being either \$3 or  $-\$3$ . The manager’s expected bonus is then  $\$3 + \frac{1}{2} * \$3 + \frac{1}{2} * -\$3 = \$3$ . Truth yields \$2, while falsehood yields \$3. Therefore, lying is more personally profitable for the manager than telling the truth.<sup>146</sup>

The diagram below illustrates.

144. If the firm borrows \$10 to double the project, the firm must always pay back the \$10 to the bank. So, with leverage, a successful project pays \$40, with \$10 going back to the bank, for a net success payoff of \$30. An unsuccessful project pays \$0, with \$10 going back to the bank, for a net payoff of  $-\$10$ . The expected value of this project is still \$10:  $\frac{1}{2} * \$30 + \frac{1}{2} * -\$10 = \$10$ .

145. The firm can enjoy the benefits of fraud without leverage, although leverage does increase those benefits. Without leverage, the firm in the above example would have a net gain of only \$5 from fraud, because it cannot hope to completely escape liability even if the second period project succeeds.

146. Although this compensation method is a rough approximation of current compensation practices, this raises the question of why shareholders would choose to compensate managers this way. Consider the incentives of a shareholder: if the shareholder faces some likelihood of selling her share in Period 1, she may rationally prefer that the manager commit fraud because this will maximize her sale price, so long as the probability of selling is high enough. This argument is developed further in Spindler, *supra* note 123.



Analytically, the firm delays reporting its first period performance in order to be able to bundle that news with subsequent good news or additional bad news. And risk is attractive in the second period: the marginal benefit of good news is quite high, because it reduces fraud liability, whereas the marginal cost of additional bad news is zero, since the loss causation rule limits fraud liability to the damages actually caused by the fraud.

This is congruous with certain practices seen as harmful even before *Dura*. There was ample evidence, for instance, that firms delayed the disclosure of bad news.<sup>147</sup> As one might expect, securities lawyers regularly counsel their clients that, if they must disclose a piece of bad news, they should wait if necessary so as to be able to release good news at the same time.<sup>148</sup> Finally, when firms have

147. See Carol Anilowski, Mei Feng & Douglas J. Skinner, *Is Guidance a Macro Factor? The Nature and Information Content of Aggregate Earnings Guidance* 23–24 (Am. Acct. Ass'n., Fin. Acct. & Reporting Sec., Meeting Paper, 2005), available at <http://ssrn.com/abstract=572221> (showing that bad news tends to be released later in the quarter); S.P. Kothari, Susan Shu & Peter Wysocki, *Do Managers Withhold Bad News?* 9 (Mass. Inst. of Tech., Sloan Sch. Mgmt., Working Paper No. 4556-05, 2005), available at <http://ssrn.com/abstract=803865> (finding support for the theory that firms “hope[] to ‘bury’ the accumulated bad news with good news”).

It would be interesting to see whether evidence of delays is greater in jurisdictions utilizing *ex post* loss causation rules prior to *Dura*. In any event, *Dura* should exacerbate the tendencies to delay that already exist.

148. Interview with securities litigator (Dec. 2005).



bad news to report that can be delayed no longer, they may as well report as much bad news as possible.<sup>149</sup> *Dura*'s elevation of the *ex post* loss rule may exacerbate such trends.

#### IV. SOME CONSIDERATIONS IN CHOOSING BETWEEN *EX POST* AND *EX ANTE* LOSS RULES

The discussion in Part III shows that *ex post* loss rules are theoretically inferior to *ex ante* rules in all but the narrowest case of a single project, single period firm. As this Part discusses, there are some practical considerations indicating that one rule may be better than another, generally militating in favor of the *ex ante* rule.

##### A. *EX POST* WORKS WELL WHEN FIRMS CAN DISAGGREGATE

We may suppose that, at equilibrium, a rational marketplace would discount securities of firms that have bundled projects and disclosures. A firm that can commit to disaggregating itself and its disclosures could therefore command a premium relative to aggregated firms. Put another way, because the *ex post* rule internalizes fraud perfectly when the firm has but one project with immediate disclosure, firms that can transform themselves into such will have greater transparency and will be able to communicate more credibly with the marketplace. Market incentives may therefore drive voluntary disaggregation.

If disaggregation is both possible and cheap, an *ex post* rule would outperform an *ex ante* rule because of its ease of administration and ability to separate meritorious from meritless suits. The question, then, is to what extent disaggregation is practicable. Although multiple helpful mechanisms exist, they are all likely to be imperfect or costly.

##### 1. Creating Disaggregated Disclosure Obligations

As it happens, a number of mechanisms exist through which firms can disaggregate projects. Most basically, a firm can simply choose not to take on more than one project at a time. Firms may refrain from conglomeration, since conglomerated firms have low transparency. Alternatively, firms with multiple projects may spin those projects off into independent entities with their own reporting obligations. For example, if Pharma Co. finds itself with two projects, it could choose to place Project 2 into a subsidiary and distribute the shares of that subsidiary to current Pharma Co.

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149. This is perhaps manifested in practices of earnings management such as "cookie jarring" (under-reporting positive news in order to save it for later disbursement) and the "big bath" (getting out as much bad news as possible given that there is going to be any bad news). See Arthur Levitt, Chairman, Sec. & Exch. Comm'n, The "Numbers Game," Address at the N.Y.U. Center for Law & Business (Sept. 28, 1998), available at <http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt> (discussing earnings management, including "cookie jar" and "big bath" tactics).

shareholders.<sup>150</sup> While management could maintain control over both projects, each project would require separate disclosures and would be priced separately by the market. The firm could even, if it chose, keep the second project in the same legal entity by issuing tracking stock for the corporate division operating Project 2. The tracking stock's value would be determined by the market based on reported metrics for a particular project or division, and holders of the tracking stock would have a right of action under Rule 10b-5, without affecting the real economic performance of the two projects under management.

## 2. Information Markets

Less directly, the firm could subsidize or facilitate derivatives trading, or some other form of information markets, in its securities. These information markets could be constructed to pertain to particular divisions or projects, and therefore provide individualized market tests for each project or component.<sup>151</sup> In the example in Part III.C, if the extraction firm provided information about its exposure to market conditions (namely, its sensitivity to future oil prices), an investor that hedged out that oil market exposure could show declines in portfolio value that would allow a greater recovery than otherwise permitted under *ex post* loss causation rules.

Theoretically, robust information markets provide a means of pricing any individual project against a market benchmark. The magnitude of any fraud could be calculated with ease and precision, because even firms that show no absolute price decline would still show relative decline compared to a properly constructed market instrument. For instance, if in Part III.B there existed a firm that was *exactly* like Pharma Co. except for the lie about Project 1, a court could readily measure relative decline by subtracting the *ex post* price performance of Pharma Co. from the *ex post* price performance of this hypothetical firm. It would always succeed when Pharma Co. succeeded and fail when Pharma Co. failed. Of course, there will never be a firm that is exactly like Pharma Co., and more generally, derivatives markets are far from exhibiting the level of robustness necessary to price every component of a firm's business.

## 3. Discrete Disclosure

If a firm discloses individually or discretely each piece of information, an *ex post* market test works perfectly. For example, if Pharma Co. were to disclose

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150. If Pharma Co. is publicly held, distributing shares of a subsidiary to its shareholders makes the subsidiary publicly held as well, subjecting it to the reporting requirements of the Securities Exchange Act.

151. Investors can synthetically create structural changes through derivatives markets; for example, as Judge Easterbrook has suggested, derivatives traders can hedge out Ford's metals investments to concentrate on auto manufacturing. See Frank H. Easterbrook, *Derivative Securities and Corporate Governance*, 69 U. CHI. L. REV. 733, 737-38 (2002). Note that derivatives, even those not issued by the firm itself, can give rise to a Rule 10b-5 action against the firm for fraud. See, e.g., *Fry v. UAL Corp.*, 84 F.3d 936, 938-39 (7th Cir. 1996) (Posner, J.). However, non-firm issued derivatives would not give rise to a mandatory disclosure obligation under the 1934 Act.

first the results of Project 1 and then the results of Project 2 (or vice versa), there would then exist two distinct market movements, with the price movement corresponding to Project 1 yielding the correct measure of *ex post* damages to internalize fraud in expectation.

Is there any way for a firm to commit credibly beforehand not to bundle negative information with other information? This seems to be a significant problem, because the firm itself will likely be the only party that knows when it has come into new material information. Regular audits—or some other form of third party verification—could help, at least to some extent. Government rulemaking, such as the continuous disclosure requirement of Form 8-K,<sup>152</sup> Regulation FD's prohibition of "leaking" information to the market,<sup>153</sup> whistleblower provisions that encourage firm employees to report nondisclosures,<sup>154</sup> and segmental disclosure<sup>155</sup> requirements may enable firms to commit to such disclosure practices. These rules all impose penalties for failure to disclose immediately, transparently, or disaggregatedly. However, as recent experience with companies such as WorldCom has shown, even with these measures in place, firms are often still able to delay disclosure for a significant amount of time before being caught.

#### B. AN ACCURATE MARKET TEST FOR *EX POST* LOSSES IS LARGELY ILLUSORY

The chief argument in favor of an *ex post* loss rule—that it avoids speculative damages assessments in favor of an accurate market test—holds up only in the limited case where no intervening events occur and disclosures are disaggregated. As soon as information or projects are bundled, a court can no longer rely on a market test to calculate damages, because a negative price decline may well reflect other events. Instead, in such a case the court must engage in the same sort of speculation that is involved in *ex ante* damages calculations.

Recall that, with a single project, fraud is perfectly internalized under both *ex post* and *ex ante* rules, the difference being that the *ex post* approach also provides a ready measurement of damages.<sup>156</sup> A court following the *ex post* rule

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152. Form 8-K requires that the firm make prompt (within four business days) disclosures of certain important or material events. See Instruction B.1 to Form 8-K, available at <http://www.sec.gov/about/forms/form8-k.pdf>. Although immediate disclosure is a fairly good proxy for discrete unbundled disclosure, it is not perfect.

153. Regulation FD makes it illegal for firms to leak information to analysts or parties likely to trade on the information without also giving that information to the public. See Regulation FD, 17 C.F.R. § 243.100 (2005). The disclosure must be contemporaneous if it is intentional. This makes informally leaking information to the market (which a firm might wish to do in order to preempt a price reaction to a forthcoming revelation of fraud) more expensive for firms.

154. See Sarbanes-Oxley Act, 18 U.S.C. § 1514(a) (Supp. 2003).

155. See Item 101(b) of Regulation S-K, 17 C.F.R. § 229.101(b) (2005), available at <http://www.sec.gov/about/forms/regs-k.pdf>. Segmental disclosure requires the firm to provide the same "segmented" disclosure (that is, disclosure broken up by divisions or projects) that management uses in making its decisions. See *id.*

156. See *supra* Part III.A.

must only observe whether fraud occurred, the price paid for the share, and the resulting market price. In contrast, a court following the *ex ante* rule must observe whether fraud occurred, the price paid for the share, the probability of the good and bad outcomes, and the magnitude of those good and bad outcomes. Even taking into account the systemic underdeterrence of the *ex post* rule, one might think the ease of administration makes for a worthwhile tradeoff.

However, the ease of administration will prove illusory with bundled projects. Consider again the situation where our firm, Pharma Co., has two projects—Project 1 and Project 2—bundled together. In the case where loss causation is satisfied (i.e., both Project 1 and Project 2 have failed) firm price has declined by \$45, yet only \$20 of that decline is because of Project 1's failure. In order to calculate *ex post* damages attributable to the fraud, the court must be able to tease out the effect of Project 1's failure from the effect of the failure of Project 2. It cannot simply look at how much the price fell. Thus, a court must necessarily engage in fact finding about the relative values of the two projects in order to determine the proper level of *ex post* damages to assign.<sup>157</sup> In particular, a court must be able to discern, as before, whether a material fraud occurred and the overall level of price decline. However, it also must determine the price paid for Project 1 specifically (which requires observing the fraudulently-stated probability of success and failure, as well as the stated payoffs in the event of success and failure) and the Project 1 returns (which requires being able to separate out the effects of Project 2). The main difference from the *ex ante* inquiry is that the court need not determine the *ex ante* fair value of Project 1, but must instead determine Project 1's individual returns; it is not clear that one of these inquiries is easier than the other. Unless the firm has cooperated by disaggregating projects or disclosures as described in Part IV.A, it is unlikely that a market test will exist under either rule.<sup>158</sup>

The following table lists necessary inquiries under *ex post* and *ex ante* loss rules in the case of both one and two projects. Sub-inquiries are given as bullets; easy inquiries are italicized.

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157. The nature of the inquiry is essentially the same as in an *ex ante* damages calculation. Just as the court would be charged with figuring out how the market would have valued the correct information about Project 1 *ex ante*, the court here must decide how much the market would have reacted to Project 1's failure as opposed to Project 2's failure.

158. *See supra* notes 150–54 and accompanying text. One practical issue to bear in mind is that if a market test may sometimes be available for one test but not the other, it may be useful to allow a court to apply whichever test is easier in the given case instead of rigidly proscribing one or the other as *Dura* has done. Although this does not perfectly internalize fraud, it may be a better approximation than either rule alone.

	<b>One project (unbundled)</b>	<b>Two projects (bundled)</b>
<b>Ex ante</b>	Did fraud occur? <i>Price paid</i> Correct price <ul style="list-style-type: none"> <li>• Probability of success/failure</li> <li>• Payoffs of success/failure</li> </ul>	Did fraud occur? Price paid for Project 1 Stated probability of success/failure <ul style="list-style-type: none"> <li>• Stated payoffs of success/failure</li> </ul> Correct price <ul style="list-style-type: none"> <li>• Probability of success/failure</li> <li>• Payoffs of success/failure</li> </ul>
<b>Ex post</b>	Did fraud occur? <i>Market decline</i> <i>Price paid</i>	Did fraud occur? <i>Market decline</i> Price paid for Project 1 <ul style="list-style-type: none"> <li>• Stated probability of success/failure</li> <li>• Stated payoffs of success/failure</li> </ul> Project 1 returns

The same logic applies to bundled disclosures when the firm withholds information about an earlier failure.<sup>159</sup> If the firm lies about an early failure, but does not lie about a subsequent failure, the decline in the firm's stock price will be partly attributable to ("proximately caused" by) the fraud. However, it will be partially attributable to the subsequent failure as well. Again, the court is left to figure out just how much of the overall price decline is attributable to the failure connected to the fraud.

To the extent that commentators argue against an *ex ante* rule because of the "speculative" nature of damages, we can expect that such problems would plague the *ex post* rule as well. That is, even with an *ex post* rule, it is not enough to simply observe *ex post* declines; the court must be able to discern many of the same factors as in the *ex ante* inquiry, as well as some factors not required in an *ex ante* inquiry, in order to fashion *ex post* damages.

Thus, it is not possible to say that administering an *ex post* rule is any easier than administering the *ex ante* rule. In fact, the *ex post* rule would inarguably be more onerous than the *ex ante* inquiry in some cases. Suppose Pharma Co. announces that it has been granted patent approval when, in fact, approval is still pending: Pharma Co. would experience an observable increase in share price (\$10, following the example of Part III.B), which is the amount of *ex ante* price inflation. In such a case, showing *ex ante* inflation is both easier and more reliable than a subsequent *ex post* inquiry.

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159. See *supra* Part III.D.

C. AN *EX POST* RULE CAN ENCOURAGE BIGGER LIES

Think again of Pharma Co. with its two projects. Now imagine that Pharma Co. is deciding not whether, but how much, to lie about Project 1. Assuming that a finding of fraud may be unavoidable (perhaps because of overbearing costs of implementing internal controls and making full disclosure, or because courts make mistakes in detection of fraud), would Pharma Co. rather tell a big lie about Project 1, or a small lie? The problem with the *ex post* rule is that it penalizes the firm with full market declines where the project fails, regardless of the magnitude of the lie told. Given that a fraud occurred, the firm bears full downside risk for the performance of the lied-about project.

Consider the maximum and minimum cases: either lie as much as possible about Project 1, stating that it has a 100% chance of success and is hence worth \$20 (overstating its true *ex ante* value by \$10), or tell as small a lie as possible, stating that it has a 50.05% chance of success and is hence worth \$10.01 (overstating by one penny).

In the big lie case (the same scenario as discussed in Part III.B above), the firm receives a price of \$45 for its shares. In the small lie case, the firm receives a price of \$35.01 for its shares. In the event that both projects fail, under the *ex post* rule, a court would award the plaintiff damages equal to the decline in share value proximately linked to Project 1: in the big lie case, the plaintiff receives \$20, while in the small lie case the plaintiff receives \$10.01.<sup>160</sup>

Looking at it from the firm's perspective, consider the relative payoffs from each course of action. With a big lie, the firm receives an extra \$10 from the investor, while it only pays out \$20 with a probability of 25%, for expected damages of \$5. In the small lie case, the firm receives an extra \$0.01, and pays out damages of \$10.01 with probability of 25%, for expected damages of \$2.5025. Thus, in the big lie case, fraud is profitable, whereas in the small lie case, fraud is highly unprofitable, yielding an expected negative \$2.4925. According to this very simple model, one would choose a bigger lie over a smaller one. In contrast, under the *ex ante* rule, as always, the frauds committed by the firm are perfectly internalized, and the firm is indifferent between a small fraud and a big one.

What does this mean? The primary concern is that if some fraud (or risk of fraud) is either optimal or inevitable, then *ex post* damages awards may, at equilibrium, incentivize firms to ratchet the fraud level up as high as possible. It may be that eliminating fraud entirely is simply too costly or impossible: as the

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160. The plaintiff paid \$35.01 for the shares—\$25 of that purchase price was attributable to Project 2, while \$10.01 was attributable to Project 1. Courts often discuss awarding “out of pocket” damages (a.k.a. *ex ante* price inflation) in such cases. Here, the “out of pocket” damages would be \$0.01. But it is not clear that courts actually do so, nor is it clear that they completely understand the distinction. As discussed above, *see supra* note 120, awarding “out of pocket damages” subject to *ex post* loss causation would exacerbate the *ex post* rule's underdeterrence of fraud. This would also require the court to undertake the same *ex ante* inquiries as it would with the *ex ante* rule for which there may be no market test available.

experience with Sarbanes-Oxley Section 404 points out, imposing internal controls to prevent fraud can have enormous direct and indirect costs.<sup>161</sup> Because of that, even a firm that chooses the path of honesty will anticipate being held liable for at least minor frauds; the problem with *ex post* damages, though, is that the penalties are the same for small lies as for big ones.

Note that this problem is more acute when disclosures have a higher degree of variance or uncertainty in outcome (as is the case with projections or other forward-looking information). High variance means that the firm gives away a valuable option by committing fraud: if such a disclosure is found to be fraudulent, the firm must reimburse the shareholder for any downside. In contrast, disclosures with low uncertainty (for instance, historical data such as audited financials) mean that the option to act fraudulently is worth less, since there is relatively little downside. For example, if Project 1 has good and bad state payoffs of \$11 and \$9, Pharma Co. has less to lose if it inadvertently (but fraudulently) overstates its value.

#### CONCLUSION

This Article shows that the *Dura* decision moves securities fraud jurisprudence toward an *ex post* loss rule that requires an *ex post* decline in share value, and away from the *ex ante* loss rule that allowed a plaintiff to recover for inflated share price at the time of transacting. The implications of the move are several. First, the *ex post* loss rule does not adequately internalize fraud losses when firms can bundle projects, when firms can wait before disclosing bad news, or when other factors may overlap with the fraud in causing a plaintiff's loss. Fraud now becomes an optimal strategy for many or most firms, and can increase the cost of funding good projects because investors tend to discount firms' disclosures. Second, the impact of *Dura* depends on the extent to which firms can disaggregate themselves or their disclosures in order to retain credibility and transparency: a firm that becomes a single project or discrete disclosure firm is perfectly deterred by an *ex post* rule. Finally, there are other costs of an *ex post* rule that are revealed by this analysis—an *ex post* market test of damages is often unavailable with bundled firms or disclosures, and *ex post* damages do not distinguish between small and big frauds—such that the *ex ante* loss rule may well remain preferable.

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161. One study, measuring reactions to legislative action, puts the indirect costs of Sarbanes-Oxley at \$1.4 trillion. See Ivy Xiyang Zhang, *Economic Consequences of the Sarbanes-Oxley Act of 2002*, available at [http://w4.stern.nyu.edu/accounting/docs/speaker\\_papers/spring2005/Zhang\\_Ivy\\_Economic\\_Consequences\\_of\\_S\\_O.pdf](http://w4.stern.nyu.edu/accounting/docs/speaker_papers/spring2005/Zhang_Ivy_Economic_Consequences_of_S_O.pdf).

For a critical overview of Sarbanes-Oxley's costs and benefits, see generally Larry Ribstein, *Sarbanes-Oxley After Three Years*, (Ill. Law & Econ. Paper Series, Working Paper No. LE05-016, 2005), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=746884](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=746884).