

January 5, 2006

Dura and the New Vocabulary of Litigation Under Rule 10b-5

Frederick C. Dunbar and Marcia Kramer Mayer



NERA
Economic Consulting

© Copyright 2006 National Economic Research Associates, Inc.
All rights reserved. Do Not Reproduce Without Permission of Authors.

 Marsh & McLennan Companies

Dura and the New Vocabulary of Litigation Under Rule 10b-5

Frederick C. Dunbar and Marcia Kramer Mayer

Abstract

Prior to the Supreme Court's recent decision in *Dura*, it was sufficient in the 9th Circuit for a plaintiff pleading loss causation in a securities fraud suit to allege that price was inflated by a misrepresentation on the date of purchase. In *Dura*, the Court unanimously rejected this minority view and held that plaintiffs must plead and ultimately prove:

- § that price was inflated at the time of purchase (materiality); *and*
- § that there was an “economic loss” due to “revelation of the relevant truth” (loss causation).

Dura does not specifically address damages, but it speaks of “relevant economic loss” as if those terms were synonymous, implying that the amount of loss proximately caused by a fraud *is* the measure of Rule 10b-5 damages. By not merely reversing the 9th Circuit's quirky/bizarre decision about purchase inflation being a sufficient condition for loss causation but articulating another condition—proximate loss caused—and implicitly holding both to be necessary, the Court laid down a ruling that affects the calculation of damages in all Circuits. One consequence is that purchase inflation is no longer the measure of damage for a buy-and-hold share, even one unaffected by PSLRA's bounce-back rule; another is that the excess of purchase inflation over sale inflation is no longer the measure of damage for an in-out share. Rather, it can be shown that *Dura* makes damage per share (whether buy-and-hold or in-out) the *minimum* of:

- § inflation at the time of purchase, and
- § price decline during the holding period caused by revelation of the relevant truth.

While *Dura* provides clear guidance on what is required for a plaintiff to plead and ultimately prove loss causation for a particular *share*, it offers no guidance on how loss causation is to be gauged for the *plaintiff* in light of all of her trading. Ultimately, it is a plaintiff, and not a share, that does or does not have a compensable claim. How analysis of plaintiff's trading during the class period might reduce or even eliminate a plaintiff's damage claim by offsetting her fraud-caused losses with her fraud-caused gains is an issue that the parties must deal with even though pre-*Dura* judicial guidance on the identification and measurement of such gains is incomplete and post-*Dura* judicial opinion on the issue is absent. We demonstrate that *Dura*'s loss logic cannot be consistently applied to the measurement of gains. We consider alternative imperfect solutions to the netting dilemma.

Another set of issues raised by the *Dura* decision is what constitutes “relevant truth” and what it means for relevant truth to be “revealed.” Debate over these questions is likely to fuel additional disagreement among experts regarding the calculation of 10b-5 damages.

Contents

I.	INTRODUCTION	1
II.	THE ANALYTICS OF LOSS CAUSATION	2
	A. BUT-FOR CAUSATION VERSUS PROXIMATE CAUSE	3
	1. <i>Judge Sneed’s framework for Rule 10b-5 causation and damages</i>	5
	a. Constant dollar inflation.....	6
	b. Constant percentage inflation	8
	2. <i>Unattributable causation</i>	10
	B. USING AN EVENT STUDY TO SHOW LOSS CAUSATION	12
III.	IMPLICATIONS OF <i>DURA</i> FOR DAMAGE PER SHARE	14
	A. DAMAGE PER SHARE IS NOT THE SAME AS INFLATION PER SHARE.....	14
	1. <i>Inflation mooted by intervening events</i>	16
	2. <i>Inflation related to other factors changing over time</i>	16
	3. <i>Inflation ages out of security price</i>	17
	B. DAMAGE PER SHARE IS NOT THE SAME AS THE PRICE DROP CAUSED BY REVELATION OF RELEVANT TRUTH	18
IV.	IMPLICATIONS OF <i>DURA</i> FOR DAMAGE PER PLAINTIFF	19
	A. NETTING IN SECURITIES FRAUD DAMAGES	19
	B. LACK OF SYMMETRY IN CLASS ACTIONS	21
V.	IMPLICATIONS OF <i>DURA</i> FOR BURDEN OF PROOF	23

I. Introduction

The Supreme Court's much anticipated decision in *Dura* narrowed the scope of pleading loss causation in 10b-5 shareholder class actions.¹ Typical of important Supreme Court opinions, it has been finely dissected in a number of articles, pleadings and judicial decisions. Unsurprisingly, many authors read into *Dura* their own predisposition to what the standard for loss causation should be rather than what it is. This has led to a number of alternative interpretations.

Some of the confusion in the application of *Dura* is caused by its being built on an existing vocabulary of Rule 10b-5 case law that is inadequate in light of the Court's discussion.² Interpreting *Dura* with the old definitions leads to conceptual traps. As the most important example, in the past "inflation" was identical to "damage" for a share that was purchased in reliance on a fraudulent misrepresentation or omission and held until after the fraud was cured. Now, loose use of these terms will lead to a misapplication of the loss causation standard and a miscalculation of damage per share. In addition, the Court dispensed with "corrective disclosure" and substituted "revelation of relevant truth." The consequence of the new language is not cosmetic; the definition of these terms has major implications for both whether the loss causation standard has been satisfied and how damages are to be measured.

Although *Dura* addresses the relatively narrow issue of pleading requirements, it is not too soon to interpret its implications for burden of proof by those plaintiffs who advance beyond

¹ *Dura Pharmaceuticals, Inc., et al. v. Broudo, et al.*, 125 S.Ct. 1627 [hereinafter, *Dura*].

² Interestingly, this is the reverse of what happened in two other major Supreme Court decisions on Securities Act fraud claims. In *Blue Chip Stamps*, 421 U.S. 723 (1975) the Court found that the "in connection with" requirement meant that "reliance" was equated with "transaction causation." Then, in *Basic v. Levinson*, 485 US 224 (1988) the Court again made part of the vocabulary of shareholder class actions redundant by, essentially, equating "reliance" and "transaction causation" with "materiality."

the motion-to-dismiss stage. Plaintiffs will then need a demand theory that fits both the Court's pronouncements on loss and the events plaintiffs cite as being revelations of the relevant truth. There always have been and there always will be disputes between defendants and plaintiffs on the quantum of damages. With *Dura*, however, the Court effectively takes off the table certain categories of damages that historically had been the subject of intense debate between the parties.

II. The Analytics of Loss Causation

The practical impact of *Dura* extends beyond pleading to how it changes the burden of proof under 10b-5. In *Dura* the Court described the elements of a 10b-5 action as follows:

- (1) *a material misrepresentation (or omission)*;
- (2) *scienter*, i.e., a wrongful state of mind;
- (3) *a connection with the purchase or sale of a security*;
- (4) *reliance*, often referred to in cases involving public securities markets (fraud-on-the-market);
- (5) *economic loss*; and
- (6) "*loss causation*," i.e., a causal connection between the material misrepresentation and the loss.³

Interestingly, in *Basic v. Levinson*, the Court cited five, rather than six, elements for proving liability under 10b-5.⁴ The difference is that in *Basic* the Court did not distinguish between *economic loss* and *loss causation*. The purpose for adding the *economic loss* requirement seems to be rooted in the Private Securities Litigation Reform Act of 1995 (PSLRA)

³ *Dura* at 2.

⁴ *Basic v. Levinson*, 485 U.S. 224, 231-32 (1988).

which, of course, was enacted after *Basic*. More particularly, PSLRA has given rise to what has become known as the “actual loss” standard based on the following passage from the Act:

In any private action arising under this title, the plaintiff shall have the burden of proving that the act or omission of the defendant alleged to violate this title *caused the loss for which the plaintiff seeks to recover damages.*⁵

The *Dura* Court described this requirement as follows: “[T]he statute expressly imposes on plaintiffs ‘the burden of proving’ that the defendant’s misrepresentations ‘caused the loss for which the plaintiff seeks.’”⁶ It is not clear whether the Court would have come to the same key conclusions in *Dura* if PSLRA had never been enacted.

A. But-for causation versus proximate cause

Prior to *Dura*, plaintiffs most often plead an expansive reading of causation. This view of causation could often be labeled as *but-for* causation: but for the fraud, would there have been any losses suffered by class plaintiffs? The reason for supporting but-for causation is that, under common (but not the only) set of stylized facts in a 10b-5 case, plaintiffs’ damages were higher than would be the case under the alternative *proximate cause* standard ultimately adopted by the Court in *Dura*.

To visualize this issue, consider Figure 1 which shows the stock price of a hypothetical 10b-5 class action defendant Acme, Inc. over a well-plead class period. The stock price equals \$20 per share at the beginning of the class period and, over time, slides to \$10 per share. The reason for this downward trend is not related to any revelation or “leakage” of information

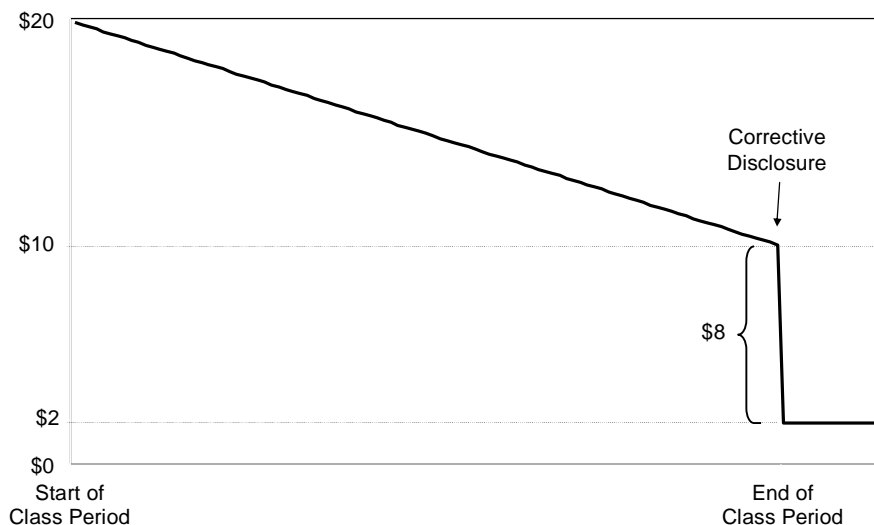
⁵ Emphasis added.

⁶ *Dura* at 5.

concerning the alleged fraud;⁷ it could be, for instance, due to a broad-based stock market sell-off as occurred after 1Q 2000. Note, however, the magnitude of the decline may be affected to some extent by the alleged fraud.⁸ Upon reaching \$10 per share there is, using pre-*Dura* phraseology, a corrective disclosure revealing, say, a dramatic asset impairment that causes the market to reassess the future cash flow prospects of the company. The share price immediately falls \$8 coming to rest at \$2 per share. For the sake of the argument that follows, we assume that the entire \$8 price drop is due to the corrective disclosure (i.e., no part of the price drop is due to broad-based stock market movements or firm-specific events other than the corrective disclosure).

Figure 1

Acme, Inc. Stock Price



⁷ The concept of leakage is used here without endorsement by the authors. Although leakage has been alleged in various shareholder class actions, to our knowledge, these pleadings have never defined leakage in a way that makes it consistent with modern finance theory.

⁸ See Judge Sneed's concurring opinion in *Green v. Occidental Petroleum Corp.*, 541 F.2d 1335, 1341-46 (1976).

Consider the losses from three stylized members of the class:

Plaintiff A buys stock on the first day of the class period for \$20 per share and sells on the day before the corrective disclosure for \$10 per share;

Plaintiff B also buys on the first day of the class period for \$20 per share but sells on the day after the corrective disclosure for \$2 per share;

Plaintiff C buys on the day before the corrective disclosure for \$10 per share and sells on the day after the corrective disclosure for \$2 per share.

In the vocabulary of shareholder class actions, plaintiff A held in-out shares—shares that were purchased during the class period and sold before the end of the class period. Plaintiffs B and C both held retention shares—shares that were purchased during the class period and held past the end of the class period.

Dura has not changed prior doctrine on the loss attributed to the alleged fraud for plaintiff C. This individual would be able to make a claim for the extent of the loss associated with the corrective disclosure which, in this case, would be \$8 per share. If the six elements of liability for fraud related to the subject matter of the corrective disclosure were found by the court and if plaintiff C made no security sales that benefited from the fraud, then such a damage claim would not be seriously disputed by a court.

The claims made on behalf of plaintiffs A and B, however, have become much more limited under *Dura*. The remainder of this section will describe pre-*Dura* practice referencing the well-known Sneed concurring opinion in *Green v. Occidental*. In sections that follow we show how *Dura* has re-framed damage analysis.

1. Judge Sneed's framework for Rule 10b-5 causation and damages

On the issue of 10b-5 damages, it is likely that no other authority has been cited as often as Judge Sneed's six-page concurring opinion in *Green v. Occidental*. Although some experts

have not followed Judge Sneed's approach to computing damages, virtually everyone now uses his terminology. This is as follows:

“true value” refers to the market price per share of stock (purchased by class plaintiffs) that would have occurred in the absence of wrongdoing by defendant;

“value line” is the graph of the stock's true value over the course of the class period;

“inflation per share” is the difference between the amount paid for the stock by a plaintiff and the stock's true value at the time of purchase.

Everyone would acknowledge that the true value during the class period is likely to be affected to some extent by events unrelated to the fraud and, therefore, it would be whimsical to estimate a true value line that would be a constant \$2 per share throughout the class period. In fact, in a single disclosure case, such as the above hypothetical, it can be reasonably assumed that the stock price movements on every day of the class period are due to factors other than the alleged fraud. Even with this acknowledgement, however, there is some ambiguity: are the daily *dollar* changes unaffected by the alleged fraud or are the daily *percentage* price changes unaffected by the alleged fraud? How this question is answered determines the approach to estimating inflation per share. The two most common approaches are to assume either: (1) a “constant dollar inflation” per share throughout the class period (\$8 per share in our example) that leaves daily dollar changes in the true value equal to the daily dollar changes in the stock's actual price; or (2) a “constant percentage inflation” per share throughout the class period (80% of the actual price in our example) that leaves daily percent true value changes equal to the actual daily percent changes in the stock's price.

a. Constant dollar inflation

Following Judge Sneed, we illustrate the two approaches with hypotheticals in which Acme makes a false claim at the beginning of the class period that it has discovered oil. In

Hypothetical 1, Acme, Inc. makes a false statement that it has discovered oil. Using the numbers in Figure 1, we assume that at the beginning of the class period the value of Acme's stock is valued as the sum of two assets: one is a phantom oil reserve accounting for \$8 per share and the other is an internet energy trading operation valued at \$12 per share. Over the class period, the price of oil stays constant so that the market continues to value the oil asset at \$8 per share (we assume no changes to other factors affecting expected oil profits such as extraction costs, depletion or interest rates). But the internet component declines in value along with other internet stocks and, on the day before the corrective disclosure, becomes valued at only \$2 per share. At that point, the stock is valued at \$10 on the basis of the fraudulent \$8 oil reserves and the non-fraudulent \$2 internet energy trading operation. On the day of the corrective disclosure the market is told no oil reserves exist and the stock drops from \$10 to \$2, or 80%. The stock price drop of \$8 would then be the best estimate of the inflation per share throughout the class period; the additional \$10 drop due to the internet operation would not be caused by the alleged fraud.

Damages for plaintiffs A, B and C are relatively straightforward in this hypothetical:

Plaintiff A buys stock on the first day of the class period for \$20 per share and sells on the day before the corrective disclosure for \$10 per share—damages equal zero because the purchase of \$8 of inflation is exactly offset by a benefit of \$8 of inflation on sale (Plaintiff A's entire loss is due to the decline in the internet asset and none of the loss is due to the misrepresentation concerning the discovery of oil).

Plaintiff B also buys on the first day of the class period for \$20 per share but sells on the day after the corrective disclosure for \$2 per share—damages are \$8 because that is the amount of the loss that is caused by the disclosure of the fraud (Plaintiff B's loss has two components: a \$10 drop due to the decline in the internet asset and an \$8 drop due to inflation on purchase of the stock being wrung out by the corrective disclosure).

Plaintiff C buys on the day before the corrective disclosure for \$10 per share and sells on the day after the corrective disclosure for \$2 per share—damages are \$8 per share because all of the loss is due to the fraud.

Under this set of facts, there is no conflict between *Dura* and Judge Sneed's Dissent. As a generalization, *Dura* does not change existing practice when the facts dictate that the inflation per share is constant dollar.

b. Constant percentage inflation

The more interesting hypothetical is a variation described by Judge Sneed where the price of oil causes the price of Acme's shares to change over the class period. In Hypothetical 2, we assume that Acme is solely an oil extraction company. The fraud is a false claim that Acme has discovered a second field that increases its reported reserves 400%. This means that Acme has actual reserves that are only 20% of its reported reserves. We further assume that the expected discounted present value of net profit per barrel is the same for each of the two fields. Then the \$20 per share price at the beginning of the class period is the sum of the following two components: 20%, or \$4, is due to the market's valuation of the oil reserve that actually exists; and 80%, or \$16, is due to the market's valuation of the fraudulently announced second field.

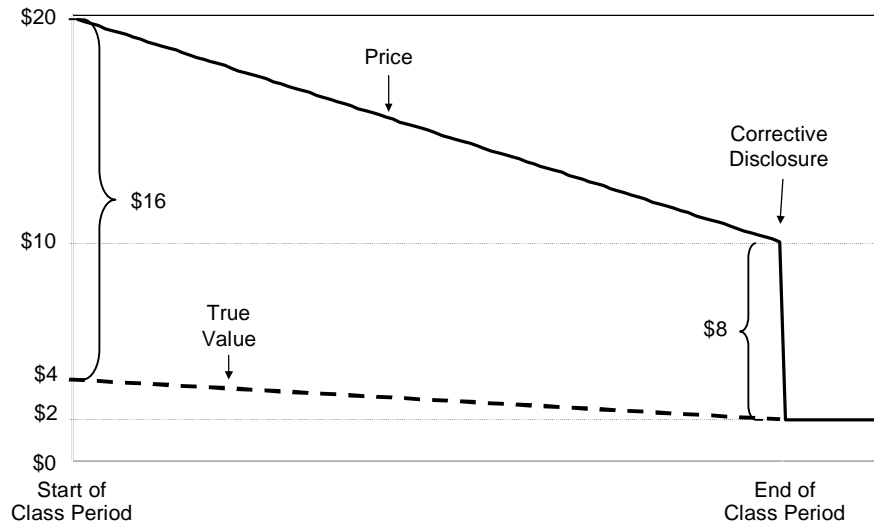
Following Judge Sneed, we further assume that the share price drop from \$20 to \$10 is solely the result of a steady decline in the market price of crude oil causing the expected profitability of Acme's oil reserves to decline by half (this obviously assumes away changes in other factors that could also impact the expected profitability of Acme's claimed reserves—but, as a general matter, the conclusion from the hypothetical is not changed if we relax this assumption). The price decline on the day of the corrective disclosure occurs because it is announced that Acme's physical oil reserves are 80% less than the market previously believed.

The inflation per share for Hypothetical 2 would be 80% of the stock price throughout the class period. This produces a true value line as represented in Figure 2 by the heavy dashed line. Over the course of the class period, inflation per share drops from \$16 to \$8 because of the

decline in oil price. It follows that the true value is \$4 per share at the beginning of the class period and falls proportionately with the stock price to \$2 per share at the end of the class period.

Figure 2

Acme, Inc. Stock Price and True Value



For an individual plaintiff, Judge Sneed opines that damages are based on the change in inflation per share between plaintiff's buy and sell dates. Under this theory, damages for plaintiffs A, B and C in Hypothetical 2 would be as follows:

Plaintiff A buys stock on the first day of the class period for \$20 per share and sells on the day before the corrective disclosure for \$10 per share—damages equal \$8 because the purchase of \$16 of inflation is offset by a benefit of \$8 of inflation on sale (80% of Plaintiff's \$10 loss is due to the decline in value of the falsified reserves as caused by the decline in the price of oil).

Plaintiff B also buys on the first day of the class period for \$20 per share but sells on the day after the corrective disclosure for \$2 per share—damages are \$16 because that is the amount of the loss that is caused by the disclosure of the fraud (Plaintiff B's \$18 loss is the sum of three components: an \$8 drop due to the decline in value of the falsified reserves as caused by the decline in the price of oil; a concurrent \$2 drop due to the decline in value of the actual (non-falsified) reserves as caused by the decline in the price of oil; and an \$8 drop due to inflation on purchase of the stock being wrung out by the corrective disclosure).

Plaintiff C buys on the day before the corrective disclosure for \$10 per share and sells on the day after the corrective disclosure for \$2 per share—damages are \$8 per share because all of the loss is due to the fraud.

In pre-*Dura* pleadings, the most likely theory put forward by plaintiffs for a single disclosure case would have been constant percentage inflation. The reason is easy to see. Using the above examples, both Plaintiff A and Plaintiff B would get substantially more damages in Hypothetical 2 (constant percent) than in Hypothetical 1 (constant dollar).⁹

Plaintiffs' case on loss causation would be bolstered by invoking Judge Sneed's Dissent. He labels the losses caused by the change in inflation per share as *proximately caused* by the fraud.¹⁰ Interestingly, he also labels them as losses that were caused *but for* the fraud.¹¹

2. Unattributable causation

Defendants may argue that Judge Sneed was incorrect on causation even if he was correct on the value line concept. Using Figure 2 above, defendants would concede the price drop on the date of the corrective disclosure as being proximately caused by the fraud. They would not, however, concede that the decline in inflation per share between the beginning of the class period and the date before the corrective disclosure is proximately caused by the fraud.

The argument goes like this. First note that the decline in inflation per share during the class period requires two events occurring simultaneously: first, a misrepresentation about the magnitude of the reserves; and, second, a decline in the price of oil. Obviously, if there was no falsehood there would have been no inflation per share and, therefore, no decline in the inflation per share. But it is equally true that if there is no decline in the price of oil, then regardless of the

⁹ This assumes that the stock price declines over the class period. In the alternative, if the stock price were to increase over the class period, then constant percent inflation would most often give *lower* aggregate damages than would constant dollar inflation.

¹⁰ *Green v. Occidental* at 1344-46.

¹¹ *Id.* at 1344-46.

magnitude of the falsehood concerning reserves, there would be no decline in inflation per share. Moreover, the decline in the inflation per share that occurs cannot be divided into an amount due to the fraud and a mutually exclusive amount due to the oil price drop. The change in inflation per share is unallocable to either cause because it requires both. The two causes are like links in a chain; if either link is broken—if there were no misrepresentation or if there were no oil price decline—then there would be no drop in inflation per share over the class period.

Consequently, any bet on oil prices made by an investor, whether in Acme or any other oil company, would cause a loss as occurred in Acme's stock during the class period. The only part of the bet that an investor could have reasonably expected to have avoided by investing in another oil stock is the price drop at the time of the corrective disclosure.

Note that changes in Acme's share price caused by changes in oil price are not foreseeable. Indeed, this point was conceded by Judge Sneed.¹² The share price at the beginning of the class period impounds the market's unbiased assessment of future oil prices. To the extent that a particular change in oil price causes the share price to go down, that particular change in oil price could not have been the consensus expectation of the market.

Admittedly, this example does not generalize to all situations where inflation per share declines over the class period for reasons other than corrective disclosures—other situations are presented in the following section.

Very often, though, the decline in the price of a stock between the beginning of the class period is similar to a decline in relevant market indexes which, themselves, are due to a number of factors such as rising interest rates or recession. Under a constant percentage inflation theory,

¹² *Green v. Occidental* at 1344-46.

inflation per share would decline in the same proportion that defendant's stock price declines. But there would then be a disconnect between inflation per share and damages because, except possibly for price drops related to corrective disclosures, all of plaintiffs' losses are related to the unforeseeable changes in the factors that drive stock prices. Price declines, other than those that occur on days of corrective disclosures, are part of the bargain that the plaintiff struck when the investment was made. The investor bought equity in a firm that would have been expected to have price movements caused by factors that cause correlated price movements for the firm's peers. Even if the firm had no operating asset, as long it was unknown to be so by the market, it would be trading like any other equity investment with a component reflecting market movements and a component reflecting diversifiable risk drift drifting around zero as a central tendency—except on days when the relevant truth would be disclosed causing the return to be lower than expected. To award damages to plaintiff equal to inflation per share would give plaintiff a windfall gain.

B. Using an event study to show loss causation

Up to this time, we have been assuming that the corrective disclosure causes a loss. It would seem that if the stock price falls on the same day as the revelation of the relevant truth, then loss causation has been established. In actuality, the event of such news may be one among many factors affecting the price on the event day. This raises the question of how to detect whether the corrective disclosure itself caused a stock price movement when a plausible contrary hypothesis could be that the observed price movement, if any, was due to other factors.

To answer this question, analysts most often perform a statistical procedure called an event study. The intent of an event study is to isolate the quantitative impact of a news event on a security's daily return and determine whether this measure of impact is statistically significant.

Because daily stock price returns exhibit volatility even in the absence of any news, one can only be confident that there is loss causation if there has been a price movement unusual in size relative to what would be expected given the stock's inherent price volatility.

The use of event studies in shareholder class actions is nothing new. There is a professional literature on the proper procedures for event studies¹³ and legal scholarship on their application to securities litigation.¹⁴ Since at least the early 1990s, courts have relied on findings from event studies to find, first, whether an alleged misrepresentation is material and, second, the magnitude of inflation in the stock price caused by the fraud.¹⁵

In the area of loss causation, the *Zonagen* case is instructive.¹⁶ The district court, referring to an event study conducted by the defendants' expert,¹⁷ found that allegedly misleading statements did not cause a statistically significant change in the price of Zonagen stock. As such, the court opined that the defendants "rebutted the presumption of reliance by

¹³ See, for example, Mark P. Kritzman, *What Practitioners Need to Know About Event Studies*, FIN. ANAL. J., Nov.-Dec. 1994; A. Craig MacKinlay, *Event Studies in Economics and Finance*, J. ECON. LIT. (1997); David Tabak and Frederick C. Dunbar, "Event Studies in the Courtroom," NERA Working Paper #34 (1999) (reprinted in *Litigation Services Handbook: The Role of the Financial Expert, Third Edition*, edited by Roman L. Weil, Michael J. Wagner and Peter B. Frank, John Wiley & Sons, Inc., 2001).

¹⁴ References include Mark L. Mitchell and Jeffrey M. Netter, *The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission*, 49 BUS. LAW 545-90 (February 1994); Janet C. Alexander, *The Value of Bad News*, 41 UCLA L. REV. 6, 1421-69 (1994); Daniel R. Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities*, 38 BUS. LAW 1-20 (1982); Jonathan R. Macey, Geoffrey P. Miller, Mark L. Mitchell and Jeffrey M. Netter, *Lessons from Financial Economics: Materiality, Reliance, and Extending the Reach of Basic v. Levinson*, 77 VA. L. REV. ASSN. 1017, 1021-28 (1991).

¹⁵ See, for example, *In re Seagate Tech. II Securities Litigation*, 843 F. Supp. 1341, 1368 (N.D. Cal. 1994); *Goldkrantz v. Griffin*, No. 97 Civ. 9075, 1999 WL 191540 (S.D.N.Y. 1999); *In Re: Executive Telecard Ltd. Sec. Litig.*, 979 F. Supp. 1021 (S.D.N.Y. 1997); *In re Imperial Credit Industries, Inc. Securities Litigation*, 2003 WL 1563084 (C.D. Cal.).

¹⁶ *In Re Zonagen, Inc. Sec. Litig.*, 322 F. Supp.2d 764 (S.D. Tex. 2003).

¹⁷ Solely for the purpose of full disclosure, we note that a coauthor of this article, Frederick Dunbar, served as defendant Zonagen, Inc.'s expert witness.

making an uncontradicted showing that the market was not affected by the allegedly culpable statements.”¹⁸ The Fifth Circuit affirmed on loss causation grounds.¹⁹

III. Implications of *Dura* for Damage per Share

Dura speaks directly to loss causation only, but what it has to say carries clear implications for damage per share under Rule 10b-5:

But if, say, the purchaser sells the shares quickly before the relevant truth begins to leak out, the misrepresentation will not have led to any loss. If the purchaser sells later after the truth makes its way in the market place, an initially inflated purchase price *might* mean a later loss. But that is far from inevitably so. When the purchaser subsequently resells such shares, even at a lower price, that lower 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 which taken separately or together account for some or all of that lower price. ...

Given the tangle of factors affecting price, the most logic alone permits us to say is that the higher [inflated] purchase price will *sometimes* play a role in bringing about a future loss. It may prove to be a necessary condition of any such loss, and in that sense one might say that the inflated purchase price suggests that the misrepresentation (using language the Ninth Circuit used) “touches upon” a later economic loss. But, even if that is so, it is insufficient. To “touch upon” a loss is not to *cause* a loss, and it is the latter the law requires.²⁰

A. Damage per share is not the same as inflation per share

The *amount of loss* proximately caused by relying on a fraudulent material misrepresentation or omission in connection with a purchase (if the case involves false favorable information) or a sale (if the case involves false adverse information) *is* the measure of 10b-5 damages.²¹ Just as a statistically significant abnormal price drop immediately following the

¹⁸ *In Re Zonagen, Inc. Sec. Litig.*, 322 F. Supp.2d at 766.

¹⁹ *Nathenson v. Zonagen Inc.*, 267 F.3d 400, 413 (5th Cir. 2001).

²⁰ *Dura* at 4.

²¹ The *Dura* decision says no less than seven times that “proximate causation” is the standard for loss causation.

revelation of relevant truth (and after removing the effect of unrelated news) is a condition for loss causation, so is the magnitude of such a drop the maximal extent of 10-b5 damages.

The implications of *Dura*'s loss causation holding for 10b-5 damage per share in a securities suit are two-fold:

(1) **Pre-Revelation Sales.** First, *Dura* recognizes no damage to any share that is sold before revelation of the relevant truth. Even if stock price inflation falls over a plaintiff's holding period (i.e., from date of purchase to date of sale), if no allegedly misrepresented or omitted information is made public during that period, explicitly or effectively, then no claim for damages can stand up. In *Dura*, the absence of *any* alleged revelation of the allegedly relevant truth precluded all damages claims. In many other cases, this stricture will preclude claims for in-out damages. In particular, in a single disclosure case as shown above, the in-out class member (represented by Plaintiff A) would not have a damage claim.

(2) **Post-Revelation Holdings.** Second, *Dura* puts a ceiling on damage to any share still held when relevant truth is revealed. In particular, damage to such a share may not exceed the price drop caused by the revelation of relevant truth. Again, referring to the hypothetical represented in Figure 2, even if Plaintiff C, who bought at \$10, were to hold past the disclosure date until, say, Acme, Inc. goes bankrupt for other reasons with no value left for equity-holders, the amount of damage is limited to the \$8 price drop on the date of the corrective disclosure.

As mentioned above, before *Dura*, it was common practice for plaintiffs' experts to measure damage per share as purchase inflation minus sale inflation (assuming, of course, that purchase inflation is greater than sale inflation). If inflation fell over a plaintiff's holding period but that period included no revelation of truth, in-out damages would nonetheless be recognized

as purchase inflation less sale inflation. Under *Dura*, no in-out damage is recognizable in this situation. What makes the *Dura* decision of such import even outside the Ninth Circuit is that inflation *often* falls without any revelation of relevant truth (however strictly or loosely that term is defined). Revelation-free inflation decline may come about in many ways:

1. Inflation mooted by intervening events

For one, inflation can be rendered moot by intervening events. If a New Orleans-based trailer park company that was overstating its earnings before Hurricane Katrina were wiped out by the storm, for example, its stock price would have collapsed as well. Inflated value would have been washed away along with its true value, but not because any of the misreporting was revealed.

Has *Dura* affected the way that damages are calculated in this situation? Outside the Ninth Circuit, some may argue that little has changed. The trailer park example represents a fact pattern where some courts, finding for defendant, have focused on the *foreseeability* element of proximate cause. This followed from the classification of fraud as a species of tort; therefore, tort principles of causation apply where foreseeability requirement in establishing causation has been widely accepted

2. Inflation related to other factors changing over time

A second way for inflation to fall without revelation of relevant truth is if the value that the market assigns to a misrepresentation depends upon some other economic time series and that variable moves so as to dampen inflation. If an insurance company overstated the size of its bond portfolio, its stock price and stock price inflation would fall with an increase in interest rates and corresponding reduction in bond prices. More generally, if a company overstated its

sales, earnings or book value, its stock price and stock price inflation would likely fall with market-wide reductions in price/earnings, price/sales and price/book multiples, respectively.

The example of a false oil discovery in a period of falling oil prices from Judge Sneed's dissent described above falls into this category. The *Dura* decision gives the defense a legal basis, in addition to the above stated causation argument, to argue against damages based on changes in inflation per share caused by fluctuations in the price of oil.

3. Inflation ages out of security price

Yet a third possibility is for inflation to age out of a security. As an earnings overstatement recedes into the past, for example, the misinformation it contains becomes less and less relevant to expected future cash flow, the prime driver of stock price. It is only reasonable that the market attach less and less value to the misrepresentation over time.

This situation would seem to fall within the PSLRA "actual damage" restriction cited by the *Dura* court. To the extent there is any injury to an investor, it is a lost opportunity for a gain rather than an actual loss from a corrective disclosure. If an investor bought when the true value was less than the purchase price and sold after the true value converged with price, then the investor would have fared better in the but-for world of the price equal to true value at the time of purchase. But there was no loss caused by revelation of a relevant truth and, therefore, no loss proximately caused by the misrepresentation.

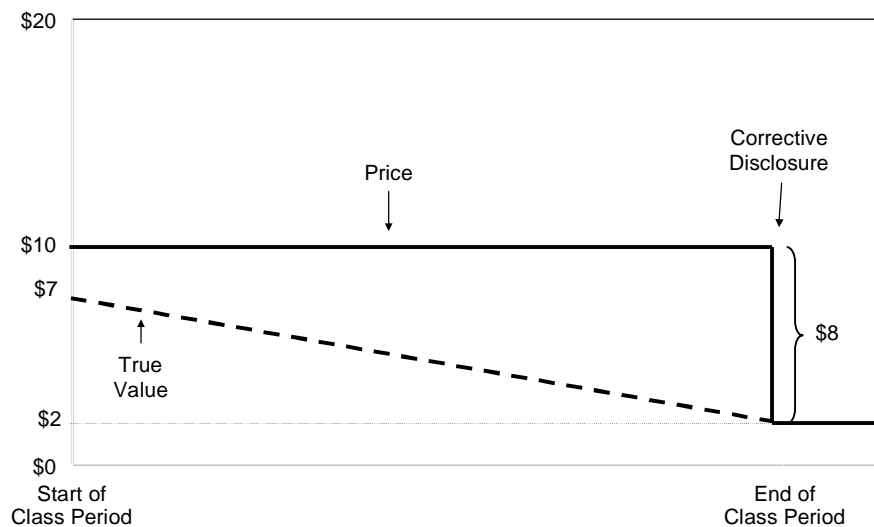
In short, lots of things can drive inflation down. Unless they entail revelation of relevant truth, however, the investor who purchases at an inflated price and suffers a loss in inflated value cannot establish loss causation or damages.

B. Damage per share is not the same as the price drop caused by revelation of relevant truth

While the amount of post-purchase price drop caused by a revelation of the relevant truth puts a cap on 10b-5 damage per share held through the revelation, damage per share can be less than that. Imagine a company, Beta, Inc., that told ever bigger lies about its financial condition. Assume that its stock price was constant at \$10 during the misrepresentation period, but that its true value fell steadily from \$7 down to \$2. On revelation of the truth, price plummeted from \$10 to \$2, erasing all inflation. Figure 3 shows Beta Inc.'s market price and true value during the class period.

Figure 3

Beta, Inc. Stock Price and True Value



As usual, the \$8 price drop and inflation loss on disclosure is the measure of damage for a share purchased immediately before the correction ... but not for a share purchased in the beginning of the misrepresentation period. For that share, damage would be just \$3. *More*

generally, damage per share is whichever is less, purchase inflation or inflation eliminated upon revelation of the relevant truth.

IV. Implications of *Dura* for Damage per Plaintiff

Thus far, we have been talking about damage to particular *shares*: those bought and held, and those traded in-out. Equivalently, our results apply to plaintiffs who held their purchases to the end of the misrepresentation period or followed them with sales of the same size during that period.

We now address the question of what, if anything, *Dura* has to say about 10b-5 damages for particular *plaintiffs*, including those who sell before they purchase. The issue that such plaintiffs raise involves what is known as netting, i.e., the extent to which gains caused by misrepresentations in connection with sales can offset losses caused by misrepresentations in connection with purchases. *Dura* doesn't speak to this issue, but the courts must address it because many plaintiffs are in this situation, particularly institutions (who tend to be lead plaintiffs).

A. Netting in securities fraud damages

Members of a class often have more complicated trading patterns than the ones described above. Plaintiff will both sell and purchase the same, allegedly inflated, security during the class period. *Dura* explicitly recognizes that a plaintiff who sells an inflated share benefits from the fraud and this benefit offsets the inflation in the shares that were purchased: “But if, say, the purchaser sells the shares quickly before the relevant truth begins to leak out, the misrepresentation will not have led to any loss.”

Some commentators have applied the label of “mitigation” to the sale of an inflated security purchased during the class period. Although mathematically mitigation amounts to the same thing as netting or offsetting, it is conceptually different. Mitigation is a conscious attempt by plaintiff to reduce the injury that has occurred from known behavior of a tortfeasor. For example, an individual who is fired unjustly from their job mitigates their economic losses by taking on employment elsewhere.

The subtraction of sale inflation from purchase inflation is more properly described as netting or offsetting. By definition, plaintiff during the class period was unaware of the conduct of the tortfeasor; otherwise, the reliance requirement of securities fraud could not be established because plaintiff would have purchased the security knowing of the misleading statements. Reducing the inflation acquired on purchase by the inflation disposed of through selling is simply necessary to compute the true out-of-pocket loss—the net harm to the claimant proximately caused by the fraud. The principle of viewing damages in terms of the net losses—losses offset by gains—is firmly established in securities litigation. *Katz*²² is directly on point, saying: “By selling more stock than he purchased at a purportedly inflated price, [plaintiff] became ‘a beneficiary of the alleged fraud.’”

In addition, sophisticated plaintiffs may be long or short in a number of different securities whose values depend, in varying degrees, on defendant firm’s enterprise value. Stocks, bonds and derivatives could all be mispriced because of an alleged fraud. Often such investors’ position will be hedged, at least partially, against either stock or bond price declines. If a class member acquired shares of the firm during the class and hedged them with an exchange traded put, then the loss in the stock value caused by a revelation of the relevant truth would be

²² *Katz v. Comdisco, Inc.*, 117 F.R.D. 403, 407-408 (N.D. Ill. 1987).

offset, in part or in whole, by an increase in the value of the put. The situation where a plaintiff was long one asset and short another asset with correlated prices was addressed in *Minpeco*.²³ Minpeco was a silver trading company with considerable inventories of physical silver that it had hedged by going short in silver futures. Minpeco suffered substantial losses on its futures position when a squeeze by the Hunt brothers caused prices to spike at historically high levels in the early 1980s. With regard to Minpeco's argument against netting, the court explained that "[u]nder most circumstances, it is clear that a plaintiff both injured and enriched by illegal activity cannot choose to recover for his injuries yet retain his windfall. . . . [therefore] the defendants' damages on its silver futures positions must be offset by the measure of the increase in value which accrued to its own physical silver holdings . . . as a result of defendants' allegedly manipulative behavior."

B. Lack of symmetry in class actions

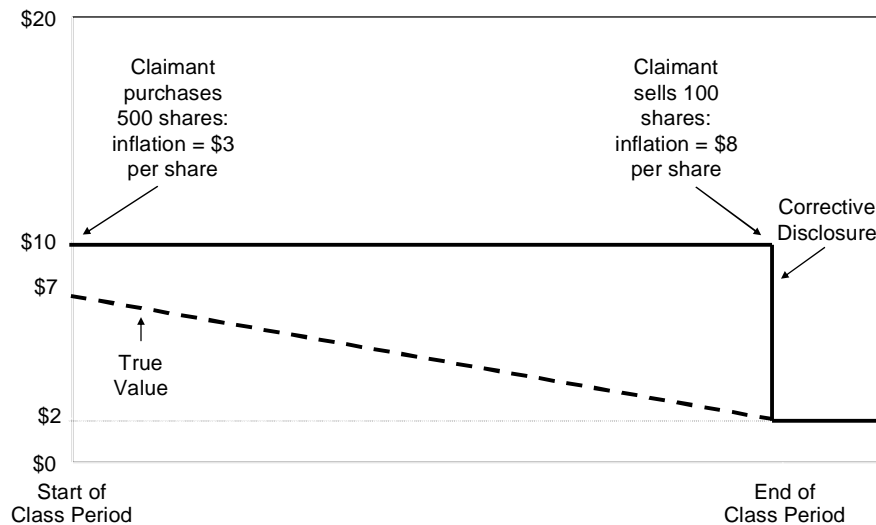
One would like to treat gains and losses symmetrically, but as we shall see, that is not entirely possible given *Dura*'s dual mandates: to recognize no damages on in-out shares sold before revelation of truth, and to measure damage on shares that are held through a revelation as the lesser of purchase inflation and price drop caused by the revelation. The gain analogue of the first mandate is what we call *in-out symmetry*: the requirement that no gain on in-out shares be recognized unless a subsequent misrepresentation or omission causes inflation to rise. The gain analogue of the second mandate is what we call *purchase-sale symmetry*: the requirement that gain per share sold before a revelation is the lesser of sale date inflation and post-sale price drop caused by revelation of the relevant truth (i.e., of the truth relevant to sale date inflation).

²³ *Minpeco v. Conticommodity Servs.*, 676 F. Supp. 486, 488-490 (S.D.N.Y. 1987).

The conflict between *Dura*'s two damages mandates, when we try to apply them in reverse to offsets, can be seen by example. Let us refer again to Beta, Inc. which has inflation increasing over the class period from \$3 per share to \$8 per share. Consider the case of a class member who buys 500 shares soon after a financial misrepresentation inflates stock price by \$3. He later sells 100 of the shares the day before the corrective disclosure after continuing financial misrepresentation have boosted inflation to \$12. The next day corrective disclosure then causes price to fall by \$8, eliminating all inflation. Figure 4 shows the stock price and true value for Beta, Inc. along with claimant's transactions.

Figure 4

Beta, Inc. Stock Price and True Value



Because shares that trade in-out before a revelation of truth are assigned no damages under *Dura* even if inflation fell over the holding period, adherence to *in-out symmetry* means assigning no gain to the 100 in-outs despite the fact that inflation rose over the holding period. Recognizing a \$3 loss on each of the 400 retained purchases (purchase inflation of \$3 being less

than the disclosure-induced price drop of \$8) and no offset from the 100 shares traded in-out, we would find total damages of **\$1,200**.

If, instead of adhering to in-out symmetry, we were to adopt *purchase-sale symmetry*, recognizing an offset per share sold before a revelation of truth that was equal and opposite to the corresponding damage per buy-and-hold share, we would arrive at a different result. As before, we would figure a \$3 loss on each of the 400 shares retained. But we would recognize a \$5 net gain on each of the 100 shares sold (inflation increases from \$3 to \$8 for a net benefit of \$5 per share from the fraud). Net damages then would equal \$1,200 minus \$500, or **\$700**.

As this example illustrates, damages differ, depending on which of *Dura*'s two damages principles are adopted: here, in-out symmetry yields \$1,200 while purchase-sale symmetry yields \$700. When applied in reverse, to gains, *Dura*'s two damage principles conflict with one another.

V. Implications of *Dura* for Burden of Proof

To show loss causation under *Dura*, plaintiffs must prove that they sustained an economic loss upon revelation of the relevant truth. If the security was allegedly inflated in price, buyers must prove that price was depressed by revelation of the relevant truth, all else being equal. It is neither necessary nor sufficient to show that price fell in absolute terms; rather, it must have fallen relative to where, with a high degree of certainty, it otherwise would have been.

Above we mentioned two reasons why the effect of news on price generally requires a sophisticated analysis. First, market and industry price movements occurring at the same time as the revelation of truth may also have affected the security's price. These must be controlled for

in order to isolate the non-systematic, or abnormal, price change. Second, every security is subject to random price movements as liquidity traders randomly enter and exit the market. The range that these random movements generally span, must be quantified to determine whether an abnormal price drop is statistically meaningful, i.e., outside these bounds.

There is also a third effect that can confound the analysis: the revelation of relevant truth may come bundled with other company-specific news; which must be estimated and parsed out to find the price effect of the relevant revelation.

Unless there is no impact of a revelation of the relevant truth to the naked eye, all three issues will call for evidence, most likely given by an expert. Each side will likely submit need to determine whether there was a statistically significant price drop when relevant truth was revealed and, if so, whether that drop was caused by the revelation of relevant truth. If *Dura* arguments are raised in motions for summary judgment, expert testimony on these questions would be warranted at that stage as well. The nature of the requisite analysis would be standard fare but its use earlier in the litigation process would be more common than pre-*Dura* practice.

Along with offering certain types of opinions earlier in litigation, experts may be inclined to shape their models/notions of inflation post-*Dura* so as to restore the old equivalence between “inflation” and “damage” for buy-and-hold shares unaffected by the bounce-back rule. Such remodeling would be unnecessary, in our view. There has been a great deal of misunderstanding about the implications of *Dura* for the behavior of inflation over a fraud period. Many casual observers have concluded that the decision requires the constant dollar approach to measuring inflation, and precludes out the constant percent approach (as well as the so-called backward index method). We disagree.

Certainly the constant dollar approach lends itself most easily to a damages analysis under *Dura*. This is because it has inflation drop, and damage accrue, only when there is a corrective disclosure. However, no inflation scenario is precluded by the decision. Some commentators assume that the constant percent approach is ruled out by *Dura* because it has inflation dropping whenever price drops, and *Dura* recognizes no loss causation unless a price drop is caused by revelation of relevant truth. But inflation drop and damages need not be one and the same. *Dura* decouples the two concepts. Under it, damage per share is whichever is less: inflation on purchase or inflation drop upon revelation of the truth during the holding period. Percent inflation is viable under *Dura*, but it does not equate inflation to damages.