Plausible Cause: Exploring the Limits of Loss Causation
In Pleading and Proving Market Fraud Claims
Under Securities Exchange Act §10(b) and SEC Rule 10b-5

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I. INTRODUCTION

In the Private Securities Litigation Reform Act (“PSLRA”) of 1995, Congress confronted abuses in representative and other private actions asserting securities fraud, brought principally via an implied private right of action violations of section 10(b) of the Securities Exchange Act of 1934 and Securities and Exchange Commission (“SEC”) Rule 10b-5 adopted under it. The PSLRA codified several requirements for private securities fraud actions, including particularity in pleading misstatements and omissions of material facts, and for pleading and proof of the required state of mind alleged as the basis for asserting liability of a defendant with respect to acts or omissions. Congress likewise addressed the substantive element of loss causation in securities fraud actions, making explicit:

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

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2. Securities Exchange Act of 1934, 15 U.S.C. §78j(b). Section 10(b) prohibits (1) the use or employment of “any deceptive device”; (2) in connection with the purchase or sale of any security; and (3) in contravention of Securities and Exchange Commission rules or regulations.
   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.”
6. 15 U.S.C. §78u-4(b)(4). At the same time, Congress imposed a limitation on recoverable damages in a manner that reasonably ensures that extreme price movements caused by over-reaction to a
With the implied private right of action under section 10(b) and Rule 10b-5 rooted in the common law of fraud and deceit, loss causation, or the common law analog “proximate cause,” of an economic loss by alleged fraud or fraudulent conduct, has always been a substantive element of investor claims. Loss causation, as an essential element of all claims under section 10(b) and Rule 10b-5, was most prominently addressed by the U.S. Supreme Court in *Dura Pharmaceuticals, Inc. v. Broudo.* In this case, the Court explained that the loss causation requirement exists to assure that private securities fraud actions are “available, not to provide investors with broad insurance against market losses, but to protect them against those economic losses that misrepresentations actually cause.” Codification of the causation requirement in the PSLRA broke no new substantive ground. But, as the Supreme Court also counseled in *Dura*, the PSLRA “makes clear Congress’ intent to permit private securities fraud actions for recovery where, but only where, plaintiffs adequately allege and prove the traditional elements of causation and loss.”

Disclosure event will be factored out of the loss calculus. Section 21D(e)(1) of the Exchange Act, 15 U.S.C. §78u-4(e)(1), provides:

IDL]In any private action arising under this title in which the plaintiff seeks to establish damages by reference to the market price of a security, the award of damages to the plaintiff shall not exceed the difference between the purchase or sale price paid or received, as appropriate, by the plaintiff for the subject security and the mean trading price of that security during the 90-day period beginning on the date on which the information correcting the misstatement or omission that is the basis for the action is disseminated to the market.

Id.

7. See infra Part II. As discussed further below, causation in private securities fraud litigation has actually been assessed in two forms, both necessary to sustain a claim. The first, transaction causation is the reliance element of a claim based on material misstatements or omissions in connection with the purchase or sale of a security. Loss causation is the proximate causal link between alleged misconduct in violation of section 10(b) and Rule 10b-5 and a plaintiff’s economic harm.


Allowing investors to pursue a claim which essentially eliminates any investment risk factor . . . is not the purpose of Section 10(b) and Rule 10b-5. Investors purchase stocks well aware of, and in fact motivated by, the risks associated with the market. If no risk existed in these transactions, the market as we know it would cease to exist. Thus, insuring against the risk or possibility of fraud for these investors is a job outside the purview of securities laws, which are designed not to serve as broad insurance policies for investors against losses generally, but rather as protection against only those losses directly attributable to fraud.

Id.

10. See id. at 346.

11. Id.
In the wake of *Dura*, loss causation has become a critical consideration in both pleading and proof in securities fraud class actions brought under the “fraud-on-the-market theory,” first embraced by a plurality of the Supreme Court in *Basic, Inc. v. Levinson.* In *Basic*, the Court created a rebuttable presumption of investor reliance on the market price of a security that trades in an “efficient” market, one in which the market price is presumed to reflect all information disseminated into that marketplace, and thus impounds materially false or misleading information on which securities fraud claims are based into the market price. The rebuttable presumption of reliance is central to investor class actions where, without it, certification of a class of purchasers would be virtually impossible, as individual questions of reliance would predominate over any common questions. In *Halliburton Company v. Erica P. John Fund, Inc.*, the Supreme Court most recently affirmed the continuing vitality of the *Basic* presumption of reliance, and the fraud-on-the-market theory, in market fraud class actions.

As discussed in Part II of this article, the *Basic* presumption of reliance in fraud-on-the-market litigation supplies the necessary *transaction* causation element for class certification in the assertion of claims under section 10(b) and Rule 10b-5. However, *loss causation* remains a separate essential element of any private action under section 10(b) and Rule 10b-5. In an earlier iteration of the *Halliburton* litigation, the Supreme Court held that loss causation in market fraud class actions is not an individual question bearing on class certification. However, it must be sufficiently

14. *Id.* at 229-30.
15. 134 S.Ct. 2398 (2014) [hereinafter *Halliburton II*].
17. See infra Part II.
19. *Halliburton*, 131 S. Ct. at 2183. In *Halliburton II*, however, the Supreme Court opened the door to presentation of evidence to rebut the presumption of reliance at the class certification stage by showing a lack of market price impact of alleged false or misleading information disseminated into the marketplace. As a practical matter, presenting evidence of no market price impact of alleged false or misleading information on which putative class claims are based is not significantly different than challenging loss causation in assessing the merits of the section 10(b) and Rule 10b-5 claim. Challenges to the presumption of reliance to oppose class certification post-*Halliburton II* to date have not fared well. See, e.g., *Wallace v. Intralinks*, 302 F.R.D. 310, 318 (S.D.N.Y. 2014) (Defendants did not rebut plaintiff’s specific arguments for the efficiency of the market in the subject company’s shares, and ample evidence in the record suggested that analysts and market participants found the information significant); *Aranaz v. Catalyst Pharm. Partners, Inc.*, 302 F.R.D. 657, 673 (S.D. Fla. 2014) (Given a “clear and drastic” spike [in the share price] following an alleged misrepresentation, and the equally dramatic decline following the revelation of the truth, defendants could not meet their burden to prove the absence of price impact).

Moreover, recognizing that evidence of NO market price impact at the class certification stage portends intrusion into merits determinations, in *Local 703, Int’l Brotherhood of T. Grocery &
pleaded to withstand a motion to dismiss, and ultimately supported by
evidence, whether on summary judgment or at trial.20

_Dura_ is the seminal pronouncement on the necessary showing of loss
causation as a matter of both pleading and proof in fraud-on-the-market
cases.21 Claims in these cases are based on a market price said to be made
artificial by reason of materially false or misleading information
disseminated into an efficient market, and which resets to a correct level
when a disclosure event reveals the truth.22 In _Dura_, the Supreme Court
instructed that an artificially inflated market price and plaintiffs’ later
economic loss neither sufficiently pleads nor demonstrates loss causation.23
Indeed, the Court cautioned in these cases that “the logical link between the
inflated . . . purchase price and any later economic loss is not invariably
strong,” and while an artificially inflated purchase might mean a later loss,
the Court cautioned in these cases that “the logical link between the
inflated . . . purchase price and any later economic loss is not invariably
strong,” and while an artificially inflated purchase might mean a later loss,
it is not inevitable.24 The Court discussed a “tangle of factors” affecting
market prices of securities, and stated that even though false or misleading
information disseminated into the marketplace may “touch upon” a later
economic loss for investors, to touch upon a loss is not to _cause_ it, and it is
actual causation that the law requires.25

In the wake of _Dura_, courts wrestle with the challenge of
“disaggregating” investor losses in such a way that courts may indentify
loss actually linked to an actionable information failure.26 They seek to
identify and weigh so-called “confounding factors” in that process.27
“Event studies,” designed and executed by dueling experts have become
ubiquitous in fraud-on-the-market litigation, as parties seek to establish a
link, or absence thereof, between the alleged dissemination of materially

19, 2014), the court cautioned that “surely the Supreme Court in _Halliburton II_ did not intend to turn
class the certification stage of securities litigation into a trial on the merits of the plaintiffs’ claims.” In
_Local 703_, at the class certification stage, defendants offered an event study as evidence that a one day
24% decline in the stock price of the defendant company was not due to the recognition of the
company’s corrective disclosures, but instead due to across the board investor panic. The court
observed, however, that regardless of other events occurring on the day in question, the company’s stock
tumbled 24%, and that the ultimate question whether the decline was due to the company’s corrective
disclosures or overall market conditions on that day was one properly reserved for the jury to decide.
The defense event study was to no avail, as there was no dispute that following the alleged corrective
disclosures the stock price tumbled and the cause was for the jury to decide.

Event studies used in the broader context of proving or defeating loss causation in market
fraud cases are considered further in Part VII. See _infra_ Part VII.

20. _Halliburton_, 131 S.Ct. at 2184.
21. See _Dura_, 544 U.S. at 338.
22. See _Basic_, 485 U.S. at 229.
23. _Dura_, 544 U.S. at 338.
24. _Id._ at 342.
25. _Id._ at 343.
26. See, e.g., _In re Williams Secs. Litig._ - WCG Subclass, 558 F.3d 1130, 1138 (10th Cir. 2009).
27. _Id._
false or misleading information to a marketplace deemed to be “efficient” in its impoundment of information to produce an artificial market price, and the “truth” that is later revealed, deflating the price. In this process, courts focus on the need to identify and link the demonstrable market price impact of a “corrective disclosure” of the truth of a prior misrepresentation, or in some cases, the “materialization of a risk” concealed in a prior disclosure, as the defining factor to frame investor losses. However labeled, it is a *disclosure event* in one form or another that ties the alleged fraud to demonstrable losses.

Measuring investor losses by the price impact of a disclosure event is the lynchpin in fraud-on-the-market loss causation analysis, but is actually the second stage inquiry. First, materially false or misleading information disseminated into an efficient marketplace must result in an artificial market price. While in most cases this means that the market price is moved to an artificially high level, some courts, most prominently the Eleventh Circuit U.S. Court of Appeals, have found misinformation disseminated into the marketplace that has no price impact other than to *maintain* a market price already inflated will suffice. Similarly, as recognized in the Seventh Circuit, misinformation that stops or slows the rate of decline in an already inflated stock price may be paired with a subsequent corrective disclosure to frame investor losses.

This article will explore the determinative role of loss causation in pleading and proving fraud-on-the-market claims, with a view to establish its limits as a matter of law and common sense. In Part II below, the critical underpinnings of fraud-on-the-market litigation are discussed as a prelude to consideration in Part III of the change in legal landscape brought about by the Supreme Court’s decision in *Dura*, which impacted pleading of loss causation, addressed in Part IV, and the all-important revelations of truth that actually frame investor losses addressed in Part V. Part VI will address certain counter-intuitive notions of loss causation that have emerged, and in Part VII the role of “event studies” and the disaggregation

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29. See, e.g., *In re Williams*, 558 F.3d at 1137; *Lentell v. Merrill Lynch & Co.*, 396 F.3d 161 (2d Cir. 2005).

30. See, e.g., *In re Williams*, 558 F.3d at 1137; *Lentell*, 396 F.3d at 161.

31. See *Halliburton II*, 134 S. Ct. at 2405.

32. See id. at 2408.

33. See, e.g., *Meyer v. Greene*, 710 F.3d 1189, 1195-96 (11th Cir. 2013).

34. See, e.g., *AnchorBank, FSB v. Hofer*, 649 F.3d 610, 617 (7th Cir. 2011) (citing *Caremark, Inc. v. Coram Healthcare Corp.*, 113 F.3d 645 (7th Cir. 1997)).

35. See infra Parts II-V.
of relative price effects of information entering a marketplace that is essential in fraud-on-the-market litigation is assessed. Finally, this article will offer an assessment on the limits of loss causation as a matter of law and common sense going forward. As a prelude to all of this, a broad understanding of loss causation in the contemporary market fraud setting follows below.

II. THE MARKET FRAUD FOUNDATION

The PSLRA cemented loss causation as a requisite element in any private action under section 10(b) and Rule 10b-5. It is, however, just one of several substantive elements of a claim. As identified by the Supreme Court in Dura, the plaintiff must plead and prove that the defendant: (1) made "a material misrepresentation (or omission); (2) [with] scienter; (3) [in] connection with the purchase or sale of a security [:] (4) [upon which the plaintiff relied; (5) that the plaintiff suffered an] economic loss [:; and] (6) [that the material misrepresentation was the cause of that loss]." These elements reflect common law roots upon which an implied private right action under section 10(b) and Rule 10b-5 were first recognized, and which define its evolution since.

The reliance element of section 10(b) and Rule 10b-5 cases means transaction causation. In conventional cases, a plaintiff must show that she decided to enter into the transaction at issue in reliance on an alleged materially false or misleading representation. In practical terms, the investor is thus required to show how she would have acted had the correct information been known. Loss causation, however, is a separate element, and represents the causal connection between a material misrepresentation and an actual loss. In private actions under section 10(b) and Rule 10b-5,
one must adequately plead and ultimately prove both transaction causation and loss causation.\textsuperscript{47} It is important, however, not to conflate the two.\textsuperscript{48}

\textit{A. The Efficient Market Hypothesis and Fraud-On-The-Market}

The fraud-on-the-market theory rests on the “Efficient Markets Hypothesis” (“EMH”), or theory, which holds that an “efficient” market rapidly processes information in an unbiased manner, and that the stock price impounds all publicly available information.\textsuperscript{49} In this setting, “the market acts as an unpaid agent of investors, informing them that given all the information available, the value of a stock is worth its market price.”\textsuperscript{50} Likewise, it is presumed that the market price at any point in time reflects any false or misleading information. Thus, investors rely on the integrity of the price discovery process in an efficient market.\textsuperscript{51} The U.S. Supreme Court has explained:

\begin{quote}
knowledgeable investor would not have made the investment in question if she had known all the facts (transaction causation).
\end{quote}

\textsuperscript{47} WPP Luxembourg Gamma Three Sari v. Spot Runner, Inc., 655 F.3d 1039, 1053 (9th Cir. 2011) (“[Plaintiff] has sufficiently alleged both elements of causation because it has alleged both that they would not have purchased the . . . stock but for the misrepresentation and that the Defendants’ misrepresentation was directly related to the actual economic loss it suffered.”)(citation omitted). \textit{But see} Officer v. Duran, CCH Fed.Sec. L.Rep. ¶ 98, 232 (N.D. Ill. 2014). Evidence on summary judgment showed only transaction causation, that the plaintiff would not have made the investment but for the concealed fraud, but not loss causation, which is necessary to link the fraud to the loss in value of the investment. \textit{See id.}

\textsuperscript{48} See Nuveen Municipal High Income Opp. Fund v. City of Alameda, California, 730 F.3d 1111, 1116 (9th Cir. 2013). In Nuveen, the plaintiff argued that because the securities would not have been issued, and it would not have suffered a loss, “but for” the city’s alleged misrepresentations, thus satisfying loss causation element for section10(b) and Rule 10b-5 liability. What was missing, however, was the causal connection between the alleged misrepresentations in the subject offering document and the economic loss suffered by plaintiff. A “but-for” argument posits only that a defendant’s fraud caused an investor to purchase the securities, not that it actually caused the loss. As the Ninth Circuit concluded, the “but for” argument “renders the concept of loss causation meaningless by collapsing it into transaction causation.” \textit{Id.} at 1121 (quoting McGonigle v. Combs, 968 F.2d 810, 821 (9th Cir. 1992)).

\textsuperscript{49} Although detailed consideration is beyond the scope of this article, EMH has three forms: the weak form, semi-strong form, and the strong form. The weak form EMH asserts that the current market price of a security fully incorporates information contained in the history of prices only. The semi-strong form holds that at any moment the market price of a security reflects all publicly available information. The stock price quickly and continuously reacts to new information randomly entering the market. The semi-strong form of EMH is generally accepted as valid based on a showing that a market is efficient, and that being the case, securities are said to be fairly priced. The strong form of EMH states that the current price of a security fully incorporates all existing information, both public and private. \textit{See generally} Eugene F. Fama, \textit{Efficient Capital Markets: A Review of Theory and Empirical Work}, 25 J. FIN. 383, 383-417 (1970), available at www.e-m-h.org/Fama70.pdf.


\textsuperscript{51} \textit{Basic}, 485 U.S. at 247.
If a market is generally efficient in incorporating publicly available information into a security’s market price, it is reasonable to presume that a particular public material misrepresentation will be reflected in the security’s price. Furthermore, it is reasonable to presume that most investors - knowing that they have little hope of outperforming the market in the long run based solely on their analysis of publicly available information - will rely on the security’s market price as an unbiased assessment of the security’s value in light of all public information.52

In Basic, Inc. v. Levinson, the U.S. Supreme Court recognized the fraud-on-the-market theory as the basis for class actions seeking recovery of market losses under section 10(b) and Rule 10b-5.53 In Basic, a plurality of Justices determined that class plaintiffs may invoke the “fraud-on-the-market” theory in seeking to recover economic losses based on a market price of a security said to be artificially inflated by reason of false or misleading information disseminated into the marketplace.54 For purchasers, once the truth became known in the marketplace, the extent of decline in the market price of the security could then measure potential losses.55

The fraud-on-the-market theory eliminated an individual reliance element in section 10(b) and Rule 10b-5 class actions.56 Certification of a class depends upon, among other things, a finding that issues “common to all class members predominate over any questions affecting only individual members.”57 Requiring proof of individual reliance upon materially false or misleading statements disseminated to securities markets would in most cases result in that individual issue predominating over common issues, and thus prevent certification of a class of open market purchasers of securities who seek to recover losses based on false or misleading statements on which they did not individually rely.58 With the fraud-on-the-market theory, in Basic the Supreme Court established a rebuttable presumption that every purchaser or seller who relies on the market price as a reflection of a stock’s value necessarily relies on the material misinformation imbedded in that

53. 485 U.S. 224.
54. Amgen, 133 S.Ct. at 1192-93.
56. Basic, 485 U.S. at 247.
57. FED. R. CIV. P. 23(b)(3).
price. Of course, an efficient market is the predicate for invocation of the fraud-on-the-market theory in all cases, and a challenge to application of the theory on that basis remains available.

Basic and the fraud-on-the-market theory have stood the test of time in the face of challenges based on the emergent prominence of behavioral economics, major market pricing anomalies, and other evidence said to undermine the theory of informational efficiency of markets. In 2014, the Supreme Court rejected these challenges in “Halliburton II,” finding no sufficient justification for overruling Basic’s presumption of reliance.

Speaking for the Court in Halliburton II, Chief Justice Roberts noted “even the foremost critics of the efficient markets hypothesis acknowledge that public information generally affects stock prices.” “Debates about the precise degree to which stock prices accurately reflect public information, he said, are largely beside the point.” Under Basic, the fact that a market price may be inaccurate does not “detract from the fact that false statements affect it, and cause loss.” Moreover, Basic affords defendants an opportunity ultimately to rebut the presumption of reliance with respect to

59. In Basic, the Court stated specifically that “[a]ny showing that severs the link between the alleged misrepresentation and either the price received (or paid) by the plaintiff, or his decision to trade at a fair market price, will be sufficient to rebut the presumption of reliance.” Basic, 485 U.S. at 248.

60. In determining whether the trading market for a particular security is efficient, courts have historically looked to several factors, as, for example, those identified by the Fifth Circuit in Bell v. Ascendant Solutions, Inc., 422 F.3d 307, 313 n.10 (5th Cir. 2005):

1) The weekly trading volume expressed as a percentage of total outstanding shares;

2) The number of securities analysts following and reporting on the stock;

3) The extent to which market makers and arbitrageurs trade in the stock;

4) The company’s eligibility to file an SEC Form S-3 Registration Statement;

5) The existence of empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price;

6) The company’s market capitalization;

7) The bid-ask spread for stock sales; and

8) The float, that is, the stock’s trading volume without counting insider-owned shares.

Id. See also Cammer v. Bloom, 711 F. Supp. 1264, 1285, n.34. (D.N.J. 1989) (setting out five well-recognized factors upon which to make the determination of efficiency in a particular market).

61. Halliburton, 134 S. Ct. at 2421.

62. Id. at 2407.

63. Id. at 2410.

64. Id.

65. Id. (quoting Schleicher v. Wendt, 618 F.3d 679, 685 (7th Cir. 2010)).
an individual plaintiff, and in *Halliburton II* the Court went further in recognizing that to rebut the presumption class-wide, at the class certification stage, defendants may present evidence of the lack of market price impact of alleged false or misleading information.66

**B. Reliance and Loss Causation in Market Fraud Cases**

Loss causation, the link between misrepresentations or omissions forming the basis of the section 10(b) and Rule 10b-5 market fraud claim and either the price received (or paid) by the plaintiff, is not presumed.67 “Loss causation addresses a matter different from whether an investor relied on a misrepresentation, presumptively or otherwise, when buying or selling a stock.”68 In contrast to reliance, “loss causation requires a plaintiff to show that a misrepresentation that affected the integrity of the market price also caused a subsequent economic loss.”69

Reliance and loss causation necessarily intertwine in market fraud cases. If the truth is already in the marketplace, and effects of alleged misstatements have dissipated, there can be no reliance by purchasers on the market price.70 The “truth,” as will be seen later in this article, is revealed by a disclosure event, which may be a corrective disclosure disseminated to the marketplace, or in some cases the materialization of an event the foreseeable risk of which was concealed in prior statements.71 A market-reaction-price-impact is the key to establishing loss causation, whether it is the result of a discrete corrective disclosure or the materialization of a concealed risk.72 As the Ninth Circuit has stated: “[l]oss causation is established if the market learns of a defendant’s fraudulent act or practice, the market reacts to the fraudulent act or practice, and the plaintiff suffers a loss as a result of the market’s reaction.”73 The extent of economic loss is measured by the difference between the artificial price paid and the corrected market price when the truth is disclosed.74

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66. Compare Basic, 485 U.S. at 248, with Halliburton, 134 S.Ct. at 2417.
68. Id. at 2186.
69. See id.
70. Basic, 108 S. Ct. at 992.
72. Erica P. John Fund, 131 S. Ct. at 2187; Lentell, 396 F.3d at 173.
73. In re Oracle Corp. Sec. Litig., 627 F.3d 376, 392 (9th Cir. 2010). The court well illustrated the point by affirming summary judgment for the defendants where the totality of evidence failed to create a triable dispute that the company’s stock price dropped as a result of the market learning and reacting to purported fraud, rather than to the company’s poor financial health generally. Id.
The reaction of the market to a corrective disclosure specifically tied to a misrepresentation most often shows loss causation. Some courts have also predicated loss causation on the “materialization of a risk,” whereby a concealed risk comes to light in a series of revealing events that negatively impact a stock price, as another means of pleading and proving loss causation. In Dura the Supreme Court looked to the common law roots of securities fraud in framing the essential consideration “that a person who ‘misrepresents the financial condition of a corporation in order to sell its stock’ [is only] liable to a relying purchaser ‘for the loss’ the purchaser sustains ‘when the facts become generally known’ and ‘as a result’ share value depreciates.”

In fraud-on-the-market litigation, courts grapple with the existence and degree of linkage between alleged market losses and false or misleading information disseminated in a market in which corrective disclosure ultimately introduces the truth. Dura made clear that causal link based on disparate market prices is anything but certain, and dispatched any notion that price inflation alone could satisfy the loss causation requirement. Against that backdrop, below will more closely examine loss causation in fraud-on-the-market litigation in the wake of Dura.

III. POST-DURA LOSS CAUSATION IN MARKET FRAUD LITIGATION

A. The Naked Inflated Market Price

Class plaintiffs in Dura alleged that due to misrepresentations by the company and certain officers and directors, the market price was artificially

75. Dura, 125 S. Ct. at 1631.
76. See In re Vivendi Universal, S.A. Sec. Lit., 765 F. Supp. 2d 512, 555 (S.D.N.Y. 2011); Solow v. Citigroup, Inc., 827 F. Supp. 2d 280, 292 (S.D.N.Y. 2011) (“Plaintiff must show both that the loss be foreseeable and that the loss be caused by materialization of the concealed risk.”). But see Schleicher v. Wendt, 618 F.3d 679, 684 (7th Cir. 2010) (“Materialization of risk,” as a phrase, has no significance in the analysis of loss causation. “[L]oss is realized when the truth turns out to be worse than the statement implied.”). “Materialization of risk” as a basis for pleading and proving loss causation is specifically discussed in Section V(B). See infra Section V(B).
77. Dura, 544 U.S. at 344. Dura is discussed in more detail in Part III of this article. It is important to note here, however, that Dura does not necessarily require that a stark corrective disclosure precede a stock’s decline. The Supreme Court expressly contemplated the truth “making its way into the marketplace.” Id. Several courts have found this to fairly imply that something less than a full corrective disclosure will suffice in pleading loss causation. See, e.g., Chamberlain v. Reddy Ice Holdings, Inc., 757 F. Supp. 2d 683, 715 (E.D. Mich. 2010); Brumbaugh v. Wave Sys. Corp., 416 F. Supp. 2d 239,256 (D. Mass. 2006); Freedland v. Iridium World Comm. Ltd., 233 F.R.D. 40, 47 (D.D.C. 2006) (“[R]ead Dura to require proof of a complete, corrective disclosure would allow wrongdoers to immunize themselves with a protracted series of partial disclosures.”).
78. See generally Basic, 108 S. Ct. 978.
79. Dura, 125 S. Ct. at 1634.
80. See infra Part III.
inflated. These misrepresentations were in regard to expected Food and Drug Administration (“FDA”) approval of a new spray device used in treating symptoms of asthma, as well as expected drug profits, unrelated to the new device awaiting approval. 81 The company later announced lower than expected earnings, principally due to slow drug sales, and its stock price dropped precipitously from about thirty-nine to twenty-one dollars per share. 82 Eight months later, the FDA denied approval for the new spray device. 83 Although the stock price dropped again, it nearly recovered to the pre-FDA announcement level within a week. 84 Class plaintiffs’ based their section 10(b) and Rule 10b-5 market fraud claim on both sets of alleged misrepresentations. 85 However, the claim based on representations regarding expected drug profits was dismissed, leaving only the claim arising out of statements concerning expected FDA approval of the spray device and the assertion that the stock price had been artificially inflated during the class period. 86 Although that claim was dismissed by the District Court for failure to adequately allege loss causation, the Ninth Circuit reversed, holding “that plaintiffs [could] establish loss causation if they have shown that the price [of the stock] on the date of purchase was inflated because of the misrepresentation.” 87

On the Dura timeline, however, plaintiffs failed to connect their eventual loss months later to the alleged misrepresentation that had inflated the market price. 88 The Supreme Court reversed the Ninth Circuit, holding that price inflation alone could not support loss causation. 89 In an opinion by Justice Breyer, the Supreme Court found no basis for the assertion that alleged misrepresentations concerning FDA approval of the device caused the plaintiffs’ eventual market loss. 90 Justice Breyer dispatched any notion that price inflation alone could satisfy the loss causation requirement. 91 The logical link, he said, between an inflated share price and any later economic loss is not invariably strong, adding:

Shares are normally purchased with an eye toward a later sale. But if, say, the purchaser sells the shares quickly before the relevant truth begins to leak out, the misrepresentation will not have led to

82. Id. at 339.
83. Id.
84. Id. at 341.
85. Id. at 341.
86. Dura, 544 U.S. at 340.
88. Dura, 544 U.S. at 342.
89. Id.
90. Id. at 342-43.
91. Id. at 343.
any loss. If the purchaser sells later after the truth makes its way into the marketplace, 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.92

He cautioned that a “tangle of factors” may affect the market price of a stock, and that the most that one can logically say “is that the higher purchase price will sometimes play a role in bringing about a future loss.”93 He emphasized, however, that even though a misrepresentation may “touch upon” a later economic loss: “To touch upon a loss is not to cause a loss,” and it is the latter that the law requires.94

In Dura, the Supreme Court instructed that the Ninth Circuit’s sole focus on an inflated market price connected to an alleged misrepresentation was simply a wrong perception of the law that disregarded the common law roots of a claim under section 10(b) and Rule 10b-5.95 The Ninth Circuit approach was, however, symptomatic of a broad perception of fraud-on-the-market and the Efficient Market Hypothesis.96 The object of which is an artificial market price that reflects materially false or misleading information, but which too easily diminishes the importance of the next step to establish a direct or proximate causal link between the fraud and an actual

92. Id. at 342-43.
93. Dura invites an examination of what some courts have labeled as “confounding factors” when seeking to identify the requisite causal link between a corrective disclosure and alleged misrepresentations. Confounding factors are, for example, other industry or company-specific information released to the market that are unrelated to the alleged fraud. See, e.g., Bricklayers and Trowel Trades Intl. Pens. Fund v. Credit Suisse First Boston, 853 F. Supp. 2d 181 (D. Mass. 2012). Confounding factors and the expert methodology typically employed to isolate their causal effect relative to revelation of the alleged fraud on which a §10(b) and Rule 10b-5 claim is predicated are discussed further later in this paper. See infra Part VII.
94. Dura, 544 U.S. at 343. In Metzler Inv. GMBH v. Corinthian Colls., Inc., 540 F.3d 1049, 1062 (9th Cir. 2008), the court concluded, however, that Dura does not require that a misrepresentation must be the sole reason for an investment’s decline in value. At least at the pleading stage, a plaintiff must show only “some indication” that the drop in a defendant’s stock price was causally related to its financial misstatements. See also In re Daou Sys., Inc., 411 F.3d 1006, 1026 (9th Cir. 2005); Anchorbank, 649 F.3d at 618 (“We do not require that a plaintiff plead that all of its loss is necessarily attributed to the actions of the defendant, only that it plead that the defendant is at least one plausible cause of the economic loss.”).
95. Dura, 544 U.S. at 343-44.
economic loss. Dura made clear that what actually causes an economic loss is a consideration no less important than alleged market fraud itself. In that assessment, the “tangle of factors,” as characterized by Justice Breyer in Dura takes on paramount significance.

B. A Tangle of Factors

Dura requires an assessment of allegations, and ultimately proof, that the market reacted negatively to a revelation that a previous representation was materially false or misleading. The sale at a lower price must reflect the misrepresentation. By relying on a decline in stock price following a corrective disclosure as proof of causation, a plaintiff must prove that the loss resulted directly because of the market’s reaction to the correction. Causation requires the plaintiff to demonstrate the connection between an earlier false or deceptive statement, for which the defendant was responsible, and a subsequent corrective disclosure that reveals the truth of the matter, and that some additional factors revealed to the market could not explain the subsequent loss.

Untangling factors affecting the market price of a security presents the challenge in all fraud-on-the-market cases under section 10(b) and Rule 10b-5 of separating losses attributable to any cause other than the specific information failure on which a claim is based. A market-wide phenomenon, for example, may cause losses to all investors without regard to a particular alleged fraud. In City of Westland Police & Fire System v. MetLife, Inc., the court well illustrated the point in dismissing a class claim under section 10(b) and Rule 10b-5 for failure to adequately allege loss causation based on market response to a partial corrective disclosure or materialization of a prior concealed risk where plaintiffs omitted from the complaint any consideration of a market-wide phenomenon that had impacted stock prices of all companies like the defendant.

97. Broudo, 339 F.3d at 938-39; Dura, 544 U.S. at 345.
98. Dura, 544 U.S. at 346.
99. Id. at 343, 347.
100. Id. at 342-44.
101. See Glaser v. Enzo Biochem, Inc., 464 F.3d 474, 477 (4th Cir. 2006) (“Dura requires plaintiffs to plead loss causation by alleging that the stock price fell after the truth of a misrepresentation about the stock was revealed.”).
102. Dura, 544 U.S. at 343.
103. Id. at 345-46.
104. Id. at 343.
105. Id. at 344-45.
107. City of Westland, 928 F. Supp. 2d at 713.
As their section 10(b) and Rule 10b-5 fraud-on-the-market claim, Plaintiffs alleged that MetLife had issued financial statements and made public statements about its life insurance business that were materially false and misleading by understating necessary reserves and using knowingly inaccurate mortality ratios. The impact, according to plaintiffs, was such that MetLife had withheld money due to life insurance beneficiaries who had not filed claims (or ultimately to states as unclaimed funds). Plaintiffs alleged that MetLife did this to inflate the company’s earnings and stock price. When, on August 5, 2007, MetLife disclosed that as a result of several state investigations it could be required to make substantial payments, its stock price dropped 11 percent. Plaintiffs framed their loss based on that “partial corrective disclosure of a concealed risk.” Their amended complaint, however, was characterized by the court as “remarkably misleading.”

On the same day as the MetLife disclosure, “Standard & Poor’s Corporation downgraded the credit rating of the United States for the first time in history.” “The entire market [fell] precipitously on the next trading day,” and peer group insurance companies “suffered nearly uniform declines.” The amended complaint failed to make any mention of the historic Standard & Poor’s downgrade, leading the court to conclude:

While loss causation often is a fact specific question appropriate for trial, “when the plaintiff’s loss coincides with a market wide phenomenon causing comparable losses to other investors, the prospect that the plaintiff’s loss was caused by the fraud decreases, and a plaintiff’s claim fails when it has not adequately ple[ ]d facts which, if proven, would show that its loss was caused by the alleged misstatements as opposed to intervening events.” Given the precipitous drop in the market, and the nearly equal drop in value across major life insurance companies, plaintiff was obliged to allege factual matter sufficient to “disaggregate those losses caused by the [downgrade in U.S. credit rating] from disclosures of the truth behind the alleged misstatements.” In other words, plaintiff

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108. *Id.* Plaintiffs also asserted claims under sections 11, 12(a)(2), and 15 of the Securities Act of 1933 in connection with two public offerings of common stock by MetLife in 2010 and 2011. These statutory claims were separately considered, with certain of them being allowed to stand. *Id.*

109. *Id.*

110. *Id.* at 714.

111. *Id.* at 713.

112. **City of Westland,** 928 F. Supp. 2d at 713.

113. *Id.* at 714.

114. *Id.*

115. *Id.* at 714-15.

116. *Id.* at 714.
was obliged to “allege[] facts that would allow a factfinder to ascribe some rough proportion of the whole loss to the . . . misstatements.”117

City of Westland underscores, as did Dura, requisite loss causation in market fraud cases is addressable by courts as a matter of pleading. 118 Part IV of this article discusses pleading loss causation in market fraud cases separately.119 Before that, however, there is more about actual loss causation to consider in the wake of Dura and its rejection of broad conclusions about what actual economic loss is or is not connected to alleged market fraud and, added to that, what is actually fraud.120

C. Implausible Connections

An asserted causal connection between false or misleading statements alleged to have resulted in an artificially inflated market price and investor losses later suffered when disclosing events or corrective disclosures are said to have revealed the false information may, on its face, simply be too attenuated to support a section 10(b) and Rule 10b-5 market fraud claim.121 The issue is spotlighted in actions where claims are based on alleged false or misleading statements regarding such things as risk management and internal controls, or legal compliance, that are said to mask a known fact that the company faces a risk, the materialization of which would have a materially adverse impact on the company and the market price of its securities. 122 In Gusinsky v. Barclays PLC,123 for example, “plaintiffs’ fraud allegations [arose] out of Barclays’ participation in setting the London Interbank Offered Rate (“LIBOR”).”124 Between 2005 and 2009, Barclays allegedly engaged in conduct designed to manipulate LIBOR for financial gain.125 In 2011, Barclays disclosed that U.K. and American regulators were investigating it, and in February 2012, regulators presented Barclays an ultimatum, either to, “enter into a settlement regarding its conduct in manipulating LIBOR or face criminal and civil charges.”126 In June 2012, Barclays announced that it had reached settlement agreements with

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117. City of Westland, 928 F. Supp. 2d at 715 (citations omitted).
118. Id. at 714; Dura, 544 U.S. at 344-45.
119. See infra Part IV.
120. See infra Section III.C.
121. See Dawes v. Imperial Sugar Co., 975 F. Supp. 2d 666, 710 (S.D. Tex. 2013) (prior statements too attenuated from the later disclosure to satisfy loss causation requirement).
124. Id. at 283.
125. Id. at 284.
126. Id. at 285.
regulators totaling over $450 million.\textsuperscript{127} The same day the market price of its American Depository Shares ("ADSs") trading in U.S. markets fell some twelve percent.\textsuperscript{128}

Plaintiffs, purchasers of Barclays’ ADSs, alleged that investors were unaware of Barclays’ manipulative activities and that statements made in Barclays’ financial statements throughout the 2007-2012 identified class period regarding “risk management and internal controls, corporate responsibility, ethics, and legal compliance” were materially false or misleading in failing to disclose the known risk associated with LIBOR manipulation and a contingent liability that existed based on those activities.\textsuperscript{129} The result, they alleged, was artificial inflation of the price of Barclays’ ADSs, which later dissipated when “disclosing events’ reveal[ing] the false information occurred.”\textsuperscript{130} There was no allegation, however that Barclays had engaged in such LIBOR activities during the period 2009 through 2012 and the court dismissed the plaintiffs’ section 10(b) and Rule 10b-5 claims on defendants’ motion.\textsuperscript{131}

The court concluded that statements on which plaintiffs based their claim were “puffery” and not actionable under section 10(b) and Rule 10b-5 in the first place.\textsuperscript{132} That said, the court further concluded that plaintiffs’ allegations failed to connect statements disseminated about general business practices to Barclays’ LIBOR activities.\textsuperscript{133} As to general statements regarding risk management, for example, plaintiffs alleged that Barclays’ statements were materially false or misleading because the company knew when making them that it had no specific systems or controls addressing LIBOR practices.\textsuperscript{134} However, the court found no sufficient connection:

None of Barclays’ statements regarding its Business Practices reference Barclays’ LIBOR submissions or appear to contemplate LIBOR as a risk. Thus, even if representations about risk management do not constitute “puffery,” here the connection between Barclays’ statements regarding risk management and its

\begin{flushleft}
\textsuperscript{127} Id.
\textsuperscript{128} Gusinsky, 944 F. Supp. 2d at 285.
\textsuperscript{129} Id. at 284-85.
\textsuperscript{130} Id. at 292.
\textsuperscript{131} Id. at 294.
\textsuperscript{132} Id. at 289. The court offered that generalizations about a company’s business practices or integrity may be deemed too general to constitute actionable misstatements that could be linked to investor losses under the fraud-on-the-market theory. Indeed, the court looked to Second Circuit precedent holding "non-actionable puffery”—statements of a generic, indefinite nature—as insufficient bases for §10(b) and Rule 10b-5 fraud-on-the-market claims. See Boca Raton Firefighters and Police Pension Fund v. Bahash, 506 F. App’x. 32, 37 (2d Cir. 2012).
\textsuperscript{133} Gusinsky, 944 F. Supp. 2d at 289.
\textsuperscript{134} Id. at 290.
\end{flushleft}
LIBOR practices is too attenuated to find that the alleged LIBOR misconduct rendered the representations regarding risk management materially misleading.\footnote{135}{Id.}

As addressed in detail later in this article, fundamentally, the disconnect in \textit{Gusinsky} was between the disclosure events, which are identified in this case as the corrective disclosure, here the publication of Barclays’ regulatory settlements in 2012, and the alleged false or misleading statements concealing LIBOR misconduct, all of which occurred some three years earlier.\footnote{136}{Id. at 292.} As the court found, even if Barclays’ LIBOR activities in 2009 and earlier had misled the market regarding Barclays’ business practices, and thus artificially inflated the market price of the ADSs, there was no allegation of LIBOR misconduct between 2009 and 2012 such that the market price of the ADSs would have remained artificially inflated.\footnote{137}{Id.} Any “notion that the market would fail to digest three years of non-fraudulent [activity] and other more detailed financial information, and would instead leave intact artificial [price] inflation as a result of fraudulent [activity three years earlier was, simply stated,] implausible.”\footnote{138}{Gusinsky, 944 F. Supp. 2d at 292.}

Alleged disclosure events need not be so separated in time to be implausibly connected to investor losses.\footnote{139}{See In re Moody’s, No. 07 Civ. 8375, 2013 U.S. Dist. LEXIS 122449, at *4 (S.D.N.Y. 2013).} In \textit{Moody’s Corporation Securities Litigation},\footnote{140}{Id. at *2.} which arose out of the subprime mortgage crisis, plaintiffs grounded their fraud-on-the-market claim on generalized public statements made by Moody’s, a ratings agency, concerning its commitment to “‘upholding the independence and integrity of its business’” and the adequacy of rating methodologies in regard to “structured investment vehicles” —all of which plaintiffs alleged had “reinforce[ed] . . . a sense of trust in the accuracy, independence, and reliability of Moody’s” ratings and caused Moody’s stock price to be artificially inflated.\footnote{141}{Id. at *2.} The fraud, said plaintiffs, was that Moody’s had in fact “systematically sacrificed its independence and succumbed to conflicts of interest in assigning ratings to structured finance securities.”\footnote{142}{Id. at *9.} Plaintiffs further alleged that as the market came to realize that the true credit risk in structured finance products was not consistent with Moody’s ratings, those ratings were unsustainable.\footnote{143}{Id. at *9.} According to plaintiffs, the risk materialized through certain “loss causation
events,” in response to each of which the market price of Moody’s stock declined.144

The court dismissed the claim in Moody’s on summary judgment.145 Plaintiffs identified four “loss causation events” that, they argued, directly and foreseeably connected the alleged misrepresentations and omissions by Moody’s to investor losses sustained as the stock price declined in their wake. Nevertheless, the court concluded that none of these events implicated Moody’s lack of independence or the sustainability of its ratings—the subjects of alleged concealments constituting the fraud.146 Plaintiffs’ loss causation argument based on the alleged events was conclusory; indeed, “grossly insufficient” in the words of the court.147

The dividing line between plausible and implausible causal connections may not be so clear as shown in Guzinsky, where the key consideration was that generalized statements regarding the company, its adherence to responsible business practices, and the system of risk management and internal controls in place could not be read as contemplating the LIBOR risk. The risk that formed the basis of plaintiffs’ fraud-on-the-market claim, 144. In re Moody’s, No. 07 Civ. 8375, 2013 U.S. Dist. LEXIS 122449, at *4.
145. Id. at *2.
146. Id. at *4, 10. The “loss causation events” offered by plaintiffs were:
- A U.S. Senator’s public remarks about credit rating agencies bearing some amount of responsibility for the subprime mortgage crisis, which plaintiffs alleged to be evidence of the potential for greater regulation facing Moody’s;
- Moody’s announcement of a decline in its structures finance and residential mortgage-backed securities ratings revenue;
- An analyst downgrade of a recommendation on Moody’s stock; and
- A Financial Times article reporting Moody’s knowledge of, and failure to correct, a glitch in its computer model that caused incorrect ratings to be reported on certain structured securities.

The court also sharply criticized an event study offered by plaintiffs as demonstrating that Moody’s stock price declined in a statistically significant way following each of these events. As is often the issue regarding event studies, the court found that the one offered in Moody’s failed adequately to disaggregate competing causal events leading to stock price declines. The court was particularly harsh in regard to factually unsupported assumptions underlying the expert’s opinion “that the loss causation events were specifically related” to the concealed risks that were the basis of the section 10(b) and Rule 10b-5 market fraud claim. Event studies are ubiquitous in assessments of loss causation. They are discussed in more detail later in this paper. See infra Part VII. See also Stratte-McClure v. Morgan Stanley, 2013 U.S. Dist. LEXIS 10387 at *3 (S.D.N.Y. 2013) (plaintiffs failed to plead any disclosure about the alleged inaccurate write-down of subprime asset valuations that were the basis of their market fraud claim).
147. Id. at *9.
or in Moody’s, where asserted connections were entirely conclusory. It may be the case, however, that plaintiffs do allege a foreseeable “loss . . . caused by the materialization of a concealed risk” imbedded in company disclosures that do fairly encompass the risk on which the fraud-on-the-market claim is based. As discussed later, the “materialization of the risk” approach to loss causation in section 10(b) and Rule 10b-5 fraud-on-the-market litigation is premised entirely on a specifically foreseeable, but concealed, risk.

What is evident, however, is that pleading the requisite connection between alleged disclosure events and investor losses in market fraud cases requires more than what is implied in a simple “notice” requirement. In spite of the fact that courts often characterize the loss causation pleading obligation in fair “notice” terms, pleading loss causation as an essential element in fraud-on-the-market actions under section 10(b) and Rule 10b-5 is in practical terms a special consideration relative to federal notice pleading standards. In Part IV below, particular aspects of pleading loss causation in fraud-on-the-market actions are examined in greater detail.

IV. PLEADING LOSS CAUSATION IN MARKET FRAUD CASES

In Dura, the Supreme Court assessed the plaintiff’s complaint as failing to adequately allege loss causation and as failing the simple test of providing “‘fair notice of [the actual] claim and the grounds upon which it [was based].’” The only statement in the complaint that could fairly be read as describing the loss caused by the defendants’ misrepresentations, said the Court, was that which stated that “plaintiffs ‘paid artificially inflated prices for [the company’s stock] and suffered damages.’” Given the Court’s admonition that an artificially inflated purchase price is not itself a relevant economic loss, the Court concluded that “the complaint nowhere else provides the defendants with notice of what the relevant economic loss might be or of what the causal connection might be between that loss and the misrepresentation concerning Dura’s ‘spray device.’”

The Supreme Court opined that it should not prove burdensome for a plaintiff who has suffered an economic loss “to provide a defendant with

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149. See Lentell, 396 F.3d at 173.
150. See infra Part V.B.
152. See In re Moody’s, No. 07 Civ. 8375, 2013 U.S. Dist. LEXIS 122449, at *5-6.
153. See infra Part IV.
154. Dura, 544 U.S. at 346.
155. Id. at 346-47.
156. Id. at 347.
some indication of the loss and the causal connection that the plaintiff has in mind.”157 As for the applicable standard for pleading loss causation, the Court made this further observation:

Our holding about plaintiffs’ need to prove proximate causation and economic loss leads us also to conclude that the plaintiffs’ complaint here failed adequately to allege these requirements. We concede that the Federal Rules of Civil Procedure require only “a short and plain statement of the claim showing that the pleader is entitled to relief.” Fed. Rule Civ. Proc. 8(a)(2). And we assume, at least for argument’s sake, that neither the Rules nor the securities statutes impose any special further requirement in respect to the pleading of proximate causation or economic loss. But even so, the “short and plain statement” must provide the defendant with “fair notice of what the plaintiff’s claim is and the grounds upon which it rests.”158

The Court’s assumption for argument’s sake that the notice, or plausibility, pleading standard of Federal Rule 8(a)(2) controlled, and that securities statutes require nothing more, spawned debate in lower courts whether, because loss causation is a substantive element of a cognizable claim under section 10(b) and Rule 10b-5, a heightened standard akin to the Federal Rule 9(b) requirement for specificity in alleging fraud in conjunction with the specific PSLRA loss causation burden of proof should actually be imposed.159 The Fourth Circuit, for example, read the PSLRA in conjunction with Federal Rule 9(b) to require that a plaintiff allege loss causation with “sufficient specificity” so as to “enable the court to evaluate whether the necessary causal link exists””, and that “the complaint must allege a sufficiently direct relationship between the plaintiff’s economic loss and the defendant’s fraudulent conduct.”160 Loss causation is among the circumstances constituting fraud, [said the court, and] Rule 9(b) [requires that it be] pleaded with particularity.”161 It is in any case a fact dependent inquiry, and requires a case-by-case evaluation of the specificity sufficient to plead it.162

157. Id.
158. Id. at 346 (quoting Conley v. Gibson, 355 U.S. 41, 47 (1957)).
160. Katyle, 637 F.3d at 471-72 (“The degree of specificity demanded is that which will ‘enable the court to evaluate whether the necessary causal link exists’”).
161. Id. at 471 n.5.
162. Id. at 472.
The Fifth Circuit, on the other hand, has held that Federal Rule 8(a) governs loss causation pleading because the Supreme Court’s post-*Dura* decision in *Bell Atlantic Corporation v. Twombly*\(^{163}\) construed *Dura* in arriving at the “plausibility” standard now embodied in Rule 8(a).\(^{164}\) Thus:

> [F]rom *Dura’s* holding about the need to allege and prove proximate causation and economic loss, as well as *Twombly’s* explanation of the plausibility standard, we conclude that Rule 8(a)(2) requires the plaintiff to allege, in respect to loss causation, a facially “plausible” causal relationship between the fraudulent statements or omissions and plaintiff’s economic loss, including allegations of a material misrepresentation or omission, followed by the leaking out of relevant or related truth about the fraud that caused a significant part of the depreciation of the stock and plaintiff’s economic loss.\(^{165}\)

When dealing with the sufficiency of loss causation allegations in practice post-*Dura*, the distinction between a pleading standard governed by Federal Rule 8(a) and a “heightened” version that is the amalgamation of Federal Rule 9(b) and the PSLRA is one without a difference.\(^{166}\) First, it is certain in all cases that “generalized, vague or overbroad allegations regarding the existence of a disclosure or revelation of a fraud that is merely alleged to have been connected to a drop in stock price will not suffice to put a defendant on notice of loss causation claims.”\(^{167}\)

Second, “fair notice” regarding loss causation as addressed in *Dura* requires in all cases that a plaintiff allege facts supporting an inference that an alleged misstatement or omission concealed something from the market that, when the truth was disclosed, produced a negative market reaction.\(^{168}\)

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164. Lormand v. US Unwired, Inc., 565 F.3d 228, 256-58 (5th Cir. 2009).
165. *Id.* at 258.
166. The Ninth Circuit has recognized that ambiguity exists in the wake of *Dura*, see WPP Luxembourg Gamma Three Sarl v. Spot Runner, Inc., 536 F.3d 1049, 1056 (9th Cir. 2008), see also Acticon AG v. China North East Petroleum, 692 F.3d 34, 37-38 (2d Cir. 2012). The Second Circuit questioned whether the loss causation pleading standard based on Rule 8(a)(2) was actually endorsed by the Supreme Court, and concluded that neither standard would rebut an inference of economic loss in the circumstances presented in any event, and that it was unnecessary to resolve the issue. *Id.*
A “heightened” standard of pleading loss causation based on Federal Rule 9(b) adds little to the baseline assessment. The Fourth Circuit’s embrace of a heightened standard was articulated only in terms of specificity sufficient to enable a court to determine the existence of the necessary causal link, which would “vary depending on the facts and circumstances of each case.” Its cited example sheds no further light:

[W]hen the plaintiff’s loss coincides with a market wide phenomenon causing comparable losses to other investors, the prospect that the plaintiff’s loss was caused by the fraud decreases, and a plaintiff’s claim fails when it has not adequately pled facts which, if proven, would show that its loss was caused by the alleged misstatements [or omissions] as opposed to intervening events.

This derives simply from the admonition in Dura that a plaintiff must set forth some indication of the loss and the causal connection the plaintiff has in mind, and adds nothing on the loss causation pleading burden beyond what Dura set forth. The fact is that no “heightened” standard of pleading loss causation has actually been articulated by a court as contrasted with the “plausibility” standard. In Coyne v. Metabolix, Inc., for example, the court opted to embrace a heightened loss causation pleading standard over the plausibility standard, but failed to suggest any distinction in application. Rather, the court was satisfied simply to conclude that because loss causation is an element of section 10(b) and Rule 10b-5 fraud, the circumstances must be pled with Rule 9(b) specificity, without suggesting what more is required. No further explication was required because the court concluded that plaintiffs’ allegations did not meet even the price of Reddy Ice stock was artificially inflated by the misrepresentations but explains in detail the corresponding stock price decreases directly related to each announcement, each disclosure further exposing Reddy Ice’s connection to the alleged market allocation agreements and causing a further correction to the inflated stock price.”), see also Metzler Inv. GMBH v. Corinthian Colls., Inc., 540 F.3d 1049, 1062 (9th Cir. 2008) (“A plaintiff’s complaint must, however, set forth allegations that, ‘if assumed true, are sufficient to provide the defendant with some indication that the drop in defendant’s stock price was causally related to the defendant’s financial misstatements.’); Latham v. Matthews, 662 F. Supp. 2d 441, 463-64 (D.S.C. 2009) (“The value of any given stock is an inherently speculative practice, based upon both hard facts and reasonable inferences made from available information. All that is required at this point in the litigation is for the Plaintiffs to allege a causal connection between the false, material statements and the loss that occurred, with sufficient specificity so as to put the Defendants on fair notice of their theory for recovery.”).

169. Katyle, 637 F.3d at 472.
170. Id.
171. Id. 471-72 (quoting Lentell, 396 F.3d at 174 (internal quotation marks omitted)).
172. Id. at 472
173. See id.
175. Coyne, 943 F. Supp. 2d at 274.
176. Id.
the plausibility standard. Courts embracing a Rule 9(b) particularity pleading standard for loss causation have at most said that the inquiry into sufficient pleading is “fact dependent [and that] the specificity sufficient to plead loss causation will vary depending on the facts and circumstances of each case.” For these courts, a complaint must allege with particularity how a disclosure event caused class members’ losses, but none has in any case differentiated between supposed standards.

To be plausible, any loss causation allegation will necessarily identify the link between materially false or misleading statements and the drop in the stock price that actually frames a loss. Particularity in identifying the causal link is inescapable, and as a practical matter, it makes little sense to attempt to cabin a loss causation pleading standard as either plausible under Rule 8(a) or heightened under Rule 9(b). Some courts have demurred on adopting either, and have simply looked instead for sufficient detail to give notice of the loss causation theory in the case and to demonstrate that it has a basis in fact. But some degree of particularity in alleging loss causation is essential in every market fraud case.

Adequately pleading loss causation requires pleading a revelation of truth in the marketplace, to which the market price reacts. A “revelation”

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177. Id. at 274-75 (The court described the pleading failure thusly: “[p]laintiff bases her claim on allegedly false statements regarding Mirel quality and demand. Yet the stock price did not fall in response to any public disclosure of quality problems or lack of demand for the product, but as a result of ADM’s termination of the joint venture (see Am. Compl. ¶ 102), a risk Metabolix repeatedly and regularly disclosed in its statements, press releases, and filings. Plaintiff might be able to support her claim if ADM’s decision to terminate the joint venture had been the direct result of learning of the quality issues and lack of demand for Mirel, but she alleges no facts to support that inference.”).


179. See id. at 596 n.6. The court offered that the distinction between the “more liberal” “pleading standard associated “with Federal Rule 8(a) and the “sufficient specificity” standard under Rule 9(b) was, at least in that case, “not a purely academic distinction.” This pleading standard, said the court, “has real consequences” for the complaint at issue. Nevertheless, the only consequence was the court’s unremarkable conclusion that the complaint failed to allege sufficiently how a disclosure event relied upon by plaintiffs did not reveal the subject of the purported fraud, and thus could have proximately caused the class members’ losses. See id.

180. WPP, 655 F.3d at 1053.

181. Id. at 1054-55.

182. See id. at 1051-54.

183. See AOL Time Warner Sec. Litig., 503 F. Supp. 2d 666, 677-78 (S.D.N.Y. 2007) (criticizing the “indistinct nature” of loss causation allegations, and the resulting need to “wade through the plaintiffs’ intertwined allegations to determine whether they have adequately alleged loss causation”), see also Citibank, N.A. v. K-H Corp. 968 F.2d 1489, 1497 (2d Cir. 1992) (in which the court held that a complaint failed sufficiently to allege loss causation where it alleged in a “conclusory fashion” that there was “a direct causal link between defendants’ fraud and Citibank’s losses.” The complaint does not detail how the alleged fraud directly and proximately resulted in the claimed loss.”); see also Cohen v. Stevanovich, 722 F. Supp. 2d 416, 431 (S.D.N.Y. 2010) (Complaint allegations that defendant’s wrongful actions resulted in substantial harm to the plaintiffs were “entirely conclusory” and “[d]id not plead injury in fact, let alone loss causation, with requisite specificity.”).

for purposes of loss causation is most often accepted as meaning a “corrective disclosure”—information disseminated into the marketplace which discloses the falsity of prior disclosures or reveals any prior omissions and which promptly, negatively affects a company’s stock price.\textsuperscript{185} The meaning and critical role of corrective disclosures in section 10(b) and Rule 10b-5 loss causation analyses generally is discussed in Part V below.\textsuperscript{186} But for pleading purposes, how the truth made its way into the marketplace, and how that revelation is linked to at least a significant part of the depreciation of the stock price and the plaintiff’s economic loss must be presented.\textsuperscript{187} To be sure, there may not be a single event or disclosure that is the revelation of the truth for purposes of loss causation.\textsuperscript{188} In \textit{Dura}, the Supreme Court spoke of the truth “mak[ing] its way into the marketplace,” and the relevant truth leaking out.\textsuperscript{189} It is also true that a “plaintiff . . . [may allege] loss causation by showing partial or indirect disclosures of [the] truth . . . by persons other than the defendants.\textsuperscript{190} That said, defrauded investors must plead that the very misrepresentations at issue proximately caused them an economic loss.\textsuperscript{191}

In assessing loss causation pleadings, courts also recognize that a plaintiff need not plead that all of its loss is attributable to the actions of the defendant.\textsuperscript{192} The Seventh Circuit has explained that loss causation, as a practical requirement:

\textsuperscript{185} See \textit{id.} at 595 (Plaintiffs sufficiently alleged a direct causal connection between a company’s press release and the “economic losses suffered when [the company’s] stock dropped significantly the next day.”).

\textsuperscript{186} See infra Part V.

\textsuperscript{187} \textit{Dura}, 544 U.S. at 338, 341-42.

\textsuperscript{188} \textit{id.} at 341-42.

\textsuperscript{189} \textit{id.} at 342-43.

\textsuperscript{190} See, e.g., Lormand, 565 F.3d at 264, n. 32 (“\textit{Dura} uses the term ‘leak out,’ which ‘contemplates the release of information from third parties outside the company’s official lines of communication.’”).

\textsuperscript{191} \textit{Dura}, 544 U.S. at 344-45, see also Nat’l Junior Baseball League v. Pharmanet Dev. Group, Inc., 720 F. Supp. 2d 517 (D.N.J. 2010). The court rejected plaintiffs’ fraud-on-the-market claim based on significant market price declines following each negative quarterly report by the company during the class period subsequent to alleged false or misleading statements at the outset of the class period. The court concluded that none of the subsequent reports mentioned any of the alleged fraudulent practices on which the claim was based “[t]o demonstrate loss causation, Plaintiff improperly relies on negative financial results after each of the quarterly public disclosures when there have been no allegations that the market recognized any of the alleged fraud, or that the cause of the decline in stock price was substantially caused by the alleged fraud. Indeed, this type of pleading has been rejected to show loss causation because it does not adequately demonstrate a market correction of the artificial inflation caused by Defendants’ misrepresentations.” \textit{id.} at 561. The court added that statements, which merely serve to lower revenue expectations, are not disclosures of an alleged scheme. “The allegations . . . only showed that the company’s stock price dropped predominately as a result of announcements of disappointing financial results rather than disclosure of any misrepresentations or omissions.” \textit{id.} at 563.

\textsuperscript{192} Caremark, Inc. v. Coram Health Corp., 113 F.3d 645, 649 (7th Cir. 1997).
ought not place unrealistic burdens on the plaintiff at the initial pleading stage. It does not require, for instance, that the plaintiff plead that all of its loss can be attributed to the false statement of the defendant. Such a burden would be far more stringent than the common law tort requirement upon which the requirement is based. Nor does the requirement of pleading loss causation require that the plaintiff allege that it could not have suffered the same damage under other circumstances. Rather, the requirement is straightforward: The plaintiff must allege that it was in fact injured by the misstatement or omission of which it complains.

This approach to pleading loss causation has been shown to be particularly significant in cases arising out of a generalized market decline exemplified by the 2007-2009 U.S. financial market crisis, in which stocks generally, and those of financial sector companies in particular, were battered. In American International Group 2008 Securities Litigation (“AIG”), for example, the plaintiff purchasers of the stock of AIG between March 2006 and September 2008 alleged that the company and various executives, directors, underwriters and accountants, “misstat[ed] the extent to which [it] had accumulated exposure to the subprime mortgage market through its securities lending program and credit default swaps (CDS) portfolio.” Plaintiffs alleged that the exposure placed AIG at risk in ways that the defendants had failed to disclose, and that defendants “consistently misled the market by failing to disclose the valuation and collateral risk of [its] CDS portfolio . . . while [at the same time] . . . characterize[z]ing risk to the portfolio as ‘extremely remote.’ . . .

193. Id., see also Anchorbank, 649 F.3d at 618; In re Daou Sys., Inc. Sec. Litig 411 F.3d 1006, 1025 (9th Cir. 2005) (“[P]laintiff is not required to show that a misrepresentation was the sole reason for the investment’s decline in value . . . .”) (internal quotations omitted); Washenaw County Emp. Ret. Sys. v. Celera Corp., No. 5:10-cv-02604 EJD, 2012 U.S. Dist. LEXIS 125314, at *12 (C.D. Cal. Sept. 4, 2012) (Plaintiff must only plead “enough to give rise to a plausible inference that the disclosure was partially responsible for the loss.”); Snellink v. Gulf Resources, Inc., 870 F. Supp. 2d 930, 942 (C.D. Cal. 2012) (“[P]laintiff need not show that a defendant’s misrepresentation was the sole reason for an investment’s decline in value in order to establish loss causation.”) (internal quotations omitted).


195. In re American, 741 F. Supp. 2d at 534. As discussed later in this article, multi-factor event studies are typically offered by plaintiffs to demonstrate a “statistically significant” or unpredicted decline in the market price of a company’s stock after taking into account other non-fraud factors such as a general market decline. Defendants predictably challenge the methodology by urging the failure to account for such factors. See also In re Sadia, S.A. Sec. Litig., 269 F.R.D. 298, 317 (S.D.N.Y. 2010) (however, the “don’t blame me, blame the financial crisis” defense received a harsh reception, with the court observing: “[n]ot only is there no indication that events related to the financial crisis intervened between the September 25 Disclosure and the price decline, but [plaintiffs’ expert] controlled for that possibility by including domestic and foreign stock and bond indexes as variables in his event study.”).

196. AIG, 741 F. Supp. 2d at 517.
All of this, they claimed, artificially inflated the AIG stock price, which declined substantially in the wake of various alleged corrective disclosures in the form of SEC filings, public announcements, and credit rating downgrades, leading to the September 2008 government bailout. AIG stock fell 87% in a six-week period.

On a motion to dismiss, defendants in AIG challenged the sufficiency of plaintiffs’ section 10(b) and Rule 10b-5 fraud-on-the-market claim on various grounds, including asserted loss causation. Defendants argued, “the decline in the AIG stock price was attributable to the decline experienced in the stock market generally [during the relevant period], and in the financial services sector specifically.” Although the court recognized that the existence of intervening events, such as a general decline in stock prices in a particular sector may be sufficient to break the chain of causation, and that the “defendants [in AIG] may ultimately demonstrate that some or all of the plaintiffs losses are attributable to [something] other than . . . alleged material misstatements and omissions” that inflated the market price of the stock, that “is a matter of proof at trial” and should not be decided at the pleading stage. On plaintiffs’ allegations, the court concluded:

Plaintiffs have adequately pleaded a causal link between the alleged misconduct and economic harm the ultimately suffered. The Complaint is replete with allegations that AIG’s stock price fell in response to AIG’s corrective disclosures of previously undisclosed information. For instance, the Complaint alleges that, upon the disclosure in February 2008 that the previously provided estimates of AIG’s losses from its CDS portfolio were based on improper accounting techniques and understated actual losses by billions of dollars, AIG’s stock price fell over 11% in a single day of trading. Additionally, the Complaint adequately pleads that many of the principal risks concealed by AIG and the Section 10(b) Defendants’ material misstatements and omissions—such as the threat posed to

197. Id. at 522.
198. Id. at 524-25, 534.
199. Id. at 524.
200. Id. at 534.
201. AIG, 741 F. Supp. 2d at 534.
202. Id.
the Company’s liquidity by the CDS portfolio’s collateral risk—subsequently materialized to Plaintiffs’ detriment. 203

Nevertheless, a complaint will not stand against a motion to dismiss where allegations of the causal link between defendant’s fraud and the plaintiff’s loss are devoid of any specificity indicating how the alleged fraud directly or proximately resulted in a plaintiff’s claimed loss. 204 Moreover, plaintiffs cannot escape the fundamental requirement that they must present an actual economic loss to the court. 205 Dura maintained the traditional out-of-pocket measure for damages in section 10(b) and Rule 10b-5 cases. 206

Stock price decline, as the measure of a claimed economic loss, must demonstrably connect to the alleged fraud forming the basis of the action in all cases. 207 As discussed in a later section, this is not always an easy task.

203. Id.; but see Travelzoo Sec. Litig., 11 Civ. 5531, 2013 U.S. Dist. LEXIS 46437, at *25-28 (S.D.N.Y. 2013) (The court granted a motion to dismiss where the facts alleged indicated only that the cause of the stock’s decline was general market disappointment in not meeting analysts’ higher expectations. Statements alleged to be corrective disclosures did not reveal the falsity of any prior statements made by the defendants, or convey any information about the company’s overall growth and revenue that were alleged to have been impacted by failure to disclose the alleged adverse impact of cannibalization between the company’s core business and hybrid products had on overall growth and revenues.); see also Patel v. Patel, 761 F. Supp. 2d 1375, 1381 (N.D. Ga. 2011) (“[I]f the plaintiff’s loss is caused by supervening general market forces or other factors unrelated to the defendant’s misconduct, . . . the plaintiff is precluded from recovery under Rule 10b-5.”); Damian v. Montgomery Cnty. Bancshares, 981 F. Supp. 2d 1368, 1384 (N.D. Ga. 2013) (Plaintiff failed to “plead any facts if proven would distinguish the losses from those that were the result of intervening events unrelated to the defendant’s conduct.”). 204. See Damian, 981 F. Supp. 2d at 1376.

205. See Ross v. Walton, 668 F. Supp. 2d 32, 41 (D.D.C. 2009) (citing Dura, 544 U.S. at 336). In Ross, plaintiffs did not sell any of their shares. Their losses were “paper losses.” Additionally, the stock price recovered to the pre-corrected level after the class period, and actually traded at a profit to the plaintiffs one month before the operative complaint was filed. Defendants argued that if the current value of the stock was commensurate with the purchase price paid by plaintiffs, there could be no economic loss. Although a sale of stock is unnecessary to establish loss, defendants contended that a price fluctuation without any realization of an economic loss runs head-on into the Dura prescription that an artificially inflated price alone will not establish economic loss. The court agreed that there could be no actual economic loss as contemplated in Dura when the stock’s value is commensurate to the pre-disclosure trading price, and that in fact, the stock could have been sold at a profit. Logically, said the court, “a plaintiff cannot demonstrate the amount the purchaser overpaid if the stock value rose greater than the purchase price on multiple occasions.” Ross, 668 F. Supp. 2d at 43. Although the court accepted that plaintiffs’ pleading obligation was to present only a facially plausible basis for loss causation, none was possible when the stock value returned to its pre-disclosure prices and could have been sold at a profit just after the class period. Defendants’ motion to dismiss was granted. Id.


if for no reason other than confounding factors or information being present in the efficient marketplace and which must be taken into account both in pleading and as a matter of proof. In all cases, however, loss causation in market fraud actions under section 10(b) and Rule 10b-5 after Dura, as a matter of both pleading and proof, is dependent upon the “truth” making its way, one way, or another, into or being revealed in an efficient marketplace. Although for the most part, the revelation of the truth in the market comes via a disclosure event that reveals some previously misrepresented or omitted fact, the notion is not a simple one. Additionally, some courts have recognized the viability of an alternative to the straightforward corrective disclosure means of cabining loss causation, suggesting that this would allow for a broader assertion of materialization of a concealed risk by reason of subsequent events or a series of later disclosures. In Part V below, the central focus of loss causation, as a matter of pleading and proof, on an examination of the genesis of a market loss. This is followed in Part VI by the further assessment of an emergent notion that the legal calculus of loss causation may not actually include a fraud causing the inflation of a market price, but rather that which only maintains a price unaffected by disclosures forming the basis of a claim.

V. CORRECTIVE DISCLOSURES, REVELATIONS OF THE TRUTH, AND MATERIALIZATION OF THE RISK

A. Corrective Disclosure

In assessing fraud-on-the-market loss causation claims under section 10(b) and Rule 10b-5, a “corrective disclosure” is that which reveals the truth of a prior false or misleading statement sufficient to put a defendant on notice of the claim. It must reveal some previously undisclosed fact, with regard to the representations that are the basis of the alleged stock price

208. See id.

209. See, e.g., In re DVI, Inc. Sec. Litig., No. 2:03-cv-05336, 2010 U.S. Dist. LEXIS 92888, at *24, *48 (E.D. Pa. 2010) (“[T]he market does not have to learn of possible fraud from the company itself, but may be informed by ‘whistleblowers, analysts questioning financial results, resignation of CFOs or auditors, announcements by the company of changes in accounting treatment going forward, newspapers and journals, etc.’”) (quoting Intelligroup Sec. Litig., 527 F. Supp. 2d 262, 297 n.18 (D.N.J. 2007)).


212. See infra Parts V.A-B.; see infra Parts VI A-B.

inflation. In one form or another, identification of a corrective disclosure and its linkage to the fraud underlying a claim are essential in pleading and ultimately proving loss causation. To withstand a motion to dismiss, the party must allege sufficient facts to support an inference that the stock price fell when previously concealed truths came to light.

Perhaps most simply stated: “[L]oss causation is not pled upon allegations of drops in stock price following an announcement of bad news that does not disclose the fraud.” In re Dell Incorporated Securities Litigation, illustrated this point when the court rejected plaintiffs’ claim that alleged misrepresentations made by the company and its senior management regarding the vitality of the company’s business model. Its prospects for growth, and its competitive position could not, for loss causation purposes, be connected to later press releases announcing disappointing earnings, after which the company’s stock price dropped. The later statements, said the court, did not reveal the falsity of any of the prior alleged misrepresentations, and could not qualify as corrective disclosures.

On the earnings disclosures specifically, the court concluded:

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214. See, e.g., New Orleans Emps. Ret. Sys. v. Omnicom Grp. Inc., 597 F.3d 501, 511 (2d Cir. 2010). (rejecting an asserted corrective disclosure which did not purport to reveal some then-undisclosed fact and which further amounted only to negative characterization of already public information). See also In re TECO Energy, Inc., 2006 U.S. Dist. LEXIS 18101, at *19-21 (M.D. Fla. 2006) (A securities complaint must be dismissed where the public statement is not corrective, in that it does not identify, reveal, or correct any prior misstatement or omission, or “does not specifically relate to the issues involved in an alleged fraudulent scheme.”).

215. “A corrective disclosure does not necessarily come in the form of a single announcement, but rather, can occur through a series of disclosing events.” In re Bristol Myers Squibb Co. Sec. Litig., 586 F. Supp. 2d 148, 165 (S.D.N.Y. 2008). However, partial disclosures or the “leakage” of corrective information must nevertheless actually be collectively corrective. The sufficiency of partial disclosures is discussed later in this section.


217. In re Tellium, Inc. Sec. Litig., No. 02-cv-5878 (FLW), 2005 U.S. Dist. LEXIS 26332, at *14 (D.N.J. Aug. 26, 2005); see also Tricontinental Indus. Ltd. v. Pricewaterhouse Coopers, LLP, 475 F.3d 824, 843-44 (7th Cir. 2007) (Complaint failed to identify any statements that made “generally known” any problems or irregularities in earlier audited statements that formed the basis of the §10(b) and Rule 10b-5 fraud claim). In Ross v. Career Educ. Corp., the court underscored the necessary linkage by rejecting a loss causation claim based upon alleged corrective disclosures relating to misrepresentations occurring in a specific time period said to have been exposed by corrective disclosures relating to a different time period. The court counseled: “Corrective disclosures limited to exposing misrepresentations from a specific time period apply only to that time period.” Career Educ. Corp., No. 12 C 276, 2012 U.S. Dist. LEXIS 155037, at *35 (N.D. Ill. Oct. 30, 2012).


220. Id. at 908, 910.
By Plaintiffs’ own admission, none of these disclosures reveals or specifically corrects any prior fraud or misrepresentation. Nor do the Plaintiffs allege these statements are in themselves misleading or anything other than a true reflection of the company’s earnings or expected earnings. Rather, Plaintiffs contend these disclosures qualify as “corrective” merely because they reduce the value of Dell stock and thereby unwind the fraudulent scheme. Disclosure of financial losses generally—even if those financial losses are a result of the specific concealed fact—is not sufficient to establish—or allege—loss causation.221

A corrective disclosure must actually disclose new information to the marketplace.222 Information already known to the marketplace, or which simply confirms information already known to the marketplace is not a corrective disclosure even if a negative stock price reaction follows.223 In In re Merck & Company,224 for example, in spite of the fact that a company’s stock price declined in response to later information reported in a news story, “bad news” concerning the greater extent of a company’s potential liability exposure than that already disclosed was held not to be a corrective disclosure of the fraud on which claims were grounded.225 Plaintiffs based

221. Id. at 909 (quoting In re Rhodia S.A. Sec. Litig., 531 F. Supp. 2d 527, 545 (S.D.N.Y. 2007) (internal quotation marks omitted)).

In Dell, the court applied a strict interpretation of what is a sufficient corrective disclosure, requiring that a corrective disclosure must, at a minimum, identify which prior representation is called into question. The court noted, however, that some courts have interpreted Dura more generally, treating “the loss causation requirement as more functional than facial; a disclosure is sufficiently ‘corrective’ if it dissipates the price inflation that had resulted from a defendant’s misrepresentations or omissions.” Dell, 591 F. Supp. 2d at 907 (quoting In re Motorola Sec. Litig., 505 F. Supp. 2d 501, 543 (N.D. Ill. 2007)). In Dell, however, the court found the stricter interpretation of corrective disclosure to be more consistent with Dura, and the requirement that a “plaintiff must allege facts demonstrating loss ‘after the truth becomes known’”. A more lenient standard, said the court, would “essentially allow[ing] a plaintiff to claim any announcement followed by a stock price drop which occurs after some alleged misrepresentation as a corrective disclosure.” Id.

222. See In re Almost Family, 2012 U.S. Dist. LEXIS 16857, at *39 (W.D. Ky. 2012). A Wall Street Journal article alleged to constitute a corrective disclosure presented no new information to the market. The article was based on a statistical analysis of financial statements and records already available to the public, leading the court to conclude that disclosures “must have revealed new, unknown information, which would allow the market to respond to the actual revelation of misconduct.” Id.

See also In re Magnum Hunter Res. Corp. Sec. Litig., 26 F. Supp. 3d 278, 300, (S.D.N.Y. 2014) (alleged corrective disclosures actually disclosed nothing new); In re Xerox Corp. Sec. Litig., 935 F. Supp. 2d 448 (D. Conn. 2013) (Disclosed fact must be new to the market, and a recharacterization of previously disclosed facts cannot qualify as a corrective disclosure.). “Confirmatory” information disclosed to the marketplace invites the same challenge in loss causation analysis. Confirmatory information is discussed specifically in Part VI(B). See infra Part VI.B.

223. Katyle, 637 F.3d at 473.

224. No. 1658 (SRC), No. 05-1151 (SRC), No. 05-2367 (SRC), 2013 U.S. Dist. LEXIS 77097 (D.N.J. May 29, 2013).

225. Id. at *40-43.
their claim on alleged false or misleading statements regarding the safety profile of Vioxx, which had been “withdrawn from the market by Merck based on concerns with its possible propensity to increase the risk of heart attack or stroke” among those taking the drug.\textsuperscript{226} Product liability suits followed, and a later \textit{Wall Street Journal} article reported information that “prompted analysts to make revised estimates of the damages that [might] flow from Vioxx-related lawsuits.”\textsuperscript{227}

In their fraud-on-the-market case, class plaintiffs posited that the later article revealed that “Merck’s liability exposure was much greater than previously thought,” and they proposed to amend their complaint accordingly.\textsuperscript{228} The court rejected the proposed amendment, however, because the alleged fraud, on which plaintiffs’ claims were based, was disclosed, “at the time Vioxx was withdrawn from the market.”\textsuperscript{229} The later article, said the court, “did not disclose the fraud on which Plaintiffs grounded their . . . claim and could not, therefore, ‘correct’ that fraud’s artificial inflation of Merck stock.”\textsuperscript{230} The court added:

This lawsuit is not premised on allegations that Merck misrepresented or concealed from investors material facts concerning Merck’s exposure to liability stemming from products liability suits and consumer fraud claims related to the alleged cardiovascular risks of Vioxx. Indeed, the public knew of such lawsuits being filed against Merck as early as May 29, 2001, yet as Plaintiffs themselves have maintained, the fraud giving rise to their § 10(b) claim is distinct from the negative Vioxx information disclosed to the public by virtue of those lawsuits.\textsuperscript{231}

Information constituting a corrective disclosure must be congruent with the fraud that forms the basis for the claim.\textsuperscript{232} In the same vein, a presentation that utilizes information obtained from publicly available

\begin{itemize}
\item \textsuperscript{226} \textit{Id.} at *32, 39-40.
\item \textsuperscript{227} \textit{Id.} at *33-35, 39-40.
\item \textsuperscript{228} \textit{Id.} at *39-40.
\item \textsuperscript{229} \textit{In re Merck & Co.}, 2013 U.S. Dist. LEXIS 77097, at *39-40, *42.
\item \textsuperscript{230} \textit{Id.} at *41.
\item \textsuperscript{231} \textit{Id.} at *42-42; \textit{but see} Mass. Ret. Sys. v. CVS Caremark Corp., 716 F.3d 229, 240 (5th Cir. 2013) (“A corrective disclosure need not be a ‘mirror image’ disclosure, [i.e.,] a direct admission that a previous statement was untrue,” but rather, the question is whether the alleged corrective disclosure, as a whole, plausibly revealed the alleged fraud sufficiently enough to drive down the price of the company’s stock” (quoting Alaska Pension Fund v. Flowserve Corp., 572 F.3d 221, 230 (5th Cir. 2009))).
\item \textsuperscript{232} \textit{See, e.g.}, Sood v. Catalyst Pharm. Partners, Inc., No. 13-cv-23878-UU, 2014 U.S. Dist. LEXIS 39825, at *13 (S.D. Fla. Mar. 25, 2014) (Plaintiff did not adequately allege loss causation where an article said to have revealed the misrepresentations, followed by a decline in the share price, at most addressed only two of five alleged misrepresentations, and the ensuing share price decline did nothing to imply that the other three alleged misrepresentations ever affected the value of the stock).
\end{itemize}
sources as the basis of analysis for expression of an opinion or conclusion bearing upon the accuracy of a previous disclosure will not qualify as a corrective disclosure, even if the opinion or conclusion concerning, or the analysis of the prior disclosure, is itself new to the marketplace. In Meyer v. Greene, the Eleventh Circuit put the issue in sharp perspective, with the court’s rejection of loss causation for purposes of a fraud-on-the-market based on an alleged corrective disclosure in the form of a presentation by a prominent investor. The presentation suggested that a company’s real estate “assets were significantly overvalued and therefore ‘should be’ impaired” — after which the company’s stock price declined some twenty percent.

In Meyer, investors alleged fraud-on-the-market against St. Joe Company, a large real estate development firm, along with its current and former officers and directors, claiming the company had, in annual and quarterly reports filed with the SEC, failed to write down the value of real estate holdings that had declined precipitously in value in a crumbling real estate market. Plaintiffs claimed “that the [c]ompany’s failure to take impairment charges resulted in [the] . . . overstatements of the value of its holdings and of its performance,” and concomitant artificially high stock price, during the class period, and that the truth about overstated real estate holdings began to be exposed when “a prominent short-sale hedge fund investor gave a presentation” in which he suggested the company’s were “significantly overvalued and therefore ‘should be’ impaired.” In the two days following the presentation, the company’s stock price declined nearly twenty percent. Plaintiffs argued that the presentation constituted “a corrective disclosure because it contained in-depth analysis of information not readily available to the investing public and revealed to the market that [the company’s] assets ‘needed to be impaired.’” However, their loss causation claim based on the presentation and its market impact was rejected in the district court and in the Eleventh Circuit. The presenter based the presentation expressly on publicly available information, and,

233. See generally Omnicom Grp. Inc., 597 F.3d at 511-12.
234. 710 F.3d 1189 (11th Cir. 2013).
235. Meyer, 710 F.3d at 1192, 1200.
236. Id. at 1192.
237. Id. at 1192-93.
238. Id. at 1193.
239. Id. at 1197.
240. Meyer, 710 F.3d at 1192, 1197.
241. Id. at 1193. The Eleventh Circuit noted:
as the Eleventh Circuit concluded: “Because a corrective disclosure obviously must disclose new information, the fact that sources used in the Einhorn Presentation were already public is fatal to the Investors’ claim of loss causation.” Under the Efficient Market Theory, said the Court, “any information released to the public . . . is immediately digested and incorporated into the price of a security.” “Corrective disclosures must present facts to the market that are . . . publicly revealed for the first time.”

Additional insight into the essential practical aspects of corrective disclosure for purposes of loss causation comes in more complex settings, as was presented in Plumbers, Pipefitters & MES Local Union 392 Pension Fund v. Fairfax Financial Holdings Limited, where plaintiff alleged that the company’s stock price had been artificially inflated as a result of undisclosed improper accounting practices. Plaintiff claimed that Fairfax, a Canadian financial services company engaged in property and casualty insurance and reinsurance, and insurance claims management, entered into reinsurance contracts with several entities in order to hide business losses and prevent disclosure of a liquidity crisis. The SEC commenced an investigation regarding the use of “finite reinsurance” contracts by major

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242. Id. at 1197-98 (citing FindWhat Investor Grp. v. FindWhat.com, 658 F.3d 1282, 1311 n.28 (11th Cir. 2011)).
243. Id. at 1197, 1199 n.11.
244. Id. at 1197-98 (quoting Katyle, 637 F.3d 462, 473). Meyer offers further insight into whether the “analysis” of public information or an opinion might be considered as something previously unavailable to the market, and thus qualifies as a corrective disclosure. The court rejected the notion. The problem with this argument, said the Court, is that the mere repackaging of already-public information by an analyst or short seller is simply insufficient to constitute a corrective disclosure, adding:

After all, if the information relied upon in forming an opinion was previously known to the market, the only thing actually disclosed to the market when the opinion is released is the opinion itself, and such an opinion, standing alone, cannot “reveal to the market the falsity” of a company’s prior factual representations.

Meyer, 710 F.3d at 1199. Thus, a negative characterization of previously disclosed facts does not constitute a corrective disclosure. See also Cent. States Se. & Sw. Areas Pension Fund v. Fed. Home Loan Mortg. Corp., 543 Fed. App’x 72, 75, 77 (2d Cir. 2013). The court affirmed dismissal of claims where, among other things, plaintiff did not allege that a Barron’s article analyzing the defendant’s financial statements “was based on anything other than the application of the author’s own analytical skill to data that the defendant had reported” and was already available to investors. The court further concluded that two New York Times articles discussing the reasons for the Freddie Mac conservatorship had been previously revealed to the marketplace. The court also concluded that, at most, “the third party articles and reports expressed negative opinions about Freddie’s solvency based on information that was already publicly available”, and that “such disclosures are not ‘corrective’ for the purposes of pleading loss causation.”

246. See Fairfax Financial, 886 F. Supp. 2d at 332.
247. See id. at 331-32.
insurers and reinsurers. The SEC investigation focused on many companies, including Fairfax, and led to the issuance of subpoenas to Fairfax, for production of its reinsurance contracts, and for testimony by its CEO. During this period, Fairfax issued press releases notifying its investors of the circumstances surrounding the SEC investigation, including the fact that the company’s auditors had also been subpoenaed. “In each press release, [the company] emphatically denied [any] wrongdoing.” Also, during this period several news outlets reported on the industry-wide SEC investigation “into the accounting of finite reinsurance contracts.”

The company’s common stock price declined significantly with reports “of the SEC investigation and [with the company’s] financial restatements.” Plaintiff asserted its section 10(b) and Rule 10b-5 claims based on that decline, which it claimed resulted from a revelation of information by the company in its press releases, and from news reports, concerning the SEC investigation. This asserted revelation did not fare well with the court. With the focus of the alleged fraud being prior undisclosed, improper accounting practices, said to have artificially inflated the stock price, the court found no logical connection between the press releases and plaintiff’s “vague allegations of manipulations and improper accounting.” The court set forth that the press releases did not “provide any indication of mismanagement other than potential issues related to finite reinsurance contracts.” Judge Keenan further explained:

Plaintiff is essentially arguing that the press releases made shareholders aware of the issues surrounding Fairfax’s finite reinsurance contracts, which, by some unexplained connection, also disclosed to shareholders that Fairfax was an irresponsible company. While loss causation certainly need not be demonstrated explicitly, Plaintiff’s purported relationship between the press releases and Fairfax’s improper accounting mechanisms is far too tenuous to support a claim.

248. See id. at 332.
249. Id.
250. Id.
252. Id.
253. Id.
254. Id.
255. Id. at 338.
257. Id.
258. Id.
Simply put, he added:

While the press releases directly address the investigations into the finite reinsurance contracts, they do not mention any investigation into Fairfax’s general accounting policies and practices. Thus, an investor would not be put on notice that Fairfax was engaging in the type of fraudulent accounting practices that Plaintiff alleges.\(^{259}\)

The result was the same in *Kinnett v. Strayer Education, Inc.*,\(^ {260}\) where the district court adopted findings of a Magistrate Judge that the reaction of a company’s CEO communicated to an analyst concerning negative publicity influencing the industry did not correct any prior disclosures by the company, or reveal any omissions, which negatively affected the price of the company’s stock.\(^{261}\) Strayer is a publicly traded for-profit educational institution that receives nearly all of its revenue from student tuition payments.\(^{262}\) The plaintiff alleged that Strayer had deceived the market by making public statements that it neither “pushed,” “managed,” or “controlled” student enrollment numbers—representations which, according to plaintiff, signaled to the market that Strayer did not engage in high pressure “recruiting tactics designed to. . . push or force students to enroll against [their] best interests.”\(^{263}\) Alleging that enrollment growth at Strayer was in fact the result of a high-pressure sales environment, in which Strayer employed illegal or improper recruiting tactics, plaintiff claimed that by its statements, Strayer artificially inflated the market price of its stock.\(^{264}\)

During the period when the Strayer stock price was allegedly inflated, a Government Accountability Office (“GAO”) report issued, addressing fraudulent recruiting and enrollment practices in the for-profit educational industry generally.\(^{265}\) “Strayer was neither investigated by the GAO nor was it named in the [GAO] Report.”\(^{266}\) It did, however, become caught up along with other similar institutions in a subsequent congressional inquiry into recruiting and enrollment practices in the industry, and the Department of Education began a specific review of certain of Strayer’s practices.\(^{267}\) Strayer subsequently reported a significant decline in student enrollments in

\(^{259}\) *Id.*


\(^{262}\) *Id.* at *4.

\(^{263}\) *Id.*

\(^{264}\) *Id.* at *5.

\(^{265}\) *Id.*

\(^{266}\) *See Strayer*, 2012 U.S. Dist. LEXIS 37733, at *5.

\(^{267}\) *Id.*
the following quarter. Upon release of that information, its CEO spoke with an analyst who inquired about an explanation, stating:

I do think that negative publicity and just a general sense of — you have to bear in mind the difficulty that students go through in terms of deciding to go back to school, there is always a lot of reasons not to do it, and the negative publicity in the last four or five months certainly has had an impact. We have also been I would admit somewhat distracted internally here over the last two or three months just in dealing with some of the ramifications of not just the publicity but the actual government activity.

On the same day, Strayer’s stock price plummeted. Plaintiff contended that the CEO’s statement to the analyst that “governmental activity” affected Strayer’s enrollments was a “revelation” that “corrected the market’s previous misconception . . . that Strayer [did] engage in improper recruiting tactics.” On Strayer’s motion to dismiss the complaint based on plaintiff’s loss causation assertion, the Magistrate Judge concluded otherwise:

These statements do not lead to the conclusion [the lead plaintiff] asks the Court to reach, namely that Defendant’s admission that Strayer’s enrollments were affected by “governmental activity” revealed that Strayer’s enrollment practices had not previously conformed with the government standards, as codified in the Higher Education Act or Strayer’s internal code of ethics, or that Defendants modified Strayer’s enrollment practices because of government scrutiny . . . . [N]othing in the statements corrects any prior disclosures by or reveals any omissions on the part of Defendants which negatively affected the price of Strayer stock.

Over plaintiff’s objection, the district court adopted the Magistrate’s conclusion, and dismissed the complaint with prejudice. There was no logical connection between statements by Strayer that it “neither ‘pushed,’ ‘managed,’ nor ‘controlled’ student enrollment numbers” and its CEO’s subsequent statement to an analyst that negative publicity for the industry

268. Id. at *5-6.
269. Id. at *6-7.
270. See id. at *7.
272. Id. at *7-8.
273. See id. at *8.
and actual governmental activity offered an explanation for the decline in student enrollments.\(^{274}\)

*Strayer* underscores the requirement in pleading, and ultimately proving, loss causation in actions under section 10(b) and Rule 10b-5 that any asserted revelation or corrective disclosure must have actually alerted investors that prior information, which disseminated into the marketplace, was materially false or misleading, or that actual wrongdoing had occurred.\(^{275}\) This is not to say that there must be “fact-for-fact” pleading regarding corrective disclosures.\(^{276}\) However, in every case, a particular disclosure will support a loss causation allegation only if it has a sufficient nexus to a prior misstatement, and at least in part reveals the falsity of that prior misstatement.\(^{277}\) Plaintiffs must show why particular “disclosures should be considered corrective, such that corresponding losses can be reliably attributed to the revelation of fraud rather than other factors.”\(^{278}\)

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\(^{274}\) *Id.* at *4.

\(^{275}\) See *Sapssov v. Health Mgmt. Assocs., Inc.*, 22 F. Supp. 3d 1210, 1229-30 (M.D. Fla. 2014) (revelation of an investigation, standing alone, did not reveal any actual wrongdoing, and could not qualify as a corrective disclosure).

\(^{276}\) See *Prime Mover Capital Partners L.P. v. Elixir Gaming Techs., Inc.*, 898 F. Supp. 2d 673, 686-88 (S.D.N.Y. 2012). The complaint failed to allege that the truth about three categories of alleged misstatements was *ever* revealed, and the truth about misstatements never reaching the marketplace could not have caused a decline in the stock. \(\text{See id.; see also Wallace v. Intralinks, 2013 U.S. Dist. LEXIS 65958, at *28 (S.D.N.Y. 2013).}\) (complaint did not claim that the market was informed on issues going to revenue recognition and accounting policies that were the subject matter of plaintiffs’ market fraud claim).

\(^{277}\) See, e.g., *Prissert v. EMCORE Corp.*, 894 F. Supp. 2d 1361, 1375, 1377 (D.N.M. 2012); see also *In re AOL Time Warner, Inc. Sec. Litig.*, 503 F. Supp. 2d 666, 677-78 (S.D.N.Y. 2007). In *Prissert*, plaintiffs relied on two negative third party reports expressing pessimism about the future of the
The Fifth Circuit has stated the obligation as requiring plaintiffs to “allege the truth that emerged was ‘related to’ or ‘relevant to’ the defendants’ fraud and earlier misstatements.” In Public Employees’ Retirement System of Mississippi v. Amedisys, Inc., the court embraced a test for “relevant truth” as the appropriate standard to measure corrective disclosures as they pertain to alleging loss causation. The court described the test as simply meaning “that the truth disclosed must make the existence of the actionable fraud more probable than it would be without that alleged fact, taken as true.”

Revelation of the truth for purposes of loss causation in market fraud cases need not happen by way of a single event or disclosure. Many have offered partial disclosures as corrective disclosures for purposes of loss causation under a “leakage theory [which] posits a gradual exposure of the fraud rather than a full and immediate disclosure.” In Dura, the Supreme Court itself spoke of the truth beginning to “leak out” and “make its way into the marketplace,” thus supporting the notion that the truth may be revealed over time through disclosures that are collectively corrective.

Company as revelations of the truth of prior alleged misrepresentations touting the strength of the company’s business as being sufficiently connected to drops in the company’s stock price. See Prissert, 894 F. Supp. 2d at 1375. As the court characterized plaintiffs’ argument:

Essentially, Plaintiffs argue that the Complaint adequately alleges loss causation because Defendants’ misrepresentations can be described as having presented EMCORE’s solar terrestrial business as “strong,” while the revelations in the Citron and Canaccord Reports can be described as presenting EMCORE’s solar terrestrial business as “weak.”

Id. at 1376. The court deemed this an unacceptable corrective disclosure for pleading loss causation:

The only “truth” revealed in the Citron and Canaccord Reports was the inability of CGE and ES System to meet their contractual obligations to EMCORE. In contrast, the only misrepresentations identified by Plaintiffs were Defendants’ statements and omissions regarding EMCORE’s own abilities to meet the CGE contracts, the third CGE Order, and the ES System Order. There thus are simply no allegations in the Complaint demonstrating that the truth regarding “the very misrepresentations at issue,” —as opposed to the “truth” regarding another “weakness” of EMCORE’s solar terrestrial business— was actually revealed to the market in either the Citron Report or the Canaccord Report.

Prissert, 894 F. Supp. 2d at 1377.
279. Pub. Emples, 769 F.3d at 321.
280. 769 F.3d 313 (5th Cir. 2014).
281. Id. at 320.
282. Id. at 321.
283. Id. at 320-22.
284. See Williams Sec. Litig. 558 F.3d 1130, 1138 (10th Cir. 2009); see also Phillips v. Triad Guaranty Inc., 2013 U.S. Dist. LEXIS 77734, *47 (M.D.N.C. 2013) (“The alleged disclosures in the complaint each reflected the partial materialization of the concealed risk.”).
286. See Bradley Pharmaceuticals, Inc. Sec. Litig., 421 F. Supp. 2d 822, 828-29 (D.N.J. 2006) (“Guided by a pragmatic understanding of Dura, the Court concludes that Plaintiffs have adequately pled loss causation. The revelation of the ‘truth’ about the Deconamine sale did not take the form of a
Offering a series of partial disclosures, however, does not alter the fundamental requirement that, taken together, the disclosures must actually reveal something about the fraud underlying the market fraud claim. In *Kuriakose v. Federal Home Loan Mortgage Corporation*, for example, plaintiffs alleged that a series of articles and events reporting a Moody’s downgrade, and regarding the federal government’s plan to rescue Freddie Mac, and other news articles addressing the depletion of Freddie Mac’s capital, were “partial disclosures” that revealed fraud by Freddie Mac in previous misrepresentations regarding its capital adequacy. The court found, however, that the articles and events cited by plaintiffs as partial disclosures failed to disclose anything about the alleged scheme underlying the lawsuit. As the court characterized them:

> [T]hese “partial disclosures” indicate nothing more than that Freddie Mac was in a precarious financial position throughout the Class period—hardly something that, alone, could establish liability. The news articles about credit losses and Freddie Mac’s capital merely synthesized information that was already known to investors. Similarly, the Moody’s downgrade does not signal anything about Freddie Mac’s capital adequacy . . . News articles about the looming conservatorship for Freddie Mac also do not constitute a corrective disclosure, as they do nothing to reveal that Freddie Mac executives were embroiled in a fraudulent scheme to distort its financials.

The court additionally concluded that, “[b]ecause all relevant information was already available to investors, these purported disclosures could not possibly be considered corrective.”

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287. See Bradley, 421 F. Supp. 2d at 826.
289. *Id.* at 174.
290. *Id.* at 177.
291. *Id.* at 177.
292. *Id.; see also Teachers’ Ret. Sys. v. Hunter*, 477 F.3d 162, 187 (4th Cir. 2007). A corollary consideration is that a negative characterization, or a re-characterization, of previously disclosed facts does not constitute a corrective disclosure. *See Omnicom*, 597 F.3d at 512.; *see also Retek Inc. Sec. Litig.*, 621 F. Supp. 2d 690, 705 (D.Minn. 2009) (“Generally, a re-characterization of previously disclosed news cannot be a corrective disclosure for loss causation purposes.”); *In re Merrill Lynch & Co. Research Reports Sec. Litig.*, 568 F. Supp. 2d 349, 363 (S.D.N.Y. 2008) (“The mere negative characterization of existing facts that were never hidden from investors does not permit [a plaintiff] to plead loss causation.”).
Simply put, in all cases based on partial disclosures there must be an actual revelation of the truth in the marketplace. As the Tenth Circuit has instructed:

A plaintiff cannot simply state that the market had learned the truth by a certain date and, because the learning was a gradual process, attribute all prior losses to the revelation of the fraud. The inability to point to a single corrective disclosure does not relieve the plaintiff of showing how the truth was revealed; he cannot say, “Well, the market must have known.”

This is also to say that disclosures revealing only the possibility, risk, or potential of wrongdoing will not suffice in pleading loss causation. Where loss causation allegations are based on the announced commencement of an SEC investigation, the investigation in and of itself does not reveal to the market that the company’s prior statements were false or misleading, although the stock price may fall on the announcement. In Meyer v. Greene, discussed earlier, the Eleventh Circuit saw an announced SEC investigation as portending “an added risk of future corrective action.” However, the announcement did not reveal prior false or misleading statements, and could not support a loss causation allegation. In the same context, another court addressed the absence of any revelation of actual wrongdoing:

[D]isclosures regarding compliance with an SEC investigation, subpoenas from the United States Attorney’s office, and the formation of its own Special Committee to investigate options granting practices do not reveal the alleged fraud. A reasonable investor may view these disclosures as indicators of risk because they reveal the potential existence of future corrective information. However, they do not themselves indicate anything more than a “risk” or “potential” that Defendants engaged in widespread fraudulent conduct. Thus, the Court finds that these statements are

293. *Williams*, 558 F.3d at 1138. *But see* Burt v. Maasberg, 2014 U.S. Dist. LEXIS 41982, *72 (D.Md. 2014) (that alleged market manipulation would artificially depress the stock price was either self-evident or clearly explained in the complaint, even to the extent of alleging that some defendants admitted that actions would cause a decline in the price of the stock).
295. *See, e.g.*, Omnicom, 597 F.3d at 511, 514.
296. *See Meyer*, 710 F.3d at 1201.
297. *Id.*
not corrective disclosures for which Plaintiffs can plead loss causation.\footnote{298. In re Maxim Integrated Prods. Inc. Sec. Litig., 639 F. Supp. 2d 1038, 1047 (N.D. Cal. 2009). See also Sapssov v. Health Mgmt Associates, Inc., 22 F. Supp. 3d 1210, 1223 (M.D. Fla. 2014) (revelation of subpoenas and an investigation by the Department of Health and Human Services, Office of the Inspector General, standing alone, did not reveal any actual wrongdoing, and was not a corrective disclosure; nor was a security analyst’s report informing the market of particular details of a previously reported lawsuit when it merely repackaged information obtained from a public docket).}

On the other hand, flatly rejecting the notion that an announcement of a governmental or regulatory investigation standing alone will not constitute a partial corrective disclosure, the court in \textit{In re Gentiva Securities Litigation},\footnote{299. 932 F. Supp. 2d 352 (E.D.N.Y. 2013).} was satisfied that a significant stock price decline following an announcement of an investigation dealing with certain business practices and financial reporting would constitute a corrective disclosure for pleading loss causation.\footnote{300. \textit{Gentiva}, 932 F. Supp. 2d 352, 385-87.} Acknowledging that several courts have found that the announcement of a subpoena or an investigation alone will not suffice as a corrective disclosure absent an actual revelation of fraud, the \textit{Gentiva} court nevertheless opined:

\begin{quote}
\textbf{[T]he court rejects the idea that the disclosure of an investigation, absent an actual revelation of fraud, is not a corrective disclosure. To embrace this notion would be to preclude any type of action such as this, where there has been no conclusive finding of fraud by a government agency, or a criminal charge initiated, or a formal corrective disclosure by the defendant. Here, there are factual allegations of fraudulent conduct, and at this stage of the litigation, the court must accept these factual allegations. To preclude this suit on the basis that there has been no previous actual disclosure of fraud from sources such as whistleblowers, analysts’ questioning financial results, resignations of CFOs or auditors, or newspapers, misses the mark. The inherent veracity of this information is the paramount concern and the form that it takes is not as critical. To find that the Plaintiff can only succeed here if there something exposed that is more than a possibility or probability or indicator of fraud is too narrow a view.} \footnote{301. \textit{Id.} at 387-88.}
\end{quote}

The court decided, “the announcement of a governmental investigation is the type of non-public new information that was not previously available to
the marketplace.\textsuperscript{302} As such, it is not information that was already reflected in the market price of the subject company’s securities.\textsuperscript{303}

Partial disclosures generally, as the basis for establishing loss causation, are often more easily assessed under the “materialization of risk” approach discussed in detail in Part V (B) below.\textsuperscript{304} Materialization of risk better encompasses a process of the truth unfolding. However, the revelation of the truth of a specific misrepresentation is approached, whether by full or partial corrective disclosures or events, whatever truth is revealed must clearly be linked to the subject of the alleged misstatements or omissions to establish loss causation.\textsuperscript{305}

\subsection*{B. Materialization of an Undisclosed Risk}

Loss causation based on the corrective disclosure theory requires pairing a materially false or misleading representation with a later corrective statement and its demonstrable adverse impact on the price of a security determined in an efficient market.\textsuperscript{306} As the discussion in this article makes clear, a corrective disclosure must reveal some previously undisclosed or misrepresented fact with regard to the specific misrepresentation alleged to be false or misleading.\textsuperscript{307} An alternative approach to loss causation articulated by some courts looks to a disclosure event, or events, constituting the materialization of an undisclosed or misrepresented risk.\textsuperscript{308}

The U.S. Court of Appeals for the Second Circuit most prominently articulated “Materialization of the risk” as an independent theory of loss causation in \textit{Lentell v. Merrill Lynch & Company, Inc.}\textsuperscript{309} In \textit{Lentell}, the Second Circuit embraced the notion that loss causation may be established when the subject of a materially false or misleading statement is the cause of the actual loss suffered, rather than a specific false or misleading statement itself.\textsuperscript{310} The key consideration is whether the subject of asserted false or misleading statements is such as to create a “zone of risk” concealed by the misrepresentations.\textsuperscript{311} In an earlier decision, setting the foundation for what \textit{Lentell} ultimately articulated, the Second Circuit explained:

\textsuperscript{302} \textit{Id. at 388.}
\textsuperscript{303} \textit{Id.}
\textsuperscript{304} \textit{See supra Part V.B; Gentiva, 932 F. Supp. 2d at 381-82.}
\textsuperscript{305} \textit{See also Flag Telecom Holdings, Ltd. Sec. Litig., 574 F.3d 29, 41 (2d Cir. 2009) (“Plaintiffs have not presented sufficient evidence on which the lower court could conclude that any of the events revealed the truth about the subject of any of the Defendants’ alleged misstatements.”).}
\textsuperscript{306} \textit{Williams, 558 F.3d at 1140.}
\textsuperscript{307} \textit{Id.}
\textsuperscript{308} \textit{See, e.g., id. at 1142.}
\textsuperscript{309} \textit{Lentell, 396 F.3d at 173.}
\textsuperscript{310} \textit{Id. (citing Suez Equity Investors, L.P. v. Toronto-Dominion Bank, 250 F.3d 87, 95 (2d Cir. 2001)).}
\textsuperscript{311} \textit{Lentell, 396 F.3d at 173.}
If the significance of the truth is such as to cause a reasonable investor to consider seriously a zone of risk that would be perceived as remote or highly unlikely by one believing the fraud, and the loss ultimately suffered is within that zone, then a misrepresentation or omission as to that information may be deemed a foreseeable or proximate cause of the loss.\textsuperscript{312}

An approach based on the “zone of risk” does not, however, lessen the need to demonstrate, as a matter of pleading and ultimately proof, that alleged misstatements and omissions actually concealed the risk bearing on the loss suffered, such that, absent the fraud, the plaintiffs would not have incurred some ascertainable portion of the claimed loss.\textsuperscript{313} In Lentell, the court rejected a conclusory assertion that plaintiffs were injured because the risks that materialized were risks of which they were unaware as a result of the alleged scheme to defraud, and that they would not have been injured absent the scheme.\textsuperscript{314} This, said the court, was only a legal conclusion, missing the “necessary allegations of fact to support the conclusion.”\textsuperscript{315} The court added:

We do not suggest that plaintiffs were required to allege the precise loss attributable to Merrill’s fraud, or that “systematically overly optimistic” ratings of the type published by the Internet Group are categorically beyond the reach of the securities laws. But where (as here) substantial indicia of the risk that materialized are unambiguously apparent on the face of the disclosures alleged to conceal the very same risk, a plaintiff must allege (i) facts sufficient to support an inference that it was the defendant’s fraud rather than other salient factors that proximately caused plaintiff’s loss; or (ii) facts sufficient to apportion the losses between the disclosed and concealed portions of the risk that ultimately destroyed an investment.\textsuperscript{316}

\textsuperscript{312} Castellano v. Young & Rubicam, Inc., 257 F.3d 171, 188 (2d Cir. 2001) (citing AUSA Life Ins., 206 F.3d at 235).
\textsuperscript{313} See Lentell, 396 F.3d at 175.
\textsuperscript{314} See id.
\textsuperscript{315} Id. at 176.
\textsuperscript{316} Id. at 177; see also Prime Mover Capital Partners, L.P. v. Elixir Gaming Tech., Inc., 898 F. Supp. 2d 673, 685-86 (S.D.N.Y. 2012). Here, plaintiff failed to show materialization of any risk that was actually concealed. The claim was based on what were in fact forward-looking statements that included appropriate cautionary language. Moreover, the defendants, in SEC filings and conference calls, had repeatedly warned of the risk that projections, specifically including those forming the basis of Plaintiffs’ claim, would not be met. See id.
Foreseeability plays a critical role in loss causation analysis based on the materialization of an undisclosed risk.\textsuperscript{317} Plaintiffs must demonstrate that materialization events were foreseeable consequences of the alleged fraud, and that these events revealed new information that effectively materialized the alleged concealed risk.\textsuperscript{318}

Undisclosed “risk” is a somewhat amorphous notion that can easily run counter to the modicum of precision required in pleading loss causation.\textsuperscript{319} As such, it does not come as a surprise that in \textit{New Orleans Employees Retirement System v. Omnicom Group, Inc. Securities Litigation},\textsuperscript{320} the Second Circuit cautioned:

The securities laws require disclosure that is adequate to allow investors to make judgments about a company’s intrinsic value. Firms are not required by the securities laws to speculate about distant, ambiguous, and perhaps idiosyncratic reactions by the press or even by directors. To hold otherwise would expose companies and their shareholders to potentially expansive liabilities for events later alleged to be frauds, the facts of which were known to the investing public at the time but did not affect share price, and thus did no damage at that time to investors. A rule of liability leading to such losses would undermine the very investor confidence that the securities laws were intended to support.\textsuperscript{321}

In \textit{Omnicom}, plaintiffs alleged fraud based on continuous media reports concerning a corporate divestiture transaction that plaintiffs claimed failed to disclose that accounting for the transaction was fraudulent.\textsuperscript{322} Plaintiffs claimed that facts not disclosed by the company to the market in news articles raised doubts about the company’s valuation of assets involved in the transaction.\textsuperscript{323} Furthermore, the company’s stock price dropped when later negative news reports indicated that a director who chaired the company’s audit committee had resigned due to concerns over general accounting practices and governance problems.\textsuperscript{324} Seeking recovery of market losses, plaintiffs alleged, among other things, that the resignation and ensuing negative media attention were foreseeable risks of the allegedly

\textsuperscript{317} See Lentell, 396 F.3d at 174.
\textsuperscript{318} See \textit{id.} at 173.
\textsuperscript{319} \textit{Omnicom}, 597 F.3d at 509-11.
\textsuperscript{320} \textit{id.} at 501.
\textsuperscript{321} \textit{id.} at 514.
\textsuperscript{322} \textit{id.} at 504.
\textsuperscript{323} \textit{id.}
\textsuperscript{324} \textit{Omnicom}, 597 F.3d at 505-08.
fraudulent divestiture. The district court, however, granted summary judgment for defendants.

On appeal, applying both the corrective disclosure and materialization of the risk approaches to loss causation, the Second Circuit affirmed, finding insufficient evidence that the fraud alleged by plaintiffs caused the drop in the stock price, and their consequent losses. The court held that although the resignation and resulting negative press “stirred investor’s concerns that other unknown problems were lurking in Omnicom’s past[,] . . there [was] no allegation that investors were ever told [in any news reports] that improper accounting had in fact occurred with regard to the [corporate] transaction . . . .” Put in materialization of the risk terms, the risk that caused the loss was not within the zone of the company’s allegedly concealed risk.

In loss causation assessments, materialization of risk is most easily understood in terms of materialization of an event that is the manifestation of the allegedly concealed risk in statements disseminated to the marketplace. In re Massey Energy Company Securities Litigation, a disastrous mine explosion was recognized for pleading purposes to be the event constituting the materialization of a risk concealed by the mining company in prior public disclosures going to its safety and compliance record. Plaintiffs alleged that the explosion represented the materialization of the risk that the company had “fraudulently concealed and downplayed risks to the safety of miners and the extent to which [it] was in compliance with regulatory requirements . . . .” The price of Massey common stock allegedly inflated as a result of “false and misleading statements and omissions about the safety of, and risks to, [the company’s] mining operations.” “On the day following the explosion, [the price of] Massey’s common stock fell from $54.69 to $48.45, a one-day drop of 11.4%. . . .” A day later, “the stock dropped another $3.23”, and in the days and weeks that followed the explosion, the stock price continued to fall as news of “the explosion became nationally publicized” and “information about Massey’s safety and compliance record” was released.

325. Id. at 511, 513.
327. See Omnicom, 597 F.3d at 511-14.
328. Id. at 514.
329. See id. at 513-14.
331. Id.
332. Id. at 626.
333. Id. at 625-26.
334. Id. at 608.
336. Id.
Against this backdrop, plaintiffs alleged in support of a section 10(b) and Rule 10b-5 market fraud claim that the company “conceal[ed] conditions that were likely to—and ultimately did—lead to mining accidents, reduced production, increased operating and regulatory costs, and lower profits.” Massey countered that the claim failed as a matter of law, alleging, among other things, that “plaintiffs . . . failed to state a coherent theory of loss causation.” The company additionally argued:

The alleged misleading statements [forming the basis of the plaintiffs’ claim], even if presumed to be true, lacked the requisite specificity to perpetrate a fraud on the market given that accurate information about the Company’s safety record was [publicly] available to the market throughout the class period . . . .

However, all of the company’s arguments were rejected, and in denying the motion to dismiss, the court’s attention to the sufficiency of pleading loss causation is particularly significant. The Massey plaintiffs spoke of “corrective events” as removing the artificial inflation from Massey’s shares by causing the share price to decline. The mine explosion, they maintained, was an “immediate manifestation of the extent and magnitude of risks concealed from investors.” They further alleged that events in the wake of the explosion demonstrated, among other things, that the immediate financial impact of the company’s allegedly “illegal and unsafe mining practices” provided further manifestation of hidden risks arising from misconduct. The court was satisfied that even without these allegations of subsequent events, however, loss causation was properly alleged based on just the explosion. The materialization of the risk concealed or misrepresented in Massey’s prior statements, said the court, was realized in the explosion:

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337. Id. at 612, 625-26 (emphasis added).
338. Id. at 613.
339. Id. With this assertion, the company invoked what has evolved in market fraud litigation as the “truth-on-the-market” defense. See, e.g., Ganino v. Citizens Utilities Co., 228 F.3d 154, 167 (2nd Cir. 2000). Under the truth-on-the-market, corollary to fraud-on-the-market, “a misrepresentation is immaterial if the information is already known to the market . . . .” Id. at 167. Thus, “[a] defendant may rebut the presumption that its misrepresentations have affected the market price of its stock by showing that the truth of the matter was already known.” Id. “The truth-on-the-market defense is intensely fact-specific . . . .” Id. In Ganino, the court rejected application of the truth-on-the-market doctrine on a motion to dismiss where on the record presented it could not be decided whether disclosures alleged to be the truth “were conveyed with sufficient ‘intensity and credibility’ as to dispel the false impression created by the [defendant’s] alleged misrepresentations.” Id. at 168.
341. See id. at 625.
342. See id.
343. Id.
344. Id. at 626.
The explosion and the cause of the explosion revealed to the market the fraudulent nature of which Plaintiffs complain, specifically, that Defendants mislead the market about the safety at its mines and its commitment to put production over safety. Therefore, the Court finds that Plaintiffs have sufficiently alleged particular facts supporting an allegation that its losses were caused by Massey’s misleading and false statements about the safety of its mines.

The mine explosion in Massey was a disclosure event in starkest terms. The connection to prior disclosures by the company to the market on mine safety and compliance was not attenuated where plaintiffs alleged that investigations showed the “cause of the explosion largely [to have] involved basic mine safety practices that were not adhered to” by Massey.

Although it focused on the sufficiency of evidence of loss causation at trial rather than for pleading purposes, the Eleventh Circuit analysis in Hubbard v. BankAtlantic Bancorp, Inc. is particularly instructive on application of materialization of risk as a basis for showing loss causation generally. In Hubbard, plaintiffs claimed they purchased the defendant’s stock at artificially inflated prices because the defendant fraudulently concealed the poor quality of its commercial real estate portfolio. Plaintiffs alleged that their shares lost value when the market revealed the portfolio’s deterioration.

At trial, plaintiff’s expert attempted to assign the entire thirty-eight percent decrease in the defendant’s stock price during the relevant period to the defendant’s disclosure of weakness in its commercial real estate portfolio—the materialization of a risk previously concealed in public statements and SEC filings. The expert attempted to isolate the

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345. In re Massey, 833 F. Supp. 2d at 626.
346. See id.
347. See id.; but see Solow v. Citigroup, Inc., 827 F. Supp. 2d 280, 292-93 (S.D.N.Y. 2011). In Solow, plaintiffs claimed that misstatements and omissions by Citigroup regarding its liquidity and capitalization artificially inflated its stock price, and that plaintiffs investments in Citigroup shares lost value as these misstatements and omissions were revealed to the public. Id. at 292. The revelations, according to plaintiffs came in a series of five events, all essentially consisting of public statements by Citigroup over a period of three months, but as to none of which the plaintiffs offered any explanation how the events related to Citigroup’s liquidity and capital position. Id. at 292-93. Although plaintiffs attempted in their complaint to link the five events with concealed risks of lack of liquidity or inadequate capitalization, their complaint failed to explain how any of the events related to those concealed risks. Id. at 293.
348. 688 F.3d 713 (11th Cir. 2012). Proving loss causation at trial is discussed later in this paper. See infra Part VII(C).
349. See generally Hubbard, 688 F.3d at 725-30.
350. Id. at 720-21.
351. Id. at 721.
352. See id. at 728-29.
materialization of the effect of any company-specific factors from general market trends in the banking industry.\textsuperscript{353} However, the expert failed “to account for the effects of the collapse of the Florida real estate market . . . [where the defendant’s] assets were concentrated in loans tied to Florida real estate”—the risk of which the defendant was not accused of concealing.\textsuperscript{354} Given this failure, the court concluded there was insufficient evidence to support a finding of loss causation under section 10(b) and Rule 10b-5 where the risk that materialized was not the risk that was concealed and to which the loss was said to be linked:

To support a finding that Bancorp’s misstatements were a substantial factor in bringing about its losses, therefore, State-Boston had to present evidence that would give a jury some indication, however rough, of how much of the decline in Bancorp’s stock price resulted not from the fraud but from the general downturn in the Florida real estate market—the risk of which Bancorp is not alleged to have concealed.\textsuperscript{355}

Furthermore, the court stated:

None of its evidence excluded the possibility that class members’ losses resulted not from anything specific about BankAtlantic’s commercial real estate portfolio that Bandcorp hid from the public, but from market forces that of—and that would likely have caused significant losses for an investor in any bank with a significant credit portfolio in commercial real estate in Florida in 2007.\textsuperscript{356}

As a practical matter, the assessment in Hubbard also highlights the notion of “confounding factors” which must be fully taken into account in any particular econometric analysis of loss causation offered as evidence.\textsuperscript{357} Part VII of this article will closely examine confounding factors and the use of event studies in identifying the limits of loss causation as a matter of proof in private actions under section 10(b) and Rule 10b-5.\textsuperscript{358}

Materialization of risk as an independent basis for alleging loss causation is not without its critics.\textsuperscript{359} In In re Williams Securities Litigation,\textsuperscript{360} the court expressed concern that the loss causation

\textsuperscript{353} Id. at 729.
\textsuperscript{354} Hubbard, 688 F.3d at 729.
\textsuperscript{355} Id.
\textsuperscript{356} Id. at 730.
\textsuperscript{357} See id. at 729-30.
\textsuperscript{358} See infra Part VII.
\textsuperscript{359} See generally In re Williams Sec. Litig., 496 F. Supp. 2d 1195, 1266 (N.D. Okla. 2007).
\textsuperscript{360} 496 F.Supp. 2d 1195 (N.D. Okla. 2007), aff’d, 558 F.3d 1130 (10th Cir. 2009).
requirement prescribed by the Supreme Court in *Dura* could be “entirely undermined” in some circumstances.\textsuperscript{361} If, for example, an “overall implosion of shareholders’ equity in the relevant industry” occurred, pleading materialization of risk might excuse a plaintiff “from the obligation to separate the effects of fraud-related [stock price] inflation from the effects of non-fraud risks by asserting simply [to be] the victim of materialization of a fraudulently concealed risk.”\textsuperscript{362} Another court has cautioned that accepting materialization of risk for pleading loss causation could “eviscerate *Dura*’s loss causation requirement, as any negative earnings news following [an alleged] misrepresentation could, arguably, ‘materialize’ the risk of a prior misrepresentation.”\textsuperscript{363} Perhaps the strongest negative assessment, voiced by Judge Easterbrook in the Seventh Circuit with his observation in *Schleicher v. Wendt*,\textsuperscript{364} is that materialization of risk simply has no significance—that “it is not a legal doctrine or anything special as a matter of fact.”\textsuperscript{365} In his practical assessment: “[f]raud depends on the state of events when a statement is made, not on what happens later.”\textsuperscript{366} The phrase materialization of risk, according to Judge Easterbrook, adds nothing in loss causation analysis, and that “the fraud lies in an intentionally false or misleading statement, and the loss is realized when the truth turns out to be worse than the statement implied.”\textsuperscript{367}

Judge Easterbrook’s practical assessment in *Schleicher* invites the question of whether there is any real difference between corrective disclosure and materialization of the risk as approaches to loss causation.\textsuperscript{368} Both, after all, turn on a disclosure event exposing a previous false or misleading statement or series of misstatements, and in all cases, the focal point is the ultimately exposed fraud, whatever the means of exposure.\textsuperscript{369} That said, apart from whatever significance is accorded by courts to materialization of risk as an independent basis for pleading and ultimately proving loss causation, the court’s assessment in *Schleicher* has further

\begin{itemize}
  \item \textsuperscript{361} See *In re Williams*, 496 F. Supp. 2d at 1266.
  \item \textsuperscript{362} *Id.* at 1266.
  \item \textsuperscript{363} *In re Dell*, 591 F. Supp. 2d at 911 (quoting *In re Williams*, 496 F. Supp. 2d at 1265).
  \item \textsuperscript{364} 618 F.3d 679 (7th Cir. 2010).
  \item \textsuperscript{365} *Schleicher*, 618 F.3d at 683.
  \item \textsuperscript{366} *Id.* at 684.
  \item \textsuperscript{367} *Id.* Courts questioning application of the materialization of the risk approach to loss causation in favor of a straightforward corrective disclosure requirement nevertheless often go on also to examine the claim applying materialization of the risk, which more often than not leads to the same conclusion. See, e.g., *Bartesch v. Cook*, 941 F. Supp. 2d 501, 512-13 (D.Del. 2013). Although the court noted that “[t]he Third Circuit has not adopted the ‘materialization of risk’ test but, instead, requires that there have been corrective disclosures that exposed the alleged fraud[,]” it went on to apply the test to conclude that plaintiffs had not alleged an undisclosed risk that materialized and caused plaintiffs’ loss.
  \item \textsuperscript{368} *See Schleicher*, 618 F.3d at 683-84.
  \item \textsuperscript{369} *Id.* at 684.
\end{itemize}
impact.\textsuperscript{370} It sets the stage for consideration of whether materially false or misleading statements that do not move a stock price upward to an artificially inflated level or cause any additional inflation, but instead cause the price to remain inflated, may support a fraud-on-the-market loss causation claim.\textsuperscript{371}

What has been characterized as the “maintenance theory of price inflation,” posits that loss causation may be shown where a misstatement (or more often series of misstatements over time) helps to maintain price inflation. This stands even if it is not possible to quantify the actual impact that a misstatement had on the inflation or demonstrate that it caused the inflation in the first place.\textsuperscript{372} The question, therefore, is whether loss causation may be shown where the fraud on which plaintiffs stake their claim has no demonstrable impact on a market price that is already inflated, other than to keep it inflated?\textsuperscript{373}

VI. FRAUD MAINTAINING THE MARKET?

So far, loss causation for purposes of fraud-on-the-market claims under section 10(b) and Rule 10b-5 has been examined solely in terms of the connection between a materially false or misleading representation that moves the stock price in an efficient market to an artificially inflated level and the point in time that “the truth” becomes known through a corrective disclosure or the materialization of a concealed risk disclosure events.\textsuperscript{374} Investor losses are measured by the decline in the stock price following the disclosure event, provided the market actually reacts to the disclosure and the decline is not attributable to something else.\textsuperscript{375} This is the prescription of \textit{Dura} in its simplest terms.\textsuperscript{376} The starting point, however, is the fraud—materially false or misleading information disseminated, with requisite scienter, into the marketplace where, in the price discovery process of an open and efficient market it becomes imbedded in the market price then made artificial as a result.\textsuperscript{377} Conventional wisdom regarding section 10(b)
and Rule 10b-5 loss causation is that an identifiable materially false or misleading statement disseminated into the marketplace causes market price inflation that, when paired with the negative corrective disclosure that moves the market price to its presumed correct level, frames investor loss.\textsuperscript{378} In practice, the assessment may not be so simple.\textsuperscript{379}

Fraud-on-the-market cases most often involve a timeline over which multiple alleged false or misleading statements are said to establish an inflation “band” during which the market price remains inflated, \textit{i.e.}, it is maintained, even if a particular misstatement or omission does not actually cause the market price to react at the time the statement is made.\textsuperscript{380} The “maintenance theory of price inflation” embraced by some courts in fraud-on-the-market litigation, and discussed further below, posits that a misstatement can serve to maintain an artificially inflated market price without also causing it to increase further.\textsuperscript{381}

\textbf{A. The “Maintenance Theory” of Price Inflation}

A complicating scenario in conventional loss causation analysis arises when allegedly false or misleading statements are disseminated over a significant period, and the price impact of any one of them cannot be disaggregated from any previous statement.\textsuperscript{382} Similarly, in fraud-on-the-market cases that are primarily about omissions, there may be no demonstrable price impact.\textsuperscript{383} Rather than a discreet false or misleading statement acting as an anchor, the fraud-on-the-market claim in this scenario is necessarily predicated on a continuing fraud alleged to have caused a stock price to be maintained at an artificial level throughout the relevant period of time, which typically becomes the defined class period.\textsuperscript{384} This scenario typifies cases based on the materialization-of-the-risk theory of

\textsuperscript{378}. See \textit{Findwhat Investor Grp. v. Findwhat.com}, 658 F.3d 1282, 1310-13 (11th Cir. 2011).\textsuperscript{379}. See generally infra Part VI.A.\textsuperscript{380}. \textit{See Findwhat}, 658 F.3d 1282, 1310 (11th Cir. 2011).\textsuperscript{381}. \textit{Id.} at 1314; 1316.\textsuperscript{382}. \textit{Vivendi}, 765 F. Supp. 2d at 562.\textsuperscript{383}. \textit{Id.} at 524, 62.\textsuperscript{384}. \textit{See, e.g., Wilkof v. Caraco Pharm. Lab., Ltd.}, 280 F.R.D. 332, 341 (E.D. Mich. 2012) (class period defined as the entire time during which there was an on-going fraud, when the “stock price was artificially inflated [because the defendant] was concealing negative information”.)
loss causation discussed earlier, but it is no less meaningful in straightforward corrective disclosure analyses because the focus will still be on the impact on price reaction by the disclosure of the truth, or the equivalent materialization of the concealed risk.385

The maintenance theory of price inflation was the root of fraud-on-the-market claims in In re Vivendi Universal, S.A. Securities Litigation,386 where class plaintiffs identified fifty-seven misstatements made during the class period in which they alleged the company concealed a serious and growing liquidity risk throughout the period.387 Plaintiffs alleged that during the class period the company repeatedly gave misleading assurances to the public about its financial condition despite knowing that its liquidity situation was dire. Plaintiffs further alleged that the growing liquidity risk was concealed by misleading statements that “touted the company’s financial health and performance while failing to disclose its true liquidity position,” and “further concealed its liquidity risks by failing to make full disclosure of the true nature” of various commitments, liabilities and other arrangements contributing to or concealing its precarious situation.388 The misstatements, they argued, caused an inflation band throughout the class period.389 As Vivendi’s undisclosed liquidity risk came to light through a series of materialization event, and the company was led to the brink of bankruptcy, there was a sharp decline in its share price.390 At trial, the plaintiffs presented evidence of the inflation band through an expert event study.391


In a case such as this, where Plaintiffs argue that the failure to disclose information from Study 315 made Wyeth’s statements misleading, the fact that the stock price did not significantly increase on the days in question is not dispositive. Put another way, the fact that the stock price remained consistent could, in fact, indicate inflation. Indeed, in an omission case, the impact of the defendant’s misrepresentation should be measured by the stock price reaction following the truth being disclosed to the market.

Id. In Wyeth, at the class certification stage of a fraud-on-the-market case, defendant’s offered evidence that there “was no statistically significant price impact on the dates of alleged . . . omissions” forming the basis of the claims in an attempt to rebut the Basic presumption of reliance. Id. at 182. The court concluded that conducting an “event study analysis on the dates of the alleged omissions” was inapoposite. Id. Defendants’ own expert acknowledged that conducting an event study “on the dates of the alleged omissions would not be probative of price impact, and . . . that one would look only at the alleged corrective disclosure date.” Id.

386. Vivendi, 765 F. Supp. 2d at 512. In Part VII of this article, Vivendi is examined further in regard to proving loss causation at trial. See infra Part VII.


388. Id. at 536.

389. See id. at 561.

390. Id. at 536.

391. Id. at 560.
In the wake of a substantial jury verdict for the plaintiffs, Vivendi moved for judgment as a matter of law, or alternatively for a new trial, challenging, among other things, the maintenance theory of price inflation that served as the predicate for the jury’s loss causation finding. The company argued that the maintenance theory of price inflation was based on an “‘impossibly unlikely’ and ‘implausible’ assumption that ‘on each day Defendants made a misrepresentation that did not increase inflation, if Defendants had not made that alleged misrepresentation, then inflation would have decreased by the exact same amount that the new misstatement simultaneously re-inflated it.’” The court flatly rejected the argument. In securities fraud cases, said the court, “plaintiffs need not prove the amount of loss caused by each misstatement with complete mathematical precision,” and the method of proof based on the maintenance theory of price inflation “makes particular sense in cases involving numerous misstatements over an extended time period on the same general topics.” The court explained:

Where a jury has found, as here, a defendant omitted information about its true liquidity risk in fifty-seven statements over two years, it is easy for the company to then point to each particular misstatement and argue that plaintiffs have not proved that that particular statement caused any additional inflation in the share price distinct from the inflation caused by the other fifty-six statements. It may be impossible for an expert witness to reliably disaggregate the impact of any particular misstatement from the continued force of previous statements. The “maintenance” theory of inflation simply reflects the reality that inflation in a company’s stock price is difficult to quantify with mathematical precision in any case, and that in a case where a company repeatedly makes statements that omit information about its liquidity risk, it is reasonable to conclude that each statement played a role in causing the inflation of the stock price (whether by adding to the inflation or helping maintain it) even if it is not possible to quantify the exact impact that each statement had on the inflation.

To hold otherwise, said the court, would lead to the “perverse” result that plaintiffs would have a harder time proving loss causation “when a...”

392. Id. at 525, 62.
394. Id. at 563.
395. Id. at 562.
396. Id.
company makes numerous similar misstatements over a long time period than when the company makes a single, isolated fraudulent statement, even though the former situation involves a more pervasive and widespread fraud.\(^{397}\)

Although \textit{Dura} renders price inflation alone an insufficient basis for establishing loss causation in fraud-on-the-market actions, an artificial price is nevertheless the predicate for loss causation assessments in all cases.\(^{398}\) The maintenance theory of price inflation only establishes that predicate in particular circumstances.\(^{399}\) That it may do so without regard to the \textit{genesis} of the price inflation is at least counter-intuitive to conventional loss causation analysis in which the focus is on actionable fraud that causes the price inflation, linked to a subsequent disclosure event exposing the truth and the consequent market reaction.\(^{400}\) Nevertheless, on a fraud-on-the-market timeline, a series of materially false or misleading statements, made with requisite scienter, that operate to extend the deception cause no alarm under \textit{Dura} where the fraud continuum is eventually linked to a cognizable disclosure event and an actual loss is framed.\(^{401}\) Although false or misleading information disseminated along the deception timeline may be “confirmatory” relative to what caused price inflation in the first instance, if it supports the artificial inflationary value embedded in the stock price, it may nevertheless cause investor losses.\(^{402}\)

The U.S. Court of Appeals for the Eleventh Circuit thoroughly assessed the significance of such “confirmatory” information in \textit{FindWhat Investor Group v. Findwhat.com},\(^{403}\) in which the court concluded that “confirmatory information that wrongfully prolongs a period of inflation—even without increasing the \textit{level} of inflation—may be actionable under the securities laws.”\(^{404}\) Put another way by the court: “defendants can be liable for knowingly and intentionally causing a stock price to remain inflated by preventing preexisting inflation from dissipating from the stock price.”\(^{405}\) The court concluded that two post-inflation misstatements that had no effect

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397. \textit{Id.} at 563.
399. See, e.g., \textit{Id.} at 342-43 (listing circumstances in which inflation alone would not be sufficient to establish loss causation).
400. \textit{Findwhat}, 658 F.3d at 1310.
403. \textit{Id.} at 1282.
404. \textit{Id.} at 1314.
405. \textit{Id.} at 1315. “Confirmatory” information in this context relates solely to artificial price inflation. As discussed earlier in this article, see supra Part VI(B), confirmatory information is treated differently when identifying a corrective disclosure. Information that confirms what is already known and digested by the market cannot be a corrective disclosure for purposes of loss causation. See supra Part VI(B).
on the already inflated stock price could be the basis for framing investor loss when a corrective disclosure ultimately occurred.\textsuperscript{406} \textit{FindWhat} and its significance are discussed further below.\textsuperscript{407}

\textbf{B. Confirmatory Information on the Market Fraud Timeline: Fraud Maintaining the Market}

In \textit{FindWhat}, the company provided “pay-per-click” advertising services, “placing” advertisements for on-line sellers on the websites of numerous entities with whom it contracted as its “distribution partners.”\textsuperscript{408} Advertisers paid the company every time an Internet user clicked on their ad, and the company distributed a share “of that revenue with its distribution partners.”\textsuperscript{409} As described by the plaintiffs, “clicks were supposed to be highly qualified leads likely to convert into a sale, since the user intentionally clicked on the advertisement, presumably manifesting some interest in the advertised product.”\textsuperscript{410} Plaintiffs, however, claimed that the company had engaged in “click fraud” to boost its revenues.\textsuperscript{411} “‘Click fraud’ generally refers to the practice of clicking on an Internet advertisement for the sole purpose of forcing the advertiser to pay for the click.”\textsuperscript{412} Plaintiffs alleged that the company had created a distribution network principally fueled by click fraud, which allowed it to “report an uninterrupted string of quarter-by-quarter financial gains,” and “meet analyst growth expectations at the expense of the company’s long term health.”\textsuperscript{413}

In early 2005, in response to increasing state and federal regulatory initiatives regarding click fraud, the company announced that in the fourth quarter of 2004 it had voluntarily removed distribution partners representing $70,000 revenue per day in order to “deliver traffic that converts rather than just clicks alone,” and further, that it had, among other things, “implemented screening policies and procedures to prevent fraudulent clicks.”\textsuperscript{414} Plaintiffs alleged that these statements were false, and that the truth became known through a May 2005 press release in response to disappointing first quarter results, in which the Company disclosed that “click fraud had been responsible for some of the company’s revenue.”\textsuperscript{415}

\begin{itemize}
\item \textsuperscript{406} \textit{Findwhat}, 658 F.3d at 1314-15.
\item \textsuperscript{407} See infra Part VI.B.
\item \textsuperscript{408} \textit{FindWhat}, 658 F.3d at 1291.
\item \textsuperscript{409} Id.
\item \textsuperscript{410} Id.
\item \textsuperscript{411} Id. at 1292.
\item \textsuperscript{412} Id. at 1291.
\item \textsuperscript{413} \textit{FindWhat}, 658 F.3d at 1292-93.
\item \textsuperscript{414} Id. at 1293.
\item \textsuperscript{415} Id. at 1293-94.
\end{itemize}
At that time, the company’s share price reacted with a twenty-one percent decline on the day of the announcement, followed by further declines on subsequent trading days.\footnote{416} However, there had been no market reaction to either of the earlier 2005 representations.\footnote{417}

Plaintiffs’ sought recovery under section 10(b) and Rule 10b-5 not only on the basis of the 2005 representations by the company, but also for statements made in 2003 and 2004, all of which they alleged had artificially inflated the stock price.\footnote{418} The district court dismissed claims based on the 2003 and 2004 statements on grounds that plaintiffs had failed to meet scienter pleading requirements.\footnote{419} Then, after certifying a class of purchasers of the stock only during the period of the 2005 misstatements, the court went on to grant summary judgment for defendants “on grounds that the plaintiffs had failed to demonstrate triable issues of fact with respect to loss causation and damages.”\footnote{420} Central to that ruling was the fact that event study evidence demonstrated that the company’s “stock price was [about] twenty-six percent inflated before the defendants’ first actionable statement, and that the stock price remained inflated at the same level after the defendants made the two . . . actionable misstatements.”\footnote{421} The district court “reasoned that because the inflation level [of the company’s] stock price did not change as a result of the alleged misrepresentations,” the statements could not have caused the plaintiffs’ losses.\footnote{422} The Eleventh Circuit affirmed dismissal of the claims based on 2003 and 2004 statements, but reversed the district court’s holding on loss causation based on the 2005 statements.\footnote{423} The Eleventh Circuit concluded:

The Defendants may be held liable for knowingly making materially false statements that continued to prop up the already inflated price of MIVA’s stock and thereby caused losses to investors, regardless of whether MIVA’s stock price was already inflated before the actionable statements were made. Investors who purchased MIVA stock at inflated prices during the Class Period — and, notably, after the purportedly fraudulent statements were made— may have sustained losses that they would not have

\footnote{416} Id. at 1294.\footnote{417} See id. at 1293.\footnote{418} See FindWhat, 658 F.3d at 1292, 1294-95.\footnote{419} Id. at 1294, 1299.\footnote{420} Id. at 1295.\footnote{421} Id. at 1306.\footnote{422} Id. at 1306-07.\footnote{423} FindWhat, 658 F.3d at 1304, 1307.
suffered had the Defendants revealed the truth at the start of the Class Period.\textsuperscript{424}

The Eleventh Circuit was satisfied that the “nature of market fraud” is such that the level of market price inflation “need not change for new investors to be injured by false statements” disseminated to the marketplace, which allegedly prevents the stock price from falling away from the inflated price.\textsuperscript{425} The court further opined that “[d]efendants whose fraud prevents preexisting inflation in a stock price from dissipating are just as liable as defendants whose fraud introduces inflation into the stock price in the first instance.”\textsuperscript{426} The artificial price inflation, said the court, creates an on-going risk of harm to purchasers in the marketplace, and that:

At bottom, it is irrelevant to securities fraud liability that the stock price was already inflated before a defendant’s first actionable misrepresentation; fraudulent misstatements that prolong inflation can be just as harmful to subsequent investors as statements that create inflation in the first instance. Inflation creates an on-going risk of harm. Every investor who purchases at an inflated price - whether at the beginning, middle, or end of the inflationary period - is at risk of losing the inflationary component of his investment loss when the truth underlying the misrepresentation comes to light.\textsuperscript{427}

Ultimately the court concluded:

The securities laws do not immunize defendants who knowingly disseminate materially false or misleading information simply because their fraud concerns false information already believed by the market. Defendants whose fraud prevents preexisting inflation in a stock price from dissipating are just as liable as defendants whose fraud introduces inflation into the stock price in the first instance.\textsuperscript{428}

There was no actionable section 10(b) and Rule 10b-5 violation for “fraud that introduced inflation into the stock price in the first instance.”\textsuperscript{429} As discussed throughout this article, orthodox loss causation theory posits that investor losses are framed by false or misleading statements on the front end, disseminated into an efficient market, to which a stock price

\begin{itemize}
\item 424. \textit{Id.} at 1307.
\item 425. \textit{Id.} at 1314-15.
\item 426. \textit{Id.} at 1317.
\item 427. \textit{Id.} at 1315.
\item 428. \textit{FindWhat}, 658 F.3d at 1317.
\item 429. \textit{Id.} at 1316-17.
\end{itemize}
promptly reacts by rising, followed on the back end by one or more disclosure events exposing the truth, to which the stock price quickly reacts by resetting lower.\textsuperscript{430}  As there was no actionable front-end violation in \textit{FindWhat}, the necessary causal connection could only be made with the interim statements, which the court itself acknowledged were “confirmatory,” and to which there was no market reaction at all.\textsuperscript{431} Although not characterized in so many words by the Eleventh Circuit, only the “maintenance theory” of price inflation could sustain the plaintiffs’ claim, such that “confirmatory information that wrongfully prolongs a period of inflation—even without increasing the level of inflation . . . may be actionable.”\textsuperscript{432} The court looked to the Seventh Circuit for support.\textsuperscript{433} In \textit{Schleicher v. Wendt},\textsuperscript{434} the Seventh Circuit, in an opinion by Judge Easterbrook, concluded that continuing optimistic information disseminated to the marketplace may stop or slow down the rate of decline in a stock

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{430} See infra discussion Part IV. But see Operating Local 469 Annuity Trust Fund v. Smith Barney Fund Mgmt LLC, 595 F.3d 86, 96 (2d Cir. 2010). The court vacated dismissal of plaintiffs’ §10(b) and Rule 10b-5 claim on, among other things, a loss causation challenge. \textit{Id.} The court concluded that it was sufficient to allege that defendants’ misrepresentations caused investors to make and maintain investments in mutual funds in which allegedly excessive fees and expenses were periodically deducted. A settled SEC enforcement action based on allegations that defendants had caused mutual funds to pay unnecessarily high expenses, which resulted in a large fine and disgorgement of profits, served as the disclosure event upon which plaintiffs launched their fraud-on-the-market action based upon continuing concealment of the scheme, and the resultant diminution over time of the net asset value (“NAV”) of the funds in which they were invested, and which, presumably, could be disaggregated from diminution based on other market factors. \textit{Id.} The court characterized the claim and explained investor losses:

\begin{quote}
\[L\]ocal 649 has alleged that the defendants’ misrepresentations proximately resulted in the regular deduction of identifiable amounts that would not have been deducted had defendants conformed their conduct to what the law required. The defendants’ [sic] losses were real ones because the deductions used to fund the transfer agent “fees” diminished for Local 649 (and other shareholders) money under management and, as a result, negatively and predictably impacted returns.
\end{quote}

\textit{Local 469}, 595 F.3d at 96. There was no assertion in \textit{Local 649} that plaintiffs purchased mutual fund shares at artificial prices, only that while maintaining those investments NAVs, and returns, progressively diminished as the concealed misconduct continued to occur. See \textit{id.} Prospectuses for the mutual funds disclosed facts regarding relationships that formed the basis for the alleged scheme, but, as alleged by plaintiffs, did not disclose the excessive fees and expenses that were its result. The Second Circuit easily concluded that disclosures contained in the prospectuses concerning fee arrangements were inadequate. Nevertheless, the alleged fraud did not maintain artificial NAVs, but rather caused their progressive diminution. See \textit{id.} Although defendants argued that the fees paid by the mutual funds were fully disclosed, and that the diminution in value of the funds could not have been caused by other actually concealed facts, the court was satisfied that the loss allegation was consistent with \textit{Dura}, in that: “that a plaintiff in such a case show not only that had he known the truth he would not have acted, but also that he suffered actual economic loss.” \textit{Id.} (quoting \textit{Dura}, U.S. at 343–44).

\item \textsuperscript{431} \textit{FindWhat}, 658 F.3d at 1314.
\item \textsuperscript{432} See \textit{id}.
\item \textsuperscript{433} See \textit{id.} at 1308, 1314-15.
\item \textsuperscript{434} 618 F.3d 679, 683-84 (7th Cir. 2010).
\end{itemize}
\begin{footnotesize}
price to where it would be had the statement not been made.  However, Judge Easterbrook spoke more broadly about loss causation in fraud-on-the-market actions, and directly to the point that fraud may maintain an artificial market price or, as was the case in Schleicher, affect the speed at which the price was falling throughout the class period. He explained:

If a firm says that it lost $100 million, when it actually lost $200 million—and analysts had expected it to announce that it only lost $50 million—then the announcement will cause the stock’s price to fall. But the fall won’t be as much as the truth would have produced. People who buy the stock after the announcement, and before the truth comes out, pay too much; they will lose money when the rest of the bad news emerges. This is no different in principle from a firm’s announcement of a $200 million profit, when the truth is $100 million; only the signs on the numbers differ.

In FindWhat, the Eleventh Circuit embraced Schleicher, reasoning that the market price of a stock will continuously include what the court characterized as an artificial “inflationary value” that, so long as the falsehood remains uncorrected, will continue day after day. It is not necessary, therefore, for a plaintiff to demonstrate that any misstatement or omission artificially inflated the market price during the class period. The inflationary value within the stock price, said the court, will “dissipate” when the market recalibrates the stock price based on the release of truthful information, and thereupon frame a plaintiff investor’s loss.

An event study played a significant role in the analysis in FindWhat, both at the trial court and appellate court levels. Plaintiffs relied on an expert event study that concluded the primary, if not exclusive reason, for the price drop in the company’s stock was the subject matter of the fraud
and the revelation of the truth.\textsuperscript{443} The expert ruled out any “confounding information” as accounting for the price drop, and calculated class period damages based on disclosure of the truth at the beginning of the class period rather than the end.\textsuperscript{444} However, as discussed above, the event study also demonstrated that the company’s “stock price was inflated by [about twenty-six] percent before and throughout the class period.”\textsuperscript{445}

On that finding the trial court concluded as a matter of law that because the inflation in the stock price did not change as a result of the misrepresentations on which plaintiffs’ claims were based, these statements could not have caused the plaintiffs’ losses.\textsuperscript{446} The Eleventh Circuit concluded otherwise, looking to the event study as demonstrating that with the truth finally revealed by the company, the inflation in its stock price dissipated, causing substantial losses to class period investors.\textsuperscript{447} Event studies and their use in isolating the actual cause of investor losses in fraud-on-the-market claims under section 10(b) and Rule 10b-5 by eliminating non-fraud “confounding” factors impacting price discovery are discussed further below.\textsuperscript{448}

\section*{VII. EVENT STUDIES, “CONFOUNDING” FACTORS, AND DISAGGREGATION OF RELATIVE PRICE EFFECTS}

\subsection*{A. Disaggregating Non-Fraud Causes: The Ubiquitous Event Study}

Any cause and effect relationship between the dissemination of particular information into an efficient marketplace and a response in the stock price must exclude the possibility of what courts have often characterized as “confounding” factors.\textsuperscript{449} The Supreme Court more pointedly identified those factors in \textit{Dura} as “[c]hanged 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.”\textsuperscript{450} These factors are competing, non-fraud causes.\textsuperscript{451} In all cases, whether examining the issue at the pleading or evidentiary stages in litigation, the effect of any such factors must be separated from the corrective disclosure or events to which the company’s stock price actually reacted, and which frames a plaintiff’s

\begin{footnotes}
\footnote{443}{\textit{Id.} at 1312-15.}
\footnote{444}{\textit{Id.} at 1312-14.}
\footnote{445}{\textit{Id.} at 1312-13.}
\footnote{446}{\textit{Id.} at 1314.}
\footnote{447}{\textit{FindWhat}, 658 F.3d at 1314-16.}
\footnote{448}{See supra discussion Part VII.}
\footnote{449}{See \textit{Dura}, 544 U.S. at 342-43.}
\footnote{450}{\textit{Id.} at 343.}
\footnote{451}{See \textit{id.} at 342-43.}
\end{footnotes}
claimed loss.\textsuperscript{452} In this process, event studies, statistical regression analyses that examine the effect of an event on a dependent variable, here a company’s stock price, are ubiquitous in fraud-on-the-market litigation, to the point that one court has characterized them as “almost obligatory.”\textsuperscript{453}

In fraud-on-the-market litigation, event studies measure whether and to what extent changes in stock prices have actually been affected by new company-specific information in the marketplace.\textsuperscript{454} They provide a methodology to adjust for general market movements or other factors, such as industry developments or general economic conditions, in order to isolate a change in market price that is actually linked to the alleged false or misleading information disseminated into the marketplace.\textsuperscript{455} Fraud-on-the-market event study methodology has been succinctly described by one court as follows:

A conventional securities fraud event study is conducted as follows: an economist performs a regression to estimate the relationship between a stock’s “actual return” (the difference between closing


\textsuperscript{453} Id. at *43 n.20. That said, plaintiffs in WM High Yield Fund disclaimed any requirement for expert opinion on issues of loss causation and damages in responding to a motion for summary judgment. Id. at *10. Indeed, “plaintiffs argued the ‘obvious causal relationship’ between the alleged fraud and their damages did not require expert testimony.” Id. at *43. On the record presented, it would not be “at all difficult” they said, for a trier of the facts to determine that they were damaged when they purchased, and retained, the subject securities at an artificially inflated price. Id. The court disagreed; distinguishing between “fraud-related and non-fraud related influences [on] stock price behavior [requires] an event study or something similar.” Id. The court embraced the admonition that: “[I]n the absence of an expert report on loss causation, ‘the law does not assume a nexus between share decline and fraud, even in a public situation’ where a company experienced ‘a dramatic decline in share prices’ and its directors and officers were accused of ‘a massive securities fraud.’” Id. at *44-45 (quoting Sciallo v. Tyco Int’l Ltd, No. 03 Civ. 7770, 2012 U.S. Dist. LEXIS 96967, at *1, *11 (S.D.N.Y. 2012) (emphasis in original)).

\textsuperscript{454} In re Heckmann Corp. Sec. Litigation, No. 10-378, 2013 WL 2456104, at *5 (D. Del. June 6, 2013). Event studies have also been employed in fraud-on-the-market litigation at the class certification stage, where an efficient market is a prerequisite to putative class plaintiffs relying on the Basic presumption of reliance to eliminate any predominate individual question. Id. at *7-8. In those situations, event studies can demonstrate market efficiency during the identified class period by showing, for example, the direct, quick, effect of an earnings-related event on a company’s stock price. Id. at *12-13. But see In re Federal Home Loan Mortgage Corp. (Freddie Mac) Sec. Litig., 281 F.R.D. 174, 182 (S.D.N.Y. 2012) (plaintiffs’ expert event study and testimony on the efficiency of the market for class certification determination was unreliable and unpersuasive). Other empirical approaches based statistical event analysis may be offered in support of the same conclusion. See KB Partners I, L.L.P. v. Barbier, No. A-11-CA-1034-SS, 2013 WL 2443217, at *8-9 (W.D. Tex. June 4, 2013) (four different cause and effect analyses demonstrating that the company’s stock price reacted quickly to new information and thus reflected an efficient market). As discussed earlier in this article, in the wake of the Supreme Court’s decision in Halliburton II, event studies may be offered by defendants at the class certification stage to demonstrate the absence of price impact of alleged false or misleading information forming the basis of claims. Halliburton II, 134 S.Ct. at 2414-15.

prices on two consecutive days) and the movement of one or more indices representing an average of the stock prices for several companies which make up the market and/or industries in which the firm operates. This first step allows the economist to predict how the stock should move on any given day based on the movement of the indices (“the expected return”) and thereby provides a benchmark for all companies within a particular market. The estimated expected return is then used as the baseline against which the stock’s actual return on pre-selected event days is measured. The expected return is thus a measured expectation of what the normal stock price movement would have been if the event had not occurred. If the difference between the expected return and the actual return on an event day is statistically significant, it may be attributed to the event occurring on that day, provided that the study controls for confounding factors.456

Proper event studies will disentangle the impact of new, allegedly corrective, information from other non-fraud information that is also in or introduced into the marketplace during the relevant time period, and which also becomes impounded in a stock price.457 Assessments of such other confounding information in event studies often focus on the impact of industry-wide factors, which is information unrelated to the alleged fraud, nevertheless is part of the total mix of information in the marketplace contributing to price discovery.458 The price impact of this information, must be disaggregated from the impact of information alleged to reveal the suspected fraud.459 Event studies that fail to take industry-wide factors into

456. Bricklayers & Trowel Trades Int’l Pens. Fund v. Credit Suisse First Boston, 853 F. Supp. 2d 181, 185-86 (D. Mass. 2012), aff’d, 752 F.3d 82, 97 (1st Cir. 2014). The district court observed that “there is no great dissension in the financial econometric community about how to conduct a proper event study,” and that although “techniques have become more sophisticated over the years, the basic format and methodology have not materially changed.” Bricklayers, 853 F. Supp. 2d at 186. On appeal, the district court rejection of the event study involved in that case was affirmed, with the First Circuit finding pervasive problems with the expert’s methodology, and no abuse of discretion by the district court in rejecting it. Bricklayers, 752 F.3d at 96. The First Circuit assessment is considered further at infra Part VII.B. For consideration of the use of multiple regression analysis in exploring the relationship between two or more variables, see generally 1 DAVID L. FAIGMAN, ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY 430-35 (Thomson West, 2012-2013 ed. 2012); see also Madge S. Thorsen et al., Rediscovering the Economics of Loss Causation, 6 J.BUS. & SEC. L. 93, 109 (2006) (describing the event study as the “gold standard” accepted by courts); Frank Torchio, Proper Event Study Analysis in Securities Litigation, 35 J. CORP. L. 159, 159 (2009); but see Kaufman & John Wunderlich, Regressing: The Troubling Dispositive Role of Event Studies in Securities Fraud Litigation, 15 STAN. J. L. BUS. & FIN. 183, 187 (2009) (An “event study requirement poses an unconstitutional and unwarranted barrier to meritorious securities fraud suits.”).

457. See generally Kaufman, supra note 456, at 190-92, 197, 211-12.
458. See id. at 192.
459. Id. at 192-93.
consideration, or which do so using an inappropriate filter or baseline measurement to quantify them, will be rejected in assessing loss causation. In Hubbard, for example, the Eleventh Circuit rejected event study evidence, offered to show how much of the decline in the price of the defendant company’s stock on two specific days was attributable to factors specific to the company rather than to industry or general market factors, where the study employed an inappropriate baseline index.

Hubbard stands out among loss causation cases in that the assessment was made on the sufficiency of evidence presented at trial rather than as a matter of pleading or on summary judgment. The case was presented to a jury on claims based on the materialization-of-the-risk theory of loss causation. The event study purported to identify a significant drop on April 26, 2007 and October 26, 2007, as being attributable to company-specific factors, and thus to the fraud. After a jury verdict partially in favor of the plaintiff class, the district court granted a defense motion for judgment as a matter of law. On appeal, the Eleventh Circuit affirmed the judgment, even though it found error in the district court’s basis for granting the post-judgment motion for judgment on other grounds, based on its own finding that plaintiff did not introduce sufficient evidence of loss causation. Specifically, the Eleventh Circuit found that plaintiffs’ expert “failed to adequately separate losses caused by the . . . collapse of the Florida real estate market during the relevant time period, and as a result, the jury did not have a sufficient evidentiary basis to conclude that the fraud was a substantial contributing factor in bringing about the . . . losses.”

To quantify the extent industry-wide factors impact stock price, without regard to any claimed fraud, experts typically work off of a representative baseline index that presumably gives a value reflecting all industry-wide information in the marketplace. In Hubbard, plaintiffs’ expert testified at trial the entire 38% decrease in the company’s stock price, at the time a concealed risk allegedly materialized, did in fact result from the materialization of that risk. The defendant company, a bank holding

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460. See Hubbard, 688 F.3d at 721-22, 726, 730.
461. Id. at 713.
462. Id. at 721-22, 726, 730.
463. Id. at 730. The sufficiency of evidence of loss causation presented at trial, and in particular the plaintiff’s burden of disaggregating the effects of “materialization events” on a company’s stock price from the effects of other non-fraud “confounding” events, is discussed in infra Part VII.B.
464. Id. at 726.
465. Hubbard, 688 F.3d at 722.
466. Id. at 716.
467. Id. at 724-26, 730.
468. Id. at 725.
469. See Kaufman, supra note 456, at 193.
470. Hubbard, 688 F.3d at 722.
company named BankAtlantic Bancorp, Inc., held a Florida bank subsidiary, BankAtlantic, that was the focus of this case.\footnote{471}{Id. at 715-17.} For the plaintiffs’ section 10(b) and Rule 10b-5 claim, they alleged concealment of weakness in the bank’s commercial real estate portfolio and the significant risk that it would deteriorate.\footnote{472}{Id. at 715-16, 728.} When the company disclosed problems in the bank’s portfolio as the financial crisis unfolded, the company’s stock price, allegedly inflated by concealment of the risk, fell.\footnote{473}{Id. at 718, 720-21.}

In Hubbard, plaintiffs’ expert sought to “isolate the effect of company-specific factors from the effect of general market trends by comparing the change in the [company’s] stock price to the change in . . . the NASDAQ Bank Index.”\footnote{474}{Id. at 729.} The NASDAQ Bank Index is a measure of the performance of financial companies listed on the NASDAQ Stock Market, such as banks, savings institutions, and related holding companies that perform banking-related functions.\footnote{475}{Hubbard, 688 F.3d at 729.} However, the event study employed was flawed because it failed to take into account the fact that BankAtlantic was a Florida financial institution, which was hit harder by the collapse in real estate values than comparable institutions elsewhere.\footnote{476}{Id.} A national bank index could not, said the court, reflect the reality of Florida industry-wide factors.\footnote{477}{Id.} The Eleventh Circuit explained:

Preston failed, however, to account for the effects of the collapse of the Florida real estate market. The NASDAQ Bank Index may be well suited to capture the effects of national trends in the banking industry, such as the broader national financial crisis that reached its nadir in 2008. But in 2007, Florida, having benefitted more than most states from the real estate boom of the previous years, was hit harder than most by the ensuing bust. And Florida financial institutions, as Preston admitted on cross-examination, made up only a small percentage of the NASDAQ Bank Index. That index, therefore, would be inappropriate for the task of filtering out the effects of industry-wide factors that might affect the stock price of a bank, or the holding company of a bank, whose assets were concentrated in loans tied to Florida real estate in 2007.\footnote{478}{Id. The Eleventh Circuit also addressed the failure of an event study adequately to take into account non-fraud related information such as an uncertain economic climate, industry factors affecting demand, and “other possible depressive factors.” Phillips v. Scientific-Atlanta, Inc., 489 Fed. App’x.}
Hubbard notwithstanding, event studies are most often offered as evidence for and against motions for summary judgment,479 by way of what one court characterized as “warring affidavits and strident briefs.”480 As discussed further below, threshold objections to the admissibility of expert event studies, which as with expert opinions and testimony in general, are subject to the court’s gatekeeper role under the U.S. Supreme Court’s holding in Daubert v. Merrell Dow Pharmaceuticals, Inc.,481 later codified by Rule 702 of the Federal Rules of Evidence.482 A court must determine, among other things, an expert’s testimony is the product of reliable principles and methods, and the expert applies the principles and methods reliably to the facts of the case.483 Courts in fraud-on-the-market cases, where expert event studies are so commonly offered, carry out the Rule 702 mandate and assess whether the degree of intellectual rigor brought to a proffered expert’s analysis in comparison with that which characterizes the practice of an expert generally on securities fraud event studies.484

Plaintiffs alleged that the company, a manufacturer of digital set-top boxes for the cable television industry, had engaged in “channel stuffing,” “the practice of pulling sales from future fiscal periods into the present [in order to raise] current period performance”, and in press releases and conference calls with analysts made materially false and misleading statements to cover up the practice by reporting favorable sales results, making references to rising customer demand, and predicting strong upcoming performance. Id. at 340-41. Later, when the company reported poor earnings on account of decreased sales and reduced demand, its stock price fell steeply. Id. at 341. Plaintiffs alleged that the later statements were corrective disclosures that revealed the fraud, channel stuffing, that negatively impacted the stock price and established loss causation. Id. at 340. Opposing a defense motion for summary judgment, plaintiffs offered an event study in support of their loss causation claim. Id. at 343. It was rejected, however, and the Eleventh Circuit affirmed summary judgment for the company, concluding that what plaintiffs presented as corrective disclosures included multiple pieces of non-fraud information, and no revelations about supposed channel stuffing. Id. The plaintiffs’ event study was flawed, the court concluded, because the supposed corrective disclosures it analyzed actually included accurate statements presenting industry-wide factors that had affected the company’s results, and which the study failed to disaggregate. Id.

479. See generally Kaufman, supra note 456.


482. FED. R. EVID. 702.

483. Id. FED. R. EVID. 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

484. In re Fed. Home Loan Mortg. Corp. (Freddie Mac) Sec. Litig., 281 F.R.D. at 179-81; see also Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 152 (1999). As a guide for assessing the validity of expert testimony, the Supreme Court provided a non-exhaustive list of factors a court may consider, including: (1) whether the theory or technique is generally accepted within a relevant scientific
Invariably the inquiry is stated in terms of reliability of the expert’s analysis, and the rigor in assessing an expert’s methodology.485

B. Daubert and Gateway Assessments

Because an event study is a widely accepted method for determining loss causation and the measurement of losses in market fraud litigation,486 and because competing event studies offering different conclusions are common487 reliability becomes the key qualifier and differentiator.488 Common principles may act as the basis of methodology.489 A particular application, however, may simply be wrong, as illustrated by the “pervasive problems” in the event study methodology examined in Bricklayers and Trowel Trades International Pension Fund v. Credit Suisse Securities.490

In Bricklayers, the district court rejected an event study on the grounds that the expert had, essentially, ignored the facts of the case.491 “Rather than [examining] the market reaction to the misrepresentations alleged in the complaint, [the expert] cherry-picked unusually volatile [trading] days and made them the focus of his study,” without regard to whether information was disseminated that could be connected to sharp price increases or decreases.492 The First Circuit affirmed the district court’s rejection of the event study as being inadmissible given, among other things, the “overwhelming imbalance between unreliable and reliable dates” on which it was based, and more fundamentally, a “complete disconnect between the event study and the complaint that nullify[ed] [its] usefulness.” 493 The court observed, for example, that “relevant events in [the expert’s] study [were] based on published references to information previously disclosed, that, under the efficient market theory, would have already been incorporated into [the] [stock] price.”494 Event dates, said the court, “occurred [well] after an efficient market would have processed the

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Additionally, the court concluded that, in dealing with confounding information, and despite that he had the tools available to guide his analysis, the expert seemingly made a judgment call about what information moved the stock price on any particular day without any methodological underpinning for doing so. Thus, the exclusion of the expert’s report by the district court after a Daubert hearing was found appropriate, and indeed, summary judgment for the defendant, entered sua sponte by the district court, was affirmed.

In Bricklayers, both the district court and the First Circuit leveled a particularly sharp attack on event study methodology by a prominent expert in market fraud litigation. Pervasive problems with the expert’s event study made it unreliable overall, in spite of the urging of plaintiffs that at least some “abnormal market movement on certain key dates did not suffer from [the] methodological infirmities” addressed by the courts. However, the district court, said the First Circuit, “was not obligated to prune away all of the problematic events in order to preserve [some of the expert’s] testimony.”

Competing event studies in any case are, of course, the norm. Significantly different approaches by experts, leading to significantly different conclusions, do not suggest that the methodology of one or the other is unreliable and the product inadmissible. Bricklayers demonstrates, however, that apparent methodological infirmities may be such as to preclude any plausible connection between alleged misrepresentations and the drop in a company’s stock price that is the basis for investor loss claims. Other indicia of unreliability may be equally apparent, as, for example, in In re DVI, Inc. Securities Litigation, where plaintiffs offered an entirely unorthodox theory of loss causation and a methodology in support of it that was in “obvious conflict with the basic requirements of loss causation.”

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495. Bricklayers, 752 F.3d at 94. Sharply criticizing the expert’s work, the First Circuit concluded that, “from all appearances, the event study is more concerned simply with identifying abnormal market movement than in supporting the shareholders’ causation allegations.” Id. at 91.
496. See id. at 95-96.
497. See id. at 90, 97.
498. See id. at 89; see also Bricklayers, 853 F. Supp. 2d at 187-90.
499. See Bricklayers, 752 F.3d at 96.
500. Bricklayers, 752 F.3d at 96.
502. See id.
503. See Bricklayers, 752 F.3d at 96.
504. See generally In re DVI, Inc. Sec. Litig., 2010 U.S. Dist. LEXIS 92888.
505. See id. at *45. Plaintiff’s expert offered an “insolvency theory” of loss causation, described as being based on the position of DVI as “an insolvent company which undisputably engaged in massive frauds, whose securities’ true value was zero at the time of purchase, and whose securities significantly
Reliability may also be a matter of qualifications and competence of the expert presenting the evidence. In *IBEW Local 90 Pension Fund v. Deutsche Bank AG*, the court considered competing expert analyses of market efficiency on a motion for class certification. The court found both as a matter of qualifications and reliability that plaintiffs’ expert fell short on both. Indeed, the court criticized plaintiffs’ expert as being, at most, “an expert in plaintiffs’ securities cases,” but not one who possessed the “qualifications necessary to make his opinions reliable” on the question presented in the case. Indeed, in particularly harsh terms, the court observed:

Marek does not have any of the basic graduate education, teaching, or research experience or publications that would provide the Court with some basis to believe that he has the qualifications necessary to make his opinions reliable; he has not been specially trained by academics in the field; he has not written articles, taught any courses, or conducted any relevant research. Instead, Marek’s training appears to have been one year he spent working with a firm after college and then his work for an economist who was later indicted for submitting false declarations.

This approach is premised on the notion that, but-for the fraud, DVI’s equity would not have traded except as a penny stock and that any decline in value was causally linked to reliance on DVI’s market price and the false and misleading it reflected. Under this theory of loss causation, any downward movement in the stock price which brought the market price more in line with the “uninflated” price is recoverable.

The theory did not “require any form of corrective disclosure, and did not exclude non-fraud factors.” Applying it, “all loss is attributable to the fraud.” Economic loss is thus synonymous with a reduction in the stock price inflation. It is at once apparent that this theory of loss causation runs head-on into the fundamental principle articulated by the U.S. Supreme Court in *Dura* that an inflated purchase price will not itself constitute or proximately cause the relevant economic loss in a fraud on the market case, and in particular the requirement to eliminate non-fraud events negatively impacting the stock price. *Dura*, 544 U.S. at 336. The *DVI* court agreed, finding the theory to be in obvious conflict with the basic requirements of loss causation, and failing to identify any causal link between a revelation of the truth and the decline in the stock price, and not only being unreliable, but unfit. *In re DVI*, 2010 U.S. Dist. LEXIS 92888 at *45.

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507. See id.
508. See id. at *46.
509. See id. at *45.
510. See id. at *44.
511. *IBEW Local 90 Pension Fund*, 2013 U.S. Dist. LEXIS 155136. The Court ultimately concluded: “[I]f Daubert’s requirements that an expert be sufficiently qualified and have a certain level
The market efficiency analysis offered by plaintiffs in *IBEW Local 90* was found to be flawed in several ways, most importantly being that it “fail[ed] to account for the fact that over 90% [of the subject securities were] traded in a market other than the one [the plaintiffs’ expert] studied.”[^512] The study also failed to account for particular circumstances impacting financial institutions during the financial crisis, which impacted the market(s) in which the securities traded.[^513] Overall, the court concluded:

> [W]hat is clear is that an analysis of market efficiency that ignores the main market which is impounding (or not) material information, and which ignores the fact that the Class Period encompasses an extraordinary financial crisis directly impacting trading conditions and the firm at issue is fatally flawed.[^514]

Lost in the avalanche of general criticism directed at the plaintiffs’ expert’s assessment of market efficiency, was an event study that had been employed to support alleged market efficiency based upon selected earnings disclosure dates to determine “statistically significant price movements associated with [them].”[^515] That regression analysis was discredited as well, as being methodologically flawed, and failing, among other things, to account for the value implication of other factors actually comprising the totality of information that needed to be tested.[^516]

Gateway challenges to expert event studies in market fraud litigation invariably assert a failure to isolate those portions of the stock price that were not attributable to the alleged corrective disclosures, as opposed to other negative factors affecting the company’s stock price.[^517] The challenge to an unorthodox theory illustrated in *DVI*, or unreliable methodology as illustrated in *Bricklayers* and *IBEW 90*, notwithstanding, battles of loss causation experts are most commonly waged over the extent to which one or the other has effectively disaggregated non-fraud, confounding,

[^512]: See id. at *51.
[^513]: See id. at *48.
[^514]: Id. at **69-70.
[^515]: See id. at *20, *22.
[^516]: See generally *IBEW Local 90 Pension Fund*, 2013 U.S. Dist. LEXIS 155136 at **21-23.
[^517]: See generally *In re DVI, Inc. Sec. Litig.*, 2010 U.S. Dist. LEXIS 92888; see generally *IBEW Local 90 Pension Fund*, 2013 U.S. Dist. LEXIS 155136; see generally *Bricklayers*, 752 F.3d 82; see generally *Bricklayers*, 853 F. Supp. 2d 181.
The views set forth in In re Novatel Wireless Securities Litigation are typical.

In Novatel, as is generally the case, the defendants did not object to the validity of an event study as a means of assessing loss causation for claims under section 10(b) and Rule 10b-5, but rather argued that the particular methodology employed by the plaintiffs’ expert in execution was flawed. Defendants asserted, for example, that plaintiffs’ expert used the wrong test for determining “statistical significance of the stock price decline,” and “improperly manipulated the control period [in order] to find statistical significance for the stock price drop” on a particular day. On defendants’ motion to exclude the testimony of plaintiffs’ expert, the court engaged in an exhaustive analysis of the expert’s loss causation methodology based on challenges mounted by the defendants’ expert. In the end, the court concluded that it was simply a matter of expert disagreements, that it did not justify exclusion under Daubert, and that the issue was of probative value or weight of the evidence rather than its admissibility. Thus, the court denied the motion to exclude testimony by plaintiffs’ expert, with the court concluding:

To the extent that Defendants suggest that there is a possibility that plaintiffs could recover for losses that are non-fraud related, there is no evidence that this risk undermines the reliability of Steinholt’s methodology as a whole. Steinholt has attempted to minimize the risk of recovering damages for non-fraud-related losses. Steinholt’s analysis has limited to for only those parties for whom loss causation has been established, and he has removed non-fraud-related industry and market factors from his calculations. Accordingly, the Court finds that it is not an issue of admissibility, but rather of probative value to be addressed at trial.

With that said, the harsh Daubert assessment seen in IBEW Local 90 leaves no doubt that courts will exercise their gatekeeper function ahead of
trial to weed out proffered expert opinions on critical foundational elements of market fraud that do not meet required standards.\textsuperscript{525} Surviving a pre-trial \textit{Daubert} challenge brings on the question of sufficiency of the evidence of loss causation at trial.\textsuperscript{526} Two recent examples offer valuable insight into the sufficiency of proof of loss causation based on expert event studies presented at trial.\textsuperscript{527}

\textbf{C. Loss Causation at Trial}

In \textit{Liberty Media Corporation v. Vivendi Universal, S.A.},\textsuperscript{528} a jury returned a 765 million euro jury verdict for plaintiff on section 10(b) and Rule 10b-5 claims based on twenty-five false or misleading public statements made by Vivendi which plaintiff alleged resulted in artificial inflation of the market price of Vivendi’s publicly-traded securities.\textsuperscript{529} The case was an individual action against the company arising out of a merger agreement under which Liberty exchanged certain assets for allegedly over-valued securities of Vivendi.\textsuperscript{530} As an individual action under section 10(b) and Rule 10b-5, along with certain common law claims relating to the merger agreement, Liberty’s case was initially consolidated with a market fraud class action by open market purchasers against brought against Vivendi based on a larger number of false or misleading statements.\textsuperscript{531} Liberty’s case was later deconsolidated, and proceeded to trial as an individual action after trial of the class action.\textsuperscript{532} A jury verdict for plaintiffs in the class action was rendered, and in the subsequent trial in \textit{Liberty Media} the defendants were “collaterally estopped from contesting the falsity, materiality, and scienter elements of Liberty’s [§ 10(b)]” and Rule 10b-5 claims based on a subset of the statements for which the jury found Vivendi liable in the class action.\textsuperscript{533}

Following the jury verdict in \textit{Liberty Media}, defendants mounted a post-trial challenge to the sufficiency of loss causation evidence presented at trial by expert testimony.\textsuperscript{534} Among other things, defendants argued in a motion

\textsuperscript{525} See IBEW Local 90 Pension Fund, 2013 U.S. Dist. LEXIS 155136 at **39-50.
\textsuperscript{527} \textit{See supra} Part VII.C.
\textsuperscript{528} 923 F. Supp. 2d 511 (2013).
\textsuperscript{529} \textit{See Liberty Media}, 923 F. Supp. 2d at 514.
\textsuperscript{530} \textit{See id.}
\textsuperscript{531} \textit{Id.} at 514-15; \textit{see supra} note 142 and accompanying text; \textit{In re Vivendi Universal, S.A. Sec. Litig.}, 765 F. Supp. 2d 512, 562-63 (S.D.N.Y. 2011); hereinafter \textit{Vivendi})
\textsuperscript{532} \textit{See Liberty Media}, 923 F. Supp. 2d at 515.
\textsuperscript{533} \textit{Id.}
\textsuperscript{534} \textit{Id.} at 517. Vivendi had unsuccessfully mounted the same attack by post-trial motions following the verdict in the class action. \textit{See id.} at 560. The same plaintiffs’ expert testified at trial of the class action, and presented the same event study evidence as that subsequently presented in the
for judgment as a matter of law, or in the alternative, for a new trial, that “[n]o jury should have been permitted to base a verdict” on the expert evidence on loss causation and damages presented at trial. They attacked the opinion of Liberty’s expert, Dr. Blaine Nye, as being legally defective and unreliable for several reasons, including that his event study failed to disaggregate declines in Vivendi’s stock price that resulted from “other non-fraud-related ‘confounding’ events” rather than the materialization of an allegedly concealed liquidity risk.

“At trial, Dr. Nye testified that he had examined each of the 166 trading days between [] the day on which the Merger Agreement was signed, and [] the date of the final alleged materialization event, to determine [whether] there was a statistically significant decline in Vivendi’s stock price on any of those days after removing market and industry effects.” Through his event study analysis, “Dr. Nye identified nine days on which statistically significant negative returns resulted from [what he concluded] were materializations of Vivendi’s concealed liquidity risk.” The court recounted his conclusions based on the study:

Dr. Nye testified that he had also identified days on which Vivendi’s share price dropped as a result of non-fraud-related company-specific news, but that none of these days were among the nine days of materialization events. In addition, Dr. Nye testified that he had studied each of the nine materialization days “for other things that happened on that day that you might need to take out that weren’t related to the concealed liquidity risk.” When challenged on cross-examination, Dr. Nye clarified that he had

Liberty Media trial. See id. Loss causation in Vivendi was premised on the materialization of a liquidity risk. Id. at 555. The jury found that Vivendi had omitted information about its true liquidity risk in fifty-seven statements over a two year period during which, as presented by plaintiffs’ expert, there were nine events he opined were materializations of the undisclosed liquidity risk and caused share price declines. See id. at 524. Vivendi argued that “there were no statistically significant share price declines” associated with several events identified by plaintiffs’ expert, and that his statistical analysis was for various reasons flawed, as shown by their own competing expert. See id. at 560. The court concluded, however, that plaintiffs’ expert analysis was not so flawed that no reasonable jury could accept it, and that the situation presented a “typical battle of the experts,” and within the province of the jury to weigh the evidence and to determine which expert to credit. Id. In Vivendi, the court also discussed loss causation in market fraud action based on a “maintenance” theory of price inflation, which recognizes that inflation in a company’s stock price is difficult to quantify with mathematical precision in any case, and that it is reasonable to conclude that each misstatement over a period of time plays a role in causing the inflation, even if it is not possible to quantify the exact impact that each statement had on the inflation. Id. at 562. The maintenance theory in loss causation analysis is discussed. See supra discussion Part VI.A.

535. Liberty Media, 923 F. Supp. 2d at 517.
536. See id. at 517-18.
537. Id. at 518.
538. Id.
found no material non-fraud-related company-specific news on the nine materialization days: “In those days, ... everything had to do with the fraud.” Dr. Nye concluded that Liberty suffered roughly €842 million in damages from the net share price declines over the nine materialization days.539

A defense expert challenged Dr. Nye’s opinion with testimony “that there was competing negative news [—confounding information—] on several of the materialization [event] days that could have affected Vivendi’s stock price.”540 Under cross-examination he acknowledged, however, that the significance of the alleged confounding effects was unclear.541 In the end, the testimony of both experts was admitted, and the jury was charged as follows regarding damages under section 10(b) and Rule 10b-5:

Liberty bears the burden of separating the alleged fraud from any other factors that may have affected Vivendi’s stock price, and ascribing some rough proportion of the whole loss to the alleged false or misleading statement. Vivendi is not liable for any loss resulting from those other non-fraud related events.542

The jury was further charged that “to establish loss causation, Liberty was required to prove both that the loss it suffered was foreseeable and that [it] was caused by events that revealed information concerning Vivendi’s true liquidity risk that previously had been concealed by the [materially false] or misleading statements.”543 This element of the charge reflected the materialization-of-risk theory of loss causation under which the case proceeded to trial.544 “Having heard the competing [expert] testimony, [] the jury found that [] reliance on Vivendi’s statements caused Liberty to suffer an economic loss of €765 million.”545 Reviewing the competing expert evidence submitted at trial, the court concluded:

Viewing the evidence in the light most favorable to upholding the jury’s verdict, I conclude that a reasonable juror could have found that none of the ostensible confounding events put forth by Vivendi

539. Id. at 518-19 (internal citations omitted). To perform his analysis, Dr. Nye testified to having reviewed all publicly available information about Vivendi over the 166-day period, which information included 16,000 news releases and several thousand analyst reports. Id.
540. Liberty Media, 923 F. Supp. 2d at 519.
541. See id.
542. Id. (internal quotations omitted).
543. Id. at 517.
544. See id. at 516-17.
545. Liberty Media, 923 F. Supp. 2d at 519.
were both non-fraud-related and affected Vivendi’s share price. Dr. Nye’s testimony was not inadmissible simply because it took an aggressively skeptical view of the significance of non-fraud-related news on the nine materialization days, any more than Dr. Silbert’s testimony was inadmissible because of his equally aggressive but opposite interpretation of potential confounding events. The weighing of the expert’s conflicting testimony was a matter for the jury and will not be disturbed by this court.546

The court’s post-trial analysis in Liberty Media also addressed a key feature of loss causation based on the materialization of risk theory, which rejects the notion that each false or misleading statement must play a distinct and independently measurable role in inflating a company’s share price.547 Among its challenges to Dr. Nye’s computation of the inflation in Vivendi’s stock price, the company asserted that he had not separately calculated the inflation associated with each of the false or misleading statements on which plaintiff relied.548 Dr. Nye had also testified in the earlier class action trial, which was predicated on a larger number of false or misleading statements over a longer period, but calculated the amount of price inflation to be the same in both cases.549 In effect, the company argued that plaintiff “would not be entitled to recover for whatever inflation [] was already built into Vivendi’s share price” at the beginning of the relevant Liberty Media time period.550 The court rejected the challenge.551 If, said the court, “Dr. Nye’s analysis were based on the assumption that each of Vivendi’s [false or misleading statements] played as distinct and independently measurable role in inflating [the] share price, [the] argument might have merit.”552 However, the calculation of damages in the case did not involve such an assumption.553 The court explained:

The calculation of damages was not derived from an analysis of the specific effects of individual misrepresentations and omissions. Dr. Nye calculated the damages Liberty suffered as a result of inflation by analyzing the declines in Vivendi’s stock price on the nine days during which the market responded to the materialization of the hidden liquidity risk. Vivendi has offered no legal basis for

546. Id. at 520.
547. See id. at 524-26.
548. See id. at 525.
549. See id. at 524-25.
551. See id.
552. Id. at 525.
553. See id.
concluding that this was an unacceptable approach . . . . Using a
different method, it might in theory have been possible to offer a
more precise causal analysis, one that would have arrived at
different damages calculations for the fifty-seven
misrepresentations at the Class Action trial and the twenty-five at
the Liberty trial. But the law does not require the use of such a
fine-grained quantitative method, if one in fact exists that would
produce reliable rather than spuriously precise results. The jury in
this case was explicitly charged that “[d]amages need not be proven
with mathematical certainty, but there must be enough evidence for
you to make a reasonable estimate of damage.”

As discussed throughout this article, materialization of a risk as the
basis for pleading and proving loss causation is grounded in the notion of a
“zone of risk,” most often attributed to the Second Circuit in Lentell v.
Merrill Lynch & Company, Inc. The key consideration is that false or
misleading statements are “such as to cause a reasonable investor to
consider a zone of risk that is perceived as remote or highly unlikely by [a]
reasonable investor] believing the fraud.” In Liberty Media, “the jury
was [specifically] instructed that for Liberty to establish loss causation, [] it
was required to prove both that the loss it suffered was foreseeable and that
the loss was caused by events that revealed information concerning
Vivendi’s true liquidity risk that previously had been concealed by the
[false] or misleading statements.” Post-trial, Vivendi argued failure of
proof, focusing entirely on the perception of the corrective events as being
viewed by a reasonable investor as remote or highly unlikely.

Vivendi’s post-trial challenge opened the door for the court to make two
things clear. First, the focal point of materialization-of-the-risk is not
corrective events, but rather the zone of risk. The question, said the
court, is “whether a reasonable investor who believed the fraud would
perceive the zone of risk as remote or unlikely, not [] any specific event
within the zone of risk. . . .” The zone of risk in Liberty Media, as it had
been in the Vivendi class action, was a liquidity crisis, which would have
been thought unlikely given the company’s “repeated assurances [of] its

554. Id. at 525-26.
555. See Liberty Media, 923 F. Supp. 2d at 527-28; see also Lentell, 396 F.3d 172-73.
557. Id. at 526.
558. See id. at 526-27.
559. See id. at 527-28.
560. See id.
561. Liberty Media, 923 F. Supp. 2d at 528.
financial health.\textsuperscript{562} Second, the court underscored that loss causation based on materialization-of-the-risk does not require a plaintiff to “establish a one-to-one correspondence between concealed facts and the materialization of the risk.”\textsuperscript{563}

In \textit{Liberty Media} the court also rejected Vivendi’s post-trial loss causation arguments as reflecting a “corrective disclosure” approach rather than materialization-of-the-risk.\textsuperscript{564} The court permitted plaintiff’s expert to testify as to a band of price inflation rather than to establish specific damages attributable to each alleged false or misleading statement.\textsuperscript{565} Just as importantly, the jury was not required to itemize damages “based on specific declines in share price.”\textsuperscript{566} The jury was simply instructed: “Any damages you award must have a reasonable basis in the evidence and may not be based on speculation. Damages need not be proven with mathematical certainty, but there must be enough evidence for you to make a reasonable estimate of damage.”\textsuperscript{567}

The considerable latitude extended to the jury in \textit{Liberty Media} to assess competing loss causation evidence, and to eschew mathematical precision in awarding damages based on multiple false or misleading statements over a period of months, illustrates that once a trial court’s gatekeeper \textit{Daubert} assessment is finished, the jury’s determination will be afforded much deference.\textsuperscript{568} The sufficiency of loss causation evidence presented at trial remains open to appellate review.\textsuperscript{569} However, in \textit{Liberty Media} the district court made clear that a properly instructed jury has wide discretion to reasonably accept or reject expert loss causation evidence in whole or part, and to weigh the credibility of those offering the evidence, provided it arrives at a loss determination that is plausible within the instruction given.\textsuperscript{570}

“Plausible cause” is a notion that fairly permeates all of the contemporary assessments of loss causation in pleading and proving market fraud claims under section 10(b) and Rule 10b-5 that have been addressed in this article.\textsuperscript{571} Below, Part VIII considers the notion in practical terms as setting the limits on loss causation.\textsuperscript{572}

\begin{itemize}
\item \textsuperscript{562} See \textit{id.}
\item \textsuperscript{563} \textit{Id.}
\item \textsuperscript{564} See \textit{id.}
\item \textsuperscript{565} See \textit{id.} at 519-20.
\item \textsuperscript{566} \textit{Liberty Media,} 923 F. Supp. 2d at 531.
\item \textsuperscript{567} \textit{Id.}
\item \textsuperscript{568} See \textit{id.} at 532.
\item \textsuperscript{569} See \textit{id.} at 532-33.
\item \textsuperscript{570} See \textit{id.} at 532.
\item \textsuperscript{571} See \textit{infra} discussion Part VIII.C.
\item \textsuperscript{572} See \textit{infra} discussion Part VIII.
\end{itemize}
VIII. PLAUSIBLE CAUSE, DISCLOSURE EVENTS, AND THE OUTER LIMITS OF LOSS CAUSATION

A. The Chain of Causation

Connections, or the absence thereof, between events said to be corrective disclosures or the materialization of a concealed risk and the “fraud” alleged to have violated section 10(b) and Rule 10b-5 have been examined extensively throughout this article. In market fraud litigation, for every fraud there must be a revelation of the truth, however it may occur. Moreover, for every revelation there must be a demonstrable effect in the marketplace. Plausible cause in pleading market fraud under section 10(b) and Rule 10b-5 may not rest on speculation, “must have” assumptions, or the occurrence of events that have a negative effect on a stock price but are neither corrective nor revealing of the fraud on which claims are made. For there to be a chain of causation, plaintiffs must allege that Rule 10b-5 cognizable fraud, whether the active dissemination of materially false or misleading information, the concealment of a known risk, the concealment of material information in violation of a duty to disclose, or a fraudulent scheme in any manner designed to cause or maintain artificial price inflation, was revealed to the marketplace with the direct result being that the stock price reacted negatively. Plaintiffs must allege facts, and to avoid summary judgment must present evidence, that the scheme was disclosed, whether at one point or gradually at several points on a deception timeline, and that artificial inflation in the stock price was corrected, whether all at once or over a period involving a series of disclosure events all connected to each other and the subject fraud.

A central concern underlying the requirement that parties plead loss causation with the degree of precision discussed throughout this article is that market fraud claims under section 10(b) and Rule 10b-5 may not assert “fraud-by-hindsight.” The notion of fraud-by-hindsight has long been anathema in private litigation under section 10(b) and Rule 10b-5, and no less so in market fraud cases, as well illustrated by the Seventh Circuit observation more than twenty years ago:

573. See supra Part V.A-B.
574. See infra Part VIII.C.
575. See infra Part VIII.C.
576. See, e.g., Initial Pub. Offering Sec. Litig., 399 F. Supp. 2d 261, 266 (S.D.N.Y. 2005) (“[A] failure to meet earnings forecasts has a negative effect on stock prices, but not a corrective effect.”).
577. See id. at 266.
578. See id. at 265-66.
579. See DiLeo v. Ernst & Young, 901 F.2d 624, 627-28 (7th Cir. 1990).
The story in this complaint is familiar in securities litigation. At one time the firm bathes itself in a favorable light. Later, the firm discloses that things are less rosy. The plaintiff contends that the difference must be attributable to fraud. “Must be” is the critical phrase, for the complaint offers no information other than the differences between the two statements of the firm’s condition. There is no “fraud by hindsight” . . . and hindsight is all [Plaintiffs] offer.580

The chain of causation in market fraud cases exists on a deception timeline, for which there are identifiable beginning and end points.581 Fraud by hindsight involves an end point, but not a deception timeline on which the end event is directly connected to a sufficiently identified market deception.582 In Part VI of this article, the Eleventh Circuit’s notion of fraud maintaining the market articulated in FindWhat Investor Group v. Findwhat.com was assessed skeptically because the court’s focus was entirely on confirmatory information that supported an artificial stock price by preventing preexisting inflation from dissipating.583 What actually introduced the artificial price inflation was not part of the case, although the court necessarily accepted that some false or misleading information, albeit non-actionable, had caused the price inflation that was subsequently maintained.584

The separately articulated “maintenance theory of price inflation” in the Vivendi Universal litigation was also examined as the basis for market fraud claims based on a “band of inflation” in a stock price that misinformation either added to or helped to maintain over a period of time.585 These notions, although inviting scrutiny under Dura, are necessarily based on the

580. DiLeo, 901 F.2d 627-28 (7th Cir. 1990); see also Ind. State Dist. Council of Laborers v. Omnicare, Inc., 583 F.3d 935, 938, (6th Cir. 2009) (“Seizing on a few vague statements from management, the plaintiffs try to turn bad corporate news into a securities class action.”). But see Mississippi Pub. Emp. Ret. Sys. v. Boston Sci. Corp., 523 F.3d 75, 90-91 (1st Cir. 2008). In this market fraud case the court cautioned that in cutting off a case on the pleadings by citing hindsight, the court is essentially making a prediction that the discovery process will yield only evidence that requires the benefit of hindsight bias to seem adequate. Plaintiffs in the case alleged that the company withheld material information, and made misleading positive statements about problems associated with a coronary stent and manufacturing changes implemented to deal with potential defects. The court concluded that allegations were made from which actionable market fraud could be inferred, including a history of reports from European doctors that the device failed, as well as numerous “complaints from U.S. doctors, while the company was in the process of implementing [manufacturing] changes.” Id. The court also credited allegations that the company’s SEC filings and press releases had falsely reassured the public regarding manufacturing changes. See id.

581. See supra Part VI.B.

582. See supra Part VI.

583. See supra Part VI and notes 151-53.

584. See supra Part VI.

585. See In re Vivendi, 765 F. Supp. 2d at 561-62; see also supra Part VI.
assumption that artificial price inflation is in fact the result of the fraud ultimately revealed. In that manner, a chain of causation exists upon which to frame a cognizable, and indeed as shown in Vivendi, ultimately provable, market fraud claim. The key consideration, however, is that, on a deception timeline, there must be an identifiable point at which a stock price becomes artificial by reason of a violation of section 10(b) and Rule 10b-5 just as importantly as there is a point of revelation when the price resets and the prior artificial inflation caused by material misrepresentations dissipates, thus establishing a loss. Only then is there an unbroken chain of causation, and plausible cause as a matter of pleading and proof.

Some courts have examined non-fraud causes as “intervening” or “superseding” causes that disrupt the chain of causation necessary to plead or prove loss causation. In Gold v. Ford Motor Co., for example, independent action by the New York Stock Exchange in determining the ex-distribution date and due bill period on certain securities that caused losses claimed by the plaintiff operated as an intervening cause to disrupt the chain of causation necessary to plead loss causation under section 10(b) and Rule 10b-5. The essential predicate for this, however, is a wholly independent action of a third party rather than the occurrence of a disclosure event as, for example, materialization of a concealed risk, tied directly to alleged false or misleading statements of the defendant. Gold was not a typical market fraud case. Plaintiff alleged that Ford violated section 10(b) and Rule 10b-5 by employing a manipulative or deceptive device or contrivance by violating another SEC rule in connection with a dividend distribution, and specifically that Ford failed to comply with a ten-day notice requirement that resulted in the plaintiff’s selling certain securities without required notice of a forthcoming distribution, which plaintiff failed to receive. However, the court found that plaintiff “did not plausibly allege any facts suggesting that his losses resulted from [Ford’s] conduct.” Rather,
plaintiffs’ losses were incurred when the New York Stock Exchange independently set an ex-distribution date and due bill period that were contrary to plaintiff’s expectations. Thus, in Gold, the NYSE’s wholly independent “intervening act,” or “superseding” cause, produced the harm.

B. Disclosure Events

The key event (or events) on a deception timeline is the point at which the truth is revealed either in whole or part, and the market price promptly resets. Whether a corrective disclosure, “leakage” of the truth through a series of partial disclosures, or the materialization of a foreseeable but concealed risk, the truth must be at least signaled to the market, followed by a measurable market reaction. As discussed extensively in this article, corrective disclosures, for example, must specifically call into question prior public statements alleged to be false or misleading. Likewise, to plead loss causation based upon the materialization of a concealed risk, the materialization event must reveal something actually omitted from previous statements that renders them false or misleading. The limits of loss

traded security that allegedly has been affected by fraudulent misrepresentations or omissions. In non-typical cases, said the court, it is more difficult to categorize required loss causation. McCabe was a non-typical case, in which principals of an acquired company sued the acquiring company’s auditors, alleging that the auditors had omitted material information from financial statements of the acquiring company. The plaintiffs had registration rights regarding stock in the acquiring company, on which rights the company defaulted as its financial situation deteriorated, and plaintiffs were as a result unable to sell their shares on the expected timeline, all as the market price of the stock declined based on negative earnings. The court concluded that alleged misstated or omitted facts that may have induced plaintiffs to enter into the transaction at a price less favorable than they had been misled into believing, the alleged fraud was not a substantial factor in causing the economic loss actually, incurred by plaintiffs due to their inability to sell shares resulting from the company’s registration defaults. Simply put, facts misrepresented or omitted by the accounting firm were not shown to be a substantial factor in causing the economic loss attributable to the delay or loss of registration rights. McCabe, F.3d at 425, 429, 433, 436.

596. See Gold, 852 F. Supp. 2d at 542.
597. But see Delcath Systems, Inc. Sec. Litig., 2014 U.S. Dist. LEXIS 88116 at*36, (S.D.N.Y. 2014) (Defendant’s argument that FDA action caused the company’s stock price to drop rather than revelation of the alleged fraud is a “factual argument for later consideration and did not diminish the sufficiency of [loss causation allegations in the] complaint.”).
598. Supra note 578 and accompanying text.
599. See William Sec. Litig., 558 F.3d at 1138; In re Bristol Myers Squibb Co., 586 F. Supp. 2d at 165-66.
causation as a matter of pleading and proof in market fraud cases are defined by disclosure events on a deception timeline that are demonstrably linked with each other. All of this, as one court has suggested, means establishing an unbroken “chain” of causation.

C. Plausible Cause

The Supreme Court observed in *Dura* that “it should not prove burdensome for a plaintiff who has suffered an economic loss to provide a defendant with some indication of the loss and the causal connection the plaintiff has in mind.”604 An indication of loss that was missing in *Dura* may be simple enough, but presenting a causal connection that “plaintiff has in mind” and which is also an actual cause has proven to be a much greater challenge.605 As presented in this article, however, in the wake of *Dura*, several things combine to establish plausible cause for pleading and proof of market fraud actions under section 10(b) and Rule 10b-5.

First, as a matter of pleading loss causation, any distinction between a pleading standard governed by Federal Rule 8(a) and a “heightened” version that is the amalgamation of Federal Civil Rule 9(b) and the PSLRA is one without a difference. As a practical matter, “particularity” in identifying a causal link is inescapable, and it makes little sense to attempt to cabin a pleading standard. In pleading loss causation, unquestionably a degree of precision is required. “Generalized, vague, or broad allegations regarding the existence of a disclosure or revelation of a fraud that is . . . alleged to have been connected to a drop in stock price will not suffice to put a defendant on notice of loss causation.” To be plausible, a loss causation allegation must identify the link between the “fraud” that violates section 10(b) and Rule 10b-5 and the drop in the stock price that actually frames a loss. In every instance, there must be a fraud and a revelation of that fraud. In addition, “fair notice” regarding loss causation as addressed in *Dura* requires in all cases that a plaintiff allege facts supporting an inference that a revelation, whether by corrective disclosure or a

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604. *See Dura*, 544 U.S. at 347.
605. *See id.* at 345, 347.
606. *See supra* Part III.C., IV.
608. *Id.*
609. *Id.*
611. *See id.* at *4.
612. *See id.* at *55.
materialization event, actually produced a negative market reaction.\textsuperscript{613} With that in mind, the description of appropriate loss causation allegations by the court in \textit{Chamberlain v. Reddy Ice Holdings, Inc.},\textsuperscript{614} is particularly helpful.\textsuperscript{615}

In \textit{Chamberlain}, the plaintiff anchored the alleged market fraud in statements made by the company and individual officer defendants that, among other things, touted a competitive advantage in its primary markets, and at the same time “expressed its “strict adherence” to a company code of ethics that expressly prohibited violating antitrust laws.”\textsuperscript{616} Plaintiffs alleged that in making these and other statements regarding its competitive position and successful business operations, the defendants knowingly or recklessly omitted and failed to disclose that the company was in fact a party to unlawful agreements with its major competitors.\textsuperscript{617} Plaintiffs claimed that unlawful agreements produced an artificial increase in the company’s revenues and drove its stock price to an artificial high.\textsuperscript{618}

In the wake of an FBI raid, and being served with grand jury subpoenas seeking information in connection with a Department of Justice ("DOJ") investigation of the packaged ice industry, the company, in its Form 10-K annual report and other statements, denied knowledge of unlawful behavior and stated specifically that it had not “engaged in anticompetitive behavior or other activities which would violate antitrust laws.”\textsuperscript{619} Plaintiffs alleged that these statements were false and misleading because the company had in fact engaged in illicit business practices with its competitors in the ice packaging industry and had colluded in regard to allocating territories and fixing prices, all of which exposed the company to risks of criminal and civil liability and penalties that threatened its existence.\textsuperscript{620} After the company announced the DOJ investigation, its share price fell substantially.\textsuperscript{621} It fell substantially again following publication of a \textit{Wall Street Journal} statement by a former Vice President of Sales disclosing an agreement among the company and its competitors to allocate among them customers and regions.\textsuperscript{622} Subsequently, when the company announced the suspension of its Executive Vice President of Sales and Marketing on the basis of an internal finding that he had violated company policies in

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\textsuperscript{613} See \textit{Dura}, 544 U.S. at 346.


\textsuperscript{615} See \textit{Chamberlain}, 757 F. Supp. 2d at 717-19.

\textsuperscript{616} See id. at 689.

\textsuperscript{617} See id. at 688, 717.

\textsuperscript{618} See id. at 689.

\textsuperscript{619} See id. at 689, 692-693.

\textsuperscript{620} See \textit{Chamberlain}, 757 F. Supp. 2d at 689.

\textsuperscript{621} See id. at 717.

\textsuperscript{622} See id. at 689-90.
connection with antitrust violations under investigation by the DOJ, and also that the company was suspending its dividend because of weaker-than-expected offering results and costs related to the ongoing antitrust investigation, the company’s stock fell further.\footnote{See id. at 717-718.}

The court thoroughly examined the assertions of fact made by plaintiffs concerning unlawful activity that formed the basis of their market fraud claim, further factual support for which presented in the complaint included statements of several confidential witnesses.\footnote{Id. at 703.} The court was satisfied that the alleged false and misleading statements by the company were actionable under section 10(b) and Rule 10b-5.\footnote{Chamberlain, 757 F. Supp. 2d at 702-06.} The court went on to consider the sufficiency of plaintiffs’ loss causation allegations, and with the facts alleged in the \textit{Chamberlain} complaint (“CCAC”), provided this primer of properly pleaded loss causation:

In the instant case, the CCAC specifically relies on three disclosure statements to support the allegation of loss causation. The CCAC alleges that as a direct result of the disclosures on March 6, 2008, August 7, 2008 and September 15, 2008, Reddy Ice shares suffered material statistically significant losses, as these disclosures caused the prior artificial inflation of the share price, which had been based on Reddy Ice’s material misrepresentations regarding competition and compliance with the antitrust laws, to drop out of the price . . . . Plaintiffs allege that on March 6, 2008, when the DOJ investigation of Reddy Ice was announced, Reddy Ice shares were trading at $23.11 . . . and fell the next day, on unusually heavy trading volume, to $15.38, a decline of $7.73 per share . . . . On August 7, 2008, after publication of McNulty’s story in the \textit{Wall Street Journal} exposing a nationwide market allocation agreement among Reddy Ice, Artic Ice and Home City, Reddy Ice shares fell to $10.99 per share, a drop of $2.40 per share from the prior day, again on unusually heavy trading volume . . . . On September 16, 2008, the day after Reddy Ice announced the suspension of Ben Key for “likely violating” company policy and being associated with the matters under investigation by the antitrust division of the DOJ, Reddy Ice share price fell to $4.40, down $2.05 from the prior day, and continued to fall the next day, closing at $3.43 per share on September 17, 2008. Plaintiffs allege in the CCAC that the share price has never recovered. The CCAC alleges that these share price declines were not mirrored by the market in general and that in fact
the Dow Jones Industrial Average and the S & P 500 declined only minimally on these same relevant dates.626

Plausible cause in pleading market fraud claims under section 10(b) and Rule 10b-5 is often considered today in disclosure scenarios like *Chamberlain*, where companies disseminate allegedly false or misleading statements regarding legal or regulatory compliance, best practices, and the like.627 This is particularly true in the heavily regulated pharmaceutical industry.628 In *Public Pension Fund Group v. KV Pharmaceutical Company*,629 for example, plaintiffs alleged that a company engaged in the development, manufacture, and marketing of prescription drug products and violated section 10(b) and Rule 10b-5 by making false or misleading statements in various SEC filings concerning compliance with Food and Drug Administration (FDA) regulations.630 The company stated in several relevant SEC filings: “We believe that all of our facilities are in material compliance with applicable regulatory requirements,” and further that: “We believe that we are currently in material compliance with cGMP . . . .”631 In *Public Pension Fund Group v. KV Pharm. Co.*,632 for example, plaintiffs alleged that a company engaged in the development, manufacture, and marketing of prescription drug products and violated section 10(b) and Rule 10b-5 by making false or misleading statements in various SEC filings concerning compliance with Food and Drug Administration (FDA) regulations.630 The company stated in several relevant SEC filings: “We believe that all of our facilities are in material compliance with applicable regulatory requirements,” and further that: “We believe that we are currently in material compliance with cGMP . . . .”631

In this context, however, plaintiffs alleged that the company had “knowledge of the results of a series of inspections the FDA had made of [its] facilities.”632 “The FDA reported results of [these] inspections to [the company] on Form 483s following [the] inspections.”633 The FDA issues these forms pursuant to FDA regulations to notify a company’s top management in writing “of significant [,,] objectionable conditions, relating to products and/or processes, or other violations of the [FDA] which were observed during the inspection of a facility.”634 After the last inspection of KV was reported on Form 483, the FDA brought a civil action against the company, certain of its affiliates, and four individuals, seeking a “permanent

626. Id. at 717-18 (internal citations omitted).
627. See generally Public Pension Fund Group v. KV Pharm. Co., 679 F.3d 972 (8th Cir. 2012).
628. See generally id.
629. 679 F.3d 972 (8th Cir. 2012) [hereinafter *KV Pharmaceuticals*]. In *KV Pharmaceuticals*, the Eighth Circuit affirmed in part and reversed in part a district court assessment of the sufficiency of fraud allegations under the Private Securities Litigation Reform Act (PSLRA). The Eighth Circuit held that plaintiffs satisfied PSLRA in making a §10(b) and Rule 10b-5 market fraud claim based on the company’s statements about its compliance with FDA regulations. Id. at 989. The court remanded the case to the district court, with an order to allow a proposed amended complaint, as to which the district court thereupon specifically considered the sufficiency of scienter and loss causation allegations. See Public Pension Fund Group v. KV Pharm. Co., 2013 U.S. Dist. LEXIS 61361, CCH Fed.Sec.L.Rep. ¶ 97, 406 (E.D. Mo. 2013). As discussed below, the district court concluded that plaintiffs’ amended complaint satisfied pleading obligation on both elements. See id. at ¶ 97, 406.
630. *KV Pharmaceuticals*, 679 F.3d at 980, 983, 985.
631. Id. at 976. “cGMP” refers to the Current Good Manufacturing Practice regulations enforced by the US Food and Drug Administration (FDA). See id.
632. Id.
633. Id.
634. See id. (citing FDA INVESTIGATIONS OPERATIONS MANUAL, Ch.5, §5.2.3 (2009)).
injunction to prevent KV from manufacturing and distributing pharmaceuticals due to irregularities in its manufacturing practices.635

Plaintiffs alleged that the company’s statements regarding material compliance with FDA regulations, and about earnings, which were made not only in the context of the series of FDA Form 483s, but also additional statements in its SEC filings explaining the extensive and complex governmental regulation of the pharmaceutical industry by the FDA to which KV was subject, were materially false or misleading.636 Plaintiffs based their claim on the company’s knowledge of the results of FDA inspections as reported on Form 483s and the knowledge that its manufacturing process for a key generic drug violated FDA regulations.637 They alleged that as the company’s conduct became public, the price of its stock substantially declined, to the extent that investors lost some $1.5 billion in market capitalization during the class period, as the stock price declined from more than $30 per share at the height of the class period ultimately to $0.51 in the wake of an announcement that the company had suspended the manufacturing and shipment of all of its products other than products it distributed but did not manufacture.638 The district court dismissed the complaint for failure of plaintiffs to allege with sufficient particularity that the company’s statements about material compliance with FDA regulations or cGMP were false or misleading.639

On appeal, the question was whether the investors’ complaint adequately set forth the reasons why the company’s statements about its material compliance were false or misleading.640 The main focus in that inquiry was on the company’s receipt of Form 483s and whether their mere receipt during the same period the company was representing it was in material compliance with FDA regulations rendered those statements materially misleading.641 The Eighth Circuit concluded that the company’s representations of material compliance with FDA regulations and cGMP were actionable misstatements in the circumstances in which the receipt of Form 483s had notified management of significant and objectionable conditions relating to products and/or processes or other violations of FDA regulations during the same period it was representing it was in material compliance.642 The court opined:

635. KV Pharmaceuticals, 679 F.3d at 976.
636. Id. at 978.
637. Id. at 976-77.
638. Id. at 979.
639. Id. at 981.
640. KV Pharmaceuticals, 679 F.3d at 975.
641. Id. at 981.
642. Id.
The issuance of a Form 483 represents a risk that the FDA may take corrective action against a company, and thus a company is obligated to assess the seriousness of the risk and disclose such information to potential investors if it also represents it is in compliance with FDA regulations and cGMP.643

Having concluded that plaintiffs had stated a section 10(b) and Rule 10b-5 market fraud claim, the Eighth Circuit remanded the case to the district court for determinations on the sufficiency of scienter and loss causation allegations and on whether to permit an amended complaint.644 On remand, the district court held that the complaint satisfied both pleading obligations, and specifically as to loss causation:

[Plaintiffs have sufficiently pled that the monetary losses suffered by investors of KV securities were foreseeable and were caused by the materialization of the concealed risk. Plaintiffs allege that KV’s failure to inform the market about their continuing non-compliance created an artificial stock price which plummeted when the undisclosed condition became known. This allegation is supported by the fact that the per share price for KV’s Class A shares collapsed from more than $30 at the height of the class period, to $0.51 at the close of trading on January 26, 2009. Plaintiffs conclude that this decline in stock price was the direct result of each fraud revealed to the market.645

Regulatory events may evidence either materialization of a concealed risk or, in their announcement, corrective disclosures for pleading loss causation in the section 10(b) and Rule 10b-5 market fraud cases depending on their focus.646 In In Re Bradley Pharmaceuticals, Inc. Securities Litigation,647 following public disclosure by the company of an informal SEC inquiry to determine whether the company had violated any provision of the federal securities laws, and requesting certain documents and information “with respect to revenue recognition and capitalization of certain payments”, the company’s share price declined 26.4 percent.648 Investor plaintiffs alleged that the announced SEC inquiry was a revelation to the marketplace concerning a sham transaction that had resulted in

643. Id. at 982.
644. Id. at 990.
645. KV Pharmaceuticals, 2013 U.S. Dist. LEXIS 61361 at 12, CCH ¶ 97,406, at 96,484.
646. See, e.g., id. at 12, CCH ¶ 97,406, at 96, 484.
improper revenue recognition, and had been concealed by the company in prior public statements, and which inflated the company’s share price.649

Defendants urged, however, that the disclosure relied upon by plaintiffs concerning the SEC inquiry, which said nothing about the allegedly sham transaction, amounted to nothing more than the disclosure of a non-specific SEC inquiry, involving an unspecified request for documents and information, which was coupled with the statement that the inquiry should not be construed as an indication of any violation.650 The court nevertheless concluded that a sufficient link between the announced SEC inquiry and the alleged market fraud was established based on the significance of the market reaction to the disclosure651 and the fact that the SEC inquiry explicitly related to “revenue recognition.”652 The announcement, said the court, “partially disclosed what alleged misrepresentations had concealed from the market and began to reveal” what was ultimately confirmed by the company.653 The share price had allegedly been inflated by improper revenue recognition, and the disclosure of the SEC investigation into revenue recognition practices by the company dissipated that inflation when the stock price plummeted 26.4%.654

On the other hand, in In Re Take-Two Interactive Securities Litigation,655 plaintiffs alleged the existence of widespread options backdating at Take-Two that rendered false and misleading various material statements made by the company in public disclosures and regulatory filings during the class period, and which inflated the market price of the company’s stock.656 “Plaintiffs identified two alleged corrective disclosures concerning [the options backdating], which were followed by significant negative market reactions” upon which they predicated loss causation.657 One was the announcement by the company that it had received grand jury subpoenas from the Manhattan District Attorney for production of documents pertaining to, among other things, “certain compensation and human resources documents,” and “concerning the activities of the

649. Id. at 828-29.
650. Id. at 828.
651. See also Brumbaugh v. Wave Systems Corp., 416 F. Supp. 2d 239, 255-56 (D. Mass. 2006) (loss causation adequately pled where plaintiffs alleged that company disclosure of an SEC investigation relating to the company’s misstatements had “shocked the market” and caused the stock price to drop).
653. Id. at 829.
654. Id. at 824-25.
657. Id. at 282.
Company’s Board of Directors and Committees thereof.\textsuperscript{658} The court concluded that loss causation could not be predicated on this disclosure.\textsuperscript{659}

“The announcement makes no mention of options, options backdating, or the manner in which Take-Two accounted for its options grants,” leading the court to conclude that, “on its face, the June 26 Disclosure did not cure or undermine Defendants’ past misrepresentations concerning Take-Two’s options grants.”\textsuperscript{660} The language, said the court, “did not provide investors with enough information to conclude even that the Manhattan District Attorney’s Office would be investigating the company’s options granting process, let alone that the company’s prior statements regarding that process were in some way false.”\textsuperscript{661} Importantly, the court went on specifically to distinguish \textit{Bradley Pharmaceuticals} and the regulatory announcement made there:

“The SEC’s announced investigation in \textit{In re Bradley Pharmaceuticals} dealt with the same subject matter—albeit, more generally—as did the alleged fraud, i.e., the defendant corporation’s revenue recognition. Here, there is a more distant relationship between the subject of the Manhattan District Attorney’s announced investigation—Take-Two’s general compensation practices—and the subject of the alleged fraud—Take Two’s options granting practices. Moreover, the SEC’s announced investigation in \textit{In re Bradley} expressly involved violations of the federal securities laws, which obviously called into question the defendants’ prior representations. The announced investigation in the instant case, however, made no mention of securities law violations, nor does an investigation by the Manhattan District Attorney’s Office invariably involve prior public misrepresentations. Thus, the nexus between the disclosure and alleged fraud in this case is more tenuous than that in \textit{In re Bradley Pharmaceuticals}.”\textsuperscript{662}

The second corrective disclosure identified by plaintiffs in \textit{Take-Two}, however, was the company’s announcement that the SEC was “conducting an informal non-public investigation into certain stock option grants made by the company from January 1997 to the present.”\textsuperscript{663} In the same announcement, the company revealed that it had commenced an internal

\textsuperscript{658} \textit{Id.} at 283.
\textsuperscript{659} \textit{Id.} at 282-84.
\textsuperscript{660} \textit{Id.} at 284.
\textsuperscript{661} \textit{In re Take-Two}, 551 F. Supp. 2d at 284.
\textsuperscript{662} \textit{Id.}
\textsuperscript{663} \textit{Id.} at 282.
investigation of its past options grants. Following that announcement, the company’s stock price dropped 7.5%. Plaintiffs looked to the announcement of the SEC investigation as revealing that the company’s options granting practices were the subject of the investigation. The court agreed: “[T]he July 10 disclosure clearly revealed that Take-Two’s options-granting practices were the subject of an investigation carried out by a governmental entity charged with ensuring compliance with the federal securities laws.” That disclosure was, therefore, held to be an adequate basis for plaintiffs’ loss causation allegations for pleading purposes because the announcement of an SEC investigation into alleged fraudulent conduct constituted at least a partial disclosure of such fraudulent conduct. “It was plausible, [said the court], to infer that [this] [d]isclosure revealed to the market some part of the relevant truth concerning the [o]ptions [b]ackdating [f]raud, thereby causing a decline in [the company’s] share price.” Thus, for pleading purposes, plaintiffs’ loss causation allegation based on the SEC-related announcement was sufficient.

In practical terms, loss causation, as a matter of pleading and proof in market fraud cases, means causation in fact. A complaint will not stand against a motion to dismiss where allegations of the causal link between defendant’s fraud and the plaintiff’s loss are devoid of any specificity indicating how the alleged fraud proximately caused a plaintiff’s claimed loss. Moreover, plaintiffs cannot escape the fundamental requirement that they must present an actual economic loss. Courts measure investor losses by the decline in the stock price following a disclosure event—provided the market actually reacts to the disclosure and the decline is not attributable to something else. Perhaps the starting point in framing and assessing loss causation allegations as a matter of pleading in any case

664. Id. at 286-87.
665. Id. at 287.
667. Id. at 287.
668. Id. at 288.
669. Id. at 290.
670. Id.; but see Loos v. Immersion Corp., 762 F.3d 880, 890(9th Cir. 2014) (rejecting the proposition that the announcement of an internal investigation followed by a decline in the share price could suffice for alleging loss causation. While an “ominous event,” the announcement of the internal investigation, said the Court, did not reveal any fraudulent practice to the marketplace. Investors were simply put “on notice of a potential future disclosure of fraudulent conduct”, and that “any decline in a corporation’s share price following the announcement of an investigation can only be attributed to market speculation about whether fraud has occurred.”).
672. See, e.g., In re Take-Two, 551 F. Supp. 2d at 290.
673. Dura, 544 U.S. at 343-44.
674. See, e.g., In re Take-Two, 551 F. Supp. 2d at 289-90.
should actually be the ending point for trial embodied in the court’s jury instruction in *Liberty Media* discussed earlier:

Liberty bears the burden of separating the alleged fraud from any other factors that may have affected Vivendi’s stock price, and ascribing some rough proportion of the whole loss to the alleged false or misleading statement. Vivendi is not liable for any loss resulting from those other non-fraud related events.675

A stock price decline, as the measure of a claimed economic loss, must be demonstrably connected to the alleged fraud forming the basis of the action and, as the court instructed, separated from any other factors.676 As demonstrated throughout this article, this is not always an easy task.677 Courts must take actual or potential confounding factors or information present in the marketplace into account both in pleading and as a matter of proof.678 Assertions regarding confounding factors will generally be the stuff of competing expert analyses, primarily through event studies, on motions for summary judgment or *Daubert*-based motions in limine for purposes of trial. Although, based on the Supreme Court’s most recent holding in *Halliburton II*, event studies may well be offered by defendants seeking to defeat class certification on the argument that the fraud-on-the-market presumption of reliance is rebutted by showing the absence of price impact.679 As a matter of pleading, however, the parties must present a direct connection between disclosure events, on a deception timeline, that is facially plausible, as the court so well illustrated in *Chamberlain*.680

To plead plausible cause, one must draw inferences from sufficient facts alleged to demonstrate that a revelation event or corrective disclosure actually alerted investors that prior information disseminated into the marketplace was materially false or misleading.681 Information constituting a corrective disclosure must be “congruent” with the fraud forming the basis for the section 10(b) and Rule 10b-5 claim.682 Whatever truth revealed must clearly be linked to the subject of alleged misstatements or omissions to establish loss causation, and must then be linked to the market reaction actually resulting in the claimed loss.683 To prove it is to win the inevitable

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676. *Id.* at 516-17.
677. See *supra* Part VII.A.
679. See *supra* notes 66, 480, 501 and accompanying text.
682. See *supra* note 232.
battles of experts in which, as Liberty Media once again illustrates, jurors will exercise independent judgment and common sense.684

IX. CONCLUSION

In Dura the Supreme Court reminded those seeking to invoke the private right of action under section 10(b) and Rule 10b-5 to assert market fraud that the focus of the law is on protection of investors against those economic losses that actionable fraud actually cause, and not to provide “broad insurance against market losses.”685 Dura illustrated the extent to which investors asserting market fraud had since the Court’s decision in Basic recognizing the fraud-on-the-market presumption of reliance, and the Efficient Market Theory on which it is based, lost sight of the fundamental element of any private action under section 10(b) and Rule 10b-5 that a direct causal connection exist between actionable fraud and a loss which an investor seeks to recover.686 Congress addressed the point in 1995 in the PSLRA, with the statutory mandate that any plaintiff must prove that the fraud alleged to be an Exchange Act violation caused the loss the plaintiff seeks to recover as damages.687 But it was not until Dura that the meaning of loss causation in market fraud was best shown, as investor plaintiffs there sought to recover losses representing the decline in the value of their shares caused by non-actionable false statements having nothing to do with the alleged false statements on which they based their claim.688 The artificially high share price in Dura may well have been the result of prior false or misleading representations to the marketplace, but as disclosure events on the deception timeline played out, the market fraud on which plaintiffs based their claim was not the one connected to the price inflation and the decline in share price when it was disclosed to the marketplace.689

The central point of Dura, explored specifically in Part III and throughout this article, is that a “tangle of factors” may affect the market price of a security at any time.690 “Disaggregation” of causes has therefore been a central theme in market fraud cases since, along with identification of the link missing in Dura between alleged fraud and an actual market

684. Liberty Media Corp., 923 F. Supp. 2d at 530-31. The jury awarded some €77 million less than the damage calculation presented by plaintiffs’ expert, and far more than the damages number calculated by the defendants’ expert. Defendant challenged the jury’s damage award as not being supported by any evidence in the record. The court rejected said challenge finding that jurors are not required to perform technical calculation; rather, they can derive rough estimates based on their credibility determinations. See id.
685. Dura, 544 U.S. at 345.
686. Id. at 342-43.
688. Dura, 544 U.S. at 346-47.
689. Id. at 347.
690. See supra Part III.
loss. As a matter of pleading market fraud in cases since *Dura*, investor plaintiffs go to great lengths in making loss causation assertions that connect alleged materially false or misleading statements specifically to positive, but artificial, market reaction, and a subsequent specific negative market reaction or series of reactions linked directly to the exposure of the alleged fraud, and the consequent loss. As for presenting evidence, event studies are ubiquitous today for that reason. Nevertheless, as discussed in Part VI, the notion of fraud “maintaining” a market price made artificial before any actionable misstatement, that is, false or misleading statements designed to prop up an already inflated price has survived scrutiny under *Dura* without regard to what created the inflated price in the first place. Moreover, market fraud claims springing from the materialization of a risk concealed over the course of deception timeline rather than the more commonly accepted corrective disclosure are increasingly prominent. Today, “disclosure events” on a deception timeline better set the limits of loss causation in pleading and proof.

As a matter of law and common sense, the limits of loss causation in pleading and proving section 10(b) and Rule 10b-5 market fraud claims are not so difficult to discern as the growing volume of cases dealing with the issue would indicate. Perhaps the Supreme Court’s observation in *Dura* that it should not prove burdensome for a plaintiff who has suffered an economic loss to plead “some indication of the loss and the causal connection that the plaintiff has in mind” is right; although, again, the volume of cases suggests that the observation was not entirely prescient. In the end, however, the question will always be whether, as a matter of pleading or proof, the plaintiff and those similarly situated on whose behalf she asserts the claim suffered an actual loss that the antifraud provisions of the securities laws were intended to prevent or redress. The answer to that question defines the limits of loss causation.

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691. *Liberty Media Corp.*, 923 F. Supp. 2d at 518; *supra* note 92and accompanying text.
692. *See supra* Part IV.
693. *See supra* Part VII.A.
694. *See supra* Part VI.A.
695. *See supra* Part VIII.B.
696. *See supra* Part VIII.B.
698. *Id.
700. *Id.*