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## ***Halliburton II: It All Depends on What Defendants Need to Show to Establish No Impact on Price***

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## Halliburton II: It All Depends on What Defendants Need to Show to Establish No Impact on Price

By Merritt B. Fox\*

*Rule 10b-5 private damages actions cannot proceed on a class basis unless the plaintiffs are entitled to the fraud-on-the-market presumption of reliance. In Halliburton II, the Supreme Court provides defendants with an opportunity, before class certification, to rebut the fraud-on-the-market presumption through evidence that the misstatement had no effect on the issuer's share price. It left unspecified, however, the standard by which the sufficiency of this evidence should be judged.*

*This Article explores the two most plausible approaches to setting this standard. One approach would be to impose the same statistical burden on defendants seeking to show there was no price effect as is currently imposed on plaintiffs to show that there was a price effect when the plaintiffs later need to demonstrate loss causation. The other approach would be to decide that defendants can rebut the presumption of reliance simply by persuading the court that the plaintiffs will not be able meet their statistical burden. If the courts choose the first approach, Halliburton II is unlikely to have much effect on the cases that are brought or on their resolution by settlement or adjudication. If they choose the second approach, the decision's effect will be more substantial. The Article concludes with a brief discussion of some of the considerations that should be relevant to courts in their choice between the two approaches.*

The U.S. Supreme Court's recent decision in *Halliburton Co. v. Erica P. John Fund, Inc.*<sup>1</sup> (*Halliburton II*) settles one question: defendants are unlikely to succeed anytime soon in another frontal assault on the fraud-on-the-market presumption of reliance, first endorsed by the Court in 1988 in *Basic Inc. v. Levinson*<sup>2</sup> for use in private damage suits based on misstatements violating section 10(b) of the Securities and Exchange Act of 1934 (the "Exchange Act") and Rule 10b-5 promulgated thereunder.<sup>3</sup> In its place, however, the Court substitutes another big question.

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1. 134 S. Ct. 2398 (2014) (*Halliburton II*).

2. 485 U.S. 224 (1988).

3. Securities Exchange Act of 1934, Pub. L. No. 73-291, § 10(b), 48 Stat. 881, 891 (codified as amended at 15 U.S.C. § 78j(b) (2006)) and Rule 10b-5, 17 C.F.R. § 240.10b-5 (2014), promulgated

While the Court unanimously agrees that “defendants must be afforded an opportunity before class certification to defeat the presumption through evidence that an alleged misrepresentation did not actually affect the market price of the stock,”<sup>4</sup> it leaves unclear what the standard is for determining the sufficiency of the evidence presented by a defendant as to a misstatement having no impact on price.

Whether gaining the right to rebut the presumption at this early stage of litigation is of genuine value to defendants depends very much on the answer to this new question. At stake is the range of circumstances under which a Rule 10b-5 action for damages is likely to be viable against an issuer for a misstatement that allegedly inflates its share price in the secondary market. Without the presumption, it is impossible for such an action to proceed on a class basis. If the action cannot proceed on a class basis, it is much less likely to be brought.

This Article starts with a brief review of the place of the fraud-on-the-market presumption in securities litigation and the role traditionally played by econometric evidence concerning price effects. It then sets out the two most plausible approaches that the courts might take to the question of the standard for determining at the class certification stage whether a defendant has successfully rebutted the presumption through a showing of no price effect. One approach would be for the courts to impose the same statistical burden on defendants seeking to show there was *no* price effect as is currently imposed on plaintiffs, at the loss causation stage of the litigation, to show that there *was* a price effect. The other approach would be to decide that defendants can rebut the presumption of reliance simply by persuading the court that the plaintiff will not be able to meet its statistical burden concerning price effect when it is later called upon to demonstrate loss causation at the time of summary judgment or trial. If the courts choose the first approach, *Halliburton II* is unlikely to have much effect on the cases that are brought or on their resolution by settlement or adjudication. If they choose the second approach, the decision’s effect will be more substantial. The Article concludes with a brief discussion of some of the considerations that should be relevant to courts in their choice between the two approaches.

## I. THE FRAUD-ON-THE-MARKET PRESUMPTION AND THE TRADITIONAL ROLE OF ECONOMETRIC EVIDENCE

A fraud-on-the-market class action allows share buyers in the secondary market to recover from the issuer losses that they incur because they purchased at prices inflated by an issuer misstatement in violation of Rule 10b-5 and to do so without

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thereunder. Chief Justice Roberts’ opinion in *Halliburton II* forthrightly dismisses petitioner Halliburton’s argument that developments in financial economics since 1988 have rendered *Basic*’s premises outmoded. *Halliburton II*, 134 S. Ct. at 2409–11. It similarly dismisses Halliburton’s argument that experience has shown the policy considerations driving *Basic* to have been misguided. *Id.* at 2413. The definitiveness of these rulings is suggested by the fact that Roberts’ opinion had the backing of six of the Court’s nine Justices and that its reasoning leaned heavily on the doctrine of *stare decisis*. See *id.* at 2411–12.

4. *Halliburton II*, 134 S. Ct. at 2417.

the individual class members having to prove that they actually relied upon (or even knew about) the misstatement giving rise to their claim. These actions currently give rise to the bulk of all the damages paid out in settlements and judgments pursuant to private litigation under the U.S. securities laws.<sup>5</sup> The alleged misstatement's effect on price has always been central to this cause of action. What courts have traditionally required plaintiffs to show to establish that there was an effect on price is, therefore, relevant to any consideration of what courts might require defendants to show to establish that there was no effect on price.

### A. THE BASIC REVOLUTION

The centrality of fraud-on-the-market actions to securities litigation dates to the U.S. Supreme Court's 1988 decision in *Basic Inc. v. Levinson*.<sup>6</sup> Prior to this decision, the test of reliance was whether the misrepresentation was "a substantial factor in determining the *course of conduct* which results in the (plaintiff's) loss" in order "to certify that that the conduct of the defendant actually *caused* the injury."<sup>7</sup> Under this traditional rule, securities fraud actions were extremely difficult to prosecute on a class basis. Federal Rule of Civil Procedure 23(b)(3) requires that a damages action can proceed on a class basis only if common issues of fact and law predominate. This requirement cannot be met if reliance and causation must be proved individually for each plaintiff.<sup>8</sup>

*Basic* fundamentally changed the manner in which causation could be proved and in doing so made class actions possible. Under this new "fraud-on-the-market" theory, a material public misstatement by an official of an issuer whose shares trade in an efficient market is expected to affect the issuer's share price.<sup>9</sup> This effect on price, according to the Court, provides a plaintiff with an alternative way of showing "the requisite causal connection between a defendant's misrepresentation and a plaintiff's injury."<sup>10</sup> As a result, *Basic* eliminates the need to make particularized claims of reliance for each purchaser. All purchasers who buy during the period when the price is inflated by the misstatement pay too much and are presumed to have met the reliance requirement. This presumption, by allowing common issues of fact to predominate, makes class actions possible and facilitates private securities litigation, an explicitly stated policy goal for the *Basic* majority.<sup>11</sup> Because securities actions are very expensive, but subject to large economies of scale, this change in law made many issuer misstatements

5. See Merritt B. Fox, *Securities Class Actions Against Foreign Issuers*, 64 STAN. L. REV. 1173, 1176 (2012).

6. 485 U.S. 224 (1988).

7. *List v. Fashion Park, Inc.*, 340 F.2d 457, 462 (2d Cir. 1965) (emphasis added).

8. See *Castano v. Am. Tobacco Co.*, 84 F.3d 734, 745 (5th Cir. 1996) ("[A] fraud class action cannot be certified when individual reliance will be at issue.").

9. *Basic*, 485 U.S. at 243.

10. *Id.*

11. *Id.* at 245. In contrast, Justice White, in his dissenting opinion opposing creation of the presumption, stated, "I agree with *amicus* who argues that 'imposition of damages liability under Rule 10b-5 makes little sense . . . where a defendant is neither a purchaser nor a seller of securities.'" *Id.* at 261 (White, J., dissenting) (citation omitted).

subject to suit that, as a practical matter, would not have been actionable before. The result has been an enormous expansion in securities litigation.<sup>12</sup>

## B. THE CENTRAL ROLE OF THE EFFECT ON PRICE

Analyzed from a doctrinal point of view, beyond the plaintiff's need to establish the existence of a public misstatement made with scienter by an issuer whose shares trade in an efficient market, the legal issues in a Rule 10b-5 private class action are loss causation, transaction causation, the materiality of the misstatement, and damages.<sup>13</sup> The litigation of such a claim can be described in terms of the allocation, between the parties, of the burdens of production and persuasion on each of these issues at each stage of the litigation and the allowable forms of evidence, including what is needed to sustain or rebut any legally available presumption. As a matter of substance, however, we can, for any misstatement made in violation of Rule 10b-5, strip this description down to two basic questions: Did the misstatement inflate the price relative to what it would have been but for the misstatement, and, if so, did the plaintiff suffer a loss as a result?

Where both these questions can be answered affirmatively, all the doctrinal elements for the cause of action will be satisfied.<sup>14</sup> In particular, an investor who purchases shares of the issuer while the price is inflated by the misstatement, and who still holds the shares at the time the truth is revealed, has unambiguously suffered a loss because of the misstatement. She paid more than she would have but for the misstatement and, because in an efficient market the revelation of the truth will assure dissipation of this inflation, she has not been able

12. In the five-year period beginning April 1988, shortly after the U.S. Supreme Court's decision in *Basic*, and ending March 1993, the total cash amount paid to settle federal class actions alleging that issuer misstatements distorted share price was \$2.5 billion. Vincent E. O'Brien & Richard W. Hodges, A Study of Class Action Securities Fraud Cases 1988–1993 I-5 (1993) (unpublished study) (on file with *The Business Lawyer*). By the early 2000s, the total amount of such settlements had increased dramatically. Indeed, the value of settlements paid for the three years from January 2002 through December 2004, including the disclosed value of any noncash components, totaled over \$9.6 billion. ELLEN M. RYAN & LAURA E. SIMMONS, CORNERSTONE RESEARCH, SECURITIES CLASS ACTION SETTLEMENTS: 2011 REVIEW AND ANALYSIS 1 fig. 1 (2012), available at <http://goo.gl/KzztwF>. This figure decreased slightly to \$8.47 billion for the three years beginning January 2009 and ending December 2011. *Id.*

13. See *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 341–42 (2005).

14. This observation parallels an insight of Daniel Fischel in an early seminal article, published in this journal prior to *Basic*, that commented on lower court cases that were the origin of the fraud-on-the-market cause of action. Daniel R. Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities*, 38 BUS. LAW. 1 (1982). Fischel suggested that the adoption of the cause of action reflected an underlying view of the market that most investors were price takers who, because of market efficiency, had no ability to stock pick to earn better than market-expected returns. As a consequence, the way they are hurt by a misstatement is by its effect on price, not by its effect on their decisions to buy or sell. Fischel observed that for an action based on this view of the market, the traditional doctrinal issues of materiality, reliance, and damages conflate into a single inquiry: did the misstatement affect price and if so by how much. *Id.* at 13. The article was cited by the U.S. Supreme Court in *Basic*. 485 U.S. at 247 n.24. For an example of a judicial opinion explicitly endorsing this conflation of the three traditionally separate doctrinal elements, see *In re Verifone Securities Litigation*, 784 F. Supp. 1471, 1479 (N.D. Cal. 1994) (the fraud-on-the-market theory “subsumes” into a single analysis the inquiry into reliance, materiality, causation, and damages), *aff’d*, 11 F.3d 865 (9th Cir. 1993).

to recoup the amount of this injury by selling into an equally inflated market. This loss satisfies the loss causation requirement for private damage actions (with transaction causation being satisfied as well by the mere fact that the situation allows the plaintiff to invoke the fraud-on-the-market presumption).<sup>15</sup>

### C. THE FOCUS ON THE PRICE CHANGE AT THE TIME OF THE CORRECTIVE DISCLOSURE

In fraud-on-the-market litigations, the focus is usually on the price change at the time of the disclosure correcting the misstatement. If the correction negatively affects price at the time of its disclosure, the misstatement must have made the price higher than it otherwise would have been. Why else, after all, would the truth have had a negative effect on price?

Even though this focus on the price effect of the corrective disclosure is only an indirect way of figuring out whether the original misstatement inflated price in the first place, it avoids a serious problem that would often occur if the focus were on this earlier price change. At least according to the allegations in the reported cases, a large portion of corporate misstatements that give rise to litigation are made in order to hide a truth that is less favorable than the market's expectations for the issuer at the time. So, while the share price henceforth will be higher than it would have been but for the misstatement, the misstatement will not change the share price from what it had been right before the misstatement was made.<sup>16</sup>

The focus on the price change at the time of the corrective disclosure has a second feature as well: a drop in share price caused by the corrective disclosure confirms that the plaintiff who still holds the shares has suffered a loss from the misstatement. Note, however, that if the market for the issuer's shares is truly efficient, this loss can already be inferred from the conclusion that the misstatement inflated the price at the time purchase was made and the fact that the truth is now out and so that the misstatement cannot be inflating price anymore.

15. In the pre-fraud-on-the-market years preceding *Basic*, the courts refined their causation analysis to require two showings: transaction causation and loss causation. Transaction causation was a showing that the plaintiff would not have purchased but for the misstatement. Loss causation was a showing that the untruth was in some reasonably direct or proximate way responsible for the loss. See Merritt B. Fox, *Demystifying Causation in Fraud-on-the-Market Actions*, 60 Bus. Law. 507, 508–11 (2005). These concepts do not fit well the alternative causal connection allowed in fraud-on-the-market actions, but the courts have maintained the two requirements. *Id.* at 511–15. Transaction causation is presumed in any situation where the fraud-on-the-market presumption is allowed, see, e.g., *Semerenko v. Cendant Corp.*, 223 F.3d 165, 178–83 (3d Cir. 2010), even though the misstatement may well not be a but for cause of the transaction because it would have occurred even if the misstatement had not been made. A showing of loss causation requires a showing not only that the misstatement inflated the issuer's share price, but also that there was a causal connection between this inflation and a loss by the plaintiff. *Dura Pharms.*, 125 S. Ct. at 1634–35. Thus the basic causal inquiry in the fraud-on-the-market theory is framed doctrinally in terms of loss causation.

16. There is a general acceptance in the courts that a misstatement that maintains expectations, and thus prevents a price from falling, inflates price in a way that can be compensable in a fraud-on-the-market action, and that a price drop at the time of the corrective disclosure is evidence of this inflation. See, e.g., *FindWhat Investor Grp. v. FindWhat.com*, 658 F.3d 1282, 1315, 1317 (11th Cir. 2011); *Schleicher v. Wendt*, 618 F.3d 679, 683–84 (7th Cir. 2010); *In re Pfizer Inc. Sec. Litig.*, 936 F. Supp. 2d 252, 264 (S.D.N.Y. 2013).

## D. EVENT STUDIES AS THE PRIMARY EVIDENCE OF PRICE EFFECT

Given this focus on the price change at the time of the corrective disclosure, the issue has become what kind of evidence must a plaintiff present to demonstrate that the corrective disclosure had a negative impact on price. The problem is that a corrective disclosure's price impact cannot be directly observed. One can directly observe only the total price change on the day of the corrective disclosure, which is the sum of both the disclosure's impact, if any, and the impacts of all the other bits of news that day affecting investor views of the future prospects of the firm. In response to this problem, courts generally require a plaintiff seeking to establish loss causation to introduce expert testimony based on an event study of the corrective disclosure that meets the 95% confidence standard.<sup>17</sup>

An event study is an established tool in financial economics that can provide a probabilistic estimate as to whether a given item of news has affected securities prices. An understanding of what exactly an event study of a corrective disclosure meeting this 95% confidence standard does, and does not, tell us is essential for seeing the choices before the courts with regard to the new question, raised by *Halliburton II*, as to what standards to apply to determine whether a defendant has established that the corrective disclosure had no effect on price. For expositional clarity, what follows is a somewhat simplified account of the test that a qualified financial economist would perform, but it captures the essence of the test, which is what is necessary to understand the choices faced by the courts in answering this new question.<sup>18</sup>

**1. The two steps of an event study.** On the day that a corrective disclosure becomes public, a myriad of other bits of news also affect the issuer's share price. So the mere fact that the share price moved down that day does not prove that the corrective disclosure had any effect on price. The observed price change may simply be the result of the net impact of all these other bits of news. An event study has two steps, each of which helps sort out the different possible influ-

17. See, e.g., *Fener v. Operating Eng'rs Constr. Indus. & Miscellaneous Pension Fund* (Local 66), 579 F.3d 401, 409 (5th Cir. 2009); *In re REMEC Inc. Sec. Litig.*, 702 F. Supp. 2d 1202, 1266, 1275 (S.D. Cal. 2010); *In re Imperial Credit Indus., Inc. Sec. Litig.*, 252 F. Supp. 2d 1005, 1015–16 (C.D. Cal. 2003), *aff'd sub nom. Mortensen v. Snavely*, 145 F. App'x 218 (9th Cir. 2005); see also Michael J. Kaufman & John Wunderlich, *Regressing: The Troubling Dispositive Role of Event Studies in Fraud Litigation*, 15 STAN. J.L. BUS. & FIN. 183 (2009) (concluding that an event study has become mandatory for a securities class action case to proceed). The courts in the foregoing cases, and courts and commentators more generally, typically refer to the standard that must be met as the "95% confidence standard," which is shorthand for meaning that one can reject with 95% confidence the null hypothesis that the corrective disclosure had no impact on price. Because this is the term typically used to describe the required standard, I will employ it in this Article as well. The actual implications of the statistical standard that must be met, however, are more complicated than what this commonly used terminology conveys. See *infra* note 53 and accompanying text.

18. A more detailed version of the discussion that follows concerning the nature of event studies can be found at Edward G. Fox, Merritt B. Fox & Ronald Gilson, *Economic Crisis and Share Price Unpredictability: Reasons and Implications* 28–36 (Columbia Law & Econ. Working Paper No. 460, 2014), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2401712](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2401712). A technical discussion of the basic steps in conducting an event study can be found in JOHN Y. CAMPBELL ET AL., *THE ECONOMETRICS OF FINANCIAL MARKETS* 149–80 (1996).

ences on price in order to assess the likelihood that the corrective disclosure was one of the bits that did affect price.

*a. Step one: calculating the market-adjusted price change.* The first step in conducting an event study is to determine the market-adjusted change in the issuer's share price at the time that the corrective disclosure becomes public. The market-adjusted change is the difference between the observed price change and what the simultaneous change in overall stock market prices predicts would have been the issuer's price change. This prediction is based on the historical relationship (usually over a one-year observation period ending shortly before the corrective disclosure) between price changes in the overall market and price changes of the issuer under study. Making this market adjustment is intended to remove from the observed price change the influence of those bits of news, disclosed the same day, that affect not only the issuer's share price, but the prices of all other firms in the market. What is left—the market-adjusted price change—is the portion of the observed change in price that is due to bits of news that relate only to the issuer under study.<sup>19</sup> Because the corrective disclosure relates specifically to the issuer, it would be among these remaining bits of news if it in fact had any effect on price.

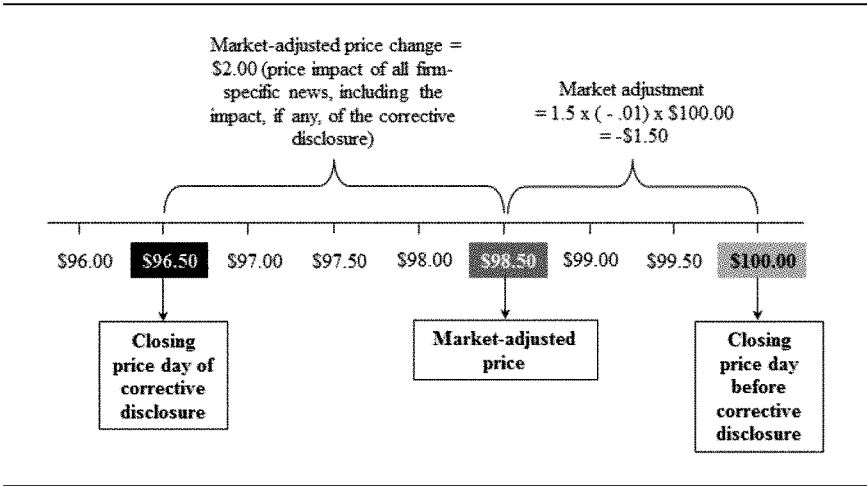
To give an example, suppose that the share price of the issuer under study was \$100.00 at the end of the trading day immediately preceding the corrective disclosure and is \$96.50 by the end of the day of the corrective disclosure. Suppose as well that the market as a whole went down 1% on the day of the corrective disclosure and that the issuer's Beta (the standard measure of an issuer's share price sensitivity to movements in the market as a whole) is 1.5. Based on this historical relationship between day-to-day changes in the issuer's share price and the corresponding marketwide price changes, we would predict that if firm-specific news, including the corrective disclosure, had, on a net basis, no effect on the issuer's share price, the issuer's price would have dropped to \$98.50. But in fact it dropped to \$96.50. So the remainder of the observed price change—referred to as the market-adjusted price change—would be -\$2.00, or -2.00%. As depicted in Figure 1, this is the portion of the total observed price change that can be attributed to firm-specific news.

*b. Step 2: comparing the market-adjusted price change the day of the corrective disclosure to that of other days.* The second step is to determine the likelihood that, among the bits of firm-specific news affecting price this day, the corrective disclosure is one. In essence, we are asking how unusual it would be that the observed-market-adjusted price change is due solely to the day's other bits of firm-specific news and thus not in any part due to the corrective disclosure. This determination is made by comparing the magnitude of the market-adjusted change in the issuer's share price on the day of the corrective disclosure with the

19. To be more precise, bits of information that affect both the issuer under study and a relatively small portion of other firms in the market, for example bits of information affecting all firms in the issuer's industry, are included in the bundle of bits that are considered firm-specific as opposed to marketwide. More sophisticated event studies would account for this group of bits separately, but this modification would not change the import of the discussion that follows in the text.



**Figure 1**  
**Isolation of Firm-Specific News Through Market Adjustment**



historical record of the daily, market-adjusted ups and downs in the issuer's share price, typically over the trading days in a one-year observation period ending on a day shortly before the corrective disclosure. Some of these approximately 250 observed market-adjusted price changes, plus or minus, will be relatively large and others relatively small but their mean will be very close to zero.<sup>20</sup> One can calculate statistically a standard deviation of the observed daily market-adjusted price changes from this mean. For sake of example, assume that this standard deviation turns out to be 1%.

As a general matter, market-adjusted price changes, up and down, are distributed in a pattern closely resembling what would be produced by a normal (bell-shaped curve) probability distribution with a zero mean.<sup>21</sup> With such a distribution, the net price impact, plus or minus, of firm-specific news on any given day will be relatively small much more often than it is relatively big. The conventional event study assumes that the same probability distribution generates

20. Because a prerequisite for a fraud-on-the-market action is that the issuer's shares trade in an efficient market, we can assume that the predictive value of any firm-specific information that becomes newly public is reflected in price very quickly. So any future price changes are the result of truly new news, which by definition is unpredictable. Hence the price impact of each piece of new news, plus or minus, is random. A large number of such random outcomes will tend to average very close to zero.

21. While the event studies used by experts in securities litigation cases almost universally assume that these price changes are normally distributed, it has been recognized for a long time that the actual distribution of these changes is not perfectly normal. See, e.g., Stephen J. Brown & Jerold B. Warner, *Using Daily Stock Returns: The Case of Event Studies*, 14 J. FIN. ECON. 3 (1985). This had led some commentators to call for using another technique for conducting event studies in securities litigation situations. See, e.g., Jonah B. Gelbach, Eric Helland & Jonathan Klick, *Valid Inference in Single-Firm, Single-Event Studies*, 15 AM. L. & ECON. REV. 495 (2013). The overall analysis in this Article would apply equally to these other techniques, however.

each of the approximately 250 market-adjusted price changes during the observation period *and* the net price impact of all ordinary, day-to-day firm-specific news on the day of the corrective disclosure other than the corrective disclosure. Under these assumptions, the standard deviation of the 250 daily market-adjusted price changes during the observation period (in our example 1%) is, because of the size of the sample, a fairly precise estimate of the standard deviation of this probability distribution. Because this probability function is a normal distribution, it tells us that on the day of a corrective disclosure, the net price impact of all the other firm-specific news of the day will be within 1.96 standard deviations of the mean 95% of the time. In our example, this would mean the net price impact of the other firm-specific news would be somewhere between +1.96% and -1.96%, with it being outside this range on the positive side 2.5% of the time and on the negative side 2.5% of the time. Thus, even if the corrective disclosure had no effect on price, it is still possible for us to observe a price change more negative than -1.96%, but it would only happen 2.5% of the time.

Recall that in our example, the market-adjusted price change on the day of the corrective disclosure was -\$2.00 or -2.00%. This is more than 1.96 times the standard deviation of the day-to-day ups and downs in the market-adjusted price during the observation period, which is 1.96%. A financial economist would generally conclude that if the corrective disclosure had no effect on price, there is less than a 5% chance that bits of firm-specific news other than the corrective disclosure, ones of the kind that historically have been creating ups and downs in the issuer's market-adjusted share price, would result in a price change, positive or negative, this large.

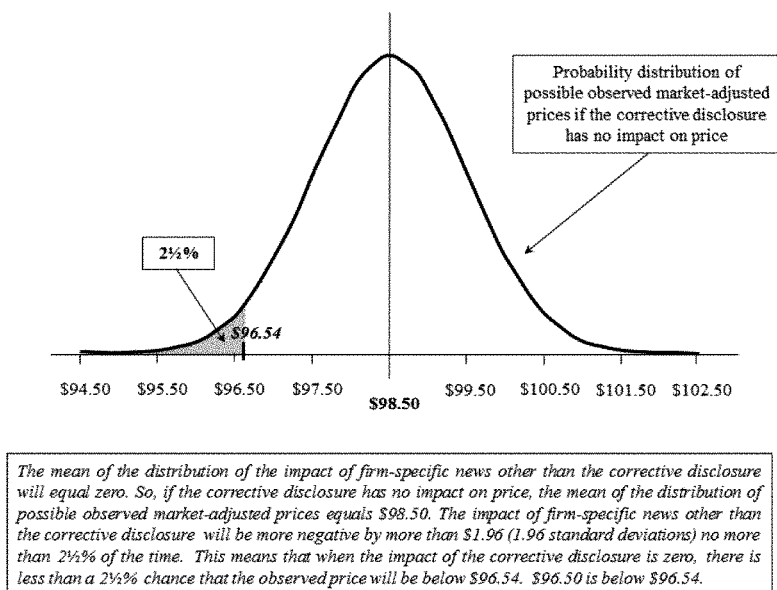
We can say more than this about what one can conclude from this example, however. Notice that in fact not only was the magnitude of the market-adjusted price change larger than 1.96 percent, it was in the negative direction. Notice also that to establish loss causation, the plaintiff needs to show that the corrective disclosure had a negative effect on price. As depicted in Figure 2, there is less than a 2.5% chance that the other firm-specific news had a net price impact as negative as 2.00%, and, thus, if the corrective disclosure failed to have a negative impact on price, there is less than a 2.5% chance that we would observe a market-adjusted price change this negative. More generally, if the corrective disclosure did not have a negative effect on price, there is no more than a 2.5% chance the market-adjusted price change on the day of the corrective disclosure is negative and is sufficiently so to be considered statistically significant at the 95% level.<sup>22</sup>

**2. What passing versus failing the 95% confidence test tells us.** In our example, the observed market-adjusted price change on the day of the corrective disclosure was -\$2.00, or -2.00%. This clearly passes the test. The typical firm-specific

22. The standard methodology is to use a "two-tailed" test, which looks only at the magnitude of the price change. The result is considered statistically significant at the 95% level if the observed price change is greater than 1.96 times the standard deviation, whether positive or negative. The observed price change being statistically significant and negative implies that if the corrective disclosure had no effect on price, there is no more than a 2.5% chance that we would observe a change this negative.

Figure 2

**Demonstration that a Corrective Disclosure with No Negative Impact on Price Would Be Accompanied by a Market-Adjusted Price Change Less than 2½% of the Time**



news that moves the issuer's share price around from day to day will occasionally drive the stock price down at least this much. Indeed it probably did in the neighborhood of six trading days during the one-year observation period. So when we observe the market-adjusted price change to be this negative on the day of the corrective disclosure, it is possible that it had no negative impact on price, i.e., that all of observed change was due to other firm-specific pieces of news. But, as we have just seen, the likelihood of this being the case is less than 2.5%.

Making inferences from failures of the test is more complicated. One cannot automatically infer from such a failure that it is likely that the corrective disclosure did not have a negative effect on price. The more volatile the market-adjusted price changes, the less sensitive (powerful) the test. Thus there may be a good chance that the corrective disclosure in fact has a negative impact on price but the accompanying market-adjusted price change does not pass the test. To see this, modify our example slightly. Suppose that an issuer's corrective disclosure in fact had a -1.00% market-adjusted impact on price and that, as before, the standard deviation of market-adjusted price changes for this issuer was 1.00%. Recall again that the market-adjusted price change observed on the day of the corrective disclosure is the combination of the corrective disclosure's price impact and the price impact of all the other firm-specific bits of news on that

day. The relevant question is what is the likelihood that the observed market-adjusted price change that occurs on the day of the corrective disclosure will be sufficiently negative to pass the 95% confidence standard, i.e., more negative than -1.96%? This will only happen if the net impact of all the other bits of firm-specific news that day is at least .96% negative (which would mean that when the net effect of the other bits is combined with the -1.00% impact of the corrective disclosure, the total is at least 1.96% negative). As depicted in Figure 3, this will be the case only about 17% of the time, i.e., only about one time in six.<sup>23</sup> Thus, most of the time for an issuer with a standard deviation of 1%, a corrective disclosure with a -1.00% impact on price will fail the test.

More generally, the odds of a corrective disclosure that actually had a negative effect on price passing the test depends on the size of the actual effect relative to the standard deviation of past day-to-day market-adjusted price changes. Where the ratio is higher than in this example, the chances of passing the test will be higher. Take a company with a standard deviation equal to that of the average company in normal times, which is 1.78%,<sup>24</sup> and a corrective disclosure with the much more substantial actual negative impact on price of -5%. In this case, the market disclosure will be accompanied by a market-adjusted price change sufficiently negative to pass the 95% standard about four times out of five.<sup>25</sup> In contrast, when the ratio of the actual impact of the corrective disclosure to the issuer's standard deviation is lower than in the example, the odds of passing the test is even less than one in six even though the actual impact is in fact negative.

## II. THE FIRST APPROACH: IMPOSING THE SAME BURDEN ON DEFENDANTS AS TO NO PRICE EFFECT AS ON PLAINTIFFS AS TO PRICE EFFECT

The Court in *Halliburton II* grants to the defendant the right at the class certification stage to defeat the fraud-on-the-market presumption of reliance “through evidence that an alleged misrepresentation did not affect the market

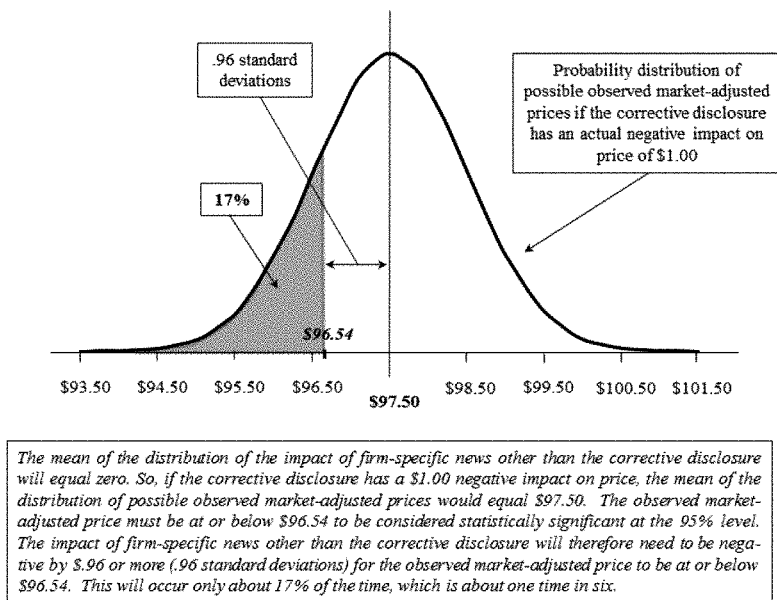
23. This calculation involves the distribution of possible observed values of the market-adjusted price change if the actual market-adjusted price impact of the corrective disclosure is -1%. The distribution of observed market-adjusted price changes accompanying a corrective disclosure with an actual impact of -1% will approximate a normal distribution with a mean of -1% and a standard deviation of 1%, representing the effect, plus or minus, of the other ordinary bits of firm-specific information that move the issuer's share price around every day. Since the observed change in prices will be considered statistically significant at the 95% level and have the right sign only if it is a decrease of greater than -1.96%, the question becomes: what are the chances that the observed change at the time of the corrective disclosure will be at least this negative? The required negative change, -1.96%, is .96 standard deviations to the negative side of -1% and so, based on the normal distribution, there is a 17% chance that the observed market-adjusted change in price will be a decrease greater than 1.96% and hence considered statistically significant at the 95% level in a two-tailed test. For a more detailed discussion of the general approach to calculating the chances of this kind of error, see Edward G. Fox, Merritt B. Fox & Ronald J. Gilson, *Idiosyncratic Risk During Economic Downturns: Implications for the Use of Event Studies in Securities Litigation* 7–11 (Columbia Law & Econ. Working Paper No. 453, 2013), available at <http://ssrn.com/abstract=2314058>.

24. Fox, Fox & Gilson, *supra* note 18, at 35.

25. *Id.* at 36.

Figure 3

**Demonstration that with a Corrective Disclosure Having an Actual Negative Impact of \$1.00, the Observed Market Price Will Be Negative Enough to Be Considered Statistically Significant Only One Time in Six**



price of the stock.”<sup>26</sup> For the presumption to be successfully rebutted, however, what kind of evidence that the corrective disclosure did not affect price is required?<sup>27</sup> One approach would be to impose on the defendant the same statis-

26. *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S. Ct. 2398, 2417 (2014) (*Halliburton II*).

27. A defendant could argue, of course, that under the language of the holding in *Halliburton II*, the defendant should succeed if it submits evidence that the misstatement itself did not cause an increase in price because that would mean that the “misrepresentation did not affect the market price of the stock.” This interpretation of the holding, however, is inconsistent with the pre-*Halliburton II* lower court rulings that a misstatement that maintains expectations, and thus prevents a price from falling, inflates price in a way that can be compensable in a fraud-on-the-market action and that a price drop at the time of the corrective disclosure is evidence of this inflation. See *supra* note 16 and accompanying text. The reversal of this well-established lower court doctrine would involve a sweeping cutback in the availability of the fraud-on-the-market cause of action and yet the Court makes no mention of the issue or the earlier cases. It thus seems unlikely that the Court intended its holding to be interpreted as being meant to reverse the doctrine. There are so far three post-*Halliburton* cases where the court appears to have been posed with a defense argument based on such an interpretation. In all three, the court has rejected the defense. See *Local 703, I.B. of T. Grocery & Food Emps. Welfare Fund v. Regions Fin. Corp.*, 762 F.3d 1248, 1259 (11th Cir. 2014); *McIntire v. China MediaExpress Holdings, Inc.*, No. 11-CV-0804 VM, 2014 WL 4049896, at \*13–14 (S.D.N.Y. Aug. 15, 2014); *IBEW Local 98 Pension Fund v. Best Buy Co.*, Civ. A. No. 11-429 DWF/FLN, 2014 WL 4746195, at \*6 (D. Minn. Aug. 6, 2014).

tical burden, when it seeks to show that the corrective disclosure had no negative effect on price, as is currently imposed on the plaintiff, when, at the merits stage of the proceeding, it must show, to establish loss causation, that the corrective disclosure did have a negative effect. As discussed more fully below, if this is the chosen approach, the defendant would be required to introduce expert testimony based on an event study in essence showing a market-adjusted price change on the day of the corrective disclosure that is sufficiently *positive* that the change is greater in magnitude than the changes on 95% of the other trading days over the last year.

A. WHY THE SAME STATISTICAL BURDEN MEANS THAT THE PRICE CHANGE MUST BE AS POSITIVE TO ESTABLISH NO EFFECT AS IT MUST BE NEGATIVE TO ESTABLISH AN EFFECT

Recall that the problem for determining whether a corrective disclosure had a negative impact on price is that its impact cannot be directly observed. One can directly observe only the total market-adjusted price change on the day of the corrective disclosure, which is the sum of both the corrective disclosure's impact, if any, and the impacts of all the other bits of firm-specific news that day affecting investor views of the future prospects of the firm. So, where someone seeks to show that the corrective disclosure did not have any impact on price, all that she really can do is demonstrate how confidently she can rule out the possibility that the market-adjusted price change is due at least in part to the corrective disclosure. Notice also that if the corrective disclosure has any impact relevant to the plaintiff's case, it will be negative.<sup>28</sup>

To return to our original example modified in yet a different way, consider again the issuer with a standard deviation of its daily market-adjusted price changes of 1%, a Beta of 1.5, and a price at the end of the trading day immediately preceding the corrective disclosure of \$100.00. Again, the market as a whole went down 1% on the day of the corrective disclosure and so we would predict that if firm-specific news, including the corrective disclosure, had, on a net basis, no effect on the issuer's share price, the issuer's price would have dropped to \$98.50. But in this modification of the example, the price in fact increased to \$100.50. The observed market-adjusted price change would thus be +\$2.00, or +2.00%. This is the price impact of all the day's firm-specific news, including, if any, the negative impact of the corrective disclosure.

The question then is whether this \$2.00 market-adjusted price change is sufficiently large to rule out, with a high degree of confidence, the possibility that the corrective disclosure had a negative impact on price but that this negative

28. It is very unlikely that there would be a positive effect on price from a disclosure correcting a misstatement that contains what facially appears to be materially positive news. And if it did, it would suggest that the misstatement itself had a negative effect on price, rather than inflating it. This negative impact of the original misstatement on price would be as fatal to the claim of a causal link between the misstatement and an injury to purchasers as would no impact at all. This is because it would suggest that the misstatement actually benefitted the plaintiffs by allowing them to buy at a lower price than if the misstatement had not been made.

impact was outweighed by all the other firm-specific news relating to the issuer, whose net price impact was positive. As before, on the day of a corrective disclosure, 95% of the time the net price impact of all the other firm-specific news will be within 1.96 standard deviations of zero. In our example, this would mean this net price impact of the other firm-specific news would be somewhere between +1.96% and -1.96%, with it being outside this range on the positive side 2.5% of the time and on the negative side 2.5% of the time. Thus, even if the corrective disclosure had a negative effect on price, it is still possible for us to observe a positive market-adjusted price change greater than 1.96%, but this would happen less than 2.5% of the time. Accordingly, as depicted in Figure 4, with a positive \$2.00 market-adjusted return on the day of the corrective disclosure, a financial economist can reject the null hypothesis that the corrective disclosure had a negative effect on price with the same 95% confidence that she could, with a -\$2.00 market-adjusted return, reject the null hypothesis that it did not have a negative effect on price.<sup>29</sup>

#### B. THE EFFECT OF IMPOSING THE SAME STATISTICAL BURDEN ON DEFENDANTS

If courts impose the same statistical burden on defendants for showing no effect on price as they do on plaintiffs at the loss causation stage for showing there is an effect, *Halliburton II*'s grant to defendants of the early right of rebuttal will change little in terms of the cases that are filed or of their subsequent resolution by settlement or adjudication. This is because, for the range of cases prior to *Halliburton II* that plaintiffs brought and that survived the motion to dismiss, it would have been almost impossible for the defendants to have made a showing that would have satisfied this standard.

The starting point here relates to the extent of discretion that an expert has in constructing an event study. As noted earlier, the actual event studies that experts present in litigation are more complicated variants of the simple model presented here and involve a variety of choices, including the dates spanning the

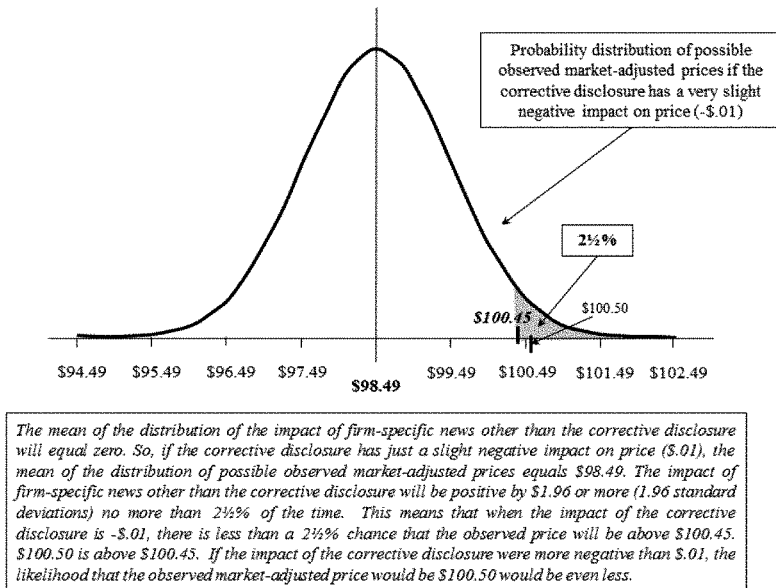
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29. The null hypothesis includes the possibility that the corrective disclosure's negative effect on price was a very slight one. Thus the market-adjusted price must be positive to the extent of 1.96 standard deviations (+1.96%) to rule out this possibility using the same two-tailed test 95% level of confidence used in the loss causation inquiry.

Notice that if the cutoff were lowered to one standard deviation (+1.00%), there would be an almost 17% chance that a corrective disclosure with a slightly negative price impact would be accompanied by an observed market-adjusted price change that would pass this less strict test. This calculation involves the distribution of possible observed values of the market-adjusted price change if the actual market-adjusted price impact of the corrective disclosure is just slightly negative. The distribution of observed market-adjusted price changes accompanying a corrective disclosure with an actual impact just slightly negative will approximate a normal distribution with a mean of equal to the actual impact and a standard deviation of 1%, representing the effect, plus or minus, of the other ordinary bits of firm-specific information that move the issuer's share price around every day. Approximately 17% of the time, the net price impact of the other bits of firm-specific information would be +1.00% or greater and so when the impact of the corrective disclosure is slightly negative, almost 17% of the time the observed market-adjusted price change would be +1.00% or above. This calculation is symmetrical to that in *supra* note 23, and the reasoning is identical.

Figure 4

**Demonstration that a Corrective Disclosure with a Slightly Negative Impact on Price Will Be Accompanied by a Market-Adjusted Positive Price Change of \$2.00 or More Less Than 2½% of the Time**



observation period, what days of the observation period, if any, to knock out because of extraordinary events, what industry controls to employ, how to handle confounding extraordinary news coming out at the same time as the corrective disclosure or extraordinary news on other days, what day or days did a corrective disclosure occur, and how to handle corrective disclosures that come out piecemeal over several days. In a given case, this discretion permits the plaintiff's and defendant's respective experts to offer studies with substantially different results. What is important here, however, is that, for reputable experts, constraints relating to reputation, a sense of professional integrity, and the fear that their testimony will be barred on *Daubert* grounds<sup>30</sup> place limits on this difference.

Consider a case that would permit a reputable defendant's expert to introduce for rebuttal purposes an event study meeting the 95% confidence standard—i.e., showing a market-adjusted price change the day of the corrective disclosure that is sufficiently *positive* that the change is greater than the changes on 95% of the other trading days over the last year. The study is constructed in a fashion as favorable to defendants as possible within the limits on discretion just discussed.

30. See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 584–87, 589 (1993) (scientific expert testimony must be based on a reliable methodology that involves the formulation of hypotheses and experiments to prove or falsify them and that is generally accepted by the scientific community).



This is a case where it would be essentially impossible to find a reputable plaintiffs' expert who, bound by similar limits on its discretion, could construct an event study meeting the 95% standard for loss causation purposes, i.e., showing a market-adjusted price change that is sufficiently *negative* that the change is greater than the changes on 95% of the other trading days over the last year.<sup>31</sup> Most sensible plaintiff's attorneys would not have invested in such a case even before *Halliburton II*, when there would have been no expectation of the defendant having a right of rebuttal at the class certification stage. This is because a case where the plaintiff is unable to introduce, to establish loss causation, a credible event study meeting the 95% standard is extremely unlikely to survive summary judgment.<sup>32</sup> So if the case were carried that far, the substantial investment the attorney made in the case would almost certainly be lost.

Of course, some such cases may still have been brought despite the near impossibility of winning them by adjudication. The lawyer bringing the case may have hoped, for example, that she could achieve an early substantial settlement through the threat that a continuation of the litigation would impose on the defendant dis-

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31. There can, of course, be disagreement between the plaintiffs and the defendant as to the date or dates on which a corrective disclosure occurred. Traditionally, in loss causation inquiries, plaintiffs pointed to one or more dates where the corporation made statements that plaintiffs claim corrected the earlier misstatement and that are accompanied by negative market-adjusted price changes shown by their expert's event study to be significant at the 95% level. The defendant in some of these cases pointed instead to one or more different dates that it claimed corrected the misstatement and that were accompanied by market-adjusted price changes shown by its expert's event study either not to be negative or at least not to be sufficiently negative to be significant at the 95% level. Either the defendant's date or dates were earlier than the plaintiffs' and the defendant claimed that the disclosure or disclosures fully corrected the alleged misstatement, or the defendant claimed that the disclosure or disclosures pointed to by plaintiffs did not in fact correct the misstatement. One might argue, therefore, that if the respective experts are looking at different dates, it would not be so improbable for a reputable plaintiffs' expert to find a negative price reaction significant at the 95% level on the disclosure day or days pointed to by plaintiffs and for the defendant's expert to find a positive price reaction significant at the 95% level on the disclosure day or days pointed to by defendant. Thus, the argument would go, *Halliburton II* could in fact be more helpful to defendants than I suggest in the text even if the courts adopt the first approach.

This argument is not persuasive for two reasons, however. One is that in many cases, a court can determine, just on the faces of the respective claimed corrective disclosures, whether the disclosure or disclosures to which the plaintiffs point in fact correct, in part or in whole, the alleged misstatement in ways that the disclosure or disclosures to which the defendant points have not already done. Under the first approach, where a court makes an affirmative determination of this sort, the defendant, to succeed in rebutting the presumption, would have to show a positive market-adjusted price change meeting the 95% confidence standard on the date or dates of the corrective disclosures identified by the plaintiffs. Under these circumstances, again, even before *Halliburton II*, a sensible plaintiffs' attorney would have been unlikely to bring such a case in the first place, and if such a case were brought, it would very likely have terminated at the motion to dismiss stage.

The second reason the argument fails is that it does not correspond to what actually happens in the vast majority of cases. I undertook a Westlaw survey where I used a variety of search terms in order to try to find every reported federal district court opinion referring to the use of an event study in connection with the determination of loss causation in a fraud-on-the-market case. I identified thirty-eight such cases. In only half was there any disagreement between the plaintiffs and the defendant concerning the date of the corrective disclosure. Just two of these cases reported a positive market-adjusted return on a date pointed to by the defendant and in only one of these two cases was this return sufficiently positive to be significant at the 95% level.

32. See Mary K. Warren & Sterling P.A. Darling, Jr., *The Expanding Role of Event Studies in Federal Securities Litigation*, SEC. LITIG. REP., June 2009, at 19.

covery costs well in excess of those imposed on the plaintiff. For this threat to become real, however, the case must survive the defendant's motion to dismiss because the Exchange Act bars discovery during the pendency of the motion.<sup>33</sup> There is a good chance that such a case would not have survived a motion to dismiss. For the typical issuer, only a small portion of the day-to-day variation in prices is explained by changes in the overall stock market.<sup>34</sup> In other words, on most days, the magnitude of the market-adjusted price change, plus or minus, is considerably larger than the magnitude of the market adjustment (the price change, plus or minus, that would be predicted by the change in the overall stock market).<sup>35</sup> Any case where a reputable defendant's expert would have been able to introduce an event study showing, for the day of the corrective disclosure, a positive market-adjusted price change meeting the 95% confidence standard is one where the event study would have shown a substantial positive difference between the observed price and the market-adjusted price. Thus, even if the overall stock market is down, it is likely that the observed unadjusted price change (the sum of the positive market-adjusted price change and the negative market adjustment) will be positive. If the plaintiffs were unable to refer in their complaint to an event study showing a negative market-adjusted price effect the day of the corrective disclosure, the observed price actually going up on the day of the corrective disclosure would likely have made the pleading by the plaintiffs as to loss causation implausible and hence lead to a dismissal of the complaint.<sup>36</sup>

33. The Exchange Act stays discovery in private securities fraud actions during the pendency of any motion to dismiss. Exchange Act § 21D, 15 U.S.C. § 78u-4 (2012).

34. The proportion of total day-to-day price variation explained by marketwide price changes can be measured by the  $R^2$  of the regression estimating the relationship between the two. Between 1980 and 2010, except in periods of financial crisis, the  $R^2$  for the average corporation weighted by total variance was never over 15% and was for several years below 7%. See Randall Morck, Bernard Yin-Yeung & Wayne Yu, R-Squared and the Economy (May 24, 2013) (unpublished manuscript available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2256670](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2256670)).

35. Recall that this market adjustment is the first step in performing an event study. See *supra* Part I.D.1.a. The regression estimating the relationship (the Beta) between issuer  $j$ 's day-to-day share price changes and marketwide price changes involves using time series price data to determine issuer  $j$ 's daily return,  $r_{j,t}$ , whereby  $r_{j,t} = \beta_{j,0} + \beta_{j,m}r_{m,t} + \epsilon_{j,t}$ , with  $r_{m,t}$  = the daily market return,  $\beta_{j,m}r_{m,t}$  = the return predicted by the day's marketwide change in price, and  $\epsilon_{j,t}$  = the market-adjusted return (i.e., the return based on the difference between the return predicted by the day's marketwide change in price and the return calculated from the observed unadjusted price). Decompose the total variance of the issuer's return as follows:

$\sigma_r^2 = \sigma_m^2 + \sigma_\epsilon^2$ , where  $\sigma_m^2$  is the variance of the market adjustment (the square of the firm's Beta times the variance of the market return) and  $\sigma_\epsilon^2$  is the variance of the day-to-day market-adjusted price change.  $R^2$  for firm  $j$  is then defined as:  $R^2 = \frac{\sigma_m^2}{(\sigma_m^2 + \sigma_\epsilon^2)}$ .

See Morck, Yeung & Wu, *supra* note 34. Reworking this equation, when  $R^2$  is 15% (see *supra* note 34), the ratio of the variance of the market-adjusted price change to the variance of the change in the issuer's price predicted by the marketwide price change is almost six to one. Under these circumstances, when the market-adjusted price change was positive, it would be unusual, even where the market adjustment is negative, for it to be sufficiently negative for the total of the two—the observed unadjusted price change—to be negative. It would be even more unusual when  $R^2$  is as low as 7%, as has often been the case, *id.*, in which case this ratio would be over fourteen to one.

36. See *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 548–50 (2007) (pleadings with respect to the required elements of a cause of action must be “plausible” in order to avoid dismissal of the complaint upon motion of the defendant).

In sum, before *Halliburton II*, most cases where a reputable defendant's expert would have been able to conduct an event study satisfying the first approach's standard concerning the evidence needed to rebut the presumption of reliance would not have been brought. And those that were brought were most likely knocked out at the motion to dismiss stage and so the issues of discovery costs and class certification never needed to be faced. So if the courts adopt this first approach, little will change from the situation prior to *Halliburton II*.

### **III. THE SECOND APPROACH: ONLY REQUIRING DEFENDANTS TO PERSUADE THE COURT THAT THE PLAINTIFF WILL NOT BE ABLE TO SHOW A PRICE EFFECT**

In contrast, suppose that the courts instead take the second approach. Under this approach, the defendant, at the class certification stage, can rebut the fraud-on-the-market presumption of reliance simply by persuading the court that the plaintiff will not be able to meet the burden concerning price effect that will be imposed on it later, at the merits stage of the litigation, with respect to loss causation. Under this approach, the first step would be for the defendant to introduce expert testimony based on an event study of the corrective disclosure that shows a market-adjusted price change that is not negative enough (if it is negative at all) to meet the 95% confidence standard. The plaintiffs would then have the opportunity to introduce their own event-study-based expert testimony. If the plaintiffs' event study also fails to show a market-adjusted price change negative enough to meet the standard, the defendant will have successfully rebutted the presumption and the action will not be certified to proceed on a class basis. The result would be the same if, instead, the plaintiffs' study does show a change sufficiently negative to meet the standard, but the court is not persuaded that the plaintiffs' event-study-based expert testimony was more probative than the defendant's expert testimony.

Should the courts adopt this second approach, the effect of *Halliburton II* will be, in everything but name, to move up the loss causation inquiry to the class certification stage. This is because the rebuttal inquiry would center around the identical issue: whether the plaintiffs can meet the same statistical burden to show that the corrective disclosure *did* have a negative impact on price as has been traditionally imposed on them at the loss causation stage. In sum, while, at the class certification stage, the plaintiffs would not have the initial burden of going forward, which they do at the loss causation stage, they would have the burden of persuasion. And whether they met that burden would be judged by the same standards as it would be at the later stage.

A sensible plaintiff's counsel often does bring a case where there is a reasonable hope that its expert testimony on the price effect of the corrective disclosure will persuade the finder of fact, but where it quite possibly might not. Such a case would typically survive any loss-causation-based challenge at the motion to dismiss stage. Whenever it does, this second approach's acceleration of the inquiry

to the time of the class certification hearing can be of real value to a defendant. Most discovery typically occurs after the class certification hearing. Where the defendant successfully rebuts the reliance presumption at the certification hearing, which we have posited is a real possibility, the suit is blocked from proceeding as a class action and usually ends. The defendant then saves the very substantial costs of discovery or of a settlement payment that is enlarged by the prospect of the discovery costs that would have been incurred absent the settlement.

#### IV. CONSIDERATIONS IN CHOOSING THE APPROACH

This Article sets out and explores the two most plausible approaches that the courts might take to the question of the standard for determining whether a defendant has succeeded in its new *Halliburton II* right to rebut the fraud-on-the-market presumption at the class certification stage through a showing of no price effect. While it is difficult to predict which of these two approaches the courts are likely to take, it is worthwhile to discuss briefly some of the considerations that should be relevant to them in making their choice between the two approaches.

##### A. CONSIDERATIONS FAVORING THE FIRST APPROACH

The first approach has the appeal of taking the Court at its word as to what the rebuttal requires—evidence of no price effect—and applying to both defendants and plaintiffs the same statistical standard for judging whether such evidence is sufficient. It is worth a brief review in order to see this point clearly. The plaintiff needs to show a negative effect on price from the corrective disclosure to establish loss causation at the merits stage of the litigation. Under *Halliburton II*, the defendant needs to show no effect on price to defeat the presumption at the class certification stage. Each showing involves the problem that the price effect of the corrective disclosure is not directly observable because of the other news that affects share price on the same day. In each case, the best that one can do is reject with some given level of confidence the null hypothesis that what has actually occurred is the opposite of what needs to be shown. In the plaintiff's case the null hypothesis is that the corrective disclosure had no negative effect on price. In the defendant's case, the null hypothesis is that it did. These are perfectly symmetrical inquiries. At the heart of each inquiry is the question of how to deal with the possibility that, because of the price effect of other news, the null hypothesis is correct despite an observed price change suggesting the contrary. Imposing the same statistical burden on both plaintiffs and defendants seems only fair. The burden traditionally imposed on plaintiffs has been persuasive testimony based on an event study meeting the 95% confidence standard and so this, the argument goes, should be the burden imposed on defendants as well.

The first approach has a second attraction as well: consistency with a particularly relevant recent prior U.S. Supreme Court decision. The Court's holding the first time the *Halliburton* case came before it was that plaintiffs were not re-

quired to establish loss causation in order to obtain class certification.<sup>37</sup> As noted above, to adopt the second approach instead of the first would be to do just that. In all but name, adopting the second approach is advancing the loss causation inquiry to the class certification stage. There is the difference that the defendant would have the burden of going forward, but, as with loss causation, the plaintiff would have the burden of persuasion: to show that there was a negative effect on price by persuasively rejecting at the 95% confidence level the null hypothesis that the corrective disclosure had no effect on price.

## B. CONSIDERATIONS FAVORING THE SECOND APPROACH

The second approach has appealing aspects as well, however. From a social policy perspective, to the extent that one believes that currently too many fraud-on-the-market suits make it to the highly expensive discovery stage, the second approach reduces the social costs associated with allowing fraud-on-the-market litigations and does so in a way that hinders cases with relatively weaker evidence of price impact more than it does ones with stronger such evidence.<sup>38</sup>

The second approach also can find some justification in past precedent at the district court level in the Second Circuit. The occasion for this precedent arises from the Second Circuit's 2008 decision *In re Salomon Analyst Metromedia Litigation*.<sup>39</sup> In this decision, the court held that materiality was one of the elements that plaintiffs needed to show at the class certification stage in order to demonstrate that they were entitled to use the fraud-on-the-market presumption. This was the rule in the Second Circuit until it was overruled in 2013 by the U.S. Supreme Court in *Amgen Inc. v. Connecticut Retirement Plans & Trust Funds*.<sup>40</sup> According to the *Salomon* decision, at the class certification stage, once the plaintiff established materiality, the defendant was entitled to rebut the presumption and challenge class certification based on a showing that the corrective disclosure did not affect price. The way the plaintiff would establish materiality at the class certification stage was to show that "a reasonable investor would think that the information would have 'sig-

37. *Erica John Fund, Inc. v. Halliburton Co.*, 131 S. Ct. 2179, 2185–86 (2011).

38. For an observer who believes that all fraud-on-the-market suits are harmful from a social point of view, any decision that makes the suits harder to bring is an advance and so the second approach would be preferred over the first. This in essence is the view of fraud-on-the-market suits held by Justices Thomas, Scalia, and Alito, as articulated in Justice Thomas' concurring opinion in *Halliburton II*. *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S. Ct. 2398, 2417–18 (2014) (Thomas, J., concurring) (*Halliburton II*).

For an observer who believes that some such suits are worthwhile and others are not, the desirability of any new impediment would depend on exactly how it worked. Any new impediment will likely cut out some of what are, in the eyes of such an observer, each kind of suit. But if the impediment is more effective at cutting out not worthwhile suits than at cutting out worthwhile ones, the observer may prefer imposing the new impediment. Specifically, if the observer has felt that too many cases in which the misstatement in fact did not inflate prices were surviving the defendant's motion to dismiss and making it to the highly expensive discovery stage, the observer would, as a policy matter, also likely favor the second approach to implementing the *Halliburton II* holding. See, e.g., John C. Coffee, Jr., *After the Fraud on the Market Doctrine: What Should Replace It?*, N.Y. L.J. ONLINE (on file with *The Business Lawyer*).

39. 544 F.3d 474 (2d Cir. 2008).

40. 133 S. Ct. 1184 (2013).

nificantly altered the total mix of information.”<sup>41</sup> The “plaintiffs do not bear the burden of showing an impact on price,” the court said, because, in accordance with *Basic*, “the effect on market price is *presumed* based on the materiality of the information.”<sup>42</sup> Thus the way the defendant could rebut the presumption was to show no impact on price. In other words, the inquiry involved the very same question as the defendant’s new right of rebuttal under *Halliburton II*.

In *In re American International Group, Inc. Securities Litigation*,<sup>43</sup> the district court, applying the rule in *Salomon*, found that with respect to two corrective disclosures, the defendant had successfully rebutted the presumption of reliance because the plaintiffs’ expert’s event studies did not show price changes sufficiently negative to meet the 95% confidence level.<sup>44</sup> In essence, the district court, faced with an inquiry identical to that mandated by *Halliburton II*, chose the second approach. Two other district courts interpreted the evidentiary requirements of the rebuttal rule in *Salomon* in the same fashion.<sup>45</sup>

Finally, there is a potential doctrinal justification for the second approach arising from evidence law, but it has some problematic elements. Federal Rule of Evidence 301 provides that “the party against whom a presumption is directed has the burden of producing evidence to rebut the presumption. But this rule does not shift the burden of persuasion, which remains on the party who had it originally.”<sup>46</sup> The argument would be that the plaintiffs have the burden of showing reliance, the presumption is there to help the plaintiffs if they can establish the basic facts giving rise to the presumption, but once the defendant produces evidence that rebuts the presumption, the presumption has been rebutted and the action cannot proceed on a class basis.<sup>47</sup>

This argument based on Rule 301 is not clear cut, however. Rule 301 requires the party against whom a presumption is directed (the second party) to produce evidence suggesting the non-existence of the basic facts needed to establish the presumption. It seems to contemplate, though, that this evidence need only be sufficient enough to meet the burden of going forward. At this point the presumption disappears and the party that sought to invoke the presumption

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41. 544 F.3d at 483 (quoting in part *Basic Inc. v. Levinson*, 485 U.S. 224, 232 (1988)).

42. *Id.*

43. 265 F.R.D. 157 (S.D.N.Y. 2010).

44. *Id.* at 185–87.

45. See *In re SLM Corp. Sec. Litig.*, 08 CIV. 1029 WHP, 2012 WL 209095 (S.D.N.Y. Jan. 24, 2012) (ruling that the defendant did not successfully rebut the presumption because plaintiffs’ expert submitted an event study showing a statistically significant price decline at the time of the corrective disclosure); *In re Moody’s Corp. Sec. Litig.*, 274 F.R.D. 480, 493 (S.D.N.Y. 2011) (defendant succeeds in rebutting presumption of reliance under the rule in *Salomon* because neither the plaintiffs’ expert’s event studies nor the defendant’s expert’s event studies showed any statistically significant price increase at the time of any of the alleged misrepresentations nor any statistically significant price decrease at the time of any of the alleged corrective disclosures occurring within the class period).

46. FED. R. EVID. 301.

47. Halliburton apparently intends to invoke Rule 301 in the hearing on class certification that it has been afforded by the U.S. Supreme Court’s remand of its case back to the district court. See *Halliburton Lawyer: Case Typifies Problems with Class Securities Suits*, 15 CLASS ACTION LITIG. REP. 906, 907 (2014).

(the first party), without the aid of the presumption, has the burden of persuasion as to the fact that the presumption presumed. Behind this seemingly harsh rule appears to be a hidden assumption: the facts that need to be established to give rise to the presumption are probative as to the existence of the facts that the presumption presumes. So, while the first party no longer has the benefit of the presumption, it still has the benefit of the probative value of the evidence that it produced to originally give rise to the presumption.

The problem is that the fraud-on-the-market presumption is no ordinary presumption and its special features do not allow a straightforward application of Rule 301. The basic facts that the plaintiff needs to establish to give rise to it—the materiality of the misstatement and the efficiency of the market for the issuer's shares—are not probative to whether plaintiffs actually relied on the misstatement in the traditional sense. In other words, these basic facts do not help demonstrate that but for the misstatement, the plaintiffs would not have bought their shares. Rather, they are probative to whether the misstatement affected price. As discussed above,<sup>48</sup> the Court in *Basic*, under the guise of creating a presumption, created a whole new kind of cause of action. The Court made clear that an action based on the fraud-on-the-market presumption is premised on a different causal connection between the defendant's misstatement and the plaintiff's injury<sup>49</sup>—i.e., that but for the misstatement, the plaintiff would not have paid so much for her shares. But the Court packaged this new cause of action as a presumption: if the plaintiffs establish the specified facts giving rise to it—materiality and market efficiency—the plaintiff need not prove something that has been traditionally required in fraud-based damage actions, i.e., that but for the misstatement, each plaintiff would not have purchased her shares. Unlike the usual presumption, however, the facts needed to establish the fraud-on-the-market presumption are entirely unrelated to the likelihood that the fact presumed by the presumption actually existed.

Having packaged this new cause of action as a presumption, the Court then went on to state that it was rebuttable on a number of grounds, one of which was the absence of impact on price.<sup>50</sup> Absence of impact on price is an odd ground for a rebuttal, however, because the plaintiff will affirmatively need to show price impact anyhow and it will not in any case be getting any help in doing so from the presumption. Nevertheless, twenty-five years later, the Court picked up on this statement in *Basic* in coming to its holding in *Halliburton II*.<sup>51</sup>

Consider the effect of applying Rule 301 literally to the fraud-on-the-market presumption in the context of a class certification hearing. All that the defendant needs to do to rebut the presumption is to produce evidence with regard to no impact on price sufficiently strong to meet the standard needed to meet the burden of going forward. Suppose that this standard is met by the testimony of a rep-

48. See *supra* Part I.A.

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

50. See *id.* at 248.

51. *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S. Ct. 2398, 2414 (2014) (*Halliburton II*).

utable expert based on an event study showing that the null hypothesis that the corrective disclosure had no effect on price cannot be rejected with as much as 95% confidence. If the defendant offers such evidence, the presumption has been rebutted and the plaintiffs must do what they would have had to do without the presumption: prove by a preponderance of the evidence that, but for the misstatement, each individual plaintiff would have not purchased the issuer's shares. That means the action cannot proceed on a class basis. The plaintiffs are not even permitted to save the situation by challenging the defendant's evidence of no price effect by the introduction of their own testimony of a reputable expert based on an event study that does permit rejection of this null hypothesis with 95% confidence and persuading the court that their expert evidence is more probative than that of the defendant. It seems very unlikely that the U.S. Supreme Court in *Halliburton II* intended for a defendant to frustrate a fraud-on-the-market class action based on unchallenged testimony potentially this thin.

Of course, the results from a literal application of Rule 301 could be softened. One way would be to find that the defendant's expert testimony to the effect discussed just above meets the burden of going forward, but to permit the plaintiffs to challenge the defendant's evidence with the burden of persuasion being on the plaintiffs. This essentially is the second approach explored in this Article. Another way would be to require that the evidence that the defendant puts forward as to no price effect credibly meet the same statistical burden with regard to price effect as plaintiffs must meet to show loss causation, something close to the first approach but not allowing a challenge by plaintiffs. In the end, Rule 301 does not really provide any guidance as to how it should be modified to fit this very unusual presumption. The question thus goes back to the extent to which the Court in *Halliburton II* intended to advance the inquiry as to loss causation into the class certification stage. The second approach does so in essence completely; the first approach does so only in the most tentative way.

### C. OTHER CONSIDERATIONS ARISING FROM THE HIGH STATISTICAL STANDARD TRADITIONALLY IMPOSED ON PLAINTIFFS

Yet other considerations arise with respect to the choice between the two approaches when one begins to think about why courts have traditionally ruled that the 95% confidence test is the statistical burden that should be imposed on plaintiffs in order for them to succeed at the merits stage in fraud-on-the-market litigations. This burden means that plaintiffs must introduce credible evidence that if the corrective disclosure had no effect on price, there would be no more than a 2.5% chance of observing a market-adjusted price change this negative. This appears to be a heavier burden than the normal probabilities, just better than a 50% chance, required of the moving party to establish its position by the civil liability's preponderance of the evidence rule.<sup>52</sup> Why have the courts

52. The standard rule for determining whether a party has met the burden of persuasion in a civil matter is that the necessary element be established by a preponderance of the evidence, *see, e.g.,* *Burdett v. Miller*, 957 F.2d 1375, 1382 (7th Cir. 1992). In other words, it is more likely than not the



imposed this apparently heavier burden on plaintiffs and what might the explanation imply about the answer to the question left open in *Halliburton II*?<sup>53</sup>

**1. Unthinking adoption of the standard used in scientific studies.** One possible explanation is that the courts may have simply borrowed the standard from the one used in academic scientific studies concerning the existence of more gen-

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inference offered by the moving party is correct. See, e.g., *Merzon v. Cnty. of Suffolk*, 767 F. Supp. 432, 444 (E.D.N.Y. 1991).

53. Comparing the requirement that plaintiffs need as evidence an event study meeting the 95% confidence test and the conventional preponderance of the evidence rule is more complicated than might first appear. Meeting the test just tells us that if the corrective disclosure has no impact on price, we would only observe a market-adjusted price change negative enough to meet the test less than 2.5% of the time. This is not the same as saying that if we observe a price change this negative, there is less than a 2.5% chance that the corrective disclosure had no negative impact on price. To see what passing the test tells us about the likelihood that the corrective disclosure had a negative impact on price, we have to start with what, prior to considering the results of the test and based on all the other available evidence, we believe to be the likelihood that the corrective disclosure had a negative impact on price. We then determine how our view of the odds changes given the fact that the observed market-adjusted price change is sufficiently negative to pass the 95% confidence test. In other words, the fact that the test is passed adds to the odds that the corrective disclosure had a negative impact on price, but to determine what these new odds are, we would need to know our view of the odds before taking account of the market-adjusted price change passing the test.

What, in any given case, might in fact be our initial pretest view of these odds? On the one hand, we know that the plaintiffs have an incentive to look for a date that has a statistically significant market-adjusted negative price change that is accompanied by a disclosure that can plausibly be labeled as correcting the alleged misstatement. On the other hand, the issue of proving loss causation does not even arise unless the plaintiffs have survived the defendant's motion to dismiss the action on the pleadings. The existence of a ruling by a federal judge denying this motion tells us something with regard to three important matters. First, the judge believes that disclosure, on its face, corrects the alleged misstatement. Second, the judge also believes that the misstatement is, on its face, material, i.e., that "there is a substantial likelihood that a reasonable investor would consider it important" in a decision whether to purchase or sell the issuer's shares, and that the reasonable investor would have viewed the misstatement "as having significantly altered the total mix of information made available." *Basic*, 485 U.S. at 231-32 (quoting *TSC Indus., Inc. v. Northway*, 426 U.S. 438, 449 (1976) and applying *Northway's* standard of materiality to the purchase or sale decision with respect to a claim under Rule 10b-5). Third, the ruling means that any evidence from the public record (e.g., media reports and share price histories) that defendant introduced to try to demonstrate that the truth had fully come out at some earlier moment before the date of the corrective disclosure claimed by plaintiffs did not persuade the judge. If indeed a reasonable investor would truly have viewed the alleged misstatement in a way that satisfies the *Northway* standard, its public announcement would have resulted in a price that was higher, and probably by more than a tiny amount, than if the truth had been told. And if the corrective disclosure truly corrects such a misstatement, the corrective disclosure in turn would have a negative impact on price, and probably by more than a tiny amount, in any situation where the price inflation from the misstatement had not already dissipated as a result of some other cause. So if the judge's judgment as to each of these three matters is correct, the corrective disclosure would have had a negative impact on price unless the price inflation caused by the alleged misstatement had fully dissipated in advance of the corrective disclosure for reasons other than earlier public news (e.g., unpublished rumors or insider trading).

Of course, in reality, the judge's judgment on one or more of these three matters might be wrong or the inflation might have already dissipated from a cause other than earlier public news. Still the fact that the complaint survived the motion to dismiss hurdle might well suggest the existence of evidence, prior to considering the event study, that the odds of the corrective disclosure having a negative impact on price are better than 50-50. Where, in addition, the market-adjusted price change is sufficiently negative to satisfy the 95% test, these odds increase further. Thus, where the fact that an action survives the motion to dismiss leads by itself to the conclusion that it is better than 50-50 that the corrective disclosure had a negative effect on price, a rule that requires that the price change passes the 95% confidence test clearly makes the evidentiary burden higher than on most other types of issues in civil litigation.

eral causal relationships. In doing so, they may not have realized that they were imposing on plaintiffs an apparently higher burden of persuasion about a factual question—whether a particular corrective disclosure had a negative effect on price—than is normally the rule in civil cases with respect to any given single element in a case. Instead, the courts appear to have looked at the issue in a different way. It seems that in their view, the burden of going forward required the plaintiff to introduce expert opinion credibly purporting to meet the high standard used in scientific studies. And the burden of persuasion required the plaintiff to convince the finder of fact by a preponderance of the evidence that this opinion was correct. There is at least circumstantial evidence in support of this explanation from the scholarly articles addressing what the statistical burden should be in fraud-on-the-market cases.<sup>54</sup> If this is the primary reason we still have the standard today, it would not suggest there was any reason for a different, lower standard to be imposed on defendants for presumption rebuttal purposes, as would occur with the second approach. But it may suggest that the required level of confidence should be reviewed for both plaintiffs and defendants to see if the standard was inadvertently made too strict.

**2. Compensating for the bias inherent in expert opinions introduced by adversarial parties.** Another explanation why, whatever its origins, the courts have maintained the 95% confidence standard for plaintiffs at the merits stage of the litigation is that doing so may reflect a judicial view that, as discussed earlier, there is a great deal of flexibility in how event studies are constructed, with the one presented by plaintiffs likely to be the one constructed in the fashion that produced results that are most favorable to them. In response to this bias, this view would suggest, the level of confidence with which the null hypothesis must be rejected should be high. If this is the explanation for why the 95% standard is imposed on plaintiffs, its reasoning applies with equal validity to the defendant's new right to rebut the fraud-on-the-market presumption by a showing of no price effect. So the same high 95% standard should be imposed on them, in essence the first approach.

**3. An implicit empirical measure of materiality.** A final possible reason why the courts have continued to impose on plaintiffs the 95% standard has quite different implications, one that would suggest that the first approach would

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54. Economics-oriented commentators who discussed the use of event studies for determining loss causation in fraud-on-the-market suits have, ever since the earliest days of the theory, consistently suggested that the presence of loss causation turns on whether the observed market-adjusted price change following the corrective disclosure is sufficiently negative to meet the 95% standard of statistical confidence. However, none of these commentators ever explained why, beyond the use of the 95% standard in scientific studies, this is the standard that should be used in civil actions in law. See Fischel, *supra* note 14, at 17–19; Jonathan R. Macey, Geoffrey P. Miller, Mark L. Mitchell & Jeffrey M. Netter, *Lessons from Financial Economics: Materiality, Reliance, and Extending the Reach of Basic v. Levinson*, 77 VA. L. REV. 1017, 1019, 1040–42 (1991); David Tabak & Frederick Dunbar, *Materiality and Magnitude: Event Studies in the Courtroom* 4–5 (NERA Working Paper No. 34, 1999), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=166408](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=166408).

place too high a burden on defendants seeking to rebut the presumption. The 95% standard may be a way of including, within an empirical test that nominally is just to determine loss causation, an empirical test of the materiality of the misstatement as well. In essence, this view would suggest that while allowing fraud-on-the-market suits may serve some important social purposes in terms of deterring misstatements or compensating losses, the existence of the cause of action entails the use of substantial resources as well. So, from a cost/benefit point of view, the standard should be set high enough to discourage plaintiffs from bringing suits where the price impact of the misstatement is relatively small.<sup>55</sup> Recall that in the example used throughout this Article, a corrective disclosure with an actual market-adjusted price impact of -1.00% would have only one chance in six of passing the test.<sup>56</sup> A corrective disclosure with an actual impact -2.00%, however, would have a slightly better than even chance. Thus many more suits with misstatements important enough to have corrective disclosures with an actual impact of -2.00% will be able to pass the test than ones with an actual impact of -1.00%. Plaintiffs lawyers are less inclined to bring cases relating to misstatements with corrective disclosures not likely to pass the test. Admittedly, imposing the 95% standard constitutes a rather crude filter, in part because the prospect of failing the test is increased as much by the issuer having a high standard deviation of market-adjusted price changes as by the corrective disclosure having only a small impact on price. Still, it does help support the policy of not devoting society's scarce resources to suits where the misstatement's price effect, and hence the damage it causes to society, is relatively small.

In sum, according to this third explanation, the reason for imposing the apparently higher evidentiary standard on plaintiffs with regard to loss causation is not because the existence of a negative price effect from the corrective disclosure needs to be proven with much more persuasive evidence than most other fact matters in civil litigation. Rather, the reason is to discourage suits based on misstatements that have only a modest effect on price. To the extent that this explanation is correct, the high statistical burden put on plaintiffs at the loss causation stage does not provide a rationale for placing an equally heavy burden on defendants when they need to establish no price effect.

## V. CONCLUSION

The U.S. Supreme Court's decision in *Halliburton II* opens a new chapter in the history of the fraud-on-the-market cause of action for private damages and the class actions that it permits. Ambiguities and contradictions in the *Basic* decision from twenty-five years ago, where the Court first endorsed the cause of action, have made this a confused and convoluted history so far, and this new chapter will probably prove no exception. The new cause of action was packaged in *Basic* as a rebuttable presumption. In *Halliburton II*, the Court provides defendants

55. For a model that approaches the problem in this fashion and describes how to determine what level confidence would be socially optimal, see Fox, Fox & Gilson, *supra* note 18, at 49–53.

56. See *supra* note 23 and accompanying text.

with an opportunity before class certification to rebut the presumption through evidence that the misstatement had no effect on the issuer's share price. It left unspecified, however, the standard by which the sufficiency of this evidence should be judged. This Article has explored the two most plausible approaches that the courts might take to setting this standard.

One approach would be for the courts to impose the same statistical burden on defendants seeking to show there was no price effect as is currently imposed on plaintiffs, at the loss causation stage of the litigation, to show that there was a price effect. Courts generally require a plaintiff seeking to establish loss causation to introduce persuasive expert testimony based on an event study of the corrective disclosure that would allow the expert to conclude that if the corrective disclosure had no negative effect on price, there is less than a 2.5% chance of observing a market-adjusted price change as negative as what accompanied the corrective disclosure. Imposing the same burden on the defendants would require them to introduce similar persuasive expert testimony based on an event study showing that if the corrective disclosure had a negative effect on price, there is less than a 2.5% chance of observing a market-adjusted price change as positive as what accompanied the corrective disclosure.

The other approach would be to decide that defendants can rebut the presumption of reliance simply by persuading the court that the plaintiff will not be able to meet the plaintiff's statistical burden concerning price effect when it is later called upon to demonstrate loss causation at the time of summary judgment or trial.

The first approach would have little effect on the cases that are brought or on their resolution by settlement or adjudication. The only cases where the defendant would likely be able to meet the standard are cases that would not have been filed, or at least would not have survived the motion to dismiss, even before *Halliburton II*. The second approach, by effectively moving the loss causation inquiry to an earlier point in the litigation before most discovery has occurred would, however, be of real value to some defendants.

One argument for the first approach relative to the second is that it is only fair that the same statistical burden with regard to price effect be imposed on defendant as on plaintiffs. No matter how well constructed the event study on which an expert bases her opinion, the fact that the expert cannot conclude that the market-adjusted price change is sufficiently negative to meet the 95% confidence test does not permit one automatically to infer that it was likely that it did not have a negative effect on price. Only the first approach imposes a symmetrical burden. The fairness argument in favor of the first approach is somewhat undermined, however, to the extent that one views the choice of the statistical burden put on plaintiffs to establish loss causation in part as the result of an intention to discourage suits based on misstatements that have only a modest effect on price.

The other argument in favor of the first approach relative to the second is that the second approach effectively flies in the face of the U.S. Supreme Court's

decision the first time the *Halliburton* case came before it, where the Court ruled that the plaintiffs did not have to establish loss causation at the class certification stage.

The primary argument for the second approach is policy-based and is premised on the belief, held by some observers, that too many cases with weak chances of satisfying the loss causation requirement make it past the motion to dismiss and thus put defendants in the position of needing to settle or face the high costs of discovery for a suit that faces slim odds if fully adjudicated. There is also some modest past precedent favoring the second approach.

It is hard to predict how the courts will work through these considerations to fashion a standard for determining the sufficiency of the evidence offered by defendants to try to rebut the fraud-on-the-market presumption. A judge who takes a more formal stance toward judicial lawmaking would be more drawn to arguments favoring the first approach. A judge who takes a more policy-oriented stance, and who shares with many in the judiciary a certain suspicion of these suits, would be more drawn to the second approach. It may take time before we see which approach ultimately prevails.