

## Confound It!

### Revisiting the Special Case of “Overdisclosure” in the Context of *Halliburton’s* Price Impact Test

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## 1. INTRODUCTION

In its 2014 decision in the *Halliburton Co. v. Erica P. John Fund Inc.* case, the U.S. Supreme Court added a new wrinkle to the legal and economic analysis required at the class certification stage of securities fraud class action cases brought under Section 10(b) of the Securities Exchange Act of 1934 and SEC Rule 10b-5. Specifically, defendants can now attempt to defeat plaintiffs’ motions for class certification by showing that defendants’ alleged misrepresentations did not have a discernible price impact.<sup>i, ii</sup> Such a showing<sup>iii</sup> would sever the potential link between the alleged fraud and observed price changes, so that the well-known “presumption of reliance” established in *Basic Inc. v. Levinson* would not apply, and a class would not be certified.<sup>iv</sup>

Determining price impact due to alleged fraud can be a complex, data-intensive task. To isolate and measure the price impact of the alleged fraud, if any exists, experts must evaluate whether factors or information outside of the alleged fraud could have been responsible for observed price movements. Broadly speaking, these non-fraud factors and other information can be referred to as “confounding information” because they “confound” efforts to attribute price movements to the alleged fraud.<sup>v</sup>

In this article, we focus on one type of confounding information that was not explicitly addressed in *Halliburton*. Specifically, we discuss situations in which a disclosure at the end of an alleged class period contains more information than could have been disclosed earlier in the class period. This phenomenon, which has been referred to as “overdisclosure,” makes it challenging to rely on the drop in price at the end of the alleged class period (“disclosure date impact”) to infer a price impact earlier in the class period (“non-disclosure date impact”). Indeed, the portion of the disclosure at the end of the period that could not have been disclosed earlier can be said to “confound” one’s ability to use the disclosure date impact to infer non-disclosure date impact. As a result, there may be no significant price impact from the alleged fraud on the days identified by plaintiffs earlier in the class period, even though there is a significant price decline at the end.

As background for our discussion of overdisclosure, we first describe certain analytic tools that economists use to assess price impact, as well as the ways in which experts applied those tools to analyze price impact in the *Halliburton* case – including their treatment of confounding information. We then introduce the concept of overdisclosure as a form of confounding information, provide several examples, and discuss ways to address this phenomenon from a financial and economic perspective when analyzing price impact.

## 2. PRICE IMPACT ANALYSIS AND THE ROLE OF CONFOUNDING INFORMATION

The direction from the Supreme Court in the *Halliburton* decision raises a fundamental question: from a financial and economic standpoint, what is the “direct, more salient evidence” that allows one to determine whether an alleged misrepresentation affected a security price throughout the class period? Determining whether the alleged fraud caused a price impact requires a rigorous, data-intensive analysis to assess whether the effect of the alleged fraud can be distinguished from the background noise caused by the many factors that affect securities prices. The primary tool that financial economists employ in these cases is called an event study.

Event studies involve the use of statistical methods to investigate the causes of changes in securities prices. These causes may include “systematic” market- or industry-wide events that affect the values of securities, as well as firm-specific, or “unsystematic,” factors such as news about the firm, its securities, or competing or complementary firms.<sup>vi</sup> This analysis allows one to assess whether stock price movements (or, possibly, the lack of movement) on particular days can reasonably be attributed to the alleged fraud, as opposed to other (non-fraud) factors.

Economists and finance experts typically follow these broad steps in applying the event study method in securities fraud cases:

- Develop a thorough understanding of the business model, market and industry conditions, and positioning of the firm at issue to provide a foundation for identifying relevant systematic factors and interpreting the news and analyst commentary that might have affected the security price before, during, and after the alleged class period.
- Identify and describe the specific alleged misrepresentations and/or curative disclosures that appear in the complaint.
- Review the available news stories, analyst reports and other public information about the company and its industry.
- Develop a statistical model that measures the correlations between movements in the security price(s) at issue and movements in relevant market and industry indices.
- Measure the price impact of the alleged misrepresentations, omissions and/or curative disclosures, after controlling for confounding information (i.e., price movements that could have been caused by market and industry forces, non-fraud-related firm-specific news, or other information).
- Determine the statistical significance of the stock price movements on days (or within days) that coincide with the alleged fraudulent misrepresentations, omissions, or hypothesized curative disclosures.<sup>vii</sup>

However, at times, the event study evidence alone will not be sufficient to draw a definitive conclusion regarding price impact. This is often the case when there is confounding information. For example, if the alleged misrepresentations are made at the same time that other non-fraud-related negative news become public, it may be necessary to separately estimate the impact of that non-fraud news to determine the extent of impact from the alleged fraud itself.

### **3. PRICE IMPACT ANALYSIS AND CONFOUNDING INFORMATION IN HALLIBURTON**

The facts in *Halliburton* appear to have provided fertile ground for a showing of no price impact from the alleged fraud, which purportedly leaked out in partial disclosures over a one-and-a-half-year class period.

Specifically, the plaintiffs’ expert opined that there were partial curative disclosures on 11 different days during this period, the first of which was a few months after the start of the alleged class period and the last of which was on the final day of the class period. She found a statistically significant negative price impact from the alleged fraud on all of these days, adding up to a cumulative negative total of 77 percent.<sup>viii</sup> This long period increased the chance that confounding factors may have come into play, especially given the large news flow surrounding the company and the number of different businesses it owned.

Indeed, the defendants’ expert made a case that the plaintiffs’ expert failed to account for various types of confounding information, in addition to identifying numerous other alleged methodological and conceptual problems with the plaintiffs’ expert’s analysis. For example, on one of the 11 purported curative disclosure days, Halliburton announced that its quarterly earnings would be less than expected, causing its stock price to decline. The plaintiffs’ expert attributed the entire earnings miss and consequent stock price decline to a partial disclosure of the alleged fraud (which was defined as the “hiding” of losses flowing from a merger). However, the earnings miss was blamed by some analysts on general weakness in the industry overall, a factor that was unrelated to the alleged fraud. Thus, the defendants’ expert opined that the entire stock price decline on that day could not be attributed to the alleged fraud because the partial disclosure was “confounded” by the news of industry weakness. The defendants’ expert identified other non-fraud information that was released during the 11 purported curative disclosure days as well, alleging that this information further confounded plaintiffs’ attempts to attribute the net stock price declines on those days to curative disclosures of the alleged fraud.

#### 4. THE SPECIAL CASE OF OVERDISCLOSURE

This type of confounding information in *Halliburton* was “typical” in that it was based on separate non-fraud factors (e.g., industry weakness) that could have accounted for all or part of the decline on a day when the alleged fraud (e.g., bad news related to the difficulty in consummating a merger) was partially disclosed. Overdisclosure, by contrast, involves a different type of confounding information – information that is arguably related to the alleged fraud, but that was not known earlier in the class period and thus could not have been disclosed at that earlier time. In the presence of such facts, the entire stock price decline may not be a measure or indication of price impact attributable to the alleged fraud. This is because at least some portion of that late disclosure would represent confounding information for purposes of determining price impact earlier in the class period.

Two real-world examples help to illustrate the point. One is the landmark *Basic* case, which dealt with the artificial deflation of company shares. In *Basic*, management publicly denied the existence of merger talks when, in fact, such talks were underway. Later, when a definitive merger agreement was announced, the stock price of the company at issue, Basic Inc., increased significantly. A securities fraud class case was then filed, alleging that the denial of the existence of merger discussions was a fraudulent misstatement that artificially deflated the company’s share price.

In this situation, it would not have been appropriate to use the increase in the company’s stock price at the end of the alleged class period to infer or measure the existence of a price impact at the beginning of the alleged class period. This is because, at the beginning of the period, all that could have been disclosed

was the existence of talks – not the definitive terms of a signed merger agreement. The potential existence of a price impact at the start of the class period thus would have depended on investors’ assessment of how likely the merger was to succeed, as well as their assessment of the likely terms of the deal. In addition, intervening events may have affected the perceived profitability of the acquisition. As a result, the increase in price at the end of the alleged class period would have been relevant only to the extent that the information disclosed on that day could have been foreseen as of the beginning of the class period.

One practical solution to such a conundrum is for the attorneys and economic experts to review the record and carefully define hypothetical disclosures that were practically possible at the relevant times for measuring price impact. This effort might require interviews of company personnel, review of company documents, and examination of publicly available information. Once the hypothetical disclosures are defined, an attempt can be made to quantify their expected price impact. This can be challenging, because there may be no actual observable announcements (and resulting price impacts) that are appropriately comparable.

The appropriate approach to quantifying the potential price impact of the earlier hypothetical disclosure depends on the facts and circumstances of each case. In *Basic*, potential approaches might have included a review of contemporaneous analyst reports and internal documents to assess the likelihood of success of the talks and the likely terms of the merger; examination of the empirical literature on the reaction of stock prices to merger talk announcements; and/or analysis of the announcement of the definitive merger agreement to determine whether it was possible to rely, at least in part, on the increase in price at that time. In the latter case, if the expected terms of the deal at the time that management denied the existence of merger talks were the same as or similar to those ultimately agreed upon, the price change at the time of the announcement might be useable as one input to the price impact analysis at the start of the alleged class period.

A second example can be found in a case on which one of the authors was an expert, in which a firm disclosed at the end of the alleged class period that its drug failed to receive U.S. Food and Drug Administration (FDA) approval, due in significant part to concerns about the testing results from certain animal experiments. The stock price fell significantly following the disclosure. Plaintiffs alleged that the firm should have disclosed the negative data from the animal testing (among other things) more than a year earlier, at the start of the alleged class period. The plaintiffs’ expert opined that the entire price drop at the end was attributable to the alleged fraud.

However, the evidence showed that, at the beginning of the alleged class period, neither the defendant nor investors could or would have known that the negative animal data definitely would have caused the FDA to deny approval.<sup>ix</sup> As a result, the company could not have made the same disclosure earlier in the class period that it made at the end.

In effect, the disclosure of the alleged fraud at the back end (the negative animal data) was “confounded” by information that was unknown on the front end (that it definitely would lead to the loss of FDA approval).<sup>x</sup> In order to measure price impact at the front end in that case, therefore, it was necessary to evaluate the likely price change due to the release of the negative animal data at that time. If investors would not have considered that information dispositive of FDA approval at that time, then there may not have been a significant price impact on that day from the allegedly fraudulent failure to disclose.

Ultimately, the question to be addressed from a price impact standpoint is whether the information that realistically could have been disclosed at the time of the alleged fraud itself would have caused a price

change. The price change at the end of the class period cannot automatically be used to measure or infer the existence of a price change at the alternative date(s), due to potential differences in the disclosure(s) that realistically could have been made and the value that the market would have placed on such disclosure(s).

## 5. CONCLUSION

The *Halliburton* decision has given defendants an opportunity to try to show at the class certification stage that there is no evidence of a price impact from the alleged fraud. Several practical issues arise in using event study evidence to measure price impact, including the need to control for confounding information. One special case of confounding information has been referred to as “overdisclosure.” In cases of overdisclosure, a finding of a price impact on the date of disclosure does not necessarily imply that the alleged false or misleading statements had a price impact throughout the entire class period. It may be necessary to posit a hypothetical disclosure and determine the likely price movement associated with that disclosure in order to assess price impact. When undertaking this analysis, it is often insufficient to use the disclosure and price change at the end of the class period as a measure of price impact throughout the class period. When these issues arise, event study evidence will likely need to be supplemented with other analyses aimed at assessing the estimated price impact of different types of information over different time periods.

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## ENDNOTES

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- <sup>i</sup> To survive as a class action, one of the early hurdles that securities fraud cases must clear is certification of a class under Federal Rule of Civil Procedure 23. To succeed in this effort, plaintiffs must prove, among other things, that the proposed class members relied on the defendants’ alleged fraudulent misrepresentations and/or omissions when transacting in the security at issue. Historically, plaintiffs could often meet their burden of proof in this regard simply by showing that the market for the relevant security was “informationally efficient,” meaning that the security’s market price fully reflected all publicly available information. In such a case, all buyers or sellers of the security could be presumed to have relied (implicitly) on any material public misstatements or omissions by the defendants. This presumption of reliance in an efficient market was established in the landmark 1988 Supreme Court decision in *Basic v. Levinson* (“Basic”).
- ii For ease of reference, we may refer in this article to the “defendants’ alleged misrepresentations” as the “defendants’ alleged fraud.”
- iii Some courts have applied the “Cammer Factors” when assessing market efficiency, which include: (1) trading volume as a percentage of total shares, (2) analyst following, (3) the number of market makers in the security, (4) the eligibility to file an S-3 Registration statement, and (5) the cause-and-effect relationship between unexpected corporate events or financial release and an immediate response in the stock price. See *Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989) pp. 27–8. Courts have also applied three additional factors: (1) the company’s market capitalization, (2) the size of the bid-ask spread, and (3) the percentage of shares available to the public. See *Krogman v. Sterritt*, 202 F.R.D. 467, 478 (N.D. Tex. 2001). In addition, courts have examined impediments to short selling, as market efficiency depends on professional investors’ ability to complete arbitrage transactions, including the high cost of shorting a stock and violations of put-call parity, as well as serial correlation in returns (i.e., the return on one day is statistically related to the return on another). See *IN RE POLYMEDICA CORPORATION SECURITIES LITIGATION*, NO. 00-12426-WGY. If many or all of the above factors clearly support a finding of market efficiency, defendants may decide not to challenge class certifications on efficiency grounds.
- iv This legal framework in *Basic* was modified by the *Halliburton* decision. Under this recent decision, defendants may challenge the presumption of reliance at the class certification stage (even if the relevant market is deemed to be efficient) by showing that the alleged misstatements or omissions did not impact the price of the security during the class period. As the Court stated in *Halliburton*:
- Basic allows plaintiffs to establish price impact indirectly, by showing that a stock traded in an efficient market and that a defendant’s misrepresentations were public and material. But an indirect proxy should not preclude consideration of a defendant’s direct, more salient evidence showing that an alleged misrepresentation did not actually affect the stock’s price and, consequently, that the Basic presumption does not apply.
- Thus, if defendants can produce “... direct, more salient evidence showing that an alleged misrepresentation did not actually affect the stock’s price...” the reliance requirement will be deemed not to have been met and “class certification would not be appropriate.” (*Halliburton* Syllabus, p. 2).
- v In practice, the term “confounding information” is often used to refer only to firm-specific non-fraud information, and not to broad market or industry movements that affect stock prices. However, for the purposes of this article, we use the term to refer to any confounding factor that must be controlled for in order to isolate and measure the potential price impact of the alleged fraud.
- vi We note that in *Dura v. Broudo* the court ruled that alleging inflation at the time of purchase was insufficient: “...an inflated purchase price will not itself constitute or proximately cause the relevant economic loss,” (544 U.S. 336 (2005), p. 5.) because “... at the moment the transaction takes place, the plaintiff has suffered no loss; the inflated purchase payment is offset by ownership of a share that at that instant possesses equivalent value.” (544 U.S. 336 (2005), p. 5.) Therefore, while losses may follow the purchase, at the exact time of the purchase, an investor has suffered no loss. Furthermore, in rejecting the inflation-at-purchase approach, the Supreme Court ruled that “... the Ninth Circuit’s approach would allow recovery where a misrepresentation leads to an inflated purchase price but nonetheless does not proximately cause any economic loss.” (544 U.S. 336(2005), p. 9.) From a practical perspective, the end of a class period is typically associated with a stock price decline.
- vii This determination involves comparing the stock price movements not explained by market or industry forces to the natural amount of unexplained background volatility in the stock price. If the relevant movements exceed this volatility, they are considered to be statistically significant.
- viii *Allen Report*, pp. 4, 5, 13.

ix The proposition that investors would not have considered the negative animal testing data to be tantamount to a loss of FDA approval required the support of substantial regulatory and economic expert research and analysis.

x Here, we refer to the end of the class period as the “back end” and to earlier parts of the class period as the “front end.” This terminology was used in an Amicus Brief filed in the *Halliburton* case (see “Brief of Testifying Economists as Amici Curiae in Support of Respondent”).