Since the advent of modern financial markets, the courts and legislature have struggled to strike the right balance between potential victims of securities fraud and the defendant corporations and executives. The plaintiffs face the daunting task of proving that a misrepresentation in a complex market caused them harm. On the other hand, if the defendants are found liable, they face a judgment that could bankrupt the company or severely compromise its financial position. The fraud-on-the-market theory and its price impact rebuttal corollary are the part of the modern attempt to balance these interests in securities fraud class actions. These class actions do reduce the cost of capital for compliant companies by making it easier for investors to trust the publicly-made statements of honest issuers while weeding out the bad actors. But the *Halliburton II* price impact ruling has thus far proven a costly and ineffective compromise at the class certification stage.

This Article will show that in practice, courts still struggle to implement the price impact rebuttal due to both a lack of guidance from the Supreme Court and the challenge of distinguishing materiality from price impact. Part One will explore the origins, seminal decisions, and major themes that contributed to and shape the *Halliburton II* price impact inquiry. Part Two will offer several examples of where—despite the prohibition in *Amgen*—materiality has reared its head during the price impact inquiry. Finally, Part Three will discuss the challenges inherent in using event studies at the class certification stage.¹ This Article will conclude by discussing some of the potential downsides of the *Halliburton II* decision and

¹ While this article will consider event studies in some detail, the goal of this Article is not to provide an empirical evaluation of their effectiveness in securities lawsuits.
scenarios where it could harm both the securities market and the investors who rely on the market’s integrity every day.

I. The Rise of the Fraud-on-the-Market Presumption & the Price Impact Rebuttal

Approximately three years ago, the Supreme Court clarified some aspects of its ruling in *Amgen* by reiterating that defendants could proffer evidence to rebut the *Basic* fraud-on-the-market presumption used to certify SEC Rule 10b-5 class actions under Rule 23 of the Federal Rules of Civil Procedure. Promulgated under Section 10(b) of the Securities Exchange Act, SEC Rule 10b-5 is the primary vehicle for pursuing private securities fraud actions. While this cause of action is implied rather than express, the rule is long-standing and in common use today. This action allows plaintiffs to pursue any party that makes a “material misstatement or omission in connection with the purchase or sale of any security.”

The elements of the claim are “(1) a material misrepresentation or omission by the defendant; (2) scienter; (3) a connection between the misrepresentation or omission and the purchase or sale of a security; (4) reliance upon the misrepresentation or omission; (5) economic loss; and (6) loss causation.”

These claims are often brought as federal class actions due to the small amounts at issue for individual investors and the judicial economy of the class action vehicle. Many experts

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2 Halliburton Co. v. Erica P. John Fund, Inc. [Halliburton II], 134 S. Ct. 2398, 2415-16 (Jun. 23, 2014). The use of “reiterating” is intentional—*Basic* likely opened the door for rebuttal inquiries. This will be discussed below.

3 HAZEN, THOMAS LEE, 3 TREATISE ON THE LAW OF SECURITIES REGULATION § 12:18 (Westlaw, Updated Nov. 2016).


5 *Halliburton II*, 134 S. Ct. at 2407.


7 See *General Telephone Co. of S.W. v. Falcon*, 457 U.S. 147, 155 (1982) for a short judicial discussion of the virtues of the class-action vehicle.
contend that these actions need to be brought as class actions, because the losses for individual investors are generally too small to merit individual actions. That being said, some experts appear to question the wisdom of creating a class action “entitlement” given the rise of large institutional investors who are capable of initiating collective suits without the class action vehicle.

Rule 10b-5 class actions must satisfy the requirements of Rule 23 in order to be certified. As part of this showing, the plaintiffs must prove that “questions of law or fact common to the class members predominate over any questions affecting individual member.” This requirement from Rule 23(b)(3) is supposed to protect securities plaintiffs who don’t want to be bound by the results of an action that they didn’t bring. Reliance has long been an element of fraud claims because it ensures that the defendant’s misrepresentation is responsible for the plaintiff’s injurious purchase decision. That being said, it is very difficult for securities fraud plaintiffs to make the requisite showing of individual reliance because they would have to show how they would have proceeded at the time of the transaction if they were aware of the misrepresentation. Even if each plaintiff made the requisite showing at the class certification,

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8 See, e.g., James D. Cox, *Fraud on the Market After Amgen*, 9 DUKE J. CONST. L. & PUB. POL’Y 1, 6 (2013) (noting that class actions are “the only viable option for most aggrieved investors.”).
14 *Halliburton II*, 134 S. Ct. at 2407–2408.
the class likely wouldn’t qualify under Rule 23(b)(3).\textsuperscript{15} Exacerbating this problem for plaintiffs, the Court has found that the Rule 23 inquiry should be so rigorous that it may occasionally tread ground traditionally reserved for the merits stage.\textsuperscript{16}

\textit{A. The Origin of the Fraud-on-the-Market Theory}

If Rule 10b-5 was the fuel for securities class actions, \textit{Basic} provided kindling, and Daniel Fischel was Prometheus. Through \textit{Basic, Inc. v. Levinson}, the Supreme Court alleviated the burden of showing reliance at the class certification stage by espousing the fraud-on-the-market theory.\textsuperscript{17} But a complete understanding of \textit{Basic} will elude the reader without an understanding of the reliance requirement’s history in Rule 10b-5 litigation.

Reliance was first most influentially required in a Rule 10b-5 suit in the Second Circuit’s \textit{List v. Fashion Park} from 1965.\textsuperscript{18} In \textit{Affiliated Ute}, the Court imposed a requirement of reliance, or “transaction causation” for all Rule 10b-5 actions.\textsuperscript{19} This reliance is often referred to as “eyeball reliance,” and ensures that the fraudulent statement be the actual cause of the investor’s transaction decision for the plaintiff’s transaction underlying the Rule 10b-5 claim.\textsuperscript{20} As mentioned above, this requirement likely stems from a long-standing requirement that securities

\textsuperscript{15} Basic, 485 U.S. at 242.


\textsuperscript{17} 485 U.S. 224, 225, 242–247 (1988) (Chief Justice Rehnquist, and Justices Scalia and Kennedy were not part of the decision).

\textsuperscript{18} Cox, supra note 8, at 5; 340 F.2d 457, 463–464 (discussing the rationale for requiring reliance in Rule 10b-5 civil suits and surveying cases that have explicitly or implicitly come to the same conclusion, including Reed v. Riddle Airlines, 266 F2d 314 (5th Cir. 1959) and Speed v. Transamerica Corp., 99 F. Supp. 808 (D. Del. 1951), aff’d 235 F.2d 369 (3d. Cir. 1956)).

\textsuperscript{19} Cox, supra note 8, at 5–6.

plaintiffs show reliance when pleading common law fraud.  

One looming challenge was the fact that in most class actions—where thousands of investors have traded the shares of companies on the statements of executives they have never met with counterparties that are thousands of miles away—it would be difficult to prove actual “eyeball” reliance. Even if every investor could prove actual reliance, it would be cost prohibitive and the suit would likely fail the requirements of Rule 23(b)(3) because a showing of individual proof would destroy much of the suit’s judicial economy.  

Faced with the choice between barring the courthouse door for most individual investors or finding another solution, courts began to use what is now known as the fraud-on-the-market theory, which was most notably embraced in 1975 by the *Blackie v. Barrack* court. But it wasn’t until 1982 that Daniel Fischel explicitly enlisted the efficient market hypothesis as support for the fraud-on-the-market theory, arguing that it should be the only way securities fraud plaintiffs could prove reliance. In 1988, the Supreme Court stamped its approval on the fraud-on-the-market theory with only six justices presiding and only four joining the opinion of the Court. While primarily relying on the academic consensus on the validity of the EMH, Justice Blackmun also noted that there were separate policy reasons for adopting the presumption, including “fairness,…probability, [and] judicial economy.”

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22 See *supra* note 14 and accompanying text.
23 See *supra* note 15 and accompanying text (citing *Basic*, 485 U.S. at 242).
24 524 F.2d 891 (9th Cir. 1975); see, e.g., Cox, *supra* note 8, at 8; Korsmo, *supra* note 20, at 836.
26 *Basic*, 485 U.S. at 225, 247; Cox, *supra* note 8, at 8.
27 *Basic*, 485 U.S. at 245; Cox, *supra* note 8, at 10.
struck. Through Basic, securities class actions swept across capital markets, both illuminating malfeasance and burning up shareholder value.\textsuperscript{28}

\textit{B. Amgen \& Materiality}

The FOTM doctrine allows plaintiffs to gain a rebuttable presumption of reliance if they show that the statements in question were known to the public, the statements themselves were material, and the market the stock traded in was efficient.\textsuperscript{29} This presumption is a way for all plaintiffs to establish reliance without the onerous burden of individualized proof.\textsuperscript{30} Due to practice and precedent, only certain aspects of the test are contested during class certification. There is rarely any dispute over whether the statements were public.\textsuperscript{31} While there is no uniform requirement, the efficiency of the market is usually established by the use of the \textit{Cammer} or \textit{Krogman} factors,\textsuperscript{32} and they include: (1) the size of the trading volume; (2) the number of analysts who regularly follow the company; (3) the number of market makers and arbitrageurs; (4) the issuer’s eligibility to use the S-3 registration statement; (5) empirical evidence showing that the security’s price responds to unexpected material information or changes in outlook;\textsuperscript{33} (6) total market capitalization; (7) the size of the security’s bid-ask spread; and (8) the issuer’s

\textsuperscript{28} Donald C. Langevoort, \textit{Basic at Twenty: Rethinking Fraud on the Market}, 2009 WISC. L. REV. 151, 179 (2009) [hereinafter \textit{Basic at Twenty}].
\textsuperscript{29} \textit{Halliburton II}, 134 S. Ct. at 2408.
\textsuperscript{30} Lipton, \textit{supra} note 12, at 4.
\textsuperscript{33} \textit{Cammer}, 711 F. Supp. at 1286–1287.
Some experts have criticized the courts’ continued use of the *Cammer* factors on the grounds that they create the illusion of certainty in answering the market efficiency inquiry.\(^3\)\(^5\) In light of these facts, *Basic*’s presumption is very much within reach for plaintiffs that claim they’ve been defrauded by the representatives of large, publicly-traded companies.

After *Basic*, the case most pertinent to the discussion on price impact rebuttal is *Amgen, Inc. v. Connecticut Ret. Plans & Trust Funds.*\(^3\)\(^6\) The *Amgen* Court held that (1) plaintiffs who invoke the fraud-on-the-market ("FOTM") presumption do not need to prove materiality at the class certification stage; and (2) courts should not consider evidence that pertains to materiality in defendant rebuttal arguments at the class certification stage.\(^3\)\(^7\) The majority rationalized that materiality by its very definition is a common question.\(^3\)\(^8\) So, plaintiffs do not need to show materiality in order to prove that reliance is a common issue because materiality will be litigated at the merits stage, at which point the entire suit will collapse if the trial court finds that the statements are immaterial.\(^3\)\(^9\) The majority also reasoned that requiring proof of materiality would require a “mini-trial on the issue of materiality” that would reduce judicial economy.\(^4\)\(^0\)

In the majority’s view, the actual judgment in *Basic* also supported its analysis.\(^4\)\(^1\) The *Amgen* majority posited that the *Basic* Court would have overturned the class certification ruling

\(^3\) Krogman v. Sterrit, 202 F.R.D. 467, 478 (N.D. Tex. 2001). The *Krogman* court also noted that an issuer’s ability to file an S-3 registration statement is still considered probative in determining efficiency despite relaxation of the eligibility requirements. *Id.* at 476–77.
\(^3\)\(^5\) *Judgment Day*, supra note 32, at 53 (arguing against the use of the *Cammer* factors because their use may lead to an imprecise, binary inquiry into efficiency).
\(^3\)\(^6\) 133 S. Ct. 1184 (2013).
\(^3\)\(^7\) *Id.* at 1199, 1203.
\(^3\)\(^8\) *Id.* at 1191, 1996, 1999.
\(^3\)\(^9\) *Id.*
\(^4\)\(^0\) *Id.* at 1201.
\(^4\)\(^1\) *Id.* at 1202–1203.
in that case if it intended to require proof of materiality at the certification stage.\textsuperscript{42} Essentially, the majority concluded that the \textit{Basic} opinion would be at odds with its accompanying judgment if the Court accepted the \textit{Amgen} defendant-petitioners’ interpretation of the opinion.\textsuperscript{43} Failure to prove materiality will not lead to common issues predominating, so proof of materiality can safely be postponed until the merits stage without risking an inappropriate class certification.\textsuperscript{44}

The petitioners also sought to present evidence showing that the truth had already entered the market and that investors should have already been aware of the falsity of Amgen’s misleading statements.\textsuperscript{45} Relying on the “total mix of information” test from \textit{TSC Industries},\textsuperscript{46} the petitioners argued that the truth was already on the market due to several publicly-available documents from the FDA and equity analysts.\textsuperscript{47} The Ninth Circuit ruled that this evidence was probative for materiality and therefore not permitted at the class certification stage.\textsuperscript{48} The Supreme Court affirmed this ruling.\textsuperscript{49}

Justices Thomas and Scalia wrote fiery dissents in \textit{Amgen}, arguing against materiality’s total exclusion from the Rule 23(b)(3) inquiry. Justice Thomas, joined by Justice Kennedy, asserted that the Court conflated the need to prove materiality as part of the \textit{commonality inquiry} with the need to prove it as part of the \textit{reliance inquiry}, when in fact those inquiries serve different functions.\textsuperscript{50} He argued that for Rule 23(b)(3), the commonality of materiality can be

\textsuperscript{42} \textit{Amgen}, 133 S. Ct. at 1202–1203.
\textsuperscript{43} See \textit{id}.
\textsuperscript{44} \textit{Id.} at 1199.
\textsuperscript{45} \textit{Id.} at 1203.
\textsuperscript{47} \textit{Amgen}, 133 S. Ct. at 1202–1203.
\textsuperscript{48} \textit{Id.} at 1203; \textit{Connecticut Retirement Plans and Trust Funds v. Amgen Inc.}, 660 F.3d 1170, 1177 (2011).
\textsuperscript{49} \textit{Amgen}, 133 S. Ct. at 1203.
\textsuperscript{50} \textit{Id.} at 1206–1207. Scalia aptly summarizes his argument by saying: “The Court’s error occurs when, instead of asking whether the element of \textit{reliance} is susceptible to classwide proof, the
presumed, but proof of materiality is still required to prove that reliance is in fact a common question through the fraud-on-the-market presumption. The majority responded by pointing out that “common questions must predominate,” and Justice Thomas’s argument would lead to the end of the entire case on the merits, not just the creation of individual questions. This argument is apparently premised on the function of the class certification inquiry. It boils down to the fact that under Justice Thomas’s framework, the class certification inquiry functions as a merits inquiry if the court makes a ruling on materiality.

Justice Scalia argued that Amgen was wrongly decided because the standard of proof for class certifications at the time Basic was decided was lower than at the time he wrote his dissent. Consequently, the Basic Court’s decision to leave the class certification order in place—a fact that seemed to be important for the Amgen majority—was not dispositive of the question of whether the Basic Court intended to include the requirement of materiality in the fraud-on-the-market inquiry.

Due to Amgen, defendants may not rebut the FOTM presumption using evidence of immateriality; but the Court should have made it clear that this decision was based largely on the function of the class certification inquiry and other policy considerations. At the time Amgen was decided, the Court likely did not have potential immateriality arguments as part of the price

Court focuses on whether materiality is susceptible to classwide proof.” Id. at 1210–1212.

51 Id. at 1210–1212.
52 Id. at 1196.
53 See id.
54 Id. at 1205–1206.
55 Amgen, 133 S. Ct. at 1205–1206.
56 Ann M. Lipton, Halliburton and the Dog That Didn’t Bark, 10 DUKE J. CONST. L. & PUB. POL’Y 1, 9 (2015) (noting that “[p]rice impact is simply one mechanism for proving the element of reliance” and thus, it serves primarily to establish reliance).
impact rebuttal discussed in *Halliburton II* in mind, so while today the *Amgen* holding functions as a blanket rule prohibiting materiality evidence at the class certification stage, the questions of whether plaintiffs could rebut price impact and what that rebuttal would look like were still open at the time.57

C. Criticisms of Basic and Fraud-on-the-Market

It should come as no surprise that experts have taken every opportunity to criticize and assail the fraud-on-the-market theory since the day the *Basic* opinion was handed down. The eye-popping out-of-pocket damages estimates floated at the class certification stage put “hydraulic” pressure on a defendant-firm’s decision-makers.58 These executives, tasked with doing what is best for the firm and its shareholders, would rather settle than run even a slight risk of bankrupting the company through a single lawsuit.59 From this perspective, the fraud-on-the-market theory and its refinements in *Amgen* seem to tip the scale decisively in the plaintiff’s favor. The doctrine’s reliance upon the efficient market hypothesis is the basis of much of the criticism.60 Recently, lower courts have concluded that markets are not as quick to incorporate new information, and many experts agree.61 Other experts have pointed out that the *Basic* Court

could have dispensed with the reliance issue altogether by elaborating on its *Affiliated Ute Citizens* decision.\(^{62}\)

In addition to criticism from academics and practitioners, several notable dissents have bemoaned the uncanny vitality of the doctrine, which is especially confounding given what many perceive as a “conspicuous lack of enthusiasm for *Basic*” within the Court.\(^ {63}\) In his *Basic* dissent, Justice White asserted that the theory “effectively eviscerates the reliance rule in actions brought under Rule 10b-5,”\(^ {64}\) and that the Court is “not well equipped to embrace novel constructions of a statute based on contemporary microeconomic theory.”\(^ {65}\) In *Amgen*, Justice Alito seemed to state in his concurrence that the only reason he joined the majority was because a full reconsideration of *Basic* was not before the Court, obliquely referring to a footnote in Justice Thomas’s opinion citing evidence that called the efficient market hypothesis into question.\(^ {66}\) More recently, Justice Thomas argued in his *Halliburton II* dissent that “[l]ogic, economic realities, and our subsequent jurisprudence have undermined the foundations of the *Basic* presumption, and *stare decisis* cannot prop up the façade that remains.”\(^ {67}\)

**D. Halliburton II & the Price Impact Rebuttal**

Against this backdrop, the Court granted Halliburton’s petition for certiorari after the district court’s grant of class certification.\(^ {68}\) This set up the case’s second trip to the Supreme

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\(^{62}\) *New Paradigm*, *supra* note 60, at 210. For a similar theory, see Korsmo, *supra* note 61, at 868.


\(^{65}\) *Id.* at 252–253. This quote would later be included in a footnote written by Justice Thomas in his *Amgen* dissent echoing Justice White’s concerns. *See Amgen*, 135 S. Ct. at 1195 n.4.

\(^{66}\) *Amgen*, 133 S. Ct. at 1204.

\(^{67}\) *Halliburton II*, 134 S. Ct. at 2418 (Thomas, J., dissenting).

Court since the class action over asbestos was filed in 2002. During the class certification stage, Halliburton attempted to proffer evidence showing a lack of price impact to rebut the Basic presumption. The district court refused to allow Halliburton to rebut the presumption and certified the class. Halliburton appealed to the Fifth Circuit, but the judgment was affirmed. The Supreme Court granted certiorari to reconsider Basic’s fraud-on-the-market presumption and resolve “whether securities fraud defendants may attempt to rebut the Basic presumption at the class certification stage with evidence of a lack of price impact.” The Court found no “special justification” to overturn the Basic holding and abrogate the fraud-on-the-market theory.

The Court then considered Halliburton’s price impact rebuttal claim to resolve a split between the circuits and possibly “alleviate…[Basic’s] most serious flaws.” The majority rejected Halliburton’s first proposal, which would have required that plaintiffs prove price impact directly during the certification inquiry, because it would destroy one of the two nested presumptions given to plaintiffs who invoke the fraud-on-the-market presumption. Namely, requiring proof of price impact would rob the plaintiffs of the inference that material misrepresentations which are publicly-known distort stock prices in an efficient market. This would reduce the FOTM presumption to a mere inference that the plaintiffs relied upon the misrepresentation if they purchased the stock at the market price during the period between the

69 Id.
70 Halliburton II, 134 S. Ct. at 2406.
71 Id.
72 Id.
73 Halliburton II, 134 S. Ct. at 2407.
74 Id. at 2407 (quoting Dickerson v. United States, 530 U.S. 428, 443 (2005)); id. at 2408–2413.
75 Id. at 2413.
76 Id. at 2414.
77 Id.
misrepresentation and the revelation of the truth. The Court believed that Halliburton’s argument was ultimately rooted in the same evidence the Court rejected when it declined to destroy the Basic presumption.

Having declined to require plaintiffs to prove price impact directly, the Court sought to determine whether defendants could rebut the FOTM presumption using direct price impact evidence. The Court observed that the requirements for the FOTM presumption are useful in establishing price impact indirectly by using the tenets of the efficient market hypothesis, so it would be entirely inconsistent with Basic to bar direct evidence that showed those assumptions did not apply. It is here that the Court creates real or imagined inconsistency, ruling that a presumptively material statement in an efficient market can be rebutted by evidence of no price impact. According to many commentators, this lack of price impact would effectively show a lack of materiality or a lower grade of market efficiency than was proven by the plaintiffs to earn the presumption of reliance.

In their counterargument, the plaintiffs attempted to tie price impact to materiality by asserting that price impact and materiality are similar because price impact is “an objective issue susceptible to common, class-wide proof” and lack of proof would end the action. The Court

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78 Halliburton II, 134 S. Ct. at 2414.
79 Id.
80 Id.
81 Id. at 2415–2416.
82 A particularly relevant passage that many commentators have seized upon is the hypothetical offered in the middle of this analysis which results in a contradiction: “The evidence at the certification stage thus shows an efficient market, on which the alleged misrepresentation had no price impact. And yet under EPJ Fund's view, the plaintiffs' action should be certified and proceed as a class action (with all that entails), even though the fraud-on-the-market theory does not apply and common reliance thus cannot be presumed.” Id. at 2415 (emphasis added).
83 See, e.g. Korsmo, supra note 20, at 867–868 (listing recitations of this general argument).
84 Halliburton II, 134 S. Ct. at 2416; accord Korsmo, supra note 20, at 885–886.
responded by pointing out that price impact is “Basic’s fundamental premise” and without at least indirect proof of it common issues would not outnumber individual ones.  

Part of this analysis included a re-visitation of Amgen, where the Court explained that materiality can be presumed at the class certification stage because it is a “discrete issue that can be resolved in isolation from the other prerequisites” and that this decision does not “risk[] the certification of classes in which individual issues will end up overwhelming common ones.”

As mentioned earlier, the Thomas concurrence was primarily focused on rebutting the Court’s argument for upholding Basic and preserving the FOTM presumption. The concurrence criticized the Court’s reliance on what Justice Thomas believed to be outdated economic theory and the presumption’s perceived inconsistency with FRCP Rule 23. In one notable passage, Justice Thomas noted that “the so-called ‘rebuttable presumption’ is largely irrebuttable.” This language has been quoted in at least one lower-court opinion to justify the burden imposed upon defendants when they attempt to prove no price impact, but it may have been slightly taken out of context.

The statement refers to both the price impact rebuttal method and the defendant’s option to rebut the presumption by proving a lack of individual reliance on the market price by the plaintiff. Individual reliance upon the integrity of the market price is distinct from the concept of the actual statement’s price impact. Without addressing the price impact rebuttal method,

\[85\] Id.
\[86\] Id.
\[87\] Id. at 2419–2424 (Thomas, J., concurring).
\[88\] Id. at 2420 (Thomas, J., concurring).
\[89\] Id. at 2424 (Thomas, J., concurring).
\[91\] Halliburton II, 134 S. Ct. at 2424 (Thomas, J., concurring).
\[92\] See id.
Justice Thomas notes that attempting to prove lack of individual reliance by the plaintiff is “virtually impossible” because the defendants are only capable of attacking the representatives reliance on the market price. Smart plaintiffs lawyers will make sure the class representatives have relied upon the market price, and that reliance will be imputed to the whole class without allowing the defendants to rebut any of the other class members’ individual reliance. Nowhere in this discussion does Justice Thomas directly express his opinion on the viability of the price impact route outside of this individual statement.

All of these cases point to several overarching themes that help to explain the confusion and application in the lower courts. First, the fraud-on-the-market theory evolved to bridge the gap between common-law fraud reliance and open market securities fraud. Second, the Court’s functional distinction between materiality and price impact is not very satisfying for some, as it boils down to a policy preference in favor of plaintiffs. Finally, the Court gave very little substantive guidance on the mechanics of the actual rebuttal inquiry.

II. Lower Court Cases

Through Halliburton II, the Court launched the price impact rebuttal dinghy into the vast ocean of lower court securities litigation. Since its publication, the lower courts have struggled to accurately apply the price impact rebuttal procedure. One of the largest issues is the line between materiality and price impact evidence. As discussed earlier, the consequences are high because Amgen ruled that materiality evidence is inadmissible, even in the FOTM reliance inquiry. While

\[93\] Id.

\[94\] Id. (noting that “[a]t the class certification stage, rebuttal is only directed at the class representatives, which means that counsel only needs to find one class member who can withstand the challenge.”).

\[95\] See id.
other authors have discussed this issue, a few cases or instances have been overlooked in the literature to date. This section will review some instances where parties to the litigation or the court itself has used a materiality argument or applied an analysis that looks like materiality.

The definition of materiality for Section 10(b) and Rule 10b-5 actions has been borrowed by the federal courts from other provisions of the Exchange Act. After divergent approaches emerged in the 1960s and 1970s, the Supreme Court eventually resolved the dispute by defining a fact or statement as material for Rule 14a-9 “if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote.”99 Alternatively, an omission or statement is material if “there is a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.”100 In Basic, the Court embraced this standard for Section 10(b) and Rule 10b-5.101

Some scholars have speculated that Amgen “collapse[d] the distinction between materiality and price impact.”102 The general argument is that in an efficient market with rational investors, price movements should be driven largely by material information. Consequently,

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96 See generally, Ferrell & Roper, supra note 31.
97 ALAN R. BROMBERG, LEWIS D. LOWENFELS, & MICHAEL J. SULLIVAN, 5 BROMBERG & LOWENFELS ON SECURITIES FRAUD § 7:3 (Westlaw, December 2016).
98 5 BROMBERG & LOWENFELS ON SECURITIES FRAUD § 7:11.
100 Id.; see also Roberta Karmel, Disclosure Reform—The SEC Is Riding Off in Two Directions at Once, 71 BUS. LAW. 781, 787 (2016).
101 Basic, 485 U.S. 232; Amgen, Inc., 133 S. Ct. at 1195–1196; 5 BROMBERG & LOWENFELS ON SECURITIES FRAUD § 7:15.
102 Ferrell & Roper, supra note 31, at 564; New Paradigm, supra note 60, at 241.
103 Ferrell & Roper, supra note 31, at 564–566; see also Lipton, supra note 12, at 19 (“there are only three reasons why a public false statement would not influence a securities price…the statement was immaterial…the market already knew the truth… or third, the market was simply not that efficient” even though the plaintiffs were granted that presumption); New Paradigm,
attempts to rebut price impact will become intertwined with whether the “total mix of information made available” to the market changed at the time of the alleged misrepresentation or corrective disclosure.\textsuperscript{104} Courts often use materiality in some form to assess price impact, even though some courts have directly espoused \textit{Amgen}’s rejection of the truth-on-the-market defense during the price impact inquiry and barred defendants from rebutting the fraud-on-the-market presumption.\textsuperscript{105} Lower and appellate court opinions are filled with implicit judgments of materiality during the price impact inquiry, even during the consideration of event study evidence.

\textsuperscript{supra} note 60, at 241–242 (noting that immaterial information should not impact the market price); Korsmo, \textit{supra} note 20, at 867–868.
\textsuperscript{104} Ferrell & Roper, \textit{supra} note 31, at 568 (quoting \textit{TSC Industries, Inc.}, 426 U.S. at 449).
\textsuperscript{105} See \textit{id.}, at 574; see also \textit{Basic at Twenty}, \textit{supra} note 28, at 189–191 (discussing class certification inquiries before \textit{Amgen} was decided).
A. IBEW Local 98 Pension Fund

In *IBEW Local 98 Pension Fund v. Best Buy Co.*, the Eighth Circuit grappled with the materiality of some of the alleged misrepresentations in the case to resolve the issue of whether there was price impact and ultimately found that the circuit court abused its discretion in certifying the class.\textsuperscript{106} The price impact battle between two experts centered on the necessity of front-end price impact, an earnings press release, and a subsequent earnings call the day after the press release.\textsuperscript{107} On the earnings call, the CFO affirmed the substance of the press release that drove a price increase by saying the company was “on track to deliver and exceed our annual EPS guidance.”\textsuperscript{108} The CFO also stated that Best Buy’s earnings are “essentially in line with our original expectations for the year.”\textsuperscript{109} Best Buy later missed its projected earnings targets for the next quarter and had to revise full-year earnings estimates downward.\textsuperscript{110}

During the class certification inquiry, the plaintiffs’ expert observed that “the economic substance” of the press release (a statement protected by safe-harbor provisions) and the CFO’s statements “was ‘virtually the same,’” so because there was no further price impact from the CFO’s statements, the defendants carried their burden.\textsuperscript{111} In the attribution of price impact, the court admitted testimony that asserted the press release and earnings call statements “would have been expected to be interpreted similarly by investors,” which is a materiality argument that

\textsuperscript{106} See 818 F.3d 775, 782 (8th Cir. 2016) (rehearing and rehearing en banc denied, IBEW Local 98 Pension Fund v. Best Buy Co., 2016 U.S. App. LEXIS 10003 (Jun. 1, 2016)).
\textsuperscript{107} Best Buy Co., 818 F.3d at 777–778, 782–783.
\textsuperscript{108} Id. at 778.
\textsuperscript{109} Id.
\textsuperscript{110} Id. at 777.
\textsuperscript{111} Id. at 782.
bears some resemblance to the truth-on-the-market defense.\textsuperscript{112} While this distinction is subtle, the inquiry into materiality and the collateral effects are similar to those that the Court was concerned about in \textit{Amgen}.\textsuperscript{113} Some scholars have also observed that the Eight Circuit’s requirement of front-end price impact was improper because the CFO’s statements were “confirming misrepresentations” and thus the price impact on the date of the corrective disclosure is the proper focus of the inquiry.\textsuperscript{114}

\textbf{B. Regions Financial}

Courts have even found that statistical evidence of no price impact did not preclude a finding of price impact for a corrective disclosure because sell-side analysts included the disclosure in their analyst reports.\textsuperscript{115} In \textit{Regions Financial}, the plaintiffs alleged that Regions Financial used manipulative accounting to hide losses on real estate assets and that these misrepresentations caused the stock price to decline from $23 to $4.60 over the course of a year.\textsuperscript{116} This decline included a 23\% drop on the day of a corrective disclosure in an industry where many banks had lost a significant portion of their market value over the past few months.\textsuperscript{117} The court juxtaposed an event study from the defendant’s expert that showed no price impact against analyst reports describing the impact of the write-downs on earnings-per-share for the quarter and ultimately certified the class, concluding that this was a matter to be left for the

\begin{footnotesize}
\begin{enumerate}
\item \textit{Id.} at 782–783 (noting that the corrective disclosure was irrelevant because “[t]he allegedly ‘inflated price’ was established by the non-fraudulent press release” and quoting the plaintiff’s expert again).
\item See supra notes36–37 and accompanying text.
\item Local 703, 2014 WL 666198 at *1.
\item Id. at *8.
\end{enumerate}
\end{footnotesize}
In using the analyst reports as evidence of price impact, the court made an implicit judgment on the materiality of the statements at issue during the inquiry. A symmetrical argument from the defendants would likely be inadmissible under *Amgen*.

**C. In Re Goldman Sachs Securities Litigation**

The *In re Goldman Sachs Securities Litigation* defendants used both market commentary and event studies in an attempt to rebut price impact. The plaintiffs alleged that the defendants made misrepresentations about conflicts of interest that turned out to be false when federal investigations revealed the details of certain Goldman Sachs CDO transactions. Rooted in the risk disclosures of one of Goldman Sachs’ publicly filed reports, the complaint alleged that some of Goldman’s statements about conflicts of interest were material representations that kept Goldman’s stock price at an artificially high level until the truth about the CDOs and Goldman’s conflicts was revealed. The defendants presented the testimony of three expert witnesses to prove no price impact and refute the argument of the plaintiffs’ expert.

The first expert attempted to show no price impact on one of the alleged dates by asserting that his event study, which showed that the impact was entirely due to the announcement of the SEC’s enforcement action (including scienter charges) and viewed in the

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119 See *Local 703*, 2014 WL 666198 at *7–8


121 *Id.* at *1.


123 *Id.* at *4–5.
context of the volatile enforcement environment, explained the price impact. In rejecting this argument, the court found it dispositive that the expert was not able to conclusively separate out the impact from the actual costs associated with the enforcement action and the allegedly corrective disclosure.

Another expert for the defendants conducted an event study and after finding no statistical significance price impact on 14 of the 18 dates, decided to examine analyst reports and news articles about the company that were written around the time of the alleged corrective disclosure dates. As part of this inquiry, the expert identified 23 “dates on which allegations about Goldman’s…Mortgage/CDO Conflicts were discussed prior to the first alleged corrective disclosure” in the market. He found no statistically-significant residual price movement on any of those dates.

A third expert posited that analysts will comment on any information that impacts the value of a publicly-traded company like Goldman Sachs. Thus, if the revelation that these conflicts did, in fact, exist and Goldman Sachs had misrepresented the risk would impact the company’s value, analysts would have discussed them. As part of this analysis, the expert opined that analysts don’t usually discuss disclosures of this type, because the alleged misrepresentations were “generic in nature.” The expert concluded that because analysts did

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127 Id. at ¶ 56.
128 Id. at ¶ 60.
130 Id.
131 Id.
not discuss any of the misrepresentations, those misrepresentations would not have had price impact. The court rejected this argument as an attempt to prove a lack of materiality (a truth-on-the-market defense) and it was a subject of contention during the oral argument on appeal.

Ironically, the plaintiff’s expert sought to rebut the evidence of the defendant’s first expert by arguing that the defense expert failed to consider news articles published during that time frame which discussed the charges and the serious tone and language those articles used. Furthermore, at least two opposing experts seemed to agree that price impact is caused by a shift in the market’s expectations of cash flow (material information). Ultimately, the court found that the defendants failed to carry their burden and certified the class.

D. Halliburton on Remand

On remand after Halliburton II, the district court in Halliburton held that challenging whether a disclosure is corrective is a truth-on-the-market defense that goes to materiality and so disclosures must be presumed to be corrective. Halliburton sought to show that all the corrective disclosures the plaintiffs alleged were not actually corrective. The court enlisted Basic and Amgen in rejecting this argument, noting that:

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132 Id. ¶62.
133 In re Goldman Sachs Sec. Lit., 2015 WL 5613150, at *6.
134 Oral Argument, In Re Goldman Sachs Sec. Lit., No. 16-00250 (2d Cir. 2017)
136 Id. at ¶204 (“Dr. Gompers also acknowledges that one would not expect price movement of a stock if an omission doesn’t change the expectations of the market concerning the company’s cash flow.”).
137 In re Goldman Sachs Sec. Lit., 2015 WL 5613150, at *7.
139 Id. at 260.
“Basic presupposes that a misrepresentation is reflected in the market price at the time of the transaction. See Halliburton II, 134 S.Ct. at 2416. Thus, [at the class certification stage], the Court concludes that the asserted misrepresentations were, in fact, misrepresentations, and assumes that the asserted corrective disclosures were corrective of the alleged misrepresentations.”

The court further speculated that a determination that the statements were not corrective would end the action, falling back on the functional argument first presented in Amgen. But in a turn of events, this same court ruled that a statement had no price impact by accepting Halliburton’s argument that an alleged corrective disclosure did not contain any new information because that information had already been published previously. Halliburton had initially estimated that the liability for certain asbestos claims would be approximately $60 million, but two weeks later announced $699 million of estimated liabilities in its quarterly report. The plaintiffs expert proffered an event study that showed price movement at a level of significance that was greater than 99%. In response, the defendants expert produced an event study with no statistically significant price impact on the date of the quarterly report and argued that from a valuation standpoint these two numbers were equivalent because the smaller $60 million number was the gross $699 million net of insurance coverage.

In ruling the defendants rebutted the presumption due to evidence of no price impact, the court noted that it was not contradicting its initial prohibition on ruling disclosures were

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140 Id. at 261–262.
141 Id.
143 Id.
144 Id. at 272.
145 Id. at 271–272.
corrective or not corrective as a matter of law because the alleged corrective disclosure at issue “was both already disclosed and caused no statistically significant price reaction.” Proving that disclosures are not corrective as a matter of law is tantamount to the truth-on-the-market defense prohibited by *Amgen*.

The court makes the same kind of decision *Amgen* sought to prevent: it ruled that a statement was immaterial at the class certification stage. This contradicts the functional purpose of the class certification stage as described in previous opinions. The court posited that the evidence of lack of price impact made this judgment proper, but if the defendants had carried their burden based on the price impact evidence, then there would be no need to address the materiality and equivalence of the two statements. Phrased in terms of the *TSC Industries* definition of materiality: the combination of the lack of price impact and evidence from Halliburton that the statements were equivalent, that is, the new statement did not alter the “total mix of information made available” to investors. As discussed in *Amgen*, any ruling on this issue impacts the underlying merits of the actual suit, and diverges from the overarching function of the class certification inquiry.

After the certification of the class, the Fifth Circuit again granted an appeal to consider whether evidence that the disclosures were not corrective was a proper means of providing indirect evidence in accordance with *Halliburton II* and *Amgen*. While both parties are still

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146 *Id.* at 272.
147 *See supra* notes 36–37 and accompanying text.
148 *See supra* notes 48–53 and accompanying text.
150 *See supra* notes 36–37 and accompanying text.
briefing for this case, the Halliburton epic will likely come to an end after 15 years due to a pending settlement.  

**E. Wallace v. Intralinks**

In *Wallace v. Intralinks*, the defendants attempted to couple evidence of no statistically significant price movements with qualitative statement analysis to show no price impact. While this case was decided before *Halliburton II*, the defendants Rule 23(f) appeal was denied after *Halliburton II* was published. The plaintiffs sued Intralinks for not adequately disclosing the risk of losing a major customer, the FDIC, in public statements and filings. While the plaintiffs conceded that a partial disclosure occurred in May of the year in question during a first quarter earnings call, they sought to certify a class that extended to plaintiffs who made purchases up to three days after third-quarter earnings were announced in November. This cutoff date was also two days after the FDIC publicly announced it was discontinuing use of the defendant’s product. The defendants alleged that the November price movements that could reasonably be related to the announcement on those days and not a revision of full-year guidance in the 8-K released on the first day were 0.79% on the first day and 0.11% on the next day. While there was a greater total price drop on the next day, the defendants argued that the price

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156 Id. at 314; see also Gompers Decl., *supra* note 153 at Exhibit 2.

157 Id.

158 Gompers Decl., *supra* note 153, at ¶ 18, Exhibit 2.
only fell 0.79% in the 40 hours between the public announcement from the FDIC and the 8-K accompanying third-quarter results.\(^{159}\)

The defendants’ expert presented evidence that the truth was disclosed in its entirety during the first quarter earnings call and throughout the summer, and therefore the lack of price movement during the November period is consistent with the lack of new information during that period.\(^{160}\) The court rejected these arguments because the defendants could not conclusively rule out other explanations that implicated the alleged misrepresentations from before the class period.\(^{161}\)

The defendants also presented evidence from analyst reports and news articles that purported to show that the market was aware of IntraLink’s difficulties with the FDIC, and thus there could be no attributed price impact on the other three dates.\(^ {162}\) The court did not categorically rule out this evidence but rather opined that “[i]t is difficult to see why the alleged misstatements and omissions would not have impacted the share price.” Because of other qualitative evidence in the record showing that analysts found the disclosures on those dates significant.\(^{163}\) Thus, even in a Second Circuit court it seems that materiality may sometimes be admitted during the price impact inquiry.

**F. In re Intuitive Surgical Securities Litigation**

The *In re Intuitive Surgical Securities Litigation* plaintiffs sued the defendants for misrepresentations concerning the safety of a product and the company’s compliance with the

\(^{159}\) *Id.*

\(^{160}\) *Id.* at ¶¶12, 18, Exhibit 2.

\(^{161}\) *Wallace*, 302 F.R.D. at 318.

\(^{162}\) Gompers Decl., *supra* note 153, at ¶¶ 23–35.

\(^{163}\) *Wallace*, 302 F.R.D. at 317.
FDA. In that case, the plaintiffs alleged a corrective disclosure and a misrepresentation on the same day, but neither the plaintiffs’ nor the defendants’ expert could find a statistically significant price impact. While the defendants did not raise this argument in connection with the specific disclosure, the court noted that it was “not convinced the quarterly financial results were a disclosure at all” and faulted the plaintiffs from not being able to separate out the price impact from that day of the disclosure and misrepresentation. This discussion of whether the statements were a disclosure seems to contradict Amgen’s guidance.

**G. Thorpe v. Walter Inv. Management Corp.**

In *Thorpe v. Walter Investment Management Corp.*, the plaintiffs alleged that the defendants, a mortgage servicing company and its executives, made misrepresentations concerning the controls and compliance at the firm after the acquisition of another mortgage-servicer. In seeking to rebut price impact, the defendants alleged that the corrective disclosure had “no economic link” with the alleged misrepresentations, because the plaintiffs “conflated internal controls of financial reporting [at the parent company] with [the target company’s] servicing policies in procedures.” In rejecting this argument, the court asserted that the plaintiff’s allegations must be accepted as true.

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165 Id. at *2.
166 Id. at *15.
167 Id. at *15–16.
169 Id. at *14.
170 Id.
As a second attempt, the defendants proffered evidence that “no analyst attributed the [price impact] to the alleged corrective disclosure” and the analysts all attributed that impact to “unrelated ‘negative Company-specific information’ including reduced earnings and guidance.” While the court accepted this evidence and the plaintiff’s expert conceded its validity, the defendants presented no empirical evidence and thus could not sever the link by establishing no price impact.

These cases illustrate instances where the parties or the courts seek to resolve the price impact inquiry through the materiality framework. Price impact can only measure the actual change in the stock on that day, adjusted for relevant news and broader market movements the court accepts as evidence. So courts and litigants alike often reach for evidence that likely falls under the category of materiality. Surveys of market commentary is one type of non-statistical evidence used by many parties seeking to understand what analysts attributed price movements to or found significant on that day. Furthermore, courts seem to be split on whether the court itself or the plaintiffs may use evidence of materiality to rebut the defendants’ price impact evidence. While this phenomenon is conceptually inconsistent with the fraud-on-the-market presumption and Amgen, the lack of guidance from the Supreme Court means that it will likely continue.

III. Event Studies: Creating Challenges & Uncertainty in the Price Impact Inquiry

On top of inviting parties to pass judgment on materiality, Halliburton II created uncertainty and an imperfect solution by bolstering what was already a very fact-intensive inquiry at the class certification stage. The Court ruled that defendants should use single-firm

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171 Id.
172 Id. (quoting Aranaz, 302 F.R.D. at 672).
173 See Ferrel & Roper, supra note 31, at 572.
event studies to show lack of price impact, but these studies are associated with unique risks and challenges.

First, certain trading techniques like technical trading or sentiment trading may exaggerate or obfuscate the “true” price movement caused by the material statement and driven by the “reasonable investor” for which Rule 10b-5 actions are maintained. Second, Other company-specific information may obfuscate the price movement. Third, some experts believe that these studies are systemically biased in all uses or in certain market environments. Finally, a plaintiff may be able to exploit the burden of proof to get through the class certification phase and settle the case by alleging an excessive number of event days.

Event studies—and more accurately single-firm event studies—are the primary way to prove lack of price impact at the class certification stage. The first event study for securities markets was proposed by Eugene Fama, Lawrence Fisher, Michael Jensen, and Richard Roll in 1969. Today, these studies use abnormal return, the return attributed specifically to the firm and not to systematic factors, in an attempt to attribute returns that are out of place to the corrective misrepresentation through several steps. First, an expert tries to separate out the effects of the market and the industry by removing the price movement attributable to those broad indices. Second, the expert uses a sample of those “abnormal returns” to determine how

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174 See notes 184–185 infra and accompanying text.
175 See notes 186–194 infra and accompanying text.
176 See notes 195–197 infra and accompanying text.
177 See notes 198–202 infra and accompanying text.
180 Merrit B. Fox, Halliburton II: It All Depends on What Defendants Need to Show to Establish Price Impact, 70 BUS. LAW. 437, 443 (2015).
likely it would be that the return on the date of the alleged misrepresentation or corrective disclosure would occur randomly.\textsuperscript{181} The confidence level chosen is typically 95\%.\textsuperscript{182} As many experts have stated, there are many decision points on the path to a complete event study, and the court’s only remedies are the skill of the other expert, \textit{Daubert}, and reputational risk.\textsuperscript{183}

One challenge courts face in applying event studies is caused by trading strategies that may distort the abnormal return on the days the price impact is centered upon. For instance, high-frequency trading strategies are often designed around liquidity or the depth of the order book and may distort the price.\textsuperscript{184} Furthermore, algorithm-driven strategies based upon riding short-term momentum swings may also exacerbate the reaction of the price to new information.\textsuperscript{185} Thus far, there appears to be no significant discussion by litigants on this issue, and it is difficult to see how these issues would be raised at the class certification stage.

Second, other company-specific information or issues may obfuscate the price impact from the misrepresentation or disclosure. As at least one case has posited, in the context of loss causation, that part of the price movement on a corrective disclosure date may be from the difference between the “ex ante warning of increased risk” and the “ex post materialization of that risk.”\textsuperscript{186}

One of the most notable instances of this analysis was in determining the damages calculation method in \textit{In re BP p.l.c. Securities Litigation}, where the court found the plaintiffs

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\textsuperscript{181} \textit{Id.} at 443–444.
\textsuperscript{182} \textit{Id.} at 442.
\textsuperscript{183} \textit{Id.} at 451.
\textsuperscript{185} Brev \& Heaton, \textit{supra} note 179, at 587.
\end{flushleft}
could only recover for the inflationary statements about the safety procedures in place that presumably applied to the Deepwater Horizon in the Macondo field, but not for the stock losses caused by the drop from the well blowout and oil spill.\textsuperscript{187} The \textit{In re Goldman Sachs Securities Litigation} used a similar theory.\textsuperscript{188} There one of the defendants’ experts argued that the entire price movement was due to the announcement of a particularly aggressive investigation and thus there was a much greater price movement than if the defendants had merely corrected their alleged misrepresentation by stating they had conflicts of interest.\textsuperscript{189}

Finally, in \textit{Strougo v. Barclays PLC}, the defendants made the same argument during class certification.\textsuperscript{190} That case centered on alleged misrepresentations about a dark pool operated by Barclays and the subsequent announcement of an investigation by the New York Attorney General.\textsuperscript{191} As securities litigation is often spawned on the backs of tumultuous events or investigations, this challenge will likely persist in the future.

Like investigations and company-specific events, earnings or other firm-specific news may exacerbate or mask price movement on disclosure dates. Professors Victor Schwartz and Christopher Appel argue that using an industry specific index to remove price impact from information not specific to the firm may be improper, because firms do not all have the same exposure, even if they are in the same industry.\textsuperscript{192} Furthermore, the price impact of the misrepresentation or disclosure at issue may also be obscured by unrelated firm-specific

\textsuperscript{187}\textit{Id.} at 14–15.
\textsuperscript{188} See notes 124 to 125 \textit{supra} and accompanying text.
\textsuperscript{189} \textit{Id.}
\textsuperscript{190} 312 F.R.D. 307, 326–327 (S.D.N.Y. Feb. 2, 2016). Some experts believe the presumption cannot be rebutted in this situation. See Couture, \textit{supra} note 114, at Part V(C) (discussing \textit{Strougo v. Barclays PLC}).
\textsuperscript{191} \textit{Id.} at 310–311.
\textsuperscript{192} Schwartz & Appel, \textit{supra} note 16, at 56.
announcements that day like earnings or revised guidance.\textsuperscript{193} \textit{Wallace v. IntraLinks} is illustrative of this problem, because the defendants’ expert sought to disentangle the price impact of the revised earnings guidance and lower EPS from what he believed was the right range for the price movement for the FDIC disclosure.\textsuperscript{194} This problem may be even more challenging than the one mentioned above because often the misrepresentations are the cause of at least part of the lower earnings guidance.

Finally, several authors have questioned the general reliability of event studies used to prove price impact. At least one expert has posited that the single-firm event study is a statistically unsound adaptation of the more reliable multiple-event study used in econometrics.\textsuperscript{195} Furthermore, commentators seem to disagree over whether traditional single-firm event study methods bias estimates upward or downward given exposure to certain market events or conditions like high volatility or market crashes.\textsuperscript{196} Brev & Heaton have noted that given the 95\% confidence interval, and assuming abnormal returns are normally distributed, the single-firm event study will only detect very large price impacts by dollar amount, so fraud prevention will vary significantly by market cap and volatility.\textsuperscript{197}

The challenge of proving no price impact and the unique dynamics of securities fraud litigation also create a perverse incentive for plaintiffs. Because most class actions are settled

\textsuperscript{193} Id.
\textsuperscript{194} See notes 156–159 \textit{supra} and accompanying text.
\textsuperscript{195} Brev & Heaton, \textit{supra} note 179, at 586.
\textsuperscript{196} See \textit{id.} at 587 (arguing that single-firm event studies systematically overstate the magnitude of price impacts, thus rejecting the null hypotheses in cases where the price impact is in fact statistically insignificant); Baker, \textit{supra} note 178, at 1260; \textit{but see} Urska Velikonja, \textit{Distortion Other Than Price Distortion}, 93 WASH. U.L. REV. 425, 439, 445 (2015).
\textsuperscript{197} Brev & Heaton, \textit{supra} note 179, at 595, Table One (noting that the average publicly-traded firm in the 80\% to 90\% decile by market cap, with a market cap of approximately $6.2 billion and average daily standard deviation of abnormal returns of 1.4\%, a test that required a p-value of 0.05 would only be able to fraud as reflected in the stock price of $171 million or greater).
after the class is certified or after the motion for summary judgment, a plaintiff will likely not have to prove loss causation through price impact. Thus, the only burden of proving no price impact will be on the defendant during the class certification stage. Furthermore, materiality is not challengeable at the class certification stage. This creates an incentive for plaintiffs to allege as many colorable misrepresentations or corrective disclosures as possible, because the likelihood of having to prove any price impact or survive any serious challenge to the statements’ materiality is very low.198 By alleging as many dates as possible, the plaintiff creates a challenging statistical gauntlet for the defendants to run.199 As the number of dates on which increases, so too does the possibility of a single Type I (One) error, assuming the price impact event studies are independent.200

In Halliburton, the effects of this phenomenon were mitigated by the application of a Holm-Bonferroni adjustment, which essentially reduces the possibility of Type I errors by accounting for the number of events in setting the level of significance.201 After some dispute, the court allowed the use of the adjustment.202 This is the only case out of the ten or so cases on price impact post-Halliburton II where a multiple-comparison adjustment has been mentioned in the opinion.

**Conclusion: Finding the Optimum**

198 See ante notes 215–217 and accompanying text.
199 See Halliburton, 309 F.R.D. at 263–266.
200 Id.
201 Id. An alternative to the Holm-Bonferroni adjustment is the Bonferroni Correction, which simply divides the confidence level by the number of comparisons. GORDON S. LINOFF & MICHAEL J.A. BERRY, DATA MINING TECHNIQUES 129–130 (Wiley 3d Ed. 2011). The Holm-Bonferroni adjustment is more powerful, or “more likely to detect an effect if it exists.” Hervé Abdi, Holm’s Sequential Bonferroni Procedure, in 1 ENCYCLOPEDIA OF RESEARCH DESIGN 574 (Neil J. Salkind ed., 2010).
202 Halliburton, 309 F.R.D. at 266.
Information and disclosure are the bedrock of the securities regulation regime. This is an intentional choice that is reflected in the 1933 Securities Act and the disclosure laws and rules that followed it. The Exchange Act ensures that disclosures are regular and ongoing. Through the SEC’s guidance, disclosure protects investors by helping them adequately assess the risk underlying certain investments. Disclosure aids capital formation by reducing the costs of heterogeneous investor expectations through signaling. It helps firms with a low risk profile and financial integrity distinguish themselves from firms with high risk profiles and questionable financials, thereby aiding investors to make an informed decision while reducing the required rate of return for those high quality firms. Without this process, investors would demand higher returns than justified from high-quality firms, while overpaying for low-quality firms. If a box is half-filled with good apples and half-filled with bad apples, no one would pay the full price of a good apple to draw one apple randomly out of the box. If the SEC didn’t mandate disclosure, the best case scenario would be private investor due-diligence that would add to the cost of capital formation. Furthermore, new risks have emerged that seem to support the conclusion that disclosures should be more robust.

204 Karmel, supra note 100, at 781, 784.
207 See Guttentag, supra note 205, at 181.
208 See id.
209 Coffee, supra note 206, at 735–736.
210 See id.
211 See id. at 733.
212 See GEORGE A. AKERLOF & ROBERT J. SHILLER, PHISHING FOR PHOOLS 23–40 (2015) (discussing “reputation mining” and how rating agencies and banks leveraged their sterling
There has been intense pressure to increase the number of disclosures required for publicly-traded companies. While there are good economic cases for disclosure of information in many of these areas, some have more merit than others. While these disclosures are useful for investors, they also increase the reporting expense and litigation exposure for the reporting firm. Some recent cases have centered on relatively generic risk factor disclosures that may not seem material at first blush.

This phenomenon, combined with the pressure on defendants to settle Rule 10b-5 cases, coalesces into a formidable impediment to capital formation. Of the cases that settled before trial between 2007 and 2016, approximately 66% of them settled after the ruling on a motion to dismiss and before a ruling on a motion for summary judgment. A combined 93.5% of cases that were settled before trial during that time period were settled before a ruling on a motion for summary judgment. The pressure is indeed incredible for defendants to settle a Rule 10b-5 class action. As discussed above, the price impact inquiry creates confusion, expense and reputations to capture rents by stamping their imprimatur on mispriced securities like collateralized debt obligations and mortgage-backed securities.

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213 See Karmel, supra note 100, at 790–792 (discussing the movement to force public companies to make environmental disclosures); id. at 800–804 (discussing Publish What You Pay and recent requirements for public companies to disclose payments to foreign government officials); id. at 806–809 (discussing pressure for public companies to disclose political donations); id. at 810–813 (discussing the inception of the cybersecurity disclosure regime and the initial guidance from the SEC).

214 See notes 117, 19 and accompanying text (discussing qualified conflicts-of-interest disclosures that look very similar to what would be found in the “Risk Factors” section of a 10-K).

215 Laarni T. Bulan, Ellen M. Ryan, & Laura E. Simmons, Securities Class Action Settlements: 2016 Review & Analysis, CORNERSTONE RESEARCH, 1, 18 (2017). This data set includes Rule 10b-5, Section 11, and Section 12(a)(2) actions, so it may not be entirely representative of Rule 10b-5 settlements. That being said, 94% of the observations in the data set include a Rule 10b-5 cause of action. Id. at 11.

216 Id.

217 See Pritchard, supra note 13, at 31–32.
uncertainty for both plaintiffs and defendants, compounding the risk and uncertainty for public offerors. It appears that the Court has traded a “mini-trial on the merits for a mini-trial on price impact.” In response, the disclosing firms and their officers may seek to protect themselves through continued regulatory capture or other cost-shifting techniques. A recent example of this is a provision in Delaware law that allows corporations to shift legal fees on to plaintiffs in certain circumstances.

Private securities fraud actions are part of a controlled forest fire. If there are too few class actions, fraud and misinformation will build up as underbrush and rot in the financial system. If there are too many suits, the fire will jump the trenches and burn the entire capital markets forest down. Many experts have expressed skepticism about the efficacy of the private right of action to protect investors in the long run. If the private right of action is not useful for compensating shareholders or deterring director and officer malfeasance in the long run, then it merely increases the cost of raising capital, thus driving a wedge between investors and companies seeking funding in from capital markets. While the price impact query is one small cog in the incredibly complex capital markets machine, the confusion surrounding the guidance from *Halliburton II* suggests that the price impact rebuttal needs to be revisited.

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220 Partial credit is owed to Nassim Taleb for this analogy. The visual is adapted from one he used in Antifragile. See NASSIM NICHOLAS TALEB, ANTIFRAGILE 291–292 (Random House, 2012).

221 See Booth, supra note 9, at 56–57.

222 *Id.*