Testing the Limits of Fraud-on-the-Market

Class Certification Orders in 2025

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NOTICE

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Disclaimer: Contributing author Andrew Roper provided expert testimony in one of the matters discussed in this report, *Daniel Borteanu, et al. v. Nikola Corporation, et al.* (D. Ariz. 2025). Other authors have been involved in a consulting capacity in one or more of the matters discussed in this report. This report is descriptive in nature and does not advocate for any party's position in any of the cases discussed.

I. Executive Summary

A valuable opportunity arises whenever defendants challenge class certification in a federal securities class action and a district court issues an order granting or denying class certification, in whole or in part, outside the context of a settlement agreement. These challenges – and the courts' responses – provide a window into how parties present economic arguments in support of or in opposition to class certification, and how courts evaluate those arguments.

This report provides a systematic review of class certification rulings in 2025, examining the 18 federal district court orders decided outside the context of settlement (the "2025 Class Certification Orders," listed in Appendix A). The report additionally discusses defendants' petitions to appeal these orders under Rule 23(f) in eight of the 18 cases, as well as defendants' appeals in four other matters in which federal appellate courts issued orders in 2025 (listed in Appendix B). These decisions reflect how district courts evaluated defendants' challenges under Rule 23(b)(3) in granting or denying (in whole or in part) plaintiffs' proposed classes of investors.[1] The sample of cases captures the views of a broad set of participants spanning multiple geographies, courts, law firms, and experts.

The analysis in this report identifies the arguments underlying defendants' challenges to predominance under Rule 23(b)(3) and the ways in which district courts evaluated these arguments. In doing so, the report provides a unique vantage point to understand 2025 jurisprudence on class certification in securities litigation. This report does not take a position on the strengths or weaknesses of any particular cases, nor does it attempt to analyze the legal or economic merits of any rulings; rather, it provides a descriptive account.

From this vantage point, the report documents how multiple defendants challenged predominance for reliance and damages using similar arguments. Multiple defendants challenged the applicability of the fraud-on-the-market presumption of reliance by attempting to rebut the three prerequisites of the theory itself: the truth is not on the market, the market is efficient, and the fraud had a price impact. Multiple defendants also argued that plaintiffs failed to specify how they could measure the inflation caused by the alleged fraud.

[1] In these matters, plaintiffs proposed damage classes for investors who purchased or acquired publicly traded stock, debt, notes, or options for alleged violations under Section 10(b) of the Exchange Act of 1934.

The report further examines how different district courts evaluated these recurring arguments. Four themes emerge from the analysis, reflecting both the types of arguments defendants are advancing and the varying ways courts respond to them. Across these themes, defendants' challenges asked courts to evaluate case-specific public information to determine whether classwide methods of proof could be applied:

Theme #1: Some courts engaged with defendants' truth on the market arguments, while other courts deferred adjudication to the merits.

Various defendants challenged predominance for reliance by questioning whether the fraud-on-the-market theory could be applied to a particular case. In some cases, the district court engaged with the information defendants argued was available to investors, and in one case, it limited the class period on this basis. In other instances, different district courts stated that these economic arguments could not be evaluated at the class certification stage, because similar analyses may also be examined in the merits stage as part of the materiality inquiry.

Theme #2: District courts did not deny or limit class certification on the basis of challenges to market efficiency, even when defendants put forward an affirmative argument that markets were inefficient.

Various defendants argued that plaintiffs had not demonstrated market efficiency as required to invoke the fraud-on-the-market presumption under *Basic Inc. v. Levinson* ("*Basic*").[2] Specifically, across four matters involving debt, notes, or options, defendants challenged the analyses that plaintiffs put forward to establish market efficiency. In two additional instances, defendants went further, arguing that the facts of the case indicated that the market for the common stock at issue was *inefficient*. While district courts had denied class certification in prior years after considering similar arguments, no district court denied or limited class certification on the basis that plaintiffs failed to establish market efficiency in the 2025 class certification orders.

[2] *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988).

Theme #3: District courts examined price impact, but only Goldman ATRS-style arguments prevailed.

Various defendants challenged predominance for reliance under Rule 23(b)(3) by arguing that they had rebutted the presumption of price impact following *Halliburton Co. v. Erica P. John Fund, Inc.* (*"Halliburton II").*[3] In some cases, defendants argued there was an informational mismatch between the alleged material misrepresentations and the alleged corrective disclosures that ruled out price impact following *Goldman Sachs Grp., Inc. v. Ark. Tchr. Ret. Sys.* ("*Goldman ATRS"*).[4] In some cases, defendants described how their testifying experts performed economic analyses purportedly rebutting price impact. District courts denied certification in part in three matters on the basis that defendants had successfully rebutted price impact. In all three instances, the district courts denied certification because of an information mismatch following *Goldman ATRS*. While district courts engaged with the other types of economic analyses presented, they were either unpersuaded by the arguments or determined that the arguments should be reserved for trial.

Theme #4: District courts consistently held that the out-of-pocket formula could be used, finding that challenges regarding how inflation would be estimated were either unconvincing or could be resolved at trial.

In multiple matters, defendants called into question whether plaintiffs had properly or fully specified how they intended to measure inflation to calculate damages using the out-of-pocket formula, a common approach that measures damages as the difference between inflation at the time of purchase and inflation at the time of sale. However, district courts in 2025 did not deny or limit class certification on this basis in any matter. District courts consistently described how precedent had determined that the out-of-pocket formula could be applied in past securities cases, and that plaintiffs' experts had adequately described how they intended to estimate inflation for the purposes of class certification. Importantly, 2025 also saw a Sixth Circuit court of appeals decision in *In re FirstEnergy Corp. Securities Litigation* ("*FirstEnergy*"),[5] which overturned class certification and remanded the district court to perform a rigorous analysis of damages as required under *Comcast Corp. v. Behrend* ("*Comcast*").[6] Further, the Fourth and Fifth Circuits granted review to consider the sufficiency of plaintiffs' showing of damages under *Comcast* in *Boeing* and *Cassava Sciences*, respectively.

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[3] *Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258 (2014).

[4] *Goldman Sachs Grp., Inc. v. Ark. Tchr. Ret. Sys.*, 594 U.S. 113 (2021).

[5] *In re FirstEnergy Corp. Securities Litigation,* 149 F.4th 587 (6th Cir. 2025).

[6] *Comcast Corp. v. Behrend,* 569 U.S. 27 (2013).

In conclusion and looking ahead, some of the issues challenged by defendants but deferred by district courts may resurface in the merits phase. Across these themes, defendants raised challenges that ultimately bear on plaintiffs' ability to measure harm as alleged. Some of these challenges were evaluated directly by district courts, while others were deferred to the merits, either explicitly or implicitly. The appellate ruling in the *FirstEnergy* matter demonstrates at least one circuit's preference for addressing more of these challenges at the class certification stage. Challenges that do not ultimately lead courts to impose a barrier to class certification may resurface in the merits phase and/or affect the settlement posture.

This report is organized as follows. **Section II** ("Class Certification Outcomes in 2025") summarizes the outcomes in the cases analyzed. **Section III** ("Recurring Challenges to Predominance Under Rule 23(b)(3)") describes defendants' arguments challenging class certification and district court responses, analyzing the four themes outlined above. **Section IV** concludes and looks ahead.

II. Class Certification Outcomes in 2025

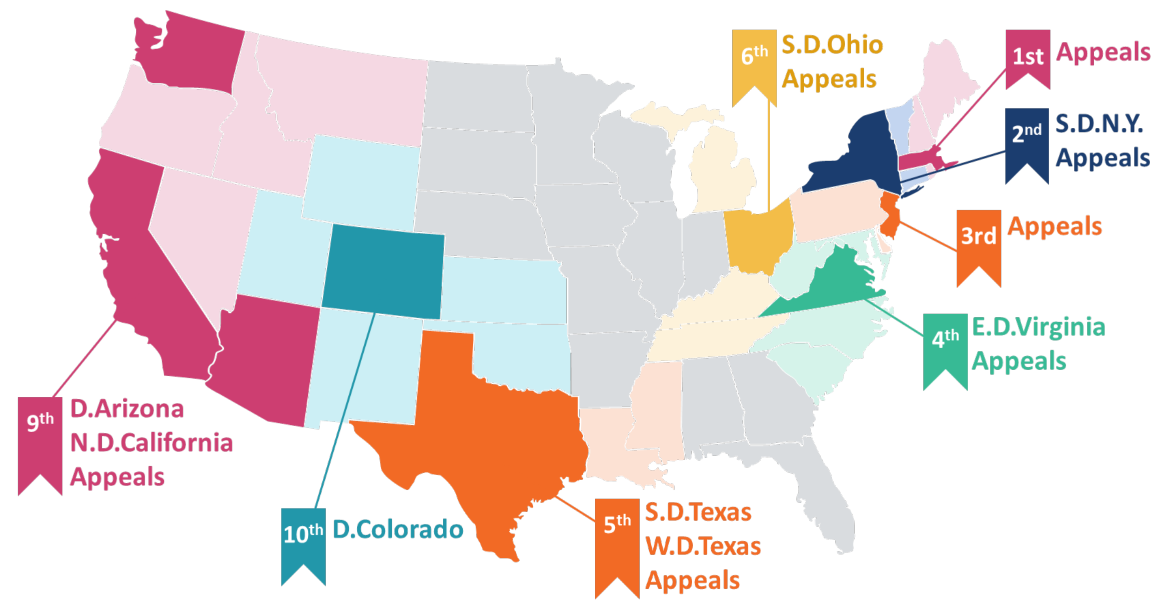
This report analyzes a set of 18 federal district court class certification orders, defendants' petitions to appeal these orders under Rule 23(f) (in eight of 18 cases), and defendants' appeals in four other cases in which federal appellate courts issued orders in 2025; this set of cases was identified through a systematic review of docket entries from Lex Machina. **Appendix A** identifies the final sample of 2025 class certification orders. **Appendix B** identifies defendants' petitions to appeal and appellate court orders. **Appendix C** describes our sample identification process. **Appendix D** provides a bibliography of citations for the court orders and defendants' motions in opposition to class certification discussed.

The jurisprudence in these cases represents a broad set of views contributed by many parties.[7] For example, defendants' challenges were advanced by 27 different law firms and were

[7] Counts on the parties involved were compiled as follows: (1) Defense law firms were identified based on whether the firm appeared in defendants' opposition to class certification filed in the docket; (2) plaintiff law firms were identified based on firms named as plaintiffs' counsel in the district court's order on class certification; (3) defense experts were counted if they submitted expert reports in connection with the defense opposition to class certification; (4) plaintiff experts were counted if they submitted expert reports in connection with plaintiffs' support of class certification; and (5) district court judges were counted if they signed the order. In three cases – *Didi*, *Goldman 1MDB*, and *Natera* – a Report and Recommendation was issued by a magistrate judge; in those instances, the magistrate judge was also included in the count.

supported by testimony from 13 different experts. Plaintiffs were represented by 14 different law firms and supported by testimony from eight different experts. These arguments were evaluated by 18 different district court judges across eight different districts, in six court circuits, and appeals were evaluated by seven circuits (see **Figure 1** below).

FIGURE 1: DISTRICTS AND CIRCUITS REPRESENTED IN THE 2025 CLASS CERTIFICATION ORDERS AND APPELLATE ORDERS



In each of these cases, defendants challenged whether plaintiffs had satisfied their burden to demonstrate predominance under Rule 23(b)(3) – *i.e.*, that common issues must outweigh individual ones for class actions to be certified – for reliance or damages. As described in more detail in **Section III**, defendants argued that the facts of the case indicated that the fraud-on-the-market theory could not be applied to satisfy predominance for reliance and/or that the out-of-pocket measure of damages would not provide a method to quantify harm caused by the alleged fraud on a classwide basis.

> **FINDING**
>
> Class certification was granted in full in most cases (12 of 18). Where courts did not grant certification in full (6 of 18), they did so primarily on the basis of reliance, never on the basis of damages.

In 12 of the 18 class certification orders, federal district courts agreed with plaintiffs that the fraud-on-the-market theory could be applied to satisfy predominance for reliance – or that *Affiliated Ute Citizens of Utah v. United States ("Affiliated Ute")*[8] applied – and that the

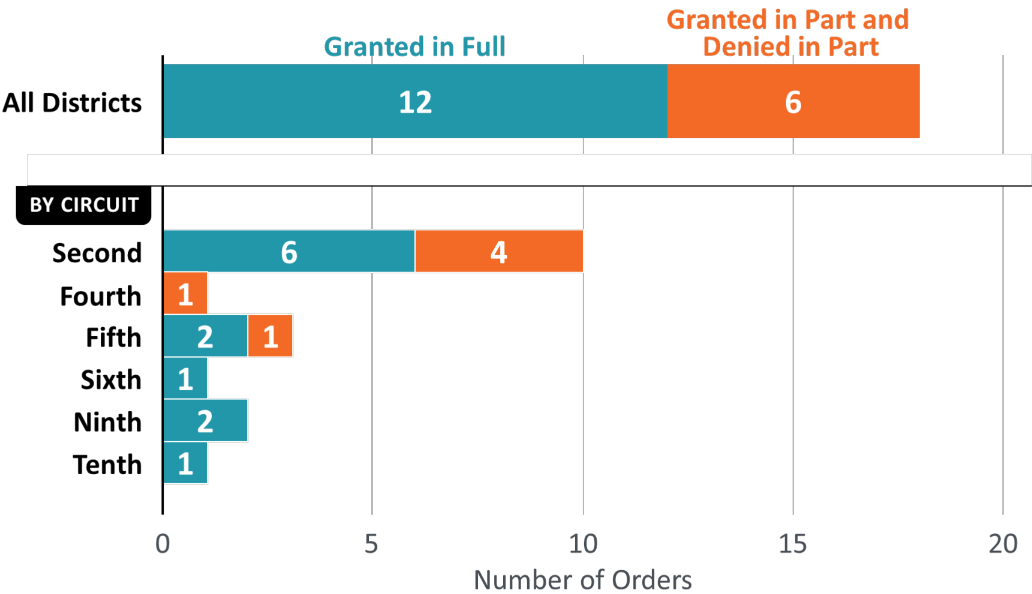
8 *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972).

out-of-pocket measure of damages could provide a classwide method to measure the harm caused by the alleged fraud (see **Figure 2** below).

In the remaining six cases, district courts accepted defendants' challenges under Rule 23(b)(3) in part, granting certification in part and denying it in part. These partial denials occurred across three different federal district circuits: the Second, Fourth, and Fifth.

As discussed in **Section III**, in all six of these cases, defendants argued that plaintiffs had failed to satisfy Rule 23(b)(3)'s predominance requirement with respect to reliance. The district court agreed in part and limited the certified class on this basis.[9] In four of these cases, defendants further argued that plaintiffs failed to satisfy Rule 23(b)(3)'s predominance requirement with respect to damages, but the courts rejected these challenges.

FIGURE 2: JUDICIAL OUTCOMES OF THE 2025 CLASS CERTIFICATION ORDERS



[9] In one of these six cases – *Credit Suisse XIV* – defendants challenged predominance for reliance as well as adequacy of the lead plaintiffs. *Credit Suisse XIV* 2023 Opposition Motion pp. 15–17. The court in this matter denied class certification in part on the basis of adequacy.

WHERE AND HOW COURTS LIMITED CERTIFICATION

In the six cases in which district courts partially granted and partially denied certification, the outcomes were as follows:

- **Truth-on-the-Market.** The district courts in *Boeing* and *National Instruments* certified a shorter class period than was proposed by plaintiffs because the relevant truth was on the market.
  - In ***Boeing***, the district court partially denied class certification and eliminated certain alleged corrective disclosures, holding that plaintiffs failed to establish predominance of reliance for the entire proposed class period because the truth was on the market. [10]
  - In ***National Instruments***, the district court denied certification to investors who sold their shares during a period in which the defendant was not engaged in trading.[11]
- **Price Impact Rebuttal.** The district courts in *Goldman 1MDB, Boeing,* and *Concho* denied certification in part because defendants rebutted price impact for some, but not all, of the alleged material misrepresentations. In these matters, the district courts eliminated certain alleged material misrepresentations, ruling that the fraud-on-the-market theory did not apply to these statements.
  - In ***Goldman 1MDB*** and ***Boeing***, the district court's ruling had the effect of shortening the class period.
  - In ***Concho***, although the court eliminated a subset of the alleged misrepresentations, the surviving alleged misrepresentations included statements made on the first date of the pled class period. As a result, the ruling excluded certain alleged material misrepresentations from class treatment, but it did not change the length of the class period.
- ***Affiliated Ute* Challenge.** In ***DiDi,*** the district court denied certification in part, ruling that plaintiffs were not entitled to the presumption of reliance under *Affiliated Ute* under Section 10(b) for a subset of plaintiffs' claims.[12] The court granted class certification only to the subset of claims for which it found that *Affiliated Ute* applied. The date range and securities covered by the plaintiffs' proposed class were unaltered by the district court's ruling.

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[10] *Boeing* Order p. 5.

[11] *National Instruments* Order pp. 17–18, stating that the class period should be limited to the period in which Defendants' repurchases occurred.

[12] *DiDi* Order p. 5.

- **Conflict Between Subclasses.** The ***Credit Suisse XIV*** matter involved allegedly inflationary misrepresentations (damaging a proposed subclass of purchasers of Credit Suisse XIV Notes) and alleged deflationary manipulation (damaging a proposed subclass of sellers of those Notes). The district court denied certification to the proposed misrepresentation subclass, ruling that there was a "fundamental conflict" between "the classes' theories of liability."[13]

III. Recurring Challenges to Predominance Under Rule 23(b)(3)

Plaintiffs in 10b-5 litigation commonly appeal to *Basic*, arguing that an analysis of case facts indicates that the fraud-on-the-market theory can be applied as a generalized proof of reliance to satisfy predominance under Rule 23(b)(3). Plaintiffs also commonly argue that the out-of-pocket formula can be used as a generalized method to compute damages caused by the alleged fraud.

In **all 18** of the 2025 class certification orders, defendants challenged whether plaintiffs had satisfied predominance.

In **15 of 18** cases, defendants challenged predominance with respect to reliance. Across these 15 separate challenges, multiple defendants argued that the fraud-on-the-market theory did not apply because one of the three prerequisites required by the fraud-on-the-market theory was not met (summarized in **Figure 3** below).[14] The fraud-on-the-market theory requires that:

a. Public information has not corrected or revealed the alleged material fact misrepresented or omitted ("The **truth is not on the market**");

b. Public information is rapidly and fully reflected in price via the efficient market ("The **market is efficient**"); and

c. The alleged material fact misrepresented or omitted impacted the price as alleged ("The fraud had a **price impact**").

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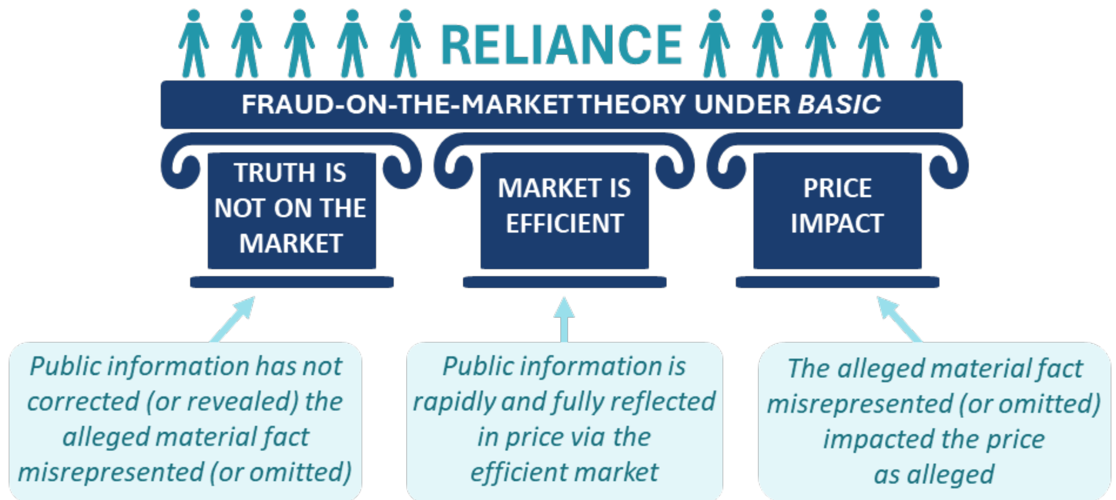
[13] *Credit Suisse XIV* Order pp. 16–17.

[14] Some of these 15 defendants also challenged whether a material misrepresentation could be legally considered an omission, thereby allowing the presumption afforded under *Affiliated Ute* to apply.

Separately, in **13 of 18** cases, defendants challenged predominance with respect to damages.

FIGURE 3: CLASSWIDE RELIANCE UNDER *BASIC* RESTS ON THE THREE PREREQUISITES FOR APPLYING THE FRAUD-ON-THE-MARKET THEORY



A. Truth-on-the-Market Challenges

In five of the 2025 class certification orders (*Credit Suisse XIV*, *DiDi, Boeing*, *Natera*, and *Nikola*), defendants challenged the applicability of the fraud-on-the-market theory in matters where publicly available information had corrected (or revealed) some or all of the allegedly misrepresented (or omitted) material facts. In this report, the term "truth-on-the-market" is used to refer to such challenges.

Defendants' truth-on-the-market challenges focused on the first prerequisite of the fraud-on-the-market theory: the truth is not on the market. The fraud-on-the-market theory provides a generalized method of proof only if the price is impacted by the alleged material misrepresentation or omission.

Of course, the market price is determined by the collective trading activity of investors in the market. Therefore, if the market is efficient and if investors had access to and considered information correcting the alleged material misrepresentations (or supplying the allegedly omitted information) before the alleged corrective disclosure, then the resulting market price could not be impacted by the alleged fraud from that point forward.

In other words, as a matter of economics, price impact can be rebutted by demonstrating that the truth was already on the market.

By challenging the publicity of part or all of the alleged fraud itself, defendants appear to follow the guidance offered by the Court in *Halliburton II*:

> The fact that a misrepresentation was reflected in the market price at the time of the transaction . . . is Basic's fundamental premise. . . That is why, if reliance is to be shown through the Basic presumption, the publicity and market efficiency prerequisites must be proved before class certification. Without proof of those prerequisites, the fraud-on-the-market theory underlying the presumption completely collapses, rendering class certification inappropriate.
>
> But as explained, publicity and market efficiency are nothing more than prerequisites for an indirect showing of price impact. There is no dispute that at least such indirect proof of price impact is needed to ensure that the questions of law or fact common to the class will predominate. . .
>
> Our choice in this case, then, is not between allowing price impact evidence at the class certification stage or relegating it to the merits. Evidence of price impact will be before the court at the certification stage in any event. The choice, rather, is between limiting the price impact inquiry before class certification to indirect evidence, or allowing consideration of direct evidence as well. As explained, we see no reason to artificially limit the inquiry at the certification stage to indirect evidence of price impact.[15]

Writing about the *Halliburton II* decision in the *Duke Journal of Constitutional Law & Public Policy*, Professor Ann Lipton of the University of Colorado Law School noted that the truth-on-the-market challenge to the applicability of the fraud-on-the-market theory as a generalized method of proof for reliance works by severing the link between the fraud and price impact.

> This "truth on the market" corollary to the fraud on the market doctrine grows directly out of Basic. There, the Court explained that the presumption of price distortion might be effectively rebutted if, for example, "the 'market makers' were privy to the truth . . . and thus [] the market price would not have been affected by [defendants'] misrepresentations." In other words, Basic entertained the possibility that an offsetting "truth" about a defendant's fraud might be known only to a segment of the market, but that this knowledge would be sufficient to maintain prices at their proper, un-manipulated levels, even if some individual traders remained fooled. Other courts, by allowing even obscure and scattered bits of nominally public information to defeat the fraud on the market presumption, implicitly seem to agree.[16]

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15 *Halliburton II*, 573 U.S. 258, 283 (2014) (quotations, citations, and alterations omitted).

16 Ann M. Lipton, "Halliburton and the Dog that Didn't Bark," 10 Duke Journal of Constitutional Law & Public Policy 1–25 (2015), p. 6.

In some cases, district courts agreed with these types of arguments from defendants and partially denied class certification, while in other matters, the district courts described being prevented from reaching a determination regarding whether the truth was on the market, following *Amgen Inc. v. Connecticut Retirement Plans and Trust Funds* ("*Amgen*").[17] The *Amgen* court held that the question of materiality is an issue for the merits phase of the case.

Figure 4 below identifies the cases in which federal district courts evaluated defendants' truth-on-the-market arguments and indicates the district court's response. As discussed in the remainder of this section, some defendants argued that the proposed class period should be shortened after the truth was on the market (discussed in **Section III.A.1**), while others made further arguments that price impact could be rebutted because the truth was on the market (discussed in **Section III.A.2**).

FIGURE 4: MULTIPLE DEFENDANTS MADE SIMILAR TRUTH-ON-THE-MARKET ARGUMENTS

Case	Defendants' Argument	District Court Response to Defendants' Argument
Credit Suisse XIV (2nd Cir.)	Shorten Class Period	Deferred adjudication to merits
DiDi (2nd Cir.)	Shorten Class Period	Deferred adjudication to merits
Boeing (4th Cir.)	Shorten Class Period	Rebutted fraud-on-the-market via truth-on-the-market for a subset of alleged misrepresentations
Natera (5th Cir.)	Price Impact Challenge	Deferred adjudication to merits
Nikola (9th Cir.)	Price Impact Challenge	Failed to rebut fraud-on-the-market via truth-on-the-market for any alleged misrepresentations

Note: Orange shading indicates cases in which the district court agreed (in part) with defendants' truth-on-the-market challenges and limited the certified class on that basis.

[17] *Amgen Inc. v. Conn. Ret. Plans & Tr. Funds,* 568 U.S. 455, 464–465 (2013).

1. Defendants Petitioned for a Shortened Class Period Because the Truth Was on the Market

Defendants in *Boeing*, *DiDi,* and *Credit Suisse XIV* argued in their opposition motions that the proposed class should be denied and the class period shortened because the allegedly material misleading facts had been corrected or the allegedly omitted material facts had been previously disclosed during the class period.[18]

The district court order in *Boeing* agreed with the defendants' truth-on-the-market challenge. In that case, the court evaluated the news disclosures in the context of the total mix of information during the class period and determined that the alleged material misleading facts – or the alleged omitted material facts relating to safety-related risk – had been disclosed publicly during the proposed class period, such that the truth was already on the market prior to the final alleged corrective disclosure.

The court therefore denied certification of the full proposed class period but certified a shortened class period, noting that the appropriate end date was when the truth was on the market, i.e., when the alleged material undisclosed safety risk materialized.[19]

FINDING

Multiple defendants argued that the proposed class period should be shortened because the truth was on the market during the class period; some courts agreed with defendants, while others deferred adjudication to the merits.

Defendants in *DiDi* made a similar challenge to shorten the proposed class period, arguing – like in *Boeing* – that the alleged misrepresentations had been corrected, or the allegedly material omitted facts had been disclosed, prior to the end of the proposed class period.[20] However, unlike in *Boeing*, the district court granted certification for the entire proposed class period, based on the Report and Recommendation of a US magistrate judge.

The report described the *DiDi* defendants' argument as "particularly persuasive" given the case facts, but concluded that "ultimately . . . whether those disclosures 'reveal[ed] the falsity' of Defendants' challenged statements is a question of loss causation, which goes to the merits of

18 *Boeing* Opposition Motion p. 30; *Didi* Opposition Motion pp. 23–24; *Credit Suisse XIV* 2023 Opposition Motion p. 19–20.

19 *Boeing* Order p. 5.

20 *DiDi* Opposition Motion pp. 23–24.

Plaintiffs' claim and is not appropriate for consideration at this stage."[21] In this instance, the district judge acknowledged the merits of the defendants' challenge but deferred the adjudication of the issue to the merits.

Defendants in *Credit Suisse XIV* made a truth-on-the-market challenge in arguing for the elimination of one of the two proposed subclasses on the basis that allegedly omitted information was already public before the beginning of that subclass period.[22] The district court found this argument "best deferred for a ruling on the merits."[23]

2. Defendants Argued the Truth Was on the Market to Rebut Price Impact

Defendants in *Natera* made a related challenge to the applicability of the fraud-on-the-market theory. In that matter, defendants argued they had rebutted the presumption of price impact of some or all of the alleged material misrepresentations by showing that the alleged truth was on the market.[24]

In that case, the US magistrate judge's Report and Recommendation described defendants' rebuttal to price impact as "a rose by any other name would smell as sweet, and a truth-on-the-market defense by any other name goes to materiality" and also deferred the adjudication of the issue to the merits, reasoning that the question of whether the truth was on the market or not is one that could be answered the same way for the whole proposed class when loss causation was assessed.[25]

FINDING

Multiple defendants argued that price impact could be rebutted when facts correcting the alleged material misrepresentation (or revealing the alleged omitted facts) were publicly known during the class period, but district courts were either unconvinced or deferred adjudication.

Defendants in *Nikola* also argued that they had rebutted the presumption of price impact of some or all of the alleged material misrepresentations by showing that the alleged truth was on the market.[26] While district courts in *DiDi* and *Natera*

[21] *DiDi* Report and Recommendation p. 14.

[22] *Credit Suisse XIV* 2023 Opposition Motion p. 19–20.

[23] *Credit Suisse XIV* Order pp. 21–22.

[24] *Natera* Opposition Motion pp. 13–14.

[25] *Natera* Report and Recommendation pp. 19–20.

[26] *Nikola* Opposition Motion pp. 2–3.

deferred adjudication of this question to the merits, the district court in *Nikola* was unpersuaded by the defendants' price-impact rebuttal, noting that some of the alleged material misrepresentations were associated with statistically significant stock price changes when they were made.[27]

One additional matter is not included in **Figure 4** above because the defendants did not label their challenge as a truth-on-the-market argument. However, the case – the *ASP Isotopes* matter – is worth discussing because the district court interpreted the defendants' challenge as a truth-on-the-market argument.

In *ASP Isotopes*, defendants attempted to rebut price impact by arguing that the alleged corrective disclosure was a "mismatch" because it merely reiterated previously disclosed information, including disclosures of the alleged truth regarding the defendants' uranium enrichment capabilities.[28]

The district court described the *ASP Isotopes* defendants' rebuttal of price impact as "merely a repackaged truth-on-the-market defense."[29] The court evaluated the disclosures at issue and disagreed with the defendants' challenge, determining that the fraud-on-the-market presumption had not been rebutted because later statements "superseded, contradicted, or undermined the earlier, cautionary disclosure."[30] Specifically, the court found that the company had made additional statements following the alleged truthful disclosures suggesting that disclosed risks relating to uranium enrichment had been "eliminated or overcome,"[31] such that the truth was <u>not</u> on the market.

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[27] Nikola Order p. 24-25.

[28] Because defendants in *ASP Isotopes* explicitly described their challenge as a rebuttal of price impact, this challenge is not included in the tabulation of five challenges asserting the fraud on the market could not be applied because the truth was on the market.

[29] *ASP Isotopes* Order p. 82.

[30] *ASP Isotopes* Order p. 14.

[31] *ASP Isotopes* Order p. 14.

B. Market Efficiency Challenges

In six of the 2025 class certification orders (*Credit Suisse ADS*, *Credit Suisse AT1*, *Waste Management*, *Boeing*, *Cassava*, and *Nikola*), defendants challenged whether plaintiffs had demonstrated market efficiency. These challenges to market efficiency examined the second prerequisite of the fraud-on-the-market theory: public information is rapidly and fully reflected in the price through market efficiency.

Under the fraud-on-the-market theory, the integrity of the market price was purportedly impugned by value-relevant alleged material misrepresentations or omissions. Economic research identifies information as "value-relevant" when it causes investors to change their beliefs regarding the amount, risk, and timing of future cash flows.[32] Economic theory goes on to predict that when arbitrageurs compete to find, analyze, and trade on public information, such price discovery rapidly incorporates the value of any new, unexpected, and value-relevant information available to arbitrageurs into the price.

However, if arbitrage trading is limited or constrained, this mechanism breaks down, and one cannot presume that the actions of arbitrageurs will cause security prices to fully and rapidly reflect all public information. In such circumstances, as a matter of economics, the fraud-on-the-market theory should not necessarily apply, because the integrity of the market price cannot be presumed as a general matter. Thus, by extension, one cannot presume the integrity of the market price was jeopardized solely because the allegedly misrepresented or omitted truth was not on the market. If prices do not generally reflect all public information in the first place, then a truthful but-for representation may not have altered the price.

As summarized in **Figure 5** below, defendants' market efficiency challenges in the 2025 class certification orders spanned cases involving publicly traded stock, debt, notes, and options. The figure illustrates how multiple defendants made similar challenges by either arguing that plaintiffs had failed to demonstrate market efficiency (discussed in **Section III.B.1**), that defendants had demonstrated market inefficiency (discussed in **Section III.B.2**), or both.

Figure 5 also summarizes district court responses to defendants' market efficiency challenges. In five of the six matters, courts found that defendants' critiques of plaintiffs' analyses did not

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[32] Allen Ferrell & Andrew Roper, *Price Impact, Materiality, and Halliburton II*, 93 WASH. U. L. REV. 553 (2015) ("Ferrell & Roper") p. 565.

undermine plaintiffs' overall showing of market efficiency.[33] Instead, courts described how legal precedent determined that an analysis of *Cammer* and *Krogman* factors was sufficient for establishing market efficiency.[34] In one case, *Nikola*, the court found in favor of efficiency for the purposes of granting class certification while noting that the defendants' arguments regarding market inefficiency could still be presented to the jury.[35] In another case, *Cassava Sciences*, the court of appeals for the Fifth Circuit granted defendants' petition for permission to appeal based, in part, on the district court's opinion on market efficiency.[36]

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[33] The one exception is the *Boeing* case, in which the district court did not discuss the defendants' challenge to the plaintiffs' assessment of market efficiency for options. Instead, the court ruled class expansion was procedurally improper for reasons related to insufficient prior pleading and adequacy/typicality of the named plaintiff. *Boeing* Order p. 4.

[34] *See, e.g.*, *Credit Suisse ADS* Order pp. 21–22; *Credit Suisse AT1* Order pp. 21–22, 31; *Waste Management* Order p. 11; *Nikola* Order pp. 20–21; *Cassava Sciences* Order pp. 30–31.

The courts in *Cammer v. Bloom*, and later in *Krogman v. Sterritt*, considered certain features of the securities being evaluated in making their determinations that these securities traded in efficient markets. Since then, plaintiffs attempting to demonstrate market efficiency have frequently provided courts with an assessment of these same lists of features, referred to as the "*Cammer* factors" and "*Krogman* factors." *See Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989); *Krogman v. Sterritt*, 202 F.R.D. 467 (N.D. Tex. 2001).

[35] *Nikola* Order p. 21.

[36] *Cassava Sciences* Petition to Appeal pp. 17-18; *Cassava Sciences* Order Resolving Appealability.

FIGURE 5: MULTIPLE DEFENDANTS MADE SIMILAR ARGUMENTS CHALLENGING EFFICIENCY

Case	Defendants' Argument	District Court Response to Defendants' Argument
Credit Suisse ADS (2nd Cir.)	**Bonds and Options**: Insufficient number of events; fails to analyze distinct economic characteristics of each bond and option	Failed to rebut market efficiency
Credit Suisse AT1 (2nd Cir.)	**Bonds**: Subjectively selected events; fails to analyze distinct economic characteristics of each bond	Failed to rebut market efficiency
Waste Management (2nd Cir.)	**Bonds**: Insufficient number of events	Failed to rebut market efficiency
Boeing (4th Cir.)	**Options**: Fails to analyze distinct economic characteristics of each option	Procedurally improper to expand class to options
Cassava Sciences (5th Cir.)	**Common Stock**: Indicia of market inefficiency	Failed to rebut market efficiency (appealability granted on this basis)
Nikola (9th Cir.)	**Common Stock**: Subjectively selected events; indicia of market inefficiency	Failed to rebut market efficiency[37]

1. Defendants Argued Plaintiffs Failed to Prove Market Efficiency

Defendants in *Credit Suisse ADS* and *Waste Management* argued that plaintiffs had failed to examine a sufficient number of well-defined events to reliably demonstrate market efficiency using commonly available methods because *plaintiffs only examined one or two disclosures at the end or after the proposed class period*.[38]

This argument echoes the advice of Professor Eugene Fama, a Nobel Prize winner in economics and father of the efficient market hypothesis, who said that the best way to test whether markets are efficient is to *accumulate* evidence of efficiency by conducting event studies:

> In general, semi-strong form tests of efficient markets models are concerned with whether current prices "fully reflect" all obviously publicly available information. Each individual test, however, is concerned with the adjustment of security prices to one kind of

[37] The district court also stated that while the plaintiffs' expert analysis may not have been perfect, it could still be challenged at trial. *Nikola* Order p. 21.

[38] *Credit Suisse ADS* Opposition Motion, p. 19; *Waste Management* Opposition Motion, p. 1.

> information generating event (e.g., stock splits, announcements of financial reports by firms, new security issues, etc.). Thus each test only brings supporting evidence for the model, with the idea that by accumulating such evidence the validity of the model will be "established."[39]
>
> The cleanest evidence on market-efficiency comes from event studies, especially event studies on daily returns. When an information event can be dated precisely and the event has a large effect on prices, the way one abstracts from expected returns to measure abnormal daily returns is a second-order consideration. As a result, event studies can give a clear picture of the speed of adjustment of prices to information.[40]

An important step in performing an event study is identifying well-defined information events to study. As summarized by Dr. David Tabak and Dr. Frederick Dunbar in their paper "Materiality and Magnitude: Event Studies in the Courtroom," the events in an event study must be well-defined news items that arrive at a known time, which are unanticipated by the market.[41] If well-defined news events are selected objectively, and without knowledge of whether prices actually changed in response to the news, then researchers can create a reliable event study and test whether security prices changed as expected under the efficient market theory, given the new and unexpected information examined.

However, if the researcher fails to properly specify the event(s) being examined *ex ante*, then the entire exercise becomes circular, and they are unable to reliably demonstrate that prices changed rapidly and fully as would be expected in an efficient market.

FINDING

Multiple defendants made similar arguments about how plaintiffs' economic analyses failed to prove market efficiency, but district courts were unconvinced.

Defendants in *Credit Suisse AT1* and *Nikola* also argued that plaintiffs' event study analyses were insufficient to demonstrate market efficiency. However, whereas defendants in *Credit Suisse ADS* and *Waste Management* questioned whether the number of selected events was sufficient, defendants in *Credit Suisse AT1* and *Nikola* challenged how the events were selected and whether

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[39] Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. OF FIN. 383 (1970) ("Fama (1970)"), p. 404.

[40] Eugene F. Fama, Efficient Capital Markets: II, 46 J. OF FIN. 1575 (1991) ("Fama (1991)"), p. 1607.

[41] David A. Tabak and Frederick C. Dunbar, "Materiality and Magnitude: Event Studies in the Courtroom," *Litigation Services Handbook: The Role of the Financial Expert*, 3rd ed., Roman Weil, et al., (New York: John Wiley & Sons, Inc., 2001), Chapter 19.

they were objectively defined as information events, as required in economic scholarship.[42]

These challenges argued that plaintiffs' analyses were unreliable because, rather than being based on objective methods, they relied too heavily on hindsight bias. Effectively, defendants argued that plaintiffs' event study was rigged to show cause and effect by hindsight, such that the analysis cannot provide a reliable and objective test of efficiency following the scientific method.

While the defendants in *Waste Management* characterized previous district court rulings as holding that event studies examining only one or two days were insufficient to establish market efficiency, district courts rejected such challenges in 2025.[43]

The court in *Waste Management* acknowledged this limitation but found that the plaintiffs' event was "helpful in suggesting a cause and effect relationship," albeit with "limited probative value in proving market efficiency."[44] The court in *Credit Suisse AT1* acknowledged the defendants' argument that the plaintiffs' expert included one event that could be biased, but opined that the inclusion of this individual event did not change the overall conclusions of the plaintiffs' event-study analysis of other events.[45] The court in *Nikola* stated that the plaintiffs had "adequately" addressed each of the defendants' claimed flaws, and noted that while the plaintiffs' expert analysis may not have been perfect, it could still be challenged at trial.[46]

In cases involving bonds, notes, or options, some defendants additionally criticized plaintiffs' analyses of efficiency for failing to account for the distinct economic characteristics of each instrument. For example, defendants in *Credit Suisse ADS* argued that plaintiffs analyzed only a subset of options contracts and inappropriately pooled their analyses of bonds.[47] Defendants in *Credit Suisse AT1*, *Boeing*, and *Waste Management* similarly criticized plaintiffs for performing an aggregated assessment of efficiency across multiple bonds or option contracts rather than assessing them individually.[48] The district courts were unpersuaded by these arguments.

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[42] *Credit Suisse AT1* Opposition Motion p.19; *Nikola* Opposition Motion p. 7–8.

[43] *Waste Management* Opposition Motion pp. 1, 9.

[44] Waste Management Order p. 20.

[45] *Credit Suisse AT1* Order pp. 27-28.

[46] *Nikola* Order p. 21–22.

[47] *Credit Suisse ADS* Opposition Motion pp. 18–19.

[48] *Credit Suisse AT1* Opposition Motion p. 18; *Boeing* Opposition Motion p. 26; *Waste Management* Opposition Motion pp. 12–13.

2. Defendants Argued Some Markets Were Inefficient

Defendants in *Cassava Sciences* and *Nikola* argued that the common stocks at issue traded in *inefficient* markets during the class period.[49] These defendants' arguments for market inefficiency were based on findings in economic scholarship.

For example, as noted by Professor Andrei Shleifer of Harvard University, a John Bates Clark Medal winner, and Robert Vishny, the Myron S. Scholes Distinguished Service Professor of Finance at the University of Chicago, market efficiency may not be achieved when profit-seeking arbitrageurs become discouraged or prevented from trading:

> When arbitrage requires capital, arbitrageurs can become most constrained when they have the best opportunities, i.e., when the mispricing they have bet against gets even worse. Moreover, the fear of this scenario would make them more cautious when they put on their initial trades, and hence less effective in bringing about market efficiency. This article argues that this feature of arbitrage can significantly limit its effectiveness in achieving market efficiency.[50]

Consistent with this reasoning, defendants in *Nikola* argued that trading restrictions discouraged short sellers from disciplining the market price. They contended that, as a result of a short squeeze, trading restrictions prevented shares from being lent to short sellers. The district court acknowledged the defendants' challenge, stating "[d]efendants counterargue that . . . arbitrageurs were unable to trade on available information and . . . Nikola's stock price did not reflect downside pessimistic views."[51]

However, the court determined that the merits of the defendants' inefficiency argument should be determined by the jury itself:

> At this juncture, the Court's role is not to nitpick, line by line, the competing expert reports offered by the parties. For the purposes of a motion for class certification, this Court reiterates the Supreme Court's admonishment that "[m]erits questions may be considered to the extent—but only to the extent—that they are relevant to determining whether the Rule 23 prerequisites for class certification are satisfied." Amgen, 568 U.S. at 466.
>
> It is clear that Defendants disagree with [plaintiffs' expert] opinions regarding arbitrage opportunities, but their disagreement does not warrant wholesale exclusion of those opinions—to the contrary, it would be an impermissible invasion into the province of the jury to decide whether to afford [plaintiffs'] or [defendants'] expert opinions more weight,

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49 *Cassava Sciences* Opposition Motion p. 3; *Nikola* Opposition Motion p. 1.

50 Andrei Shleifer and Robert W. Vishny, "The Limits of Arbitrage," *Journal of Finance* 52(1) (March 1997): 37.

51 *Nikola* Order p. 16-17.

> so long as the Court is satisfied that the threshold admissibility requirements of Rule 702 have been met. The Court is so satisfied here.[52]

In *Cassava Sciences*, the defendants argued that market efficiency was not achieved because the stock was a so-called "meme stock," characterized by the "stock's extreme volatility divorced from value-relevant news."[53] In making this challenge, the defendants appealed to economic research:

> Numerous academics and market observers, however, have recognized that the meme stock phenomenon raises serious implications for market efficiency, concluding that affected stocks often behave in a manner inconsistent with efficiency.[54]

FINDING

Multiple defendants made similar arguments describing how limitations to arbitrage activity prevented price discovery resulting in market inefficiency, but district courts were either unconvinced or acknowledged that efficiency could be challenged again later.

The district court in *Cassava Sciences* found that there was no legal basis to depart from evaluating efficiency based on the *Cammer* factors, regardless of whether Cassava common stock was considered a meme stock.[55] In evaluating the defendants' argument, the court also noted that the defendants' expert had not opined that Cassava's stock was a meme stock, nor that it traded in an inefficient market.[56]

Defendants in *Cassava Sciences* petitioned for permission to appeal under Rule 23(f), asking the appellate court to reconsider the district court's order, in part due to the court's assessment of market efficiency.[57] The appellate court in this case granted appealability, indicating the appellate court's determination that the certification ruling warrants further review.[58] Looking ahead, the appellate court's ultimate determination on this case will indicate whether and to what extent courts are willing to rely on economic analyses beyond *Cammer* and *Krogman*.

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52 *Nikola* Order p. 17.

53 *Cassava Sciences* Opposition Motion p. 1.

54 *Cassava Sciences* Opposition Motion p. 5.

55 *Cassava Sciences* Order p. 30.

56 *Cassava Sciences* Order p. 31.

57 *Cassava Sciences* Petition to Appeal pp. 17-18.

58 *Cassava Sciences* Order Resolving Appealability.

C. Price Impact Challenges

In 11 of the 18 2025 class certification orders, defendants argued they had rebutted price impact for some or all of the alleged material misrepresentations. These rebuttals of price impact follow *Halliburton II*'s invitation to explore the third prerequisite of the fraud-on-the-market theory: the alleged material misrepresentation impacted the price.

Under the fraud-on-the-market theory, the integrity of the price is impugned only if the price observed in the market differs from what it would have been had the alleged truth been publicly known. As discussed previously, economic research identifies information as "value-relevant" when it causes investors to change their beliefs about the amount, risk, and timing of future cash flows. This economic concept of value relevance is a distinct concept from legal materiality.

Researchers have described how economic theory indicates that news deemed to be legally material may not be value-relevant. If the news is not legally material and value-relevant, then the efficient market hypothesis predicts that price will not be impacted because arbitrageurs lack the profit incentive to trade that is required for them to discipline prices and ensure that prices rapidly and fully reflect allegedly fraudulent material news. As described by Professor Allen Ferrell, the Greenfield Professor of Securities Law at Harvard Law School, and Dr. Andrew Roper (contributing author in this report):

> …Accordingly, cases involving material misrepresentations that are not value relevant as a matter of economics could therefore represent potential scenarios in which the legal definition of materiality and the economic question of price impact could potentially diverge.
>
> However, this potential distinction between materiality and price impact may be less relevant in class action securities cases in which plaintiffs invoke the Basic Inc. fraud-on-the-market presumption. The Court in Halliburton II emphasized that the presumption of reliance can prevail because an alleged material misrepresentation is presumed to have impacted price in an efficient market.48 Therefore, Halliburton II may limit the appropriateness of class treatment to those cases in which the alleged material misrepresentations are of the type that one would expect to impact price.[59]

[59] Ferrell & Roper, p. 568.

As depicted in **Figure 6** below, multiple defendants made similar arguments attempting to rebut price impact. For example, in *ASP Isotopes*, *Goldman 1MDB*, *Boeing*, and *Concho,* defendants argued there was an informational mismatch between the alleged material misrepresentations and the alleged corrective disclosures that ruled out price impact, citing *Goldman ATRS*. In *Goldman 1MDB, Cassava, Natera, and Nikola*, defendants also offered direct evidence rebutting price impact by describing additional analyses conducted by testifying experts, following *Halliburton II*.[60]

In some of these matters, the defendants' experts performed additional economic analyses to support price impact arguments. Multiple defendants argued that a truthful substitute for the alleged material misrepresentation would not have caused prices to change but for the fraud, because other similar actual disclosures that were made during the class period had not caused prices to change. Multiple defendants also examined whether equity analysts changed their beliefs about each company's financial condition following either the alleged corrective disclosures or other disclosures of information related to the alleged fraud. These analyses sought to demonstrate that market participants did not change their assessment of price when the alleged truth became publicly known.

Figure 6 further summarizes district court responses to defendants' argument rebutting price impact. In three matters, courts partially denied certification on the basis of defendants' price impact arguments. In all three instances, the defendants argued that there was an information mismatch following *Goldman ATRS*. As described in more detail below, while district courts engaged with the other types of economic analyses presented, they were either unpersuaded by the arguments or determined that they should be held for trial.

In addition to the 2025 class certification orders, there were three additional matters in which appellate courts issued orders in 2025 regarding defendants' appeals of class certification orders in prior years. Defendants in *Biogen*, *Johnson & Johnson*, and *Zillow* asked appellate courts to re-examine their arguments regarding price impact.

In *Biogen*, defendants petitioned for permission to appeal the district court's order granting certification, arguing a lack of price impact evidenced by the absence of both "front end" and "back end" price movements. The appellate court denied the appealability.[61]

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[60] *Halliburton II*, 573 U.S. 258.

[61] *Biogen* Petition to Appeal p. 1; *Biogen* Order Resolving Appealability.

In *Johnson & Johnson* and *Zillow*, defendants also appealed class certification, arguing they had rebutted price impact following *Goldman ATRS*.[62] In both cases, the appellate courts granted review but ultimately affirmed the district courts' orders granting class certification. In *Zillow*, the court of appeals for the Ninth Circuit found that the information revealed on the alleged corrective disclosure dates was "sufficiently related" to the facts that were allegedly misrepresented.[63] In *Johnson & Johnson* – in a non-precedential decision – the court of appeals for the Third Circuit affirmed the district court's order granting certification, finding that price impact had not been rebutted because the alleged corrective disclosure was "related" to the alleged misrepresentations and because the stock price moved significantly on this day.[64] Notably, one circuit judge dissented, concluding that the district court failed to properly engage with the specific facts disclosed versus those alleged to have been misrepresented.[65]

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62 *Johnson & Johnson* Petition to Appeal p. 13; *Zillow* Petition to Appeal p. 12.

63 Zillow Order Resolving Appeal pp. 4–5.

64 *Johnson & Johnson* Order Resolving Appeal pp. 10–12.

65 Johnson & Johnson Order Resolving Appeal, dissenting opinion by Chung, Circuit Judge, p. 1.

FIGURE 6: MULTIPLE DEFENDANTS MADE SIMILAR ARGUMENTS REBUTTING PRICE IMPACT

Case	Defendants' Argument	District Court Response to Defendants' Argument
ASP Isotopes (2nd Cir.)	Mismatch	Failed to rebut price impact for any alleged misrepresentations
Credit Suisse ADS (2nd Cir.)	Additional economic analyses	Failed to rebut price impact for any alleged misrepresentations
Waste Management (2nd Cir.)	Mismatch	Failed to rebut price impact for any alleged misrepresentations
Credit Suisse XIV (2nd Cir.)	Truth-on-the-market	Failed to rebut price impact for any alleged misrepresentations
DiDi (2nd Cir.)	Truth-on-the-market	Failed to rebut price impact for any alleged misrepresentations
Goldman 1MDB (2nd Cir.)	Mismatch; Additional economic analyses	Rebutted price impact for subset of alleged misrepresentations
Boeing (4th Cir.)	Mismatch; Truth-on-the-market	Rebutted price impact for subset of alleged misrepresentations
Cassava Sciences (5th Cir.)	Additional economic analyses	Failed to rebut price impact for any alleged misrepresentations
Natera (5th Cir.)	Truth-on-the-market; Additional economic analyses	Failed to rebut price impact for any alleged misrepresentations
Concho (5th Cir.)	Mismatch; Additional economic analyses	Rebutted price impact for subset of alleged misrepresentations
Nikola (9th Cir.)	Truth-on-the-market; Additional economic analyses	Failed to rebut price impact for any alleged misrepresentations

Note: Orange shading indicates cases in which the district court agreed (in part) with defendants' challenges to price impact and limited the certified class on that basis.

1. Defendants Argued There Was a Mismatch per *Goldman ATRS*

Defendants in *ASP Isotopes*, *Waste Management, Goldman 1MDB, Boeing*, and *Concho* argued that some or all of the alleged material misrepresentations did not align with the alleged corrective disclosures.[66]

As described in *Goldman ATRS*, the mismatch question is important to examine because the reason for a price decline – whether it is due to correction of the alleged fraudulent information, as opposed to other information – is an important inquiry in price impact analysis:

> The generic nature of a misrepresentation often will be important evidence of a lack of price impact, particularly in cases proceeding under the inflation maintenance theory of securities fraud. Under that theory, price impact is the amount of price inflation maintained by an alleged misrepresentation—in other words, the amount that the stock's price would have fallen without the false statement. Plaintiffs typically try to prove the amount of inflation indirectly: They point to a negative disclosure about a company and an associated drop in its stock price; allege that the disclosure corrected an earlier misrepresentation; and then claim that the price drop is equal to the amount of inflation maintained by the earlier misrepresentation. But that final inference—that the back-end price drop equals front-end inflation—starts to break down when there is a mismatch between the contents of the misrepresentation and the corrective disclosure. That may occur when the earlier misrepresentation is generic and the later corrective disclosure is specific. Under those circumstances, it is less likely that the specific disclosure actually corrected the generic misrepresentation, which means that there is less reason to infer front-end price inflation—that is, price impact—from the back-end price drop.[67]

Specifically, defendants in *ASP Isotopes* and *Goldman 1MDB* argued that the alleged corrective disclosure failed to provide specific information correcting the purportedly fraudulent information in the alleged material misrepresentation.[68] Defendants in *Concho* similarly argued that the corrective disclosure failed to correct certain alleged misrepresentations and that some alleged material misrepresentations described information that was too generic to have been corrected by the specific information revealed in the alleged corrective disclosures.[69]

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[66] In the *Dentsply Sirona* matter, defendants raised a mismatch argument as a challenge to damages (rather than reliance). The district court in that case did not deny or limit class certification on that basis. *Dentsply Sirona* Order pp. 4–5.

[67] *Goldman ATRS*, 594 U.S. 113, 123 (2021).

[68] *ASP Isotopes* Opposition Motion p. 1; *Goldman 1MDB* Opposition Motion pp. 13–14.

[69] *Concho* Opposition Motion pp. 14, 18, 19–20.

Defendants in *Boeing* cited *Goldman ATRS* in arguing that the plaintiffs could not argue price impact under an inflation-maintenance theory.[70]

In these instances, defendants asked district courts to evaluate whether the news disclosed in the alleged corrective disclosure corrected the alleged false and misleading information or provided the alleged material omitted information for the market to evaluate. While this question may be relevant to establish loss causation, it must also be asked to rebut price impact when the alleged fraud maintains inflation by preventing truthful information from being revealed. In such challenges to price impact, including truth-on-the-market challenges, courts were asked to evaluate the total mix of information to determine whether newly-disclosed information corrected the alleged misstatements or revealed the omitted facts.

FINDING

Multiple defendants argued that there was a mismatch between the contents of the alleged material misrepresentation and the alleged corrective disclosure, which prevented plaintiffs from relying on an inflation-maintenance theory of price impact under the fraud-on-the-market theory; some courts were convinced.

District courts generally accepted this invitation to examine the total mix of information on a statement-by-statement basis to determine whether there was a mismatch. For example, the district court in *ASP Isotopes* evaluated the total mix of information, but disagreed with the defendants' mismatch argument.[71] By contrast, the district court in *Concho* also analyzed the total mix of information and partially agreed with the defendants' mismatch challenge. In this instance, the court described how it had considered the defendants' testifying expert's economic analysis in agreeing with the defendants' mismatch challenge.[72]

Meanwhile, the district court in *Boeing* evaluated the total mix of information and agreed with the defendants that an inflation-maintenance theory does not apply, therefore eliminating one (but not all) of the alleged misrepresentations and truncating the class period.[73] The Report and Recommendation of the US magistrate judge in *Goldman 1MDB* also stated that it had "reviewed each of the other alleged misstatements" and agreed with the defendant's mismatch

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[70] *Boeing* Opposition Motion p. 27. Courts have described how challenges to the inflation-maintenance theory are, in essence, a mismatch challenge of the type set out in *Goldman ATRS*. *See e.g., Concho* Order pp. 22–23.

[71] *ASP Isotopes* Order p. 83.

[72] *Concho* Order p. 35.

[73] *Boeing* Order pp. 4–5.

challenge for some (but not all) of the alleged material misrepresentations.[74] The district court in *Waste Management* did not discuss the defendants' mismatch argument.[75]

2. Defendants Described How Additional Economic Analysis Rebutted Price Impact

Defendants also engaged their own testifying experts to conduct economic analyses to determine whether the alleged material misrepresentations impacted prices. In these instances, defendants argued that these additional economic analyses had rebutted price impact.

a. Multiple Defendants Described Analysis Suggesting Truthful Substitutes Did Not Cause Prices to Change

Multiple defendants argued that their testifying experts had concluded that the disclosure of "truthful substitutes" would not likely impact price because similar disclosures had not caused prices to change during the class period.

For example, as noted by the US magistrate judge in *Goldman 1MDB*, when the information content of the alleged corrective disclosure fails to match that of the alleged material misrepresentation, defendants can challenge the presumption of price impact by examining whether other truthful disclosures moved prices:

> One way to test for whether a misstatement propped up the value of stock is to test whether it resulted in an uptick in the stock price, or "price inflation." Id. at 100; Vivendi, 838 F.3d at 259. Where there is a mismatch in generality between the initial misstatement and the corrective disclosure, courts evaluate whether a truthful substitute to the misstatement, at the same level of generality as the misstatement, would impact the price. ATRS IV, 77 F.4th 98-99. If the corrective disclosure does not specifically address the misstatement as false, the truthful substitute should at least align with the misstatement in genericness such that an assessment can made to its impact on price.[76]

In *Goldman 1MDB*, defendants argued that their testifying expert had conducted an event study of disclosures during the class period, which demonstrated how information *related to the alleged truth* did not cause prices to change:

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[74] *Goldman 1MDB* Report and Recommendation p. 32.

[75] *See generally Waste Management* Order. *See also Waste Management* Opposition Motion p. 20.

[76] *Goldman 1MDB* Report and Recommendation p. 28.

> Here, the Court need not speculate about how the market would have reacted to a "truthful substitute" because information constituting truthful substitutes for the four categories of alleged misstatements was released repeatedly during the class period. That the stock price did not react to these disclosures demonstrates unequivocally that none of the alleged misstatements had inflation-maintaining capacity; otherwise, these truthful substitutes would have caused the artificial inflation to have dissipated.[77]

Defendants in *Nikola* went further, arguing that their testifying expert had shown how the specific facts alleged to have been materially misleading or omitted did not cause prices to change when they became publicly known during the class period prior to the alleged corrective disclosures.

In both instances, the district court argued that the defendants' truthful substitute failed to disclose the specific fraud as alleged. In *Goldman 1MDB*, the court compared the information contained in the disclosures *related to the alleged truth* that had been examined by the defendants' testifying expert and concluded that none of the substitutes revealed the specific fact alleged to have been concealed regarding Goldman's potential knowledge of misconduct.[78] The district court in *Nikola* similarly disagreed with defendants' analysis of disclosures containing *the specific facts alleged to have been materially misleading or omitted,* noting that the disclosures examined by the defendants did not fully reveal the fraud as described by plaintiffs and therefore did not sever "the link between the alleged misrepresentation … and the price paid has been [severed]."[79]

FINDING

Multiple defendants made additional economic arguments providing direct evidence rebutting price impact, including examination of truthful substitutes and appeals to equity analysts, but district courts were unconvinced.

b. *Multiple Defendants Described How Equity Analysts Did Not Attribute a Price Impact to Information Identified in the Alleged Truth*

In rebutting price impact, defendants in *Cassava Sciences*, *Natera*, and *Nikola* examined whether equity analysts changed their beliefs about the companies' financial conditions following alleged corrective disclosures. In *Cassava Sciences*, the defendants argued that equity analysts did not change their valuations following the release of allegedly corrective information.[80] In *Nikola*, the defendants argued that equity analysts did not change their

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77 Goldman 1MDB Opposition Motion p. 18.

78 *Goldman 1MDB* Report and Recommendation pp. 36–37.

79 *Nikola* Order, p. 23–24.

80 *Cassava Sciences* Opposition Motion p. 14.

valuations or production timelines following the release of alleged corrective disclosures.[81] Similarly, in *Natera*, the defendants reported that equity analysts did not change their revenue forecasts following the alleged corrective disclosures.[82]

In these cases, defendants attempted to rebut price impact by arguing that the price declines observed following alleged corrective disclosures are not dispositive of the price impact of the alleged material misrepresentations. Defendants framed this argument by first describing plaintiffs' theory – that the alleged fraud caused market participants to change their beliefs about the company's financial condition – and then tested whether equity analysts actually changed their beliefs. Defendants contended that the fact that equity analysts did not change their assessments of financial conditions based on disclosed alleged truth provided direct evidence of the lack of price impact and therefore ruled out the possibility that price declines observed were actually caused by the disclosure of the allegedly concealed truth.

District courts were unconvinced by these arguments in all three matters and only commented on the analysis in *Natera*.[83]

Defendants in *Credit Suisse ADS, Concho, and Goldman 1MDB* also described examining analyst reports as part of their price-impact rebuttals, arguing that analysts did not reference the allegedly false or misleading information in their coverage during the class period.[84] The district court in *Credit Suisse ADS* did not mention this analysis in granting class certification, whereas the court in *Goldman 1MDB* acknowledged the lack of analyst commentary but argued that there was no precedent suggesting this analysis could rebut price impact. In *Concho*, the district court disagreed with the defendants, noting that the lack of analyst commentary was not surprising given the nature of the fraud.[85]

D. Damages Methodology Challenges

In 13 of the 18 2025 class certification orders, defendants challenged whether plaintiffs had sufficiently established that damages are calculable on a classwide basis, as required for predominance under Rule 23(b)(3). In most of these challenges, defendants questioned

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81 *Nikola* Opposition Motion p. 11.

82 *Natera* Opposition Motion p. 14.

83 *Natera* Report and Recommendation, p. 22–23.

84 See, e.g., *Credit Suisse ADS* Opposition Motion pp. 14–15.

85 *Concho* Order pp. 35–36.

whether plaintiffs had specified how they intended to measure inflation to calculate damages using the out-of-pocket formula. However, in none of these 13 matters did the district courts deny or limit class certification on the basis of those criticisms.

In these cases, defendants followed the invitation of the US Supreme Court in *Comcast,* which held:

> . . . at the class-certification stage (as at trial), any model supporting a "plaintiff 's damages case must be consistent with its liability case . . ."[86]
>
> And for purposes of Rule 23, courts must conduct a "'rigorous analysis'" to determine whether that is so.[87]

Prior to 2025, a notable denial of class certification per *Comcast* occurred in the *BP* matter.[88] The *BP* district court reiterated its understanding of the requirements of what is required by plaintiffs in specifying at class certification how damages would be calculated later in the merits:

> The Court returns to the critical issue of class certification. In its decision of December 6, 2013, the Court denied class certification because of Plaintiffs' failure to demonstrate that their damages can be measured on a classwide basis, consistent with their theories of liability. . . . The issue before the Court is two-pronged but narrow. The Court must determine whether Plaintiffs' proposed damages methodologies (1) quantify the injury caused by Defendants' alleged wrongful conduct, and (2) can be deployed on a classwide basis such that common issues will predominate over individualized ones. The first prong is necessitated by the reasoning articulated by the Supreme Court in Comcast Corporation v. Behrend, 133 S. Ct. 1426 (2013). The second prong is necessitated by Rule 23(b)(3) of the Federal Rules of Civil Procedure.[89]

While the *BP* district court acknowledged that multiple courts have accepted an out-of-pocket methodology for the purposes of certification, it ultimately determined to limit class certification on the basis of defendants' challenge to plaintiffs' damages methodology because plaintiffs failed to fully specify how they could calculate inflation:

> Typical Section 10(b) damages are governed by the "out-of-pocket" rule—i.e., a Section 10(b) claimant may recover "'the difference between the price paid and the "value" of the

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86 *Comcast,* 569 U.S. 27*,* 35 (2013).

87 *Comcast,* 569 U.S. 27*,* 35 (2013).

88 *In Re: BP p.l.c. Securities Litigation*, No. 4:10-md-2185 (S.D. Tex.), May 20, 2014, ("*BP* 2014 Order")*.*

89 *BP* 2014 Order p. 1*.*

> stock when bought.'" . . . And multiple cases indicate that these "out of pocket" damages can be measured by reference to the decline in the stock price on the day of disclosure.[90]
>
> The Court is left, as it was in December 2013, with a conclusory assertion that damages will be calculated on a classwide basis. Plaintiffs bear the burden of proving all relevant elements of Rule 23. That burden is not met by asking the Court simply to trust them.[91]

In the 2025 class certification orders, multiple defendants similarly challenged whether plaintiffs had specified how they intended to estimate inflation, as required to calculate damages using the out-of-pocket formula. For example, in the *Dentsply Sirona* matter, the defendants noted several potential challenges to quantifying inflation consistently with plaintiffs' theory of liability – such as the alleged materialization of risks over time – which they argued plaintiffs' proposed damages methodology failed to address.[92]

In making this challenge, the *Dentsply Sirona* defendants argued that the price declines observed at the *end* of the class period could not be used to estimate inflation at the *beginning* of the class period. As such, the defendants argued that the plaintiffs had failed to specify how inflation could be estimated at the beginning of the class period if the price declines at the end could not be used.

Other defendants made similar challenges that plaintiffs had not fully specified how they intended to calculate inflation. Examples include:

National Instruments Opposition Motion*:*

> Plaintiff assumes that eventually it will be able to calculate what the NI stock price should have been throughout the Class Period had the market incorporated the value of the non-disclosed information. . . . Plaintiff has proffered no evidence as to whether an event study could be performed reliably in this case to calculate the impact of the relevant truth on the stock price when the proposed class sold.[93]

Boeing Opposition Motion*:*

> To the extent it can be extrapolated from his report, [plaintiffs' expert's] approach of using price declines in 2024 to calculate the supposed inflation in Boeing's stock price induced

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[90] *BP* 2014 Order p. 16.

[91] *BP* 2014 Order p. 23.

[92] *Dentsply Sirona* Opposition Motion p. 2.

[93] *National Instruments* Opposition Motion p. 12.

> by hundreds of different statements over the preceding four years does not satisfy *Comcast*'s requirement for class certification for at least three reasons.[94]

Upstart Opposition Motion*:*

> Plaintiffs' expert assumes that the artificial inflation in Upstart's stock price remained constant throughout the Class Period. But this assumption is implausible because macroeconomic and business conditions changed dramatically throughout the Class Period, and these changes would have influenced how much weight investors placed on the alleged misstatements at different points during the Class Period. Accordingly, Plaintiffs have failed to propose a methodology capable of measuring damages consistent with their liability theory.[95]

Cassava Sciences Opposition Motion*:*

> Plaintiffs also repeatedly argue that Defendants are demanding that [plaintiffs' expert] conduct something akin to a loss-causation analysis before the proposed class can be certified. For example, they contend that Defendants would require [plaintiffs' expert] to "produce a detailed damages model," "specify exactly which valuation tools he may or may not deploy at the merits stage," "account for variations in inflation throughout the class period," "disaggregate the effects of unspecified other forces," and "estimate damages for each category of alleged misrepresentations" to satisfy *Comcast*. That is a strawman argument that Defendants have never made. Instead, Defendants are arguing that Plaintiffs have supplied no information whatsoever that could allow the Court to determine that [plaintiffs' expert] is even capable of doing any of those things at a later stage. That is *Plaintiffs'* burden and they have *not* met it.[96]

In contrast with the court in *BP*, district courts in 2025 were unwilling to impose barriers at class certification on the basis of challenges to plaintiffs' proposed damages methodology, as illustrated by the following rulings. In these decisions, multiple courts stated that precedent supported applying the out-of-pocket formula. In each of the cases quoted above, the court responded as follows:

Dentsply Sirona Order:

> Courts in this district have repeatedly held that Comcast does not require plaintiffs' damages model to capture precisely plaintiffs' theory of loss causation at the class-certification stage.[97]

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94 *Boeing* Opposition Motion p. 3.

95 *Upstart* Opposition Motion p. ii.

96 *Cassava Sciences* Opposition Motion p. 19 (internal citations omitted).

97 *Dentsply Sirona* Order p. 4.

> . . .
>
> Defendants hold plaintiffs' damages model to a standard too high for class certification.[98]

National Instruments Order*:*

> Finally, the defendants complain that the lead plaintiff has not provided a damages model that contemplates a but-for world in which NI did not disclose the offers it had received from Emerson, but also did not repurchase stock in August and September 2022. The defendants point out that this would not have constituted a violation of the securities laws. This argument fails. It is not necessary for a damages model to account for two but-for worlds at once, particularly when the damages model is only being offered to illustrate that damages are capable of measurement on a classwide basis.[99]

Boeing Order:

> The out-of-pocket methodology for calculating per-share inflation is, however, "widely accepted as the traditional measure of damages for Rule 10b-5 actions" and fits plaintiffs' theory of liability: that investors were damaged by purchasing Boeing stock at inflated prices due to defendants' fraud. . . .That is why the vast majority of courts, including this Court, have interpreted Rule 23(b)(3) and Comcast to permit the standard out-of-pocket method for calculating damages to be used in securities class actions like this one. . . . Moreover, the caselaw in this Circuit does not require plaintiffs to conduct detailed damages modeling to meet Rule 23's predominance requirement at the class certification stage.[100]

Upstart Order*:*

> Plaintiffs' proposed methodology meets *Comcast*. . . . Plaintiffs
>
> propose the "out-of-pocket" methodology to calculate damages attributable to this theory of liability. Under this formula, each individual plaintiff's damages equal the artificial inflation caused by the misrepresentations at the time of purchase minus the artificial inflation at the time of sale. Because the Upstart securities traded in efficient markets, artificial inflation at any given time can be calculated class-wide using event studies.[101]

Cassava Sciences Order*:*

> Defendants argue that Plaintiffs do not show that damages can be calculated on a classwide basis because Feinstein's proposed damages model is "vague, indefinite and unspecific," and he does not specifically explain how he will calculate the damages and

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98 *Dentsply Sirona* Order p. 5.

99 *National Instruments* Order pp. 16–17.

100 *Boeing* Order p. 3.

101 *Upstart* Order p. 21 (internal citations omitted).

> account for various factors, such as that Cassava was a meme stock. . . .This level of specificity is not required at the class certification stage.[102]

Separately, rather than challenging the plaintiffs' proposed ability to estimate inflation, the defendants in *Natera* instead argued that "Plaintiffs' model would not differentiate between those investors who bought with knowledge of the alleged omissions and those who did not."[103] This argument is related to the question of classwide reliance. The district court did not address this argument in granting class certification.[104]

Figure 7 below identifies the defendants in the 2025 class certification orders that challenged whether plaintiffs had identified a method that could reliably calculate damages as required under *Comcast* for class certification, and in each instance indicates that the district court did not impose a barrier to class certification on the basis of plaintiffs' proposed damages methodology.

As shown in **Figure 7**, district courts consistently declined to impose barriers to class certification based on plaintiffs' proposed damages methodologies. Either implicitly or explicitly, courts accepted that plaintiffs would eventually be able to estimate artificial inflation as an input to the out-of-pocket damages calculation. Unlike some district courts in the past (such as in the *BP* 2014 Order), district courts in 2025 did not express a preference for resolving challenges to damages methodology at the class certification stage in Exchange Act cases. Instead, district courts generally concluded that it was sufficient for plaintiffs to identify the out-of-pocket formula as their damages model without further explanation of how inflation would be calculated as an input to that formula (beyond describing that an event study would be performed along with potential additional economic analyses).

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[102] *Cassava Sciences* Order p. 48.

[103] *Natera* Opposition Motion pp. 17–18.

[104] *See generally Natera* Order.

FIGURE 7: MULTIPLE DEFENDANTS MADE SIMILAR ARGUMENTS CHALLENGING DAMAGES

Case	Defendants' Argument	District Court Response to Defendants' Argument
CleanSpark (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Credit Suisse ADS (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Dentsply Sirona (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Waste Management (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Goldman 1MDB (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
National Instruments (2nd Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Boeing (4th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification (appealability granted on this basis)
Cassava Sciences (5th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification (appealability granted on this basis)
Natera (5th Cir.)	Cannot distinguish investors with reliance	Damages methodology sufficient for class certification
Concho (5th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Upstart (6th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification
Wells Fargo (9th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification (appealed on this basis but appealability denied)
Innovage (9th Cir.)	Failed to specify inflation	Damages methodology sufficient for class certification

In some instances, courts may be asked to reconsider these opinions on appeal. In both *Boeing* and *Cassava Sciences*, defendants petitioned for an appeal on the basis that plaintiffs had not met their burden under *Comcast*.[105] The courts of appeals for the Fourth and Fifth Circuits, respectively, granted appealability, indicating these issues may warrant further review.[106] However, in contrast, the court of appeals for the Ninth Circuit denied appealability in *Wells Fargo*, in which defendants also appealed on the basis of *Comcast*.[107]

Notably, in 2025, an appellate decision was issued in the *FirstEnergy* matter, in which the Sixth Circuit court interpreted *Comcast* to require more than just the identification of the out-of-pocket formula. Specifically, the appellate court in *FirstEnergy* ruled that, while the existence of a statutory damage formula may allow certification to proceed in a Section 11 or 12 claim, more is needed to substantiate predominance in damages in a Section 10 claim:

> When such statutory formulas for damages are provided [in Securities Act cases], the district court held, Comcast does not bar certification because the formulas reduce individual damages questions and thus predominance exists. But the Securities Act and the Exchange Act calculate damages entirely differently.
>
> . . .
>
> In the vastly different world of the Exchange Act, however, not only does the statutory text lack any such damage-calculation formula, but the Supreme Court has also explicitly required proof of loss causation, a requirement nowhere in the Securities Act.
>
> . . .
>
> The Private Securities Litigation Reform Act of 1995 does not change our fundamental answer that a rigorous analysis of the Exchange Act claims demanded much more from the district court than its cursory reference to the analysis of the Securities Act claims.[108]

As a result, the Circuit court held:

> Separately, the district court also incorrectly overlooked *Comcast's* rigorous-analysis requirement in its damages analysis of Plaintiffs' Exchange Act claims. Thus, we vacate the class-certification order . . . and remand for the district court to conduct a proper damages analysis under the standard set forth in *Comcast*.[109]

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[105] *Boeing* Petition to Appeal p. 13; *Cassava Sciences* Petition to Appeal p. 22.

[106] *Boeing* Order Resolving Appealability; *Cassava Science*s Order Resolving Appealability.

[107] *Wells Fargo* Petition to Appeal p. 14; *Wells Fargo* Order Resolving Appealability.

[108] *FirstEnergy* Appellate Order pp. 38–39.

[109] *FirstEnergy* Appellate Order p. 12.

As discussed in Section IV below, it remains to be seen what type of analysis the district court in *FirstEnergy* will perform in response, and what form of "rigorous analysis" the court of appeals will require under *Comcast*, and how the Fourth and Fifth Circuits will resolve the appeals in *Boeing* and *Cassava Sciences*, for which they have granted review.

IV. Conclusion and Looking Ahead

This report documents how multiple defendants in securities class actions argued that case-specific facts – publicly available to both defendants and plaintiffs without discovery – undermined the applicability of the fraud-on-the-market theory by showing that its required predicates are not satisfied. The report also describes how multiple defendants contended that case-specific facts and circumstances suggested that inflation cannot be reliably estimated across the class period, as required by the out-of-pocket formula for damages proposed by plaintiffs.

Each of these challenges asked a district court to evaluate the case-specific fact pattern of public disclosures and additional sources of public information to determine the applicability of the fraud-on-the-market theory or out-of-pocket damages formula at the time of class certification.

Overall, our analysis of jurisprudence related to the 2025 class certification orders indicates that district courts have taken differing approaches to whether such challenges can be fully evaluated at the class certification stage. In some instances, courts evaluated the case-specific fact patterns and reached a determination. In others, courts stated that they were precluded from evaluating these case-specific fact patterns. In at least one case (*DiDi*), the court determined that adjudication of the issue should be reserved for the merits, even if the argument was persuasive at class certification.

Ultimately, these challenges bear on plaintiffs' ability to measure harm as alleged. Under the fraud-on-the-market theory, the alleged harm is caused by the price impact of the alleged misrepresentations. By examining the total mix of information, defendants seek to rebut the presumption of price impact, which in turn affects whether inflation can be measured as an input to the out-of-pocket formula.

Accordingly, district courts may increasingly be required to engage with these arguments at the class certification stage, particularly in light of the Sixth Circuit's decision in *FirstEnergy,* which reminds courts of their potential obligations under *Comcast*.

Looking ahead, the Fourth Circuit granted appellate review in *Boeing* on the basis of damages per *Comcast*, and the Fifth Circuit granted appellate review in *Cassava Sciences* on the basis of both damages and market efficiency. The ultimate appellate decisions in these cases may inform the extent to which courts engage with case-specific fact patterns at the class certification stage – rather than deferring such arguments to the merits – which may shape both litigation strategy and the practical viability of classwide proof in securities cases.

Appendix A: List of the 2025 Class Certification Orders

Case Caption, District and Number	Cause of Action	Securities Involved	Date of Order	Result of Order
2ND CIRCUIT				
“ASP Isotopes” Leone v. ASP Isotopes Inc. et al. (S.D.N.Y. 1:24-cv-09253-CM)	10b-5	Common Stock	12/4/25	**Granted in Full**
“CleanSpark” Hasthantra v. CleanSpark, Inc. et al. (S.D.N.Y. 1:21-cv-00511-LAP)	10b-5	Common Stock	9/24/25	**Granted in Full**
“Credit Suisse ADS” In re Credit Suisse Securities Class Actions (S.D.N.Y. 1:23-cv-05874-CM-SLC)	10b-5	Common Stock ADS, Bonds, and Options	7/7/25	**Granted in Full**
“Credit Suisse AT1” Core Capital Partners, Ltd. v. Credit Suisse Group AG et al. (S.D.N.Y. 1:23-cv-09287-CM)	10b-5	AT1 Bonds	11/13/25	**Granted in Full**
“Dentsply Sirona” San Antonio Fire and Police Pension Fund v. Dentsply Sirona Inc. et al. (S.D.N.Y. 1:22-cv-06339-AS)	10b-5	Common Stock	7/10/25	**Granted in Full**
“Waste Management” In re Waste Management Securities Litigation (S.D.N.Y. 1:22-cv-04838-LGS)	10b-5	Bonds	3/31/25	**Granted in Full**
“Credit Suisse XIV” Chahal v. Credit Suisse Group AG et al. (S.D.N.Y. 1:18-cv-02268-AT-SN)	10b-5, §11, §15	Exchange Traded Notes	2/11/25	**Granted in Part and Denied in Part** One proposed subclass not certified

Case Caption, District and Number	Cause of Action	Securities Involved	Date of Order	Result of Order
"DiDi" In Re DiDi Global Inc. Securities Litigation (S.D.N.Y. 1:21-cv-05807-LAK-VF)	10b-5, §11/12, §15	Common Stock ADS	8/13/25	**Granted in Part and Denied in Part** Class not certified for a subset of claims
"Goldman 1MDB" Plaut v. The Goldman Sachs Group, Inc. et al. (S.D.N.Y. 1:18-cv-12084-VSB-KHP)	10b-5	Common Stock	9/4/25	**Granted in Part and Denied in Part** Eliminated certain alleged misrepresentations, shortened class period
"National Instruments" In Re National Instruments Corporation Securities Litigation (S.D.N.Y. 1:23-cv-10488-DLC)	10b-5	Common Stock	9/19/25	**Granted in Part and Denied in Part** Class period limited to the period in which alleged misconduct occurred
4TH CIRCUIT				
"Boeing" In re The Boeing Company Securities Litigation (E.D.Va. 1:24-cv-00151-LMB-LRV)	10b-5	Common Stock, Options (not certified)	3/7/25	**Granted in Part and Denied in Part** Eliminated certain alleged misrepresentations, eliminated certain alleged corrective disclosures, shortened class period, did not certify class for options
5TH CIRCUIT				
"Cassava Sciences" In Re Cassava Sciences, Inc. Securities Litigation (W.D.Tex. 1:21-cv-00751-DAE)	10b-5	Common Stock, Options	8/12/25	**Granted in Full**
"Natera" Schneider v. Natera, Inc. et al. (W.D.Tex. 1:22-cv-00398-DAE)	10b-5, §11/12, §15	Common Stock	3/21/25	**Granted in Full**
"Concho" City of Warwick Retirement System v. Concho Resources Inc. et al. (S.D.Tex. 4:21-cv-02473)	10b-5	Common Stock	4/7/25	**Granted in Part and Denied in Part** Eliminated certain alleged misrepresentations

Case Caption, District and Number	Cause of Action	Securities Involved	Date of Order	Result of Order
6TH CIRCUIT				
"Upstart" Crain v. Upstart Holdings, Inc. et al. (S.D.Ohio 2:22-cv-02935-ALM-EPD)	10b-5	Common Stock, Options	3/27/25	**Granted in Full**
9TH CIRCUIT				
"Nikola" Borteanu v. Nikola Corporation et al. (D.Ariz. 2:20-cv-01797-SPL)	10b-5	Common Stock	1/6/25	**Granted in Full**
"Wells Fargo" SEB Investment Management AB et al. v. Wells Fargo & Company et al. (N.D.Cal. 3:22-cv-03811-TLT)	10b-5	Common Stock	4/25/25	**Granted in Full**
10TH CIRCUIT				
"Innovage" McLeod v. Innovage Holding Corp. et al. (D.Colo. 1:21-cv-02770-WJM-SBP)	10b-5, §11/12, §15	Common Stock	1/8/25	**Granted in Full**

Appendix B: List of Appellate Court Decisions and Petitions to Appeal

2025 CLASS CERTIFICATION ORDERS INVOLVING RULE 23(f) PETITIONS FOR PERMISSION TO APPEAL

Originating Case: Caption, District, and Number	Resolution of Appealability	Date of Order Resolving Appealability	Resolution of Appeal	Date of Order Resolving Appeal
2ND CIRCUIT				
"Waste Management" In re Waste Management Securities Litigation (S.D.N.Y. 1:22-cv-04838-LGS)	Petition for appeal withdrawn		Not applicable	
"Credit Suisse XIV" Chahal v. Credit Suisse Group AG et al. (S.D.N.Y. 1:18-cv-02268-AT-SN)	Not yet ruled		Not yet ruled	
"Goldman 1MDB" Plaut v. The Goldman Sachs Group, Inc. et al. (S.D.N.Y. 1:18-cv-12084-VSB-KHP)	**Appealability Denied**	1/14/26	Not applicable	
"National Instruments" In Re National Instruments Corporation Securities Litigation (S.D.N.Y. 1:23-cv-10488-DLC)	**Appealability Denied**	2/25/26	Not Applicable	
4TH CIRCUIT				
"Boeing" In re The Boeing Company Securities Litigation (E.D.Va. 1:24-cv-00151-LMB-LRV)	**Appealability Granted**	5/2/25	Not yet ruled	
5TH CIRCUIT				
"Cassava Sciences" In Re Cassava Sciences, Inc. Securities Litigation (W.D.Tex. 1:21-cv-00751-DAE)	**Appealability Granted**	10/21/25	Not yet ruled	
9TH CIRCUIT				
"Nikola" Borteanu v. Nikola Corporation et al. (D.Ariz. 2:20-cv-01797-SPL)	Not yet ruled		Not yet ruled	
"Wells Fargo" SEB Investment Management AB et al. v. Wells Fargo & Company et al. (N.D.Cal. 3:22-cv-03811-TLT)	**Appealability Denied**	7/17/25	Not applicable	

ADDITIONAL CASES IN WHICH APPELLATE COURTS ISSUED ORDERS IN 2025 REGARDING APPEALABILITY OR RESOLVING APPEALS

Originating Case: Caption, District, and Number	Ruling on Appealability	Date of Ruling on Appealability	Ruling on Appeal	Date of Ruling on Appeal
1st CIRCUIT				
"Biogen" Oklahoma Firefighters Pension and Retirement System v. Biogen Inc. et al. (D.Mass. 1:22-cv-10200-WGY)	**Appealability Denied**	9/18/25	Not applicable	
3RD CIRCUIT				
"Johnson & Johnson" Hall v. Johnson & Johnson et al. (D.N.J. 3:18-cv-01833-ZNQ-TJB)	**Appealability Granted**	2/21/24	**Affirmed District Court Order Granting Class Certification**	10/15/25
6TH CIRCUIT				
"FirstEnergy" Owens v. FirstEnergy Corp. et al. (6th Cir. 24-3654)	**Appealability Granted**	11/16/23	**Vacated District Court Order Granting Certification**	8/13/25
9TH CIRCUIT				
"Zillow" Jaeger v. Zillow Group Inc et al. (W.D.Wash. 2:21-cv-01551-TSZ)	**Appealability Granted**	10/24/24	**Affirmed District Court Order Granting Class Certification**	9/26/25

Appendix C: Sample Selection Details

DISTRICT COURT ORDERS

Using Lex Machina's search functions, 498 potentially relevant docket entries were identified by applying the following criteria: (1) the filing occurred between January 1, 2025 and December 31, 2025, (2) the Lex Machina "case type" was both a "Securities" case and a "Class Action" case,[110] (3) the Lex Machina "docket entry tag" equaled "General: Order," and (4) the text of the docket entry contained the keywords "class certification" or "certify class."

These 498 docket entries were then manually reviewed, resulting in a final sample of 18 Federal District Court class certification orders. Orders related to certification for settlement purposes and orders not related to class certification were excluded from the sample, as were cases not identified by the Stanford Securities Class Action Clearinghouse, a widely cited database of federal securities class action litigation.[111]

Finally, the sample excludes duplicate orders or duplicate cases, cases that did not assert claims under Section 10(b) of the Securities Exchange Act and Rule 10b-5, and cases involving a simultaneous motion to dismiss at the time of the class certification decision.

Figure 8 below summarizes each step of the sample identification process.

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[110] Lex Machina defines the "Securities" case tag as follows: "A case with one or more claims of securities law violation brought under the Securities Act of 1933, the Securities Exchange Act of 1934, or other federal securities laws (including the Commodity Exchange Act of 1936, Trust Indenture Act of 1939, Investment Company Act of 1940, Investment Advisers Act of 1940, Private Securities Litigation Reform Act (PSLRA) of 1995, Sarbanes-Oxley Act of 2002, Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or Jumpstart Our Business Startups Act of 2012)." See https://law.lexmachina.com/help/documentation/case-types/securities.

Lex Machina defines the "Class Action" case tag as follows: A case in which a plaintiff alleges a claim on behalf of a group or class of individuals. This Case Type includes cases plead as Rule 23 class actions and does not include Employment cases brought as collective actions under the Fair Labor Standards Act (FLSA) or Shareholder Derivative Actions." See https://law.lexmachina.com/help/documentation/case-types/class-action.

[111] Source: https://securities.stanford.edu/. Examples of cases that were not included in Stanford Securities Class Action Clearinghouse filings database, and were therefore excluded from this analysis, include a case involving the alleged manipulation of the London InterBank Offered Rate (see *In re LIBOR-Based Financial Instruments Antitrust Litigation*); a case involving the alleged manipulation of wheat futures and options contracts traded on the Chicago Board of Trade (see *Dennis v. The Andersons, Inc.*); and a case involving the alleged inflation of the price of crypto commodities (see *In re Tether and Bitfinex Crypto Asset Litigation*).

FIGURE 8: SAMPLE IDENTIFICATION OF THE 2025 CLASS CERTIFICATION ORDERS

Criterion	No. of Orders
Federal District Court Orders Docket Entries in Lex Machina	**498**
Orders Related to Certification for Settlement Purposes	-121
Orders Not Related to Class Certification	-343
Cases Not Identified by Stanford's Securities Class Action Clearinghouse	-10
Duplicate Orders or Duplicate Cases	-3
Cases Without a 10b-5 Claim	-2
Case in Which Class Certification Was Denied Simultaneously With Granting of Motion to Dismiss	-1
Sample Analyzed ("2025 Class Certification Orders")	**18**

APPELLATE COURT DECISIONS AND PETITIONS FOR PERMISSION TO APPEAL

Using Lex Machina's search functions, 114 potentially relevant docket entries were identified by applying the following criteria: (1) the filing occurred between January 1, 2025 and December 31, 2025, (2) the Lex Machina "case type" was both a "Securities" case and a "Class Action" case, (3) and the Lex Machina "docket entry tag" equaled "General: Appeals: Decision."

These 114 docket entries were then manually reviewed to identify appellate court decisions in which the appellate court offered a decision on appealability (either granting or denying), or a decision on the appeal itself (either affirming or vacating a district court's ruling).

Additionally, for the sample of 18 cases in the 2025 class certification orders, Lex Machina's "Appeals Information" was reviewed to identify petitions for permission to appeal and appellate court orders in response (if any). Appendix B further excludes one case, *Natera*, in which defendants petitioned for permission to appeal Section 12 claims but not 10(b)(5) claims. In five cases – *Waste Management*, *Credit Suisse XIV*, *Goldman 1MDB*, *National Instruments*, and *Nikola* – Lex Machina indicates that defendants petitioned for an appeal, but the documents themselves are filed under seal or marked "unavailable" in Lex Machina. Therefore, this report does not describe defendants' arguments for appeal in these cases.

Appendix D: Bibliography of Docket Entries Discussed

Defined Name	Citation
***ASP Isotopes* Opposition Motion**	Defendants ASP Isotopes Inc., Paul E. Mann, and Heather Kiessling's Opposition to Plaintiffs' Motion for Class Certification, *Leone v. ASP Isotopes Inc., et al.*, No. 1:24-cv-9253-CM (S.D.N.Y., July 25, 2025)
***ASP Isotopes* Order**	Order and Opinion, *Leone v. ASP Isotopes Inc., et al.*, No. 1:24-cv-9253-CM (S.D.N.Y., December 4, 2025)
***Biogen* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *Oklahoma Firefighters Pension and Retirement System v. Biogen Inc. et al.*, No. 1:22-cv-10200-WGY (1st Cir., September 19, 2024)
***Biogen* Order Resolving Appealability**	Order, *Oklahoma Firefighters Pension and Retirement System v. Biogen Inc. et al.*, No. 1:22-cv-10200-WGY (1st Cir., September 18, 2025)
***Boeing* Opposition Motion**	Defendants' Memorandum of Law in Opposition to Lead Plaintiffs' Motion for Class Certification, *In re The Boeing Company Securities Litigation*, No. 1:24-cv-151-LMB-LRV (E.D. Va., January 21, 2025)
***Boeing* Order**	Order, *In re The Boeing Company Securities Litigation*, No. 1:24-cv-151-LMB-LRV (E.D. Va., March 7, 2025)
***Boeing* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *In re The Boeing Co. Securities Litigation*, No. 25-135 (4th Cir. March 21, 2025)
***Boeing* Order Resolving Appealability**	Order, *In re The Boeing Company Securities Litigation*, No. 1:24-cv-151-LMB-LRV (4th Cir., May 2, 2025)
***Cassava Sciences* Opposition Motion**	Defendants' Surreply in Opposition to Plaintiffs' Motion for Class Certification; Request for Evidentiary Hearing, *In re Cassava Sciences Inc. Securities Litigation*, No. 1:21-cv-00751-DAE (W.D. Tex., October 4, 2024)
***Cassava Sciences* Order**	Order, *In re Cassava Sciences Inc. Securities Litigation*, No. 1:21-cv-00751-DAE (W.D. Tex., August 12, 2025)

***Cassava* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *In re Cassava Sciences Inc. Securities Litigation*, No. 1:21-cv-00751-DAE (5th Cir., August 26, 2025)
***Cassava* Order Resolving Appealability**	Order, *In re Cassava Sciences Inc. Securities Litigation*, No. 1:21-cv-00751-DAE (5th Cir., October 21, 2025)
***CleanSpark* Opposition Motion**	Defendants' Opposition to Plaintiff's Motion for Class Certification, *Hasthantra v. CleanSpark, Inc., et al.*, No. 1:21-cv-00511-LAP (S.D.N.Y., March 14, 2025)
***CleanSpark* Order**	Opinion and Order, *Darshan v. CleanSpark, Inc., et al.*, No. 1:21-cv-00511-LAP (S.D.N.Y., September 24, 2025)
***Concho* Opposition Motion**	Defendants' Opposition to Plaintiff's Motion for Class Certification, *City of Warwick Retirement System v. Concho Resources Inc. et al.*, No. 4:21-cv-02473, (S.D. Tex., March 15, 2024)
***Concho* Order**	Order on Class Certification, *City of Warwick Retirement System v. Concho Resources Inc. et al.*, No. 4:21-cv-02473, (S.D. Tex., April 7, 2025)
***Credit Suisse ADS* Opposition Motion**	Memorandum of Law in Opposition to Plaintiff's Motion for Class Certification, Appointment of Plaintiff as Class Representative, and Appointment of Class Counsel, *In re Credit Suisse Securities Class Actions*, No. 1:23-cv-5874-CM-SLC (S.D.N.Y., January 17, 2025)
***Credit Suisse ADS* Order**	Decision and Order Denying PWC's Motion to Dismiss, Granting in Part and Denying in Part the CS Defendants' Motion to Dismiss, Granting Diabat's Motion to Certify a Class, and Granting in Part and Denying in Part the CS Defendants' Motion to Consolidate, *In re Credit Suisse Securities Class Actions*, No. 1:23-cv-5874-CM-SLC (S.D.N.Y., July 7, 2025)
***Credit Suisse AT1* Opposition Motion**	Memorandum of Law in Opposition to Lead Plaintiff's Motion for Class Certification and Appointment of Class Representatives and Class Counsel, *Core Capital Partners, Ltd. v. Credit Suisse Group AG et al.*, No. 1:23-cv-9287-CM (S.D.N.Y., October 10, 2025)
***Credit Suisse AT1* Order**	Opinion and Order Granting Lead Plaintiff Core Capital's Motion for Class Certification and Appointment of Class Representatives and Class Counsel, *Core Capital Partners, Ltd. v. Credit Suisse Group AG et al.*, No. 1:23-cv-9287-CM (S.D.N.Y., November 13, 2025)
***Credit Suisse XIV* 2023 Opposition Motion**	Defendants' Memorandum of Law in Opposition to Lead Plaintiffs' and the Trust's Joint Motion for Class Action Certification, *Chahal v.*

	Credit Suisse Group AG et al., No. 1:18-cv-02268-AT-SN (S.D.N.Y., June 23, 2023)
***Credit Suisse XIV* 2024 Opposition Motion**	Defendants' Memorandum of Law in Opposition to Plaintiffs' Second Renewed Motion for Class Certification, *Chahal v. Credit Suisse Group AG, et al.*, No. 1:18-cv-02268-AT-SN (S.D.N.Y., May 21, 2024)
***Credit Suisse XIV* Order**	Order, *Chahal v. Credit Suisse Group AG et al.*, No. 1:18-cv-02268-AT-SN (S.D.N.Y., February 11, 2025)
***Dentsply Sirona* Opposition Motion**	Defendants' Omnibus Memorandum of Law in Response to Plaintiffs' Motion for Class Certification, *San Antonio Fire and Police Pension Fund, et al., v. Dentsply Sirona Inc., et al.*, No. 22-cv-06339-AS (S.D.N.Y., December 20, 2024)
***Dentsply Sirona* Order**	Opinion and Order, *San Antonio Fire and Police Pension Fund, et al., v. Dentsply Sirona Inc., et al.*, No. 22-cv-06339-AS (S.D.N.Y., July 10, 2025)
***Didi* Opposition Motion**	Memorandum of Law in Opposition to Plaintiffs' Motion for Class Certification, *In re Didi Global Inc. Securities Litigation*, No. 1:21-cv-05807-LAK-VF (S.D.N.Y., March 7, 2025)
***Didi* Report and Recommendation**	Report and Recommendation, *In re Didi Global Inc. Securities Litigation*, No. 1:21-cv-05807-LAK-VF (S.D.N.Y., July 7, 2025)
***Didi* Order**	Memorandum Opinion, *In re Didi Global Inc. Securities Litigation*, No. 1:21-cv-05807-LAK-VF (S.D.N.Y., August 13, 2025)
***FirstEnergy* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *In re FirstEnergy Corp. Securities Litigation*, No. 2:20-cv-03785-ALM-KAJ (6th Cir., April 13, 2023)
***FirstEnergy* Order Resolving Appealability**	Order, *In re FirstEnergy Corp. Securities Litigation*, No. 2:20-cv-03785-ALM-KAJ (6th Cir., November 16, 2023)
***FirstEnergy* Order Resolving Appeal**	Opinion, *In re FirstEnergy Corp. Securities Litigation*, No. 2:20-cv-03785-ALM-KAJ (6th Cir. August 13, 2025)
***Goldman 1MDB* Opposition Motion**	Defendants' Memorandum of Law in Opposition to Plaintiff's Motion for Class Certification, *Plaut v. The Goldman Sachs Group, Inc. et al.*, No. 1:18-cv-12084-VSB-KHP (S.D.N.Y., October 30, 2023)
***Goldman 1MDB* Report and Recommendation**	Report and Recommendation on Motion for Class Certification, *Plaut v. The Goldman Sachs Group, Inc., et al.*, No. 1:18-cv-12084-VSB-KHP (S.D.N.Y., April 5, 2024)

***Goldman 1MDB* Order**	Opinion & Order, *Plaut v. The Goldman Sachs Group, Inc. et al.*, No. 1:18-cv-12084-VSB-KHP (S.D.N.Y., September 4, 2025)
***Goldman 1MDB* Order Resolving Appealability**	Order, *Plaut v. The Goldman Sachs Group, Inc. et al.*, No. 1:18-cv-12084-VSB-KHP (2d Cir., January 14, 2026)
***Innovage* Opposition Motion**	Defendants' Opposition to Lead Plaintiffs' Motion for Class Certification, *McLeod v. Innovage Holding Corp. et al.*, No. 1:21-cv-02770-WJM-SBP (D. Colo., August 23, 2024)
Innovage Order	Order Granting Motion to Certify Class, *McLeod v. Innovage Holding Corp. et al.*, No. 1:21-cv-02770-WJM-SBP (D. Colo., January 8, 2025)
***Johnson & Johnson* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *Hall v. Johnson & Johnson et al.*, No. 3:18-cv-01833-ZNQ-TJB (3d Cir., January 12, 2024)
***Johnson & Johnson* Order Resolving Appealability**	Order, *Hall v. Johnson & Johnson et al.*, No. 3:18-cv-01833-ZNQ-TJB (3d Cir., February 21, 2024)
***Johnson & Johnson* Order Resolving Appeal**	Opinion, *Hall v. Johnson & Johnson et al.*, No. 3:18-cv-01833-ZNQ-TJB (3d Cir., October 15, 2025)
***Natera* Opposition Motion**	Defendants' Opposition to Lead Plaintiff's Motion for Class Certification and Appointment of Class Representatives and Class Counsel, *Schneider v. Natera, Inc., et al.*, No. 1:22-cv-00398-DAE (W.D. Tex., August 16, 2024)
***Natera* Report and Recommendation**	Report and Recommendations on Motion for Class Certification, *Schneider v. Natera, Inc., et al.*, No. 1:22-cv-00398-DAE (W.D. Tex. Jan. 28, 2025)
***Natera* Order**	Order: (1) Adopting Report and Recommendation; and (2) Granting Plaintiffs' Motion to Certify Class, *Schneider v. Natera, Inc., et al.*, No. 1:22-cv-00398-DAE (W.D. Tex., March 21, 2025)
***Natera* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *Schneider v. Natera, Inc., et al.*, No. 1:22-cv-00398-DAE (5th Cir., April 7, 2025)
***Natera* Order Resolving Appealability**	Order, *Schneider v. Natera, Inc., et al.*, No. 1:22-cv-00398-DAE (5th Cir., May 9, 2025)
***National Instruments* Opposition Motion**	Defendants' Memorandum of Law in Opposition to Lead Plaintiff's Motion for Class Certification and Appointment of Class Representative and Class Counsel [ECF 64], *In re National Instruments*

	Corporation Securities Litigation, No. 1:23-cv-10488-DLC (S.D.N.Y., June 16, 2025)
***National Instruments* Order**	Opinion and Order, *In re National Instruments Corporation Securities Litigation*, No. 1:23-cv-10488-DLC (S.D.N.Y., September 19, 2025)
***National Instruments* Order Resolving Appealability**	Order, *In re National Instruments Corporation Securities Litigation*, No. 1:23-cv-10488-DLC (2d Cir., February 25, 2026)
***Nikola* Opposition Motion**	Nikola Defendants' Memorandum of Law in Opposition to Plaintiffs' Motion for Class Certification, *Borteanu v. Nikola Corporation et al.*, No. 2:20-cv-01797-SPL (D. Ariz., August 19, 2024)
***Nikola* Order**	Order, *Borteanu v. Nikola Corporation et al.*, No. 2:20-cv-01797-SPL (D. Ariz., January 6, 2025)
***Upstart* Opposition Motion**	Defendants' Memorandum of Law in Opposition to Plaintiffs' Updated Motion for Class Certification, *Crain v. Upstart Holdings, Inc., et al.*, No. 2:22-cv-02935-ALM-EPD, (S.D. Ohio, November 5, 2024)
***Upstart* Order**	Opinion & Order, *Crain v. Upstart Holdings, Inc. et al.*, No. 2:22-cv-02935-ALM-EPD, (S.D. Ohio, March 27, 2025)
***Waste Management* Opposition Motion**	Defendants' Memorandum of Law in Opposition to Plaintiffs' Motion for Class Certification and Appointment of Class Representatives and Class Counsel, *In re Waste Management Securities Litigation*, No. 1:22-cv-04838-LGS (S.D.N.Y., August 16, 2024)
***Waste Management* Order**	Opinion and Order, *In re Waste Management Securities Litigation*, No. 1:22-cv-04838-LGS (S.D.N.Y., March 31, 2025)
***Wells Fargo* Opposition Motion**	Defendants' Opposition to Plaintiffs' Motion for Class Certification, *SEB Investment Management AB et al. v. Wells Fargo & Company et al.*, No. 3:22-cv-03811-TLT (N.D. Cal., February 14, 2025)
***Wells Fargo* Order**	Order Granting in Part and Denying in Part Plaintiffs' Motion for Class Certification, *SEB Investment Management AB et al. v. Wells Fargo & Company et al.*, No. 3:22-cv-03811-TLT (N.D. Cal., April 25, 2025)
***Wells Fargo* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *SEB Investment Management AB et al. v. Wells Fargo & Company et al.*, No. 3:22-cv-03811-TLT (9th Cir., May 9, 2025)
***Wells Fargo* Order Resolving Appealability**	Order, SEB Investment Management AB et al. v. Wells Fargo & Company et al., No. 3:22-cv-03811-TLT (9th Cir., July 17, 2025)

***Zillow* Petition to Appeal**	Defendants' Petition for Permission to Appeal Pursuant to Federal Rule of Civil Procedure 23(f), *Jaeger v. Zillow Group Inc et al.*, No. 2:21-cv-01551-TSZ (9th Cir., September 6, 2024)
***Zillow* Order Resolving Appealability**	Order, *Jaeger v. Zillow Group Inc et al.*, No. 2:21-cv-01551-TSZ (9th Cir., October 24, 2024)
***Zillow* Order Resolving Appeal**	Opinion, *Jaeger v. Zillow Group Inc et al.*, No. 2:21-cv-01551-TSZ (9th Cir., September 26, 2025)

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