

Washington University Law Review

Volume 93

Issue 2 *New Directions for Corporate and Securities Litigation*

2015

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Recommended Citation

Urška Velikonja, *Distortion Other Than Price Distortion*, 93 WASH. U. L. REV. 425 (2015).

Available at: https://openscholarship.wustl.edu/law_lawreview/vol93/iss2/11

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DISTORTION OTHER THAN PRICE DISTORTION

URSKA VELIKONJA*

I. INTRODUCTION

The fraud-on-the-market doctrine adopted in *Basic Inc. v. Levinson* (“*Basic*”) allows the plaintiff suing under Rule 10b-5 to satisfy the reliance requirement by showing that the market in which the security was traded was efficient and that she purchased the security at the market price during the period of the misrepresentation.¹ If she succeeds, the plaintiff is entitled to two presumptions: first, that the misrepresentation distorted the price of that security, and second, that she purchased the security in reliance on that misrepresentation.²

In *Halliburton Co. v. Erica P. John Fund, Inc.* (“*Halliburton II*”),³ the Court considered a direct attack on *Basic*’s presumptions, and declined to do away with them. Judging by the volume of academic commentary to date, the most significant contribution of *Halliburton II* is a more pragmatic definition of market efficiency, which is the underlying mechanism that converts information about securities into their prices.⁴ To invoke the presumption of reliance in a fraud-on-the-market suit, plaintiffs no longer need to show that the market for a public company security is hyper-efficient, in that it fully and quickly impounds into stock prices all publicly available information, as some courts have required.⁵ Rather, the Court embraced the notion that market efficiency is a “matter of degree.”⁶

In a subsidiary challenge to the *Basic* presumptions individually, the Court declined to reject the first of the two presumptions—that a public misrepresentation distorts the price of a security traded in a reasonably efficient market—and to require plaintiffs to show, at the class certification stage, that the defendant’s misrepresentation in fact distorted

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1. 485 U.S. 224, 248 (1988).

2. *Id.* at 247.

3. 134 S. Ct. 2398, 2412 (2014).

4. *See, e.g.*, Donald C. Langevoort, *Judgment Day for Fraud-on-the-Market: Reflections on Amgen and the Second Coming of Halliburton*, 57 ARIZ. L. REV. 37, 51 (2015); Ann M. Lipton, *Searching for Market Efficiency*, 57 ARIZ. L. REV. 71, 72-73 (2015).

5. *See, e.g.*, *In re PolyMedica Corp. Sec. Litig.*, 432 F.3d 1, 14–15 (1st Cir. 2005) (refusing to find the market efficient unless it rapidly reflects all information relevant to firm value).

6. *Halliburton II*, 134 S. Ct. at 2410.

the price of a particular security.⁷ The Court did throw defendants a bone and allowed them to prevent the class from being certified if defendants could show that the alleged misrepresentation *did not* impact the price of the publicly-traded security.⁸ How exactly defendants are supposed to do that has been left for the lower courts to figure out.⁹

In a majority of cases—the “confirmatory lie” cases where the defendant conceals the truth and thus prevents an immediate price reaction¹⁰—it is the absence of price movement at the time of the misrepresentation that is allegedly fraudulent. In such cases, neither plaintiffs nor defendants can demonstrate empirically what impact the misrepresentation had on the price of the security at the time it was uttered. Instead, various courts have used the price reaction at the moment of corrective disclosure as a proxy,¹¹ but it is an imperfect proxy for the extent to which the original misrepresentation distorted the price at the time that it was made.¹² The Court followed lower courts’ approach by allowing defendants to show the lack of price distortion at the time of the misrepresentation by offering evidence that the corrective disclosure has no impact on the stock price, without acknowledging the limitations of the proxy.¹³

In this Article, I propose that much of *Halliburton II*’s second holding—that a defendant can prevent class certification by showing no statistically significant movement in the price of the security at the time of corrective disclosure—does nothing to improve the quality of securities class-action litigation, and could make it worse.¹⁴

7. *Id.* at 2413. The basic impetus behind efforts to bring proof of price distortion forward to the class-certification stage is that the judge can “determine the price distortion question based on the preponderance standard applicable to certification,” and not on a more plaintiff-friendly summary judgment standard. Mark Moller, *Common Problems for the Common Answers Test: Class Certification in Amgen and Comcast*, 2012-2013 CATO SUP. CT. REV. 301, 317–18.

8. *Halliburton II*, 134 S. Ct. at 2415–17.

9. See Merritt B. Fox, *Halliburton II: Who Won and Who Lost All Depends on What Defendants Need to Show to Establish No Impact on Price*, CLS BLUE SKY BLOG (June 30, 2014), <http://clsbluesky.law.columbia.edu/2014/06/30/halliburton-ii-who-won-and-who-lost-all-depends-on-what-defendants-need-to-show-to-establish-no-impact-on-price/>.

10. Lucian A. Bebchuk & Allen Ferrell, *Rethinking Basic*, 69 BUS. LAW. 671, 692 (2014).

11. See e.g., *Metzler Inv. GMBH v. Corinthian Colls., Inc.*, 540 F.3d 1049, 1062–65 (9th Cir. 2008); Langevoort, *supra* note 4, at 44–45.

12. See e.g., Jill E. Fisch, *The Trouble with Basic: Price Distortion After Halliburton*, 90 WASH. U. L. REV. 895, 929–30 (2013).

13. See Langevoort, *supra* note 4, at 47.

14. How much worse will depend on how eagerly lower courts embrace *Halliburton II* authorization to deny class certification and how low a bar they set for defendants to rebut the presumption of price impact.

In an earlier article, I explained in considerable detail that disclosure fraud is economically harmful not because it hurts buyers and sellers of public company stock—though it certainly hurts some—but because it produces considerable economic consequences that are not fully captured by stock price movements.¹⁵ *Halliburton II*, and the cases before it, focus exclusively on *securities* price distortion and price impact, consistent with the idea that Rule 10b-5 litigation is a cause of action available to purchasers and sellers of securities.¹⁶ While the idea seems sound legally, it is less sound economically. Inaccurate stock prices and subsequent corrections do not harm shareholders as a class; they merely redistribute wealth between selling and buying shareholders.¹⁷ This process, by itself, produces some welfare losses, including enhanced monitoring by investors, greater price volatility, and reduced liquidity as weary investors stay away from the market. As a result, issuers must pay a premium to account for the higher risk and cost, and thus cannot fund investments on the margin.¹⁸

But a significant portion of welfare losses caused by financial manipulation is the product of the distortion in capital allocation, and resulting changes in investment, employment, and output, all of which are used to detect, avoid, exploit, or cover up the misrepresentation.¹⁹ Fraud firms' disclosures are used by other firms in their own investment decisions, spreading welfare losses beyond the fraud firm like fruit rot.²⁰ These economic consequences are associated with securities frauds that are discovered as well as with those that are not.²¹ If the truth ultimately catches up with the fraud firm, the firm can sometimes pass the cost on to non-shareholders.²²

15. See generally Urska Velikonja, *The Cost of Securities Fraud*, 54 WM. & MARY L. REV. 1887 (2013).

16. See *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 747 (1975) (explaining that securities litigation is available only to purchasers and sellers of securities).

17. See Velikonja, *supra* note 15, at 1901–02 n.56.

18. See Marcel Kahan, *Securities Laws and the Social Costs of "Inaccurate" Stock Prices*, 41 DUKE L.J. 977, 1043 (1992) (observing that inaccurate stock prices impair, among other things, the allocation of capital, reduce liquidity, and produce stock-price oriented management); Paul G. Mahoney, *Precaution Costs and the Law of Fraud in Impersonal Markets*, 78 VA. L. REV. 623, 631 (1992) (noting that if the legal system did not deter fraud, investors would take greater precautions against it).

19. See discussion *infra* Part III.

20. See Velikonja, *supra* note 15, at 1933–37 (summarizing empirical studies showing changes in the cost of capital, in investment, and in hiring decisions by rival firms because of accounting fraud).

21. In fact, mere errors, too, can cause economic distortion, particularly those that are larger and more persistent. See *id.* at 1927.

22. Peress has shown that firms that operate in concentrated markets can increase product prices

All of this is a long way of saying that financial misreporting by public companies distorts more than just the price of the firms' securities, and that distortion other than that affecting the prices of public securities can in some circumstances be more significant and economically wasteful than stock price distortion. This Article develops an analytical matrix that identifies possible combinations of distortions in the stock price and economic dislocation to suggest when fraud-on-the-market litigation is likely to insufficiently deter disclosure fraud.²³ Based on empirical studies, this Article identifies the circumstances in which large economic distortions caused by false disclosures are likely to be particularly large. In light of these observations, the Article suggests that fraud-on-the-market litigation should not be understood primarily as a remedy for victimized shareholders, who can often eliminate the cost of fraud *ex ante*, but as a quasi *qui tam* cause of action available to purchasers and sellers of (usually equity) securities to police economically-harmful false disclosures by public companies.²⁴ Even in cases where buyers and sellers of stock are not the class most significantly harmed by disclosure fraud, they nearly always suffer some identifiable losses, thus avoiding difficult evidentiary questions about standing. When viewed through this lens, many of the objections to securities litigation become moot and its virtues are revealed. In that this Article is sympathetic and consistent with ideas of "publicness" discussed in the article by Professors Sale and Thompson that is part of this symposium.²⁵

II. WHAT PURPOSE DOES SECURITIES LITIGATION SERVE?

In recent decades, countless articles have denounced securities litigation, many suggesting that it is a nothing more than a costly pocket-shifting transfer of wealth without many corresponding benefits.²⁶ The

in the aftermath of business shocks to preserve profits and reduce the impact on the stock price. Joel Peress, *Product Market Competition, Insider Trading, and Stock Market Efficiency*, 65 J. FIN. 1, 4–5 (2010); see also Annie Gasparro, *Starbucks to Raise Prices*, WALL ST. J. (Jan. 4, 2012), <http://www.wsj.com/articles/SB10001424052970203550304577138922045363052> (reporting that the firm's customers were less sensitive to price increases than its rivals and so the firm decided to raise prices of brewed coffee to offset higher costs caused by futures contracts for coffee—in other words, to shield investors from the misjudgment of the company's management by passing along the cost to its customers).

23. See *infra* Part III.B.

24. See *infra* Part IV.

25. Hillary A. Sale & Robert B. Thompson, *Market Intermediation, Publicness, and Securities Class Actions*, 93 WASH. U. L. REV. (forthcoming 2015).

26. See, e.g., Jennifer H. Arlen & William J. Carney, *Vicarious Liability for Fraud on Securities Markets: Theory and Evidence*, 1992 U. ILL. L. REV. 691, 694–95 (arguing that vicarious liability for

critiques usually observe that attorneys file securities class actions on behalf of shareholder plaintiffs—usually purchasers of overpriced stock—seeking compensation for losses caused by fraudulent misrepresentations from the issuer and its top management.²⁷ In a large majority of cases, the issuer did not trade in the affected security during the period of misrepresentation, and thus did not benefit from its fraudulently distorted price.²⁸ The lucky sellers of overpriced securities are the ones who benefit, and they are allowed to keep their gain. Instead, the issuer, who rarely trades in its own securities, and its top management are listed as defendants. In all but a handful of cases, only the issuer, directly or indirectly through its D&O insurer, pays damages to settle a securities class action.²⁹ The money comes from the issuer's current shareholders, who are ostensibly the victims of the fraud. Damages in securities class actions, thus, add insult to injury and victimize the shareholders for the second time—this has been described as circularity at the firm level.³⁰

In addition, critiques of securities litigation note that damages in securities class actions also suffer from circularity at the investor level.³¹ Investors can eliminate firm-specific risk of fraud by self-insuring through diversification and trading. Diversification cannot eliminate systematic risk of fraud, but all securities are sold at a discount that reflects the

securities fraud transfers wealth from one group of innocent investors to another similar group without performing any useful social function); John C. Coffee, Jr., *Reforming the Securities Class Action: An Essay on Deterrence and Its Implementation*, 106 COLUM. L. REV. 1534, 1534–38 (2006) (arguing that securities fraud class actions neither compensate victims nor deter wrongdoing); Donald C. Langevoort, *Capping Damages for Open-Market Securities Fraud*, 38 ARIZ. L. REV. 639, 639–41 (1996) (proposing capped damages for securities fraud because damages equal to out-of-pocket losses are grossly disproportionate to harm suffered); A.C. Pritchard, *Markets as Monitors: A Proposal to Replace Class Actions with Exchanges as Securities Fraud Enforcers*, 85 VA. L. REV. 925, 927–30 (1999) (proposing to replace costly and ineffective securities fraud class actions with monitoring by stock exchanges).

27. See, e.g., Coffee, *supra* note 26, at 1534 (asserting that securities litigation is “mainly pocket-shifting wealth transfers among shareholders”); Pritchard, *supra* note 26, at 927–28.

28. Pritchard, *supra* note 26, at 928. In the largest class action settlements, however, the issuer often did sell securities and benefit from financial misrepresentation. See James J. Park, *Bondholders and Securities Class Actions*, 99 MINN. L. REV. 585, 609–12 (2014) (showing that holders of bonds issued during misrepresentation recovered in nineteen of the largest thirty securities class action settlements between 1996 and 2005). Even when the issuer does not sell securities, the issuer tends to benefit in other ways from fraud. See Velikonja, *supra* note 15, at 1910–11.

29. See, e.g., Michael Klausner et al., *How Protective Is D&O Insurance in Securities Class Actions? An Update*, 26 PLUS J. REPRINT 1, 1, 3–4 (2013) (reporting that while CEOs and CFOs were named as defendants in 93% and 80%, respectively, of securities class actions filed between 2006 and 2010, officers paid out of pocket in only 2% of those cases).

30. See, e.g., Coffee, *supra* note 26, at 1556–57.

31. See, e.g., James J. Park, *Securities Class Actions and Bankrupt Companies*, 111 MICH. L. REV. 547, 580 n.91 (2013).

market risk of fraud. At least *ex ante*, securities purchasers should be indifferent to disclosure fraud if its prevalence and impact on the prices of securities remain stable over time.³² Fraud consistently harms only those shareholders who cannot diversify and trade.³³

Since compensation can provide only a limited rationale for securities class action litigation, most commentators today agree that perhaps such litigation could be justified as a deterrent of fraudulent misrepresentations by public companies.³⁴ Class actions supplement public enforcement efforts and can “vindicate the public interest through private litigation.”³⁵

But, as critics have often argued, class actions fall short on the deterrence front for two reasons. First, individual managers who are responsible for securities fraud rarely pay out of pocket to settle securities class action claims.³⁶ Nevertheless, because managers apparently dislike the hassle of litigation, there is evidence that public firms that operate in capital markets where the threat of fraud-on-the-market litigation is real are less likely to commit disclosure fraud than those that are immune from such threat.³⁷

Second, and a bigger problem with the deterrence justification for securities litigation—one that this Article takes on—is that the potential liability exposure in a fraud-on-the-market suit has little to do with the social harm engendered by fraudulent disclosure. Defendants’ exposure in a fraud-on-the-market suit is the difference between the price that the plaintiffs paid to purchase the security (or sale price in those cases where price inflation is fraudulently suppressed) and the value of that security

32. See Velikonja, *supra* note 15, at 1893.

33. Cf. Langevoort, *supra* note 4, at 55 (explaining that “injuries are real when investors trade at distorted prices, and the injuries simply cannot be assumed away by hoping that the victims will make up their losses elsewhere”).

34. See, e.g., Merritt B. Fox, *Why Civil Liability for Disclosure Violations When Issuers Do Not Trade*, 2009 WISC. L. REV. 297, 304, 321; Sale & Thompson, *supra* note 25.

35. Jill E. Fisch, *Class Action Reform, Qui Tam, and the Role of the Plaintiff*, 60 LAW & CONTEMP. PROBS. 167, 175 (1997); see also William W. Bratton & Michael L. Wachter, *The Political Economy of Fraud on the Market*, 160 U. PA. L. REV. 69, 150 (2011) (quoting a speech by former SEC Chairman Harold Williams explaining that private litigation is a necessary supplement to SEC enforcement).

36. See, e.g., Klausner et al., *supra* note 29, at 3–4.

37. See, e.g., Simi Kedia et al., *Evidence on Contagion in Earnings Management*, 90 ACCT. REV. 2337, 2363–65 & tbl.7 (2015) (reporting that securities litigation after a restatement deters earnings manipulation by peer firms); James P. Naughton et al., *Private Litigation Costs and Voluntary Disclosure: Evidence from the Morrison Ruling 28* (Oct. 7, 2015) (unpublished manuscript), available at <http://ssrn.com/abstract=2432371> (providing evidence that liability risk increases voluntary disclosure by firms).

absent fraudulent disclosure.³⁸ But as noted above, for every losing seller of a publicly-traded security, there is a winning buyer; fraudulent disclosure merely redistributes wealth between owners of securities.³⁹ Wealth transfers are not social costs.

The aggregate amount of trading losses caused by fraudulent disclosure may, by chance, overlap with the social cost, just like a broken clock is right twice a day. Most commentators seem to agree that defendants' liability exposure in a fraud-on-the-market suit will generally be too large because gains by securities sellers offset losses by purchasers (assuming no insider trading).⁴⁰ In response, commentators have proposed capping damages or otherwise limiting issuer liability for securities fraud.⁴¹ But once the overall social costs of disclosure fraud are taken into account, the issuer's exposure in a fraud-on-the-market suit could be too small for reasons described in more detail in Part III. By ignoring non-shareholder losses in securities class actions, judicial and academic commentary to date has largely ignored the potential for securities litigation to *under-deter* both managers and issuers.

III. DISCLOSURE AND DISTORTION

In order to prevail in a fraud-on-the-market securities class action, plaintiffs must show that they purchased securities at a price materially distorted by fraud and that they were harmed by false disclosure when truthful information was finally revealed.⁴² *Halliburton II* and its

38. With additional modifications under the Public Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737 (codified as amended in scattered sections of 15 U.S.C. and 18 U.S.C.) ("PSLRA"). The most relevant modifications include proportional liability and a safe harbor for forward-looking statements.

39. See Richard A. Posner, *Law and the Theory of Finance: Some Intersections*, 54 GEO. WASH. L. REV. 159, 169 (1986) (concluding that "the net measurable damages from a stock fraud will be zero" in most cases); see also Janet Cooper Alexander, *Rethinking Damages in Securities Class Actions*, 48 STAN. L. REV. 1487, 1502 (1996) (arguing that diversification and frequent trading effectively protect investors against securities fraud).

40. See e.g., Langevoort, *supra* note 26, at 639 ("Practitioners and academics have known for some time that the standard measure of liability in open-market securities fraud cases can be excessive. The effort to award all affected marketplace traders their 'out-of-pocket' damages creates the potential for recovery grossly disproportionate to the nature of the underlying violation."); Donald C. Langevoort, *Basic at Twenty: Rethinking Fraud on the Market*, 2009 WIS. L. REV. 151, 155 (raising concern about "the possibility that issuer damage liability may be disproportionate to the underlying conduct"); Posner, *supra* note 39, at 169.

41. See, e.g., Frank H. Easterbrook & Daniel R. Fischel, *Optimal Damages in Securities Cases*, 52 U. CHI. L. REV. 611, 651-52 (1985); Langevoort, *supra* note 26, at 639.

42. *Basic Inc. v. Levinson*, 485 U.S. 224, 231 (1988); *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 341-42 (2005).

predecessors predicate the class action on price impact and distortion caused by the fraudulent misrepresentation.⁴³ This is entirely consistent with the fraud-on-the-market class action's pedigree as a remedy for purchasers and sellers of securities. As explained earlier, the fraud-on-the-market doctrine creates a presumption that material misrepresentations affecting a public security distort its price. To recover, purchasers and sellers of affected securities do not need to show that they were aware of any particular fraudulent communication: it is presumed that false information will distort the price of the security, so long as that security trades in a reasonably efficient market.⁴⁴ The presumption makes sense because in such a market, rational investors do not rely on any particular piece of information when buying securities. Rather, rational investors rely on the prices themselves, based on a broader notion that securities prices reasonably reflect all publicly available information.⁴⁵ Prices distorted by fraud will hurt such investors, even if the investors never read the false disclosure.

But stock price distortion is a symptom of the underlying disease: the distortion of (usually) financial information about the firm and its operations. To be sure, the consequence of false disclosure is the distortion in the price of its securities, in particular the issuer's common stock, but that is an indirect effect. False information about the issuer can distort the behavior of market participants directly.⁴⁶

43. *Halliburton Co. v. Erica P. John Fund, Inc. (Halliburton II)*, 134 S. Ct. 2398, 2405–07 (2014); *Amgen Inc. v. Conn. Ret. Plans & Trust Funds*, 133 S. Ct. 1184, 1194–95 (2013).

44. In other words, much trading in securities markets occurs without reference to specific company disclosures. See Fisch, *supra* note 12, at 929–30.

45. *Basic*, 485 U.S. at 247 (“An investor who buys or sells stock at the price set by the market does so in reliance on the integrity of that price. Because most publicly available information is reflected in market price, an investor's reliance on any public material misrepresentations, therefore, may be presumed for purposes of a Rule 10b–5 action.”).

46. See, e.g., Art Durnev & Claudine Mangen, *Corporate Investments: Learning from Restatements*, 47 J. ACCT. RES. 679, 699–701 (2009) (reporting that firms overinvest during fraud committed by their rivals in reliance on their false financial statements); Cristi A. Gleason et al., *The Contagion Effects of Accounting Restatements*, 83 ACCT. REV. 83, 94 (2008) (providing evidence that misrepresentations produce overinvestment by both the restating firm and the industry during fraud); Gil Sadka, *The Economic Consequences of Accounting Fraud in Product Markets: Theory and a Case from the U.S. Telecommunications Industry (WorldCom)*, 8 AM. L. & ECON. REV. 439 (2006) (using WorldCom to demonstrate the real economic consequences of accounting fraud).

There is also a growing body of literature documenting spillover effects between capital market regulation product markets. See, e.g., Igor Goncharov & Caspar David Peter, *Does Reporting Transparency Affect Industry Coordination? Evidence from the Duration of International Cartels* 32 (LUMS Dep't of Accounting & Fin. Working Paper Series, No. AF2014/15WP04, 2016), available at <http://ssrn.com/abstract=2530385> (showing that “improvements in reporting transparency and enforcement can complement competition policy” and reduce the prevalence and duration of cartels).

Financial disclosure by public firms is useful for and used by all sorts of market participants: creditors use it to price credit,⁴⁷ parties in longer-term, open-ended contractual relationships with the firm (e.g., employees, vendors) use it to renegotiate such agreements and to adjust their extra-contractual expectations,⁴⁸ and rivals use such information to direct their own investment decisions.⁴⁹ Where disclosed information on which third parties rely is false, it can distort real economic behavior and thereby misallocate scarce capital and labor. Lower-return projects are funded while higher return ones are not, producing deadweight losses. In addition, false information impairs economic learning and exacerbates boom-and-bust cycles.⁵⁰ Through these processes, false disclosure can produce considerable negative externalities that can be directly attributed to disclosure fraud, but are neither considered nor relevant in a fraud-on-the-market suit.⁵¹

If real economic distortion is small relative to the stock price distortion, then perhaps the fraud-on-the-market class action could be defended as a “good enough” deterrent, at least in principle. Similarly, if stock price distortion and economic distortion are perfectly correlated—a large financial misrepresentation leads to both a large stock price and real economic distortion—the fraud-on-the-market class action will at least target the right sorts of frauds, even if it ultimately under-deters.⁵² However, if not, the fraud-on-the-market suit as understood today will deter poorly because it will target the wrong firms for damage liability that will often be too small. The analysis offered here suggests that we ought to be able to identify cases where economic consequences of false disclosure are large and attempt to deter them through *ex ante* measures, such as

47. See Velikonja, *supra* note 15, at 1907.

48. See *id.* at 1918–23.

49. See Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 685 (1984) (observing that information provided by one firm will be useful to that firm’s rivals). Financial disclosure can also affect cartel duration. See Goncharov & Peter, *supra* note 46, at 4.

50. See Velikonja, *supra* note 15, at 1895.

51. In fact, only purchasers and sellers of securities have standing to bring a securities fraud cause of action. See *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 737 (1975).

52. Several prominent commentators have suggested that securities litigation over-deters at the firm level (i.e., liability exposure for the firm is considerably larger than either the losses to shareholders’ portfolios or the benefit to the firm from false disclosure). See, e.g., Myriam Gilles, *Opting Out of Liability: The Forthcoming, Near-Total Demise of the Modern Class Action*, 104 MICH. L. REV. 373, 378 (2005) (suggesting that “many scholars” argue that class actions over-deter); Paul G. Mahoney, *Precaution Costs and the Law of Fraud in Impersonal Markets*, 78 VA. L. REV. 623, 625–26 (1992). But if fraud also causes economic harm to third parties, and that harm correlated with plaintiffs’ losses, then perhaps class actions deter firms about right.

prophylactic regulation, and *ex post* measures, such as increased private liability and public enforcement. Ultimately, this Part provides evidence that should encourage courts handling securities class actions and agencies pursuing enforcement actions to recognize that securities litigation can valuably deter disclosure fraud, and—when in doubt—to err on the side of more litigation and enforcement of disclosure fraud.

This Part first discusses how false disclosure distorts financial and economic decisions in various markets, not just the secondary market for publicly-traded securities. It then suggests that real economic distortion caused by false information will only sometimes correlate with stock-price distortion. Finally, this Part identifies a non-exhaustive list of determinants for when large real-economic distortion is likely.

A. *The Mechanics of Distortion*

Stock price distortion is the consequence, not the cause, of underlying fraudulent disclosure. Usually, managers release false information to disguise disappointing performance. Sometimes, it is to avoid bankruptcy. But more often, the firm misses an earnings target and is concerned about losing its high valuation.⁵³ Concealing bad news, or news that is less than great, buys the manager time.⁵⁴

To mask the original lie, the manager must continue to lie, in venues that target the firm's shareholders and in venues that do not.⁵⁵ To the extent that the firm's real actions are observable, the manager must conform his actions to the firm's reported financial health in order to avoid detection of the misrepresentation.⁵⁶ He might announce new projects, overinvest and overhire, even sell output at a loss.⁵⁷ The firm might go on an acquisition binge, buying up other firms with overpriced stock. By misreporting the firm's financial results and prospects, the manager credibly communicates to markets that the firm is more profitable and,

53. See Patricia M. Dechow et al., *Predicting Material Accounting Misstatements*, 28 CONTEMP. ACCT. RES. 17, 21 (2011).

54. See Arlen & Carney, *supra* note 26, at 702–03.

55. A particularly memorable example of this phenomenon is Enron CEO Kenneth Lay's meeting with thousands of Enron employees on August 16, 2001, two days after Jeffrey Skilling stepped down as CEO and two months before Enron restated its financial statements for 1997–2000. During the address, Lay reassured employees that all was well with the firm. gabel305, *Enron Employee Meeting Part 1*, YOUTUBE (Mar. 20, 2009), <https://www.youtube.com/watch?v=6svTm7zC50w>.

56. See Sadka, *supra* note 46, at 447 (observing that managers will change their business decisions to conceal fraud).

57. See *id.* at 439, 457–58.

importantly, less risky than it in fact is. Relying on false information, lenders underprice credit, and employees make career and retirement decisions based on a false picture of their firm's prosperity.⁵⁸ Conversely, because capital and labor are scarce and fraud firms hog a disproportionate share of each, honest firms cannot obtain the funds or the workers to pursue valuable projects.⁵⁹

Fraudulent disclosure also interferes with other firms' ability to understand the markets in which they operate.⁶⁰ Firms' managers do not know *ex ante* what business strategy is optimal and so they often look to their rivals as gauges of what the market wants. Significant misreporting impairs rivals' ability to discern the value of new investments and exacerbates investment booms and busts.⁶¹

And, finally, false disclosure usually distorts the stock price.⁶² Importantly, under *Dura*,⁶³ stock price distortion by itself does not harm investors unless and until the truth comes out. By contrast, false disclosure can distort economic decisions by non-shareholders that rely on it from the outset and regardless of whether it is ever discovered. This is so because non-shareholders use the information itself to make investment decisions, rather than indirectly, as information is incorporated in the price of securities.

B. Distortion and Litigation

The extent to which false disclosure distorts the stock price depends on a variety of factors.⁶⁴ Simple, credible, and saliently-disclosed information relating to a firm whose shares are traded frequently will be impounded into the stock price more quickly than information that is complicated, buried, or unusual, or relates to a more thinly traded security.⁶⁵ The quicker and the more fully information is acquired, processed, and

58. See Velikonja, *supra* note 15, at 1923–26.

59. See *id.* at 1904.

60. See *id.* at 1929–30.

61. See, e.g., Paul Povel et al., *Booms, Busts, and Fraud*, 20 REV. FIN. STUD. 1219, 1222 (2007) (showing that fraud can prolong and exacerbate investment booms, leading to more painful busts).

62. “[W]hen fraud distorts securities prices, it produces a market-based harm. In the presence of a price distortion, all investors trade at the wrong price.” Fisch, *supra* note 12, at 913; see also generally Kahan, *supra* note 18 (discussing various social costs of distorted stock prices).

63. *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 347 (2005).

64. See Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 611 (1984) (elaborating on the various parameters relevant to how fast and to what extent price responds to information).

65. See *id.* at 593–95.

verified, the faster the stock market reaction, assuming all else is equal.⁶⁶ As a result, different information regarding the same firm will be impounded into its stock price at different speeds and to a different extent, and the same information about different firms will be impounded into their respective stock prices at different speeds and to a different extent.⁶⁷

By contrast, real economic distortion depends on factors other than those affecting stock prices. Shareholder-plaintiffs in a fraud-on-the-market class action are presumed to rely on the stock price, not on the underlying information.⁶⁸ Non-shareholders, on the other hand, rely primarily on the information itself and only secondarily on the stock price, if at all.⁶⁹ The extent to which the false information will distort their economic decisions will depend on different factors, including how important the information is for core investment decisions, whether there are other sources of information, and the credibility of the information.

Over the last decade, several economic models and empirical studies have tried to identify the determinants of the economic impact of fraudulent disclosure on non-shareholders, in particular on creditors, vendors, and rivals.⁷⁰ These studies suggest that in some cases, false financial disclosure will have little impact on non-shareholder behavior. Creditors, for example, are concerned about solvency and cash flows, and

66. *See id.*

67. *See* Amgen Inc. v. Conn. Ret. Plans & Trust Funds, 133 S. Ct. 1184, 1197 n.6 (2013). Many others have noted the possibility of variable impact of different pieces of information on the stock price of a single firm. *See, e.g.,* Bebchuk & Ferrell, *supra* note 10, at 682–84 (discussion various determinants of stock price reactions to new information); James D. Cox, *Understanding Causation in Private Securities Lawsuits: Building on Amgen*, 66 VAND. L. REV. 1719, 1732 (2013) (explaining that “not all public information will be impounded in a security’s price with the same alacrity”).

68. *Basic Inc. v. Levinson*, 485 U.S. 224, 247 (1988) (“An investor who buys or sells stock at the price set by the market does so in reliance on the integrity of that price. Because most publicly available information is reflected in market price, an investor’s reliance on any public material misrepresentations, therefore, may be presumed for purposes of a Rule 10b–5 action.”).

69. Perhaps self-servingly, AT&T’s CEO later claimed that he made inefficient business decisions trying to compete with WorldCom’s reported, and fraudulent, numbers. *See* Rebecca Blumenstein & Peter Grant, *Former Chief Tries to Redeem the Calls He Made at AT&T*, WALL ST. J. (May 26, 2004, 12:01 AM), <http://www.wsj.com/articles/SB108552358884921144>. I do not want to overstate my claim. Non-shareholders do sometimes rely on the stock prices themselves. *See, e.g.,* Avandhar Subrahmanyam & Sheridan Titman, *Financial Market Shocks and the Macroeconomy* 34 (Nat’l Bureau of Econ. Research, Working Paper No. 19383, 2013), available at <http://ssrn.com/abstract=2195184> (suggesting that stock prices themselves convey information about the value of investments, which in turn leads private firms to copy those investments).

70. *See, e.g.,* Eitan Goldman et al., *Financial Misrepresentations and Its Impact on Rivals*, 41 FIN. MGMT. 915, 931, 932 fig.3 (2012); Kedia et al., *supra* note 37, at 2337–40 (suggesting that rivals may copy fraudulent behaviors).

so are unlikely to care about marginal increases in profitability.⁷¹ In other cases, however, false disclosure will have a profound impact on non-shareholder behavior. False disclosures that suggest high demand for a particular product can draw rival firms into the fraud firm's markets, and can convince investors to pour capital into the industry and the firms in the industry to increase hiring. This leads to overcapacity that was never justified, and thereby paves the way to the inevitable, and painful, bust.⁷²

The fraud-on-the-market suit is available only in cases where the stock price distortion is relatively large (i.e., statistically significant, as demonstrated by an event study, ideally conducted at the time of the false disclosure). A complicating factor in fraudulent securities disclosure is the fact that many fraudulent disclosure cases are concealments:⁷³ the firm continues to disclose that everything is going well, when things have in fact deteriorated. In such cases, fraudulent disclosure prevents a stock-price drop that would have happened if truth had been told, and so the stock price does not move.⁷⁴ Instead, litigants avoid this problem by looking at stock-price reaction at the time of the corrective disclosure.⁷⁵ This is problematic because "there is no systematic relationship between ex ante and ex post price distortion."⁷⁶

But even if price impact at the time of the fraudulent disclosure and price distortion at the time of the corrective disclosure were identical, stock price distortions do not necessarily correlate with real economic distortions caused by the misrepresentation. The following table shows the possible pairings of distortions in the stock price and in the real economy caused by the same fraudulent disclosure. Stock price distortion is designated as significant if an event study can show significance with 95% confidence (as is usual in practice); otherwise, it is shown as insignificant.

71. See, e.g., William A. Klein, *The Modern Business Organization: Bargaining Under Constraints*, 91 YALE L.J. 1521, 1541 (1982) ("The fixed return of the debt claim is designed to appeal to an investor whose aversion to risk is higher than that of a residual claimant in the same firm or to an investor who does not want to be concerned with the profit-maximization decisions of the firm.").

72. Recent examples are the internet and telecommunication booms. An older example includes railroads: firms in the railroad industry laid extensive miles of track, including spurs to future towns that had not yet been built, only to be followed by numerous bankruptcies in the late 1870s. See generally Luboš Pástor & Pietro Veronesi, *Technological Revolutions and Stock Prices*, 99 AM. ECON. REV. 1451 (2009) (showing that stock prices of innovative firms exhibit bubbles during technological revolutions).

73. See Frank Torchio, *Proper Event Study Analysis in Securities Litigation*, 35 J. CORP. L. 159, 165 (2009).

74. See Bebchuk & Ferrell, *supra* note 10, at 692; Fisch, *supra* note 12, at 921.

75. See Bebchuk & Ferrell, *supra* note 10, at 692–93.

76. Fisch, *supra* note 12, at 922.

TABLE 1: DISTORTION AND THE AVAILABILITY OF FRAUD-ON-THE-MARKET (“FOTM”) SUITS

	Insignificant Stock Price Distortion	Significant Stock Price Distortion
No or Small Economic Distortion	No FOTM	FOTM available
Large Economic Distortion	No FOTM	FOTM available

In the first quadrant (top left), false disclosure produces a statistically insignificant stock price distortion, and the real economic distortion, too, is small. This is usually because the misrepresentation itself is one that neither investors nor other market participants consider important. In such cases, no class action is nor should be available.⁷⁷

In the second quadrant (top right), false disclosure significantly distorts the stock price, but does not otherwise distort economic decision-making. For example, a profitable firm that operates in a fragmented (i.e., competitive) industry, where rivals do not pay attention to each firm’s disclosures, overstates its earnings during normal times. No rival firm copies its behavior, the fraud firm does not raise additional capital or increase employment, and the revelation does not push the firm over the edge. The firm has no ability to shift the cost of fraud away from shareholders, and any employees or vendors that are terminated in the aftermath of fraud quickly find substitute work. When that is the case, shareholders really are the residual risk-bearers and might be the only class of victims that false disclosure plausibly harms. A fraud-on-the-market suit should be available⁷⁸ and shareholder-plaintiffs would appropriately recover.⁷⁹

77. The SEC could prosecute the violation anyway, either because it signals larger problems at the firm (i.e., a near-miss fraud), or because the SEC wants to send a message to other market participants. See 15 U.S.C. § 78u(a)(1) (2014) (authorizing the SEC to investigate violations of securities laws); see also generally Stephen J. Choi & Adam C. Pritchard, *SEC Investigations and Securities Class Actions: An Empirical Comparison* 13, 29 tbl.2 (Univ. of Mich. Law Sch. Law & Econ. Research Paper Series, Paper No. 12-022, 2014), available at <http://ssrn.com/abstract=2109739> (showing that firms facing only SEC enforcement report smaller, though still statistically significant, declines in the stock price on the date of the corrective disclosure).

78. Assuming that a court does not dismiss a meritorious suit—and some empirical work suggests that has happened. See, e.g., Quinn Curtis & Minor Myers, *Do the Merits Matter? Empirical*

In the third and fourth quadrants, available private remedies are inadequate. The mismatch between the fraud-on-the-market suit and deterrence is apparent in the third quadrant (bottom left), where the fraud-on-the-market class action is unavailable despite a large real economic distortion caused by the fraud. This will usually happen because of a methodological or legal error. For example, stock-price distortion sometimes cannot be shown using the accepted methodology, either because the methodology misfires,⁸⁰ or because the corrective disclosure is buried,⁸¹ leaks into the market slowly, or is bundled with other news about the issuer, good or bad.⁸² Such errors will not be distributed normally. Rather, false negatives are considerably more common than false positives; in other words, an event study will more often fail to show significance where it exists than the opposite, namely that an event study will show significance in the absence of a real event.⁸³ It is unlikely,

Evidence on Shareholder Suits from Options Backdating Litigation, 164 U. PA. L. REV. 291, 334–37 (2016) (showing that courts may have inefficiently dismissed meritorious backdating cases).

79. Subject to the above caveats about circularity, of course. See discussion *supra* Part II.

80. To show price impact, the plaintiff usually must procure an event study showing that the observed price change on the day of the corrective disclosure is:

sufficiently negative that the change is greater than the market-adjusted changes on 95% of the other trading days over the preceding year. This permits the expert to reject with 95% confidence the proposition that the observed change on the day of the corrective disclosure was solely due to this day's other bits of news and thus not due in any part to the disclosure.

Fox, *supra* note 9 (emphasis omitted). Gelbach, Helland, and Klick have shown that single-firm, single-event studies commonly used in securities litigation have a consistent anti-plaintiff bias. Event-study methodology will incorrectly reject as insignificant events that are, in fact, economically significant. See Jonah B. Gelbach et al., *Valid Inference in Single-Firm, Single-Event Studies*, 15 AM. L. & ECON. REV. 495, 512–13 (2013); see also generally Alon Brav & J.B. Heaton, *Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias*, 93 WASH. U. L. REV. 583 (2015).

In another forthcoming article, Edward Fox, Merritt Fox, and Ron Gilson have shown that volatility of individual firm stock prices increases markedly during financial crises. As a result, even large stock-price movements will not be statistically significant. See Edward G. Fox et al., *Economic Crisis and the Integration of Law and Finance: The Impact of Volatility Spikes*, 116 COLUM. L. REV. (forthcoming 2016) (manuscript at 9-10), available at <http://ssrn.com/abstract=2401712>.

Relatedly, several studies suggest that idiosyncratic risk tends to decrease relative to systematic risk after industry booms. As a result, fewer firm-specific disclosures will be identified as statistically significant *ex post*, even if they in fact significantly distorted the stock price *ex ante*. See, e.g., Gerard Hoberg & Gordon Phillips, *Real and Financial Industry Booms and Busts*, 65 J. FIN. 45, 78 tbl.VIII (2010) (showing a significant decline in idiosyncratic risk for most types of firms); Pástor & Veronesi, *supra* note 72, at 1477 (providing evidence that during bubbles, such as the internet bubble in the 1990s, stock prices rise because of idiosyncratic factors, but then move largely in step).

81. See, e.g., *In re Merck & Co. Sec. Litig.*, 432 F.3d 261, 264–65 (3d Cir. 2005).

82. See, e.g., James C. Spindler, *Why Shareholders Want Their CEOs to Lie More After Dura Pharmaceuticals*, 95 GEO. L.J. 653, 674–75 (2007) (explaining how *Dura* gives firms an incentive to bundle other news with disclosure of fraud).

83. See Fox et al., *supra* note 80 (manuscript at 39–42) (showing that the outcome is particularly likely when stock prices are unusually volatile; that is, during financial crises).

though not entirely impossible, that a truly insignificant stock price distortion produces a large real economic distortion.⁸⁴

Less apparent, but still likely to produce under-deterrence, is the result shown in the fourth quadrant (bottom right): a significant stock-price distortion that is accompanied by a large economic distortion. In such cases, a fraud-on-the-market class action is usually available. But even a large settlement can under-deter false disclosure that produces large real economic consequences because the amount of damages depends solely on the difference between the price that purchasers paid for the securities and the value absent the misrepresentation. The longer the class period, and the more frequently the stock is traded, the higher the potential “out-of-pocket” damages. But the amount of trading losses has nothing to do with the size of the overall economic impact—which can be considerably larger than trading losses. For example, the WorldCom securities class action settlement fund at \$6.1 billion is the second largest on record; \$5 billion of that went to bondholders.⁸⁵ Yet the WorldCom fraud had “sizable spillover effects.”⁸⁶ WorldCom’s rivals, alone, lost \$7.8 billion to its accounting fraud;⁸⁷ and this figure does not include losses to employees, vendors, communities, and the government.⁸⁸ To the extent that enforcement surrounding the WorldCom fraud had a deterrent effect, criminal actions packed a much greater punch than the class action settlement.

84. A firm that operates in a concentrated industry usually has considerable pricing power and can pass on the cost of business shocks to customers through price increases. If its product is sufficiently specialized, the firm can reduce its vendor and labor cost through contract renegotiation or termination. *See, e.g.*, Hoberg & Phillips, *supra* note 80, at 48; José-Miguel Gaspar & Massimo Massa, *Idiosyncratic Volatility and Product Market Competition*, 79 J. BUS. 3125, 3126 (2006) (“A firm with monopoly power is able to pass on a bigger proportion of any idiosyncratic cost shocks to its consumers.”). There could be no significant stock-price reaction to the corrective disclosure. Where there is no statistically significant stock-price reaction to the false disclosure (or its correction in the case of a confirmatory lie), courts have dismissed fraud-on-the-market actions for lack of materiality or lack of loss causation, regardless of whether the false disclosure produced a large real economic distortion. *See, e.g.*, *Greenhouse v. MCG Capital Corp.*, 392 F.3d 650, 655, 660–61 (4th Cir. 2004); *Oran v. Stafford*, 226 F.3d 275, 283 (3d Cir. 2000); *In re Burlington Coat Factory Sec. Litig.*, 114 F.3d 1410, 1425 (3d Cir. 1997); *Cox*, *supra* note 67, at 1734–36; *cf.* No. 84 Emp’r-Teamster Joint Council Pension Trust Fund v. Am. W. Holding Corp., 320 F.3d 920, 936 (9th Cir. 2003) (reversing the district court’s decision to dismiss the complaint).

85. Gretchen Morgenson, *Bank to Pay \$2 Billion to Settle WorldCom Claims*, N.Y. TIMES (Mar. 17, 2005), <http://www.nytimes.com/2005/03/17/business/bank-to-pay-2-billion-to-settle-worldcom-claims.html>.

86. Donald C. Langevoort, *The SEC, Retail Investors, and the Institutionalization of the Securities Markets*, 95 VA. L. REV. 1025, 1066 (2009).

87. J. Gregory Sidak, *The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation*, 20 YALE J. ON REG. 207, 235 (2003).

88. *See* Velikonja, *supra* note 15, at 1891–92, 1944.

As shown in this section, in some cases false disclosure will cause major economic harm, in others not. Empirical studies show considerable variation in stock price reactions to disclosure of financial manipulation.⁸⁹ Sometimes significant stock price distortions will be accompanied by modest or small real economic distortions; at other times, they will be accompanied by large economic losses. Where the economic distortion other than a rearrangement of wealth among shareholders is small, exclusive focus on purchasers and sellers of securities in securities litigation is consistent with deterrence. Where the economic distortion is large, issuer's damage liability might be too small—not too large as is commonly the concern⁹⁰—and securities litigation will under-deter. Significantly, legal and methodological mechanisms designed to eliminate excessive securities litigation have the undesirable side effect of weeding out class actions where real economic losses are considerable, yet an event study cannot consistently show a statistically significant price impact.⁹¹ In such cases, a fraud-on-the-market suit will be promptly dismissed (or, more likely, never filed).⁹² This is not new to *Halliburton II*, but suggests that securities litigation can significantly under-deter disclosure fraud.

C. Determinants of Economic Distortion

Stock price data is readily available and the impact of information on stock prices has been extensively studied. Information about other economic activities is neither as readily available nor as easy to interpret as stock price data. As a result, the economic consequences of disclosure

89. See, e.g., Jonathan M. Karpoff et al., *The Cost to Firms of Cooking the Books*, 43 J. FIN. & QUANTITATIVE ANALYSIS 581, 591 tbl.5 (2008) (showing considerable variation in cumulative abnormal returns around the date of the corrective disclosure).

90. See, e.g., Langevoort, *Basic at Twenty*, *supra* note 40, at 155 (raising concern about “the possibility that issuer damage liability may be disproportionate to the underlying conduct”).

91. Legal mechanisms include the PSLRA and Supreme Court decisions, in particular, *Dura*, *Janus Capital Grp. v. First Derivative Traders*, 564 U.S. 135 (2011) (holding that individuals or firms that do not issue or sign do not “make” statements giving rise to liability, even if they drafted the statements), and *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148 (2008) (limiting liability to secondary actors who visibly participate in the scheme, rather than doing so behind the scenes).

92. See, e.g., Choi & Pritchard, *supra* note 77, at 29 tbl.2 (showing that class actions are filed in cases with a large and significant decline in the stock price around the day of the corrective disclosure).

and fraudulent disclosure “are still largely unexplored.”⁹³ But recent work suggests that economic distortions beget by fraud can be considerable.⁹⁴

Generally speaking, persistent frauds produce greater economic distortions than those of shorter duration.⁹⁵ While the firm is concealing the truth, its economic situation can deteriorate beyond repair. Longer-lasting frauds are more likely to crowd out efficient investments and encourage rivals to enter or exit the industry.⁹⁶ Frauds affecting larger firms, too, tend to produce more severe economic consequences.⁹⁷ Large firms use more human and financial capital. Their frauds will tend to produce a larger economic displacement in the aggregate, in particular where the large firm is an industry leader with considerable market power.⁹⁸ The type of the misrepresentation also matters.⁹⁹ Rivals, vendors, and large customers are more likely to use and to rely on a misstatement of core accounts, such as revenues, sales, market share, and cost of goods sold, than on the firm’s pension fund returns.

All three determinants—duration of fraud, the size of the fraud firm, and the type of fraudulent disclosure—will tend to correlate with out-of-pocket damages in a fraud-on-the-market class action. The longer the class period, the more trades have taken place. Market capitalization of the firm is an important factor in the potential size of the settlement pool. And fraud regarding core accounts will be highly relevant for predicting future performance, and hence affect the stock price. The fraud-on-the-market class action could still be dismissed, either because the defendant bundled the corrective disclosure with other news, good or bad, and thus made it very difficult to show price distortion, or because the event study

93. Christian Leuz & Peter Wysocki, *Economic Consequences of Financial Reporting and Disclosure Regulation: A Review and Suggestions for Future Research* 12 (Mar. 2008) (unpublished working paper), available at <http://ssrn.com/abstract=1105398>.

94. See Velikonja, *supra* note 15, at 1929–37.

95. See James J. Park, *Assessing the Materiality of Financial Misstatements*, 34 J. CORP. L. 513, 550 (2009) (using fundamental analysis to argue that persistent misstatements should be presumptively material); Abigail Brown & Simon D. Angus, *Destroying Creative Destruction: The Social Welfare Cost of Fraud* 28 (Oct. 13, 2010) (unpublished manuscript), available at <https://abigailbrown.files.wordpress.com/2009/08/non-anon1.pdf> (observing that persistent fraud is far more damaging than intermittent fraud).

96. See Velikonja, *supra* note 15, at 1941.

97. See *id.* at 1942.

98. See Gleason et al., *supra* note 46, at 103–04 (finding that competitors’ stock prices decline significantly when the restating firm is large but show no effect when the restating firm is small); Donald C. Langevoort & Robert B. Thompson, “Publicness” in *Contemporary Securities Regulation After the JOBS Act*, 101 GEO. L.J. 337, 374–75 (2013) (suggesting that WorldCom and Enron were different from run-of-the-mill accounting frauds because of their size).

99. See Velikonja, *supra* note 15, at 1941.

generated a false negative. But if available, fraud duration, firm size, and the substance of false disclosure will tend to increase both the economic harm and out-of-pocket shareholder losses.

A less well understood but important cross-cutting determinant of the economic cost of fraudulent disclosure is competition.¹⁰⁰ Product market competition has several interesting effects on the relationship between financial disclosure fraud and its economic consequences—under some circumstances pushing economic distortion and stock-price distortion in opposite directions. The conventional wisdom among economists is that product market competition reduces managerial slack and thus agency costs.¹⁰¹ And so one would expect less fraud in more competitive markets and more in concentrated markets. But in reality, the constraint imposed by product market competition varies, depending on the business cycle, on transparency in reporting, and on other factors.¹⁰²

Firms coordinate their actions with industry peers, which affects product market competition, and vice versa. Mandatory disclosure of relevant product market information, such as revenues, sales, and cost-per-unit sold, is costly for each firm to produce, but generates a positive externality for all firms in the industry and the economy as a whole in that it facilitates coordination.¹⁰³ Conversely, false disclosure interferes with this process.¹⁰⁴ Recent work suggests that the characteristics of the markets in which the firm operates and the relative power of the firm in such markets affect its and its rivals' investment decisions.¹⁰⁵

Competitive, or fragmented, industries are more prone to boom-and-bust cycles than are concentrated industries. Fragmented industries also tend to fare worse after a fraud wave than concentrated industries.¹⁰⁶

100. *See id.* at 1942–44.

101. *See, e.g.,* K.J. Martijn Cremers et al., *Takeover Defenses and Competition: The Role of Stakeholders*, 5 J. EMPIRICAL LEGAL STUD. 791, 812–13 (2008) (showing that protections from hostile takeovers reduce market value of firms in concentrated industries, but not of those in competitive industries, suggesting that product market competition disciplines management); Karthik Balakrishnan & Daniel A. Cohen, *Competition and Financial Accounting Misreporting* 4 (Sept. 30, 2013) (unpublished manuscript), available at <http://ssrn.com/abstract=1927427> (showing that product market competition can discipline misreporting).

102. *See* Velikonja, *supra* note 15, at 1943–44.

103. *See* Goncharov & Peter, *supra* note 46, at abstract (“Firms coordinate their actions with industry peers, which affects product market competition.”). The authors also report that increased accounting transparency reduces the number of cartels and their duration. *See id.* at 29.

104. *See* Leuz & Wysocki, *supra* note 93, at 13.

105. *See* Velikonja, *supra* note 15, at 1942–44.

106. *See* Hoberg & Phillips, *supra* note 80, at 46; Tracy Yue Wang & Andrew Winton, *Product Market Interactions and Corporate Fraud* 25–26 (Feb. 13, 2014) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2398035.

During periods of rapid growth, the constraint that the competitive product market ordinarily imposes on managers to commit fraud disappears. As investors chase firms with good projects, bad firms in the industry have an incentive to lie. During a bull market, investors compete for investment opportunities and in their rush reduce monitoring.¹⁰⁷ As the fever pitch increases, fraud, too, tends to increase.¹⁰⁸ In addition to misallocating capital, fraud also biases the common signal on which firms in the industry and outside investors rely—the signal being that the product market is hot and more resources should pour into it. In particular in fragmented industries, where managers generally have little information outside of the common signal, they are likely to make similar investment decisions—all distorted by fraud.¹⁰⁹ Boom cycles rarely affect all industries at once. Fraud in one segment leads to overhiring, overinvestment, and overcapacity in that segment¹¹⁰ and starves another segment of needed capital and labor, producing deadweight losses in the process.¹¹¹ The effect is more pronounced in industries where the barriers to entry are low.¹¹²

Fraud in fragmented industries is pro-cyclical: it prolongs and amplifies the boom and bust cycles.¹¹³ Firms rush to invest and expand based on the fraudulent signal, making the future collapse all the more painful.¹¹⁴ Wang and Winton also provide evidence that firms that commit fraud during industry booms experience a larger decrease in profitability than those that commit fraud during normal times.¹¹⁵

107. Povel et al., *supra* note 61, at 1220.

108. *See id.* at 1243–44.

109. *See* Hoberg & Phillips, *supra* note 80, at 49. Wang and Winton explain that collecting information about individual firms in a fragmented industry is costly, which is why managers and investors rely on the common signal, an aggregate of disclosures by all firms in the industry. Wang & Winton, *supra* note 106, at 11.

110. Simi Kedia & Thomas Philippon, *The Economics of Fraudulent Accounting*, 22 REV. FIN. STUD. 2169, 2193, 2194 fig.3 (2009).

111. *See* Art Durnev & Claudine Mangen, *Corporate Investments: Learning from Restatements*, 47 J. ACCT. RES. 679, 697 (2009) (finding that competitors on average reduce investments by 5.6% in the year of the restatement, by 5.2% the following year, by 2.6% the year thereafter, and by 16.2% in the third year after the restatement).

112. *See* Balakrishnan & Cohen, *supra* note 101, at 5 (explaining that the disciplining effect of competition is more pronounced in industries where financial statements are more comparable); Phillip G. Berger & Rebecca Hann, *Segment Disclosures, Proprietary Costs, and the Market for Corporate Control* 8 (Dec. 2002) (unpublished manuscript), available at <http://srn.com/abstract=357780>.

113. *See* Wang & Winton, *supra* note 106, at 4.

114. *See id.* at 29.

115. *See id.* at 27–28 (finding a 4% decrease in profitability of fraud firms during normal times and a 6.3% decrease for firms that commit fraud during industry booms).

Ironically, event study methodology is particularly vulnerable to errors during crisis and bust times, and biases downward the number of statistically significant results.¹¹⁶ And so, one would expect that at least some number of disclosure frauds will produce the result shown in the third quadrant in Table 1: no fraud-on-the-market class action, despite a large economic distortion aggregated across multiple firms.

Concentrated industries are less susceptible to fraud waves during boom cycles but their odds of committing fraud are higher during normal times compared with firms in fragmented industries.¹¹⁷ Fraudulent disclosure distorts concentrated industries differently, though no less significantly. Because there are fewer firms in the industry, information about the demand for each firm's product—sales, earnings, profit margins—has a meaningful impact on rivals' capacity decisions. As a result, firms in oligopolistic industries have more to lose from disclosing such information to rivals.¹¹⁸ One would expect disclosures by firms in concentrated industries to be less transparent, but disclosures that are released would be highly relevant and important in rivals' business decisions. When disclosure about demand for one firm's product has a meaningful impact on its rivals' decisions, we can assume that rivals are collecting information about that firm.¹¹⁹ Closer monitoring of individual firm disclosures generally reduces the prevalence of fraud in concentrated industries.¹²⁰ However, if a manager issues a credible, but false, statement, even a single-firm misrepresentation can distort rival behavior in concentrated markets, affecting hiring, investment, and output.¹²¹

116. See Fox et al., *supra* note 80 (manuscript at 9-10); Hoberg & Phillips, *supra* note 80, at 78 tbl.VIII (showing that idiosyncratic risk tends to decrease relative to systematic risk after industry booms). As a result, fewer firm-specific disclosures will be identified as statistically significant *ex post*, even if they in fact significantly distorted the stock price *ex ante*. See *id.*

117. See Velikonja, *supra* note 15, at 1922, 1940 (citing Tracy Yue Wang & Andrew Winton, Competition and Corporate Fraud Waves 26 (Apr. 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=1783752>).

118. See Wang & Winton, *supra* note 106, at 7.

119. *Id.*

120. See, e.g., Nanette Byrnes, P.J. Huffstutter & Mihir Dalal, *Insight: Seeds of Trouble Sown at Diamond Foods Years Ago*, REUTERS (Mar. 19, 2012, 1:07 PM), <http://www.reuters.com/article/us-diamond-tax-idUSBRE82I0AQ20120319> (reporting that a consultant working for a rival company noticed irregular accounting at Diamond Foods); see also generally Frank Gigler, *Self-Enforcing Voluntary Disclosures*, 32 J. ACCT. RES. 224, 225 (1994) (modeling that firms cannot communicate different information to capital markets and competitors, which increases the credibility of their disclosures). But not all industries work like this. In certain industries, misreported information deters rival entry. In such industries, fraud is more likely because it benefits the firm in both capital and product markets. See, e.g., Wang & Winton, *supra* note 106, at 20–21.

121. See Balakrishnan & Cohen, *supra* note 101, at 9.

Importantly, product market power can sever the relationship between fraudulent disclosure and stock-price distortion, and so a large misrepresentation does not necessarily lead to a large stock-price distortion.¹²² The conventional wisdom holds that investors as residual owners bear the cost of disclosure fraud. But this conclusion holds only for firms in truly competitive industries and in truly competitive, informed, and frictionless markets for labor, capital, and products. In all other cases firms are able to shield their profits and their stock prices and pass along some of the cost of business shocks from the more competitive financial markets to the relatively less competitive real markets for labor and product markets.¹²³ As a result, firms with market power have lower stock-price volatility than those operating in fragmented industries,¹²⁴ while their product prices fluctuate.¹²⁵ There is also evidence that firms in concentrated markets shift some of the post-disclosure cost of fraud to employees.¹²⁶ As a result, the stock-price reaction to corrective disclosure by a firm with market power will be reduced by whatever cost the fraud firm can externalize.

IV. POLICING FRAUDULENT DISCLOSURE

This Article, thus, offers several conclusions related to *Halliburton II* and the broader goal of policing fraudulent disclosure. First, *Halliburton II* allows defendants to offer evidence that the alleged fraudulent disclosure did not distort the stock price.¹²⁷ While defendants certainly had the right to do the same pre-*Halliburton II* at the motion to dismiss and at the summary judgment stages,¹²⁸ the standard of review for class certification is more favorable to defendants. It is, thus, likely that *Halliburton II* will, on the margin, prevent class certification at least in some cases that would otherwise survive the motions to dismiss and summary judgment, and end

122. See generally Peress, *supra* note 22, at 5 (explaining that product market power enables firms to shield profits from shocks by passing them on to their consumers).

123. Cf. Andrei Shleifer & Lawrence H. Summers, *Breach of Trust in Hostile Takeovers*, in CORPORATE TAKEOVERS: CAUSES AND CONSEQUENCES 33, 34 (Alan J. Auerbach ed., 1988) (observing that firms can transfer rents from employees to shareholders).

124. See, e.g., Gaspar & Massa, *supra* note 84, at 3148.

125. See, e.g., Gasparro, *supra* note 22 (reporting that the firm's customers were less sensitive to price increases than its rivals and so the firm decided to raise prices of brewed coffee to offset higher costs caused by futures contracts for coffee that the firm purchased).

126. See, e.g., Kedia & Philippon, *supra* note 110, at 2195, 2197.

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

128. See *id.* at 2413 (observing that "all agree defendants may" "rebut the presumption of reliance with evidence of a lack of price impact").

litigation right there and then. And it is also likely, based on the foregoing, that at least in some of these cases, the real economic distortion that false disclosure produced is sufficiently large that such frauds should be deterred. At this most obvious level, *Halliburton II* is bad news for securities litigation as well as for the quality of corporate disclosures.

Second, at a somewhat higher level of generality, the discussion in this Article suggests that *Halliburton II* is the wrong solution for the wrong problem. The solution offered in *Halliburton II* is “wrong” because it prevents cases from going forward at a time when it is not obvious that too many securities class actions are being filed. In 2014, securities class action settlements saw a sixteen-year low.¹²⁹ Because the screen used to filter out unmeritorious cases is imperfect, it seems plausible that the benefit of *Halliburton II* (i.e., preventing class certification of meritless cases) will exceed the cost (i.e., dismissal or deterrence of meritorious cases).

It is worth noting that mandatory disclosure (and disclosure more generally) performs an important economic function, and does not exist simply to ensure that publicly-traded securities change hands at the right price. Mandatory disclosure was never just about securities trading at accurate prices,¹³⁰ despite what *Halliburton II* would have us believe.¹³¹ And so it is unfortunate that private policing of issuer disclosures has been limited to purchasers and sellers in the market for public securities.

It is also unfortunate that Rule 10b-5 has become the primary legal authority to police companies’ disclosures. First, and foremost, the fraud-on-the-market suit is a remedy limited to securities traders. As explained in more detail in Part II, at least on average, securities traders are not harmed by false disclosure.¹³² But that observation does not imply that securities traders are never harmed by false disclosure, nor does it imply that false disclosure does not engender economic losses beyond trading losses. They are and it does. Yet, only purchasers and sellers of securities have the right to sue.¹³³ Rivals, vendors, creditors, and employees generally do not have standing to sue for disclosure fraud, despite actual detrimental reliance on false disclosure.¹³⁴ Because they lack standing, it is

129. CORNERSTONE RESEARCH, SECURITIES CLASS ACTION SETTLEMENTS: 2014 REVIEW AND ANALYSIS I (2015), available at <https://www.cornerstone.com/GetAttachment/701f936e-ab1d-425b-8304-8a3e063abae8/Securities-Class-Action-Settlements-2014-Review-and-Analysis.pdf>.

130. See 15 U.S.C. § 78b (2014).

131. See *Halliburton II*, 134 S. Ct. at 2409–11.

132. See *supra* Part II.

133. *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 747 (1975).

134. See *Velikonja*, *supra* note 15, at 1925–26.

very easy to forget in the academic discussion and legal analysis of securities litigation that disclosure fraud produces victims other than purchasers and sellers of securities. The reason that limiting our conceptual analysis is problematic is that securities holders, as a class, are not harmed by false disclosure (at least at the portfolio level), whereas non-shareholders are, in fact, harmed, and cannot reduce or diversify away their losses. Once one has reached the conclusion that securities holders—the victims of disclosure fraud—are not harmed by it (at least *ex ante*), it is easy then to argue to curtail and limit the class action to an ever-narrower set of facts that trigger litigation and liability.

Second, damages in a fraud-on-the-market suit are calculated based on the purchasers' and sellers' net out-of-pocket losses.¹³⁵ The potential damages will generally be much larger than those purchasers' and sellers' portfolio losses from fraud,¹³⁶ suggesting that fraud-on-the-market suits overcompensate securities traders. But since damages come from the same securities traders' pockets, fraud-on-the-market suits are often portrayed as a mere wealth transfer, minus sizeable transaction costs in the form of attorneys' fees.¹³⁷ From that vantage point, it is a small step to conclude that fraud-on-the-market litigation should be curtailed, and perhaps eliminated, since it harms the very plaintiff-victims it is designed to compensate.¹³⁸

But as explained in Part III, this view cannot be reconciled with the economic reality that disclosure fraud produces real economic losses that fraud-on-the-market class actions cannot and do not compensate.¹³⁹ The fact that those who did not trade in public company securities during the class period do not have standing to bring a Rule 10b-5 suit does not imply that non-traders have nothing to lose from disclosure fraud—whether these non-traders are holders of securities,¹⁴⁰ creditors, employees, rivals, or the

135. See Amanda M. Rose, *Reforming Securities Litigation Reform: Restructuring the Relationship Between Public and Private Enforcement of Rule 10b-5*, 108 COLUM. L. REV. 1301, 1322–23 (2008).

136. Most cases settle, and settlement amounts are usually a fraction of potential damages.

137. Cf. Lynn A. Baker et al., *Is the Price Right? An Empirical Study of Fee-Setting in Securities Class Actions*, 115 COLUM. L. REV. 1371 (2015) (examining fee-setting in securities class actions filed between 2007 and 2012).

138. See, e.g., A.C. Pritchard, Halliburton II: *A Loser's History*, 10 DUKE J. CONST. L. & PUB. POL'Y 27, 28 (2015) (comparing securities litigation to “kudzu”).

139. See *supra* Part III. The Article leave the question of available damages and eligible recipients for another day and another paper.

140. The rationale in *Blue Chip Stamps v. Manor Drug Stores*, the Supreme Court decision that limited fraud-on-the-market litigation to purchasers and sellers, was not that those who held on to the stock during the period of misrepresentation were not harmed. 421 U.S. 723, 743 (1975). Rather, they

government. It is easy to conflate standing with injury. But just because someone does not have standing to sue under Rule 10b-5 does not imply a lack of injury. One can have injury without standing—as this Article set out to show.

In light of these economic realities, the securities class action is best understood not as a remedy to compensate losses suffered by defrauded purchasers and sellers of securities, but as a private mechanism to police disclosure fraud, a quasi *qui tam* cause of action.¹⁴¹ The requirement to show a significant stock price reaction to new information is an imperfect mechanism to ensure that fraud-on-the-market litigation is filed in cases that are economically significant. The requirement that purchasers and sellers of securities bring the class action is there to ensure that the parties have some stake in the dispute. If anything, perhaps we ought to relax the requirements of reliance and loss causation, neither of which make conceptual sense once the fraud-on-the-market class action is understood as a deterrence tool, not primarily about compensation. But so long as fraud-on-the-market litigation deters economically wasteful false disclosure, it is irrelevant that the average securities holder is not harmed by false disclosure, at least *ex ante*.¹⁴² That fraud-on-the-market litigation deters false disclosure is sufficient justification for the existence of the class action, regardless of whether purchasers require compensation and regardless of whether shareholders or the managers pay damages.¹⁴³

Thus repurposed, there is little evidence that fraud-on-the-market litigation ought to be curtailed. If anything, false disclosure is likely underpoliced.¹⁴⁴ In addition, the SEC whistleblower program is a necessary

are denied standing for policy reasons. *Id.* (“The Birnbaum rule undoubtedly excludes plaintiffs who have in fact been damaged by violations of Rule 10b-5, and to that extent it is undesirable.”).

141. See Fisch, *supra* note 35, at 198–202 (comparing *qui tam* and class action litigation); see also Langevoort, *supra* note 4, at 59 (“All of this has long suggested that Congress should revisit the entire remedial approach in the fraud-on-the-market setting, enabling private litigation but making it more clearly a deterrence-based mechanism.”).

142. Professors Hillary Sale and Bob Thompson make a related argument in their paper published in this issue. See Hillary A. Sale & Robert B. Thompson, *Market Intermediation, Publicness, and Securities Class Actions*, 93 WASH. U. L. REV. 487, 528–30 (2015).

143. Assuming, of course, that the social welfare cost-benefit of such litigation is positive.

144. Of course, private litigation is not the only deterrent for financial manipulation. The SEC and the DOJ, too, prosecute securities fraud. Available empirical work suggests less than perfect overlap between securities litigation and securities enforcement. See, e.g., James D. Cox & Randall S. Thomas, *SEC Enforcement Heuristics: An Empirical Inquiry*, 53 DUKE L.J. 737, 765–66, 776–77 (2003) (showing that the SEC targets smaller firms, frauds of longer duration, and firms in financial distress); see also Choi & Pritchard, *supra* note 77, at 20, 22–24 (reporting evidence of differential enforcement caused by *Dura*’s loss causation requirement and arguing that fraud-on-the-market class actions provide greater deterrence against more serious securities frauds than SEC enforcement).

complement, even if it remains small, at least for the time being.¹⁴⁵ Finally, prophylactic measures to ensure truthful disclosure are important. Although there is little more than anecdotal evidence for the recommendation, the much-maligned CEO and CFO certifications, and the sub-certifications they induce, are among the most effective regulatory reforms to improve disclosure quality. They provide a powerful incentive for managers to think twice about companies' disclosures and increase the likelihood that such disclosures will be truthful.

CONCLUSION

An enforcement mechanism to police fraudulent disclosure by issuers that is predicated on stock price distortion will do two things.¹⁴⁶ First, it will not deter those fraudulent disclosures where the stock price distortion, for whatever reason, is not statistically significant¹⁴⁷—and that may include frauds with considerable real economic harms. Second, it will under-deter fraudulent disclosures where the real economic distortion is large, regardless of the size of the stock price distortion. Neither effect is new to *Halliburton II*, but both suggest that there is now a real limitation on securities litigation as a mechanism to protect market integrity and resource allocation.¹⁴⁸ This is caused by the mismatch between the plaintiff class and the universe of victims harmed by false disclosure. The mismatch reduces the quantity and the quality of securities litigation and undermines the class action as a supplement to public enforcement. And that is unfortunate.

This Article proposes an alternative justification for fraud-on-the-market litigation: as a quasi *qui tam* mechanism to police false disclosure. Broadening our understanding of who is harmed by false disclosure undermines the most salient argument against fraud-on-the-market litigation—namely, that such litigation harms shareholders, ostensible victims of false disclosure, at considerable cost. Rather, even if fraud-on-

145. See Amanda M. Rose, *Better Bounty Hunting: How the SEC's New Whistleblower Program Changes the Securities Fraud Class Action Debate*, 108 NW. U. L. REV. 1235, 1273–75 (2014).

146. See *Halliburton Co. v. Erica P. John Fund, Inc. (Halliburton II)*, 134 S. Ct. 2398, 2414 (2014); *Basic Inc. v. Levinson*, 485 U.S. 224, 247 (1988) (“An investor who buys or sells stock at the price set by the market does so in reliance on the integrity of that price.”).

147. In fact, a fraud-on-the-market lawsuit simply will not be filed. See Choi & Pritchard, *supra* note 77, at 29 tbl.2 (showing that class actions are filed in cases with a large and significant decline in the stock price around the day of the corrective disclosure).

148. In addition, of course, to the usual complaint that individual wrongdoers almost never pay out of pocket.

the-market litigation comes at a cost to shareholders, the welfare benefit may nevertheless outweigh that cost. When viewed through this lens, many of the objections to securities litigation become weaker and its virtues are revealed.