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RETHINKING *BASIC*

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RETHINKING *BASIC*

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Abstract

Next spring, in the Halliburton case, the United States Supreme Court is expected to reconsider the Basic ruling that, twenty-five years ago, adopted the fraud-on-the-market theory and has since facilitated securities class action litigation. In this paper we seek to contribute to the expected reconsideration.

We show that, in contrast to claims made by the parties, the Justices need not assess the validity or scientific standing of the efficient market hypothesis; they need not, as it were, decide whether they find the view of Eugene Fama or Robert Shiller more persuasive. Class-wide reliance, we explain, should depend not on the “efficiency” of the market for the company’s security but on the existence of fraudulent distortion of the market price. Indeed, based on our review of the large body of research on market efficiency in financial economics, we show that, even fully accepting the views and evidence of market efficiency critics such as Professor Shiller, it is possible for market prices to be distorted by fraudulent disclosures. Conversely, even fully accepting the views and evidence of market efficiency supporters such as Professor Fama, it is possible for market prices not to be distorted by fraudulent disclosures. In short, even assuming the Court was somehow in a position to adjudicate the academic debate on market efficiency, market efficiency should not be the focus for determining class-wide reliance.

We put forward an alternative approach – focused on the existence of fraudulent distortion – to those advanced by petitioners and those opposing certiorari in Halliburton. We further discuss the analytical tools that would enable the federal courts to implement our alternative approach, as well as the allocation of the burden of proof, and we explain that a determination of fraudulent distortion would not usurp the merits issues of materiality and loss causation.

The proposed approach avoids reliance on the efficient market hypothesis and thereby avoids the problems with current judicial practice identified by petitioners (as well as those stressed by Justice White in his Basic opinion). It provides a coherent and implementable framework for identifying class-wide reliance in appropriate circumstances. It also has the virtue of focusing on the economic impact (if any) of the actual misstatements and omissions at issue, rather than general features of the securities markets.

Key Words: Basic, Class Action, Class Certification, Fraud-on-the-Market, Halliburton, Securities Litigation.

JEL classification: G14, K22, K42

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I. INTRODUCTION

On November 15, 2013, the Supreme Court granted *certiorari* in a case that promises to be of fundamental importance to securities class action litigants. The questions presented in the *Halliburton* case are twofold: first, whether the Court should overrule or substantially modify the holding of *Basic Inc. v. Levinson*¹ to the extent that it recognizes a presumption of class-wide reliance derived from the fraud-on-the-market theory; and, second, whether the defendant may prevent class certification by introducing evidence that the alleged misrepresentation did not distort the market price of its security. The *Basic* decision has shaped securities litigation over the past twenty-five years, and its expected reexamination could thus be consequential for this area of the law for years to come.

In this paper we provide a conceptual and economic framework for a reexamination of the Basic rule. To this end, we assess the large body of work on market efficiency in financial economics and bring it to bear on the current debate over the fraud-on-the-market presumption. Our analysis leads to the following conclusions regarding the questions presented in *Halliburton*:

(i) Basic should be substantially modified so as to ensure that class certification in terms of the reliance inquiry does not turn on the “efficiency” of the market in which the security trades – or, more generally, on the validity of the “efficient market hypothesis.” Rather, it should turn on the existence of “fraudulent distortion” – that is, on whether a misstatement affected (and was thus reflected in) the security’s market price.²

¹ 485 U.S. 224 (1988).

² We wish to emphasize that, in this paper, we are not addressing the purely legal question of whether, as a matter of statutory interpretation, “actual reliance” is a necessary condition for establishing “reliance” for Rule 10b-5 purposes. For a discussion of these issues, see Joseph Grundfest, 2013, “Damages and Reliance under Section 10(b) of the Exchange Act,” Working Paper.

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(ii) Given that the existence of fraudulent distortion should determine class-wide reliance, defendants would always have, as would plaintiffs, the ability to introduce evidence concerning the existence of such distortion.

More important than our answers to the questions presented is, of course, our reasons. Our answers are a function of what we consider to be three fundamental points that should set the conceptual and economic framework within which these questions should be explored:

First, and most crucially, whether a court certifies a securities class action should *not* depend on a judicial assessment of the “efficient market hypothesis.” Nor should it depend on whether a court deems the market in a particular security (or at a particular moment in time) to be “efficient.” It is unnecessary for the Supreme Court, or for the federal courts more generally, to assess whether conditions of market efficiency obtain in general or in the case of a given company in particular. In short, the Supreme Court does not have to determine whether it finds the view associated with Eugene Fama or the view associated with Robert Shiller (both recipients of the 2013 Nobel Prize in economics for their work on this subject) more persuasive.

To show that an assessment of market efficiency should not be decisive for determining whether potential members of a securities class action are similarly situated in terms of reliance, we explain what the standard tests for efficiency in financial economics are and why they should not be used for assessing class-wide reliance. We review the key types of evidence that have been put forward to question market efficiency and show that, even fully accepting the views and evidence of efficiency critics such as Professor Shiller, it is possible for market prices to be distorted by fraudulent disclosures. Conversely, we demonstrate that, even fully accepting the views and evidence of market efficiency supporters such as Professor Fama, it is possible for market prices not to be distorted by a given fraudulent disclosure. In short, even assuming that the Court is in a position to adjudicate its relative merits, the debate on market efficiency in financial economics should not be the focus in determining class-wide reliance.

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Second, the economic issue that *should* be the focal point of judicial inquiry into whether potential class members are similarly situated in terms of reliance is whether fraudulent distortion of a security's market price exists. If it does exist, there will be a certain class of investors who are similarly situated in terms of the reliance inquiry.³

Consider a scenario in which a materially misleading statement inflated the market price of a security so that the price was higher than it would have been but for the fraudulent statement, and suppose that a class of investors purchased the stock at a price that, unknown to them, was fraudulently distorted. It is appropriate for these investors to rely on the market price not being fraudulently distorted, and in such a scenario, they are similarly situated to the extent that the market price was in fact fraudulently compromised.⁴ The existence of such fraudulent distortion—the price being different than it would have been in the absence of the fraud—should be key for assessing class-wide reliance. Whether fraudulent distortion exists can be assessed directly and should not be decided by assessing whether the efficient market hypothesis generally holds true or whether the market for the particular security was efficient.

While the proposed rule, with its focus on fraudulent distortion, represents a meaningful modification of *Basic*, it retains the *Basic* Court's recognition that misstatements and omissions can affect (and thereby get reflected in) market prices and that this can produce class-wide consequences. At the same time, as we explain, our modification addresses the concerns expressed by Justice White in his *Basic* opinion:

³ We assume throughout our paper that the investors in question did not actually know that the representation was false.

⁴ The issue of fraudulent distortion is explicitly raised in the second question presented, is referenced at various points in the *Basic* opinion itself (as we discuss), and is reflected in the academic literature on securities class action litigation. See, e.g., Langevoort, "Basic at Twenty: Rethinking Fraud on the Market", 2009 *Wisconsin Law Review* 151; Jill Fisch, "The Trouble with Basic: Price Distortion after Halliburton," University of Pennsylvania Working Paper (2013); Jonathan R. Macey, Geoffrey Miller, Mark Mitchell and Jeffrey Netter, 1991, "Lessons From Financial Economics: Materiality, Reliance and Extending the Reach of *Basic v. Levinson*", 77 *Virginia Law Review* 1017, 1021 (discussing disconnect between market efficiency and price impact).

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among other things, it does not place general reliance on contestable economic theories, and it makes no assumptions about the “true value” of a security.⁵

Third, the rule we propose would avoid some of the significant administrability and implementation problems that have afflicted the federal courts’ practice in this area. Because the courts have thus far had to provide a yes/no answer to whether the market for a given security is efficient, significant problems of over- and under-inclusion have arisen.⁶ As we explain, a focus on fraudulent distortion would avoid much of the administrability problems lower courts have struggled with when applying *Basic*. Furthermore, as we document, there are standard and sound methods drawn from the academic finance and accounting literature for ascertaining whether a disclosure resulted in a distortionary price impact (a toolkit that should displace the current exclusive focus on the *Cammer* factors, which test for market efficiency).

In addition, we discuss the allocation of the burden of proof. The proposed modified rule could place that burden on plaintiffs, requiring them to prove the existence of fraudulent distortion, or it could require defendants seeking to prevent class certification to demonstrate the lack of such a distortion. Either allocation of the burden of proof would be consistent with our approach and analytical framework.

Finally, we explain that a class certification test based on the presence (or absence) of fraudulent distortion would not usurp the merits issues of materiality and loss causation. A finding of fraudulent distortion, and hence class-wide reliance, would not determine whether the allegedly false statement was material and whether such a statement caused plaintiffs’ losses.

⁵ We note that Justice Thomas’s dissent in *Amgen Inc. v. Connecticut Retirement Plans*, No. 11-1085, 568 U.S. ___, slip op. (U.S. Feb. 27, 2013), pointed out that “Justice White’s concerns remain valid today, but the Court has not been asked to revisit *Basic*’s fraud-on-the-market presumption.” (Justice Thomas’s opinion, footnote 4).

⁶ For a reference to the binary nature of the current “efficiency” inquiry and to issues this might raise, see *Amgen* majority opinion, footnote 6, and Justice Thomas’s dissent, footnote 4.

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The remainder of our analysis is organized as follows. Part II provides an assessment of the academic literature on efficient markets and why the issue of market efficiency should not be determinative of class-wide reliance. Part III discusses our alternative approach—its formulation, relation to *Basic*, implementation, administrability, and design. Part IV concludes.

II. MOVING AWAY FROM THE EFFICIENT MARKETS DEBATE

In this part, we show that the federal courts need not assess the validity of the efficient market hypothesis. We apply the large body of work on efficient markets in the financial economics literature to the debate over *Basic*'s fraud-on-the-market presumption. We explain that even fully accepting (and many do not) the basic criticisms of market efficiency found in the financial economics literature does not imply that investors were necessarily dissimilarly situated in terms of the economic impact of an alleged misstatement of the market price. Nor does fully accepting the validity of the efficient market hypothesis necessarily indicate the existence of a fraudulent distortion of market prices. The answer to whether investors were similarly situated in terms of class-wide reliance should not be decided simply by reference to the efficiency of market prices in general or to the company's security in particular.

A. The Focus on the Efficient Market Hypothesis

There is a long-standing debate in financial economics concerning the efficient market hypothesis. The literature on the subject is voluminous, with much of it highly technical in nature. Indeed, the Nobel Prize Committee chose to award the 2013 prize to two researchers who have very different views on the subject: Eugene Fama and Robert Shiller. (The third recipient, Lars Hansen, is not as strongly associated with a general position on this issue.)

Critics of market efficiency, including Professor Shiller, stress evidence that they believe proves that markets are generally inefficient, whereas supporters of market efficiency, including Professor Fama, question that evidence and the interpretation of it and instead stress evidence that markets are generally efficient. The Nobel Prize Committee,

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by choosing to recognize researchers who tend to be associated with different sides of the debate, recognized the importance of the work done by *both* supporters and critics of market efficiency.

The parties to the *Halliburton* case likewise take different views on the state of the debate, and each asks the Supreme Court to accept its view. The petition for *certiorari*, for instance, states that “scholarly consensus now teaches that even in such well-developed markets, stock prices do not efficiently incorporate all types of information at all times.” Similarly, the Chamber of Commerce, in its brief in support of *certiorari*, claims that *Basic* relies “on unquestioned adherence to a court-sanctioned efficient-market theory that today’s economists increasingly reject.” By contrast, the brief in opposition states that the “semi-strong efficient market hypothesis . . . continues to enjoy widespread support among economists.” This focus on the current scientific status of the efficient market hypothesis is understandable given that Justice Blackmun’s *Basic* decision references the concept of market efficiency at several key junctures.

It is worth noting that while the two sides take different overall views in the debate, they both invite the Court to form a judgment on the state of the evidence for the efficient market hypothesis. They do so by relying on and citing largely secondary sources that purport to support their overall assessment. Neither of them has sought to engage, at least at the *certiorari* stage, directly with the various pieces of the key empirical evidence and to relate this evidence to the question of class-wide reliance.

By contrast, our analysis below *is* based on such an engagement. On the basis of our assessment of the academic research on efficient markets, we explain why the future of class-wide reliance in securities litigation should not depend on which party—Professor Fama and other researchers generally associated with the efficient market hypothesis or Professor Shiller and similarly minded researchers—the Supreme Court finds more persuasive.

B. What Market Efficiency Means to Financial Economists

The *Basic* opinion stresses that prices in an efficient market reflect information and that, in such a market, alleged misrepresentations might distort prices relative to what they would be in the absence of such

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misrepresentations.⁷ The tendency of prices to respond to new information is indeed an implication of an efficient market. But to financial economists, the property of efficiency is not equivalent to mere responsiveness to information (such as misrepresentations).

According to the original definition put forth by Professor Fama in his seminal 1970 paper, “[a] market in which prices always ‘fully reflect’ available information is called ‘efficient.’”⁸ Equivalently, as Michael Jensen explained eight years later in another famous paper, a market can be considered efficient with respect to an information set if it is impossible to make abnormal returns by trading on the basis of that information set.⁹ If the market is efficient with respect to the publicly available information set, it is semi-strong efficient.¹⁰

On a similar note, Professor Burton Malkiel defines an efficient market as one that does “not allow investors to earn above-average returns without accepting above-average risks.”¹¹ Or, to turn to a recent paper on the subject, “to test for an efficient market, one only needs to show that there are no arbitrage opportunities nor dominated securities with respect to an information set.”¹² In other words, if there are abnormal stock returns that would accrue from trading using a particular information set, the market is not efficient with respect to—that is, has not “fully

⁷ 485 U.S. at 246 (“Recent empirical studies have tended to confirm Congress’ premise that the market price of shares traded on well-developed markets reflects all publicly available information, and, hence, any material misrepresentations”).

⁸ Eugene Fama, 1970, “Efficient Capital Markets: A Review of Theory and Empirical Work”, 25 *Journal of Finance* 383-417.

⁹ Michael Jensen, 1978, “Some Anomalous Evidence Regarding Market Efficiency”, 6 *Journal of Financial Economics* 95–101.

¹⁰ Eugene Fama, 1970, “Efficient Capital Markets: A Review of Theory and Empirical Work”, 25 *Journal of Finance* 383-417; Michael Jensen, 1978, “Some Anomalous Evidence Regarding Market Efficiency,” 6 *Journal of Financial Economics* 95–101.

¹¹ See Burton Malkiel, 2003, “The Efficient Market Hypothesis and its Critics”, 17 *Journal of Economic Perspectives* 59.

¹² Robert Jarrow and Martin Larsson, 2012, “The meaning of market efficiency,” 22 *Mathematical Finance* 1-30.

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reflected”—that information (at least with respect to the time period during which the abnormal returns would be generated).¹³

In this sense, one can say that inefficient stock prices are therefore “inaccurate” in that they do not fully impound all the value implications of information, as evidenced by the subsequent abnormal returns that can be generated using that information. That is, when the market is efficient, current prices must be such that no profit opportunities—abnormal returns—are left on the table.

Needless to say, an enormous amount of the academic literature on efficient markets has focused on whether there are abnormal returns associated with various trading strategies using a particular information set (such as all publicly available information). There are now thousands of studies in this vein, many of which—but by no means all—postdate the 1988 *Basic* decision.¹⁴ For our purposes, the critical question is whether the absence or presence of arbitrage opportunities (the key criterion for market efficiency) should determine class certification.

Our answer is that it should not. As we explain in Section C below, the presence of arbitrage opportunities (and thus market inefficiency) does not preclude the possibility of fraudulent distortion of market prices and thus class-wide reliance. Conversely, as we explain in Section D, the general absence of arbitrage opportunities (and thus market efficiency of the relevant security) does not imply the existence of fraudulent distortion of prices and class-wide reliance.

¹³ This definition is in line with the explanation of efficiency provided by the Supreme Court in *Amgen* (citation to R. Brealey, S. Myers, & F. Allen, *Principles of Corporate Finance* 330 (10th ed. 2011) (“[I]n an efficient market, there is no way for most investors to achieve consistently superior rates of return.”)).

¹⁴ It is worth noting that important academic work questioning the efficiency of the securities markets predates the 1988 *Basic* opinion; such work includes that of Professor Shiller (and others) on excessive stock price volatility and market overvaluation, which served as a basis for the Nobel award and is discussed below.

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C. Arbitrage Opportunities Do Not Imply Absence of Fraudulent Distortion

Let us start by examining the ways in which critics of the efficient market hypothesis claim to have found flaws in this theory. We wish to emphasize at the outset that these claims are contested in the academic literature. Our goal in this section is simply to ask whether even fully accepting these claims somehow affects one's judgment as to whether class-wide reliance exists. We proceed by discussing three important strands of the academic critique of efficient markets: (i) market overvaluation/long-run return predictability, (ii) excessive volatility, and (iii) market underreaction to information.

1. Market Overvaluation/Long-Run Return Predictability

As a recent survey of the academic literature on efficient markets explains, "A long history lies behind the idea that asset returns should be impossible to predict if asset prices reflect all relevant information."¹⁵ One of the earliest formal demonstrations of this idea can be found in Paul Samuelson's 1965 paper, "Proof That Properly Anticipated Prices Fluctuate Randomly." Professor Samuelson ties this idea to a lack of arbitrage, explaining that the lack of return predictability "means that there is no way of making an expected profit by extrapolating past changes in the futures price, by chart or any other esoteric devices of magic or mathematics."¹⁶

¹⁵ This is a quotation (p. 9) from the thoughtful and detailed 56-page survey of the academic literature (discussing some 220 academic papers and books) on asset pricing, which was compiled by the 2013 Economic Sciences Prize Committee of the Royal Swedish Academy of Sciences (hereinafter "Nobel Survey"). Entitled "Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2013: Understanding Asset Prices," the survey includes a discussion of the work of Nobel Laureates Eugene Fama, Lars Hansen, and Robert Shiller in the context of the overall academic literature on efficient markets. It can be found at http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2013/advanced-economicsciences2013.pdf.

¹⁶ Paul Samuelson, 1965, "Proof that properly anticipated prices fluctuate randomly," *Industrial Management Review* 6, 44.

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While a number of papers have in fact found that returns are generally unpredictable in the short run (or with any predictability being quite modest in magnitude),¹⁷ a substantial body of research comes to the opposite conclusion with respect to long-term return predictability. Professor Shiller argues that an investor could in fact earn higher returns by buying stocks at times in which the price-to-dividend ratio (price divided by the stock's current dividend) is historically low and by selling stocks when this ratio is high.¹⁸ And, on a similar note, John Campbell and Professor Shiller report that price-to-earnings (P/E) ratios (with earnings averaged over time) can predict long-term stock returns, with high P/E ratios indicating low future returns and low P/E ratios indicating high future returns.¹⁹

In short, according to this research, abnormal returns might be possible by betting against the market when it is high and going long when the market is low. A number of papers have built on this work, attempting to identify predictors of long-term stock returns.²⁰ To critics of market efficiency, this body of evidence suggests that, at certain points in time, the market inefficiently overvalues stocks (as evidenced by a high price-to-dividend or high P/E ratio), and so returns over the longer term are suppressed.

¹⁷ For research documenting some modest level of short-run predictability, see generally, Andrew Lo & MacKinlay, 1999, *Non-Random Walk Down Wall Street* (finding short-run return predictability for certain stock indexes); see also Andrew Lo & MacKinlay, 1988, "Stock market prices do not follow random walks: Evidence from a simple specification test," 1 *Review of Financial Studies* 41-66. We also discuss the related issue of "momentum" in stock prices in the context of market underreaction.

¹⁸ Robert Shiller, 1984, "Stock prices and social dynamics," *Carnegie Rochester Conference Series on Public Policy*, 457-510.

¹⁹ John Campbell and Robert Shiller, 1988, "The dividend-price ratio and expectations of future dividends and discount factors", 1 *Review of Financial Studies* 195-227; John Campbell and Robert Shiller, 1988, "Stock prices, earnings, and expected dividends," 43 *Journal of Finance* 661-76.

²⁰ See generally John Cochrane, 2001, *Asset Pricing*, Princeton University Press. These papers are also discussed at pp.17-20 of the Nobel Survey.

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We should note that this conclusion is contested in the literature; supporters of market efficiency have interpreted these findings as being consistent with market efficiency.²¹ For our purposes, however, what is important is that, even if we fully accept these results and their interpretation by efficiency critics, they do not imply the absence of class-wide reliance. This can be demonstrated through a simple hypothetical:

Market Overvaluation Hypo: The market is in a time of overvaluation, with the average P/E ratios being 20 and the historical average P/E ratio being only 15. An average P/E ratio firm falsely tells the market that it has \$2 of earnings while in fact the firm has only \$1 of earnings. This is a pleasant surprise to the market as, prior to the misstatement, it had been expecting only \$1 of earnings. As a result of the misstatement, the stock price doubles from \$20 to \$40 (given the doubling of earnings being reported). A month later the truth comes out and the stock drops from \$40 back to \$20. Over the next several years, the firm's stock return from a historical perspective is low as its P/E ratio of 20 falls closer to the historical average of 15.

It is quite difficult to see why class-wide reliance should turn on the fact that the market's current P/E ratio represents overvaluation or the fact that future returns for the market, and for this particular firm, might be lower (or perhaps even negative) as a result of the P/E ratio drifting back toward the historical average over time. And yet it is this type of issue that

²¹ See, e.g., Burton Malkiel, 2003, "The Efficient Market Hypothesis and its Critics", 17 *Journal of Economic Perspectives* 59, 65 ("These findings are not necessarily inconsistent with efficiency. Dividend yields of stocks tend to be high when interest rates are high, and they tend to be low when interest rates are low. Consequently, the ability of initial yields to predict returns may simply reflect the adjustment of the stock market to general economic conditions"); Eugene Fama, 1991, "Efficient Capital Markets: II," 46 *Journal of Finance* 1575, 1583 ("The predictability of stock returns from dividend yields (or E/P) is not in itself evidence for or against market efficiency").

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is often discussed (and debated) in the academic literature on market efficiency.

2. Excessive Volatility

Professor Shiller famously asked in a 1981 paper whether stock prices move too much to be justified by subsequent changes in dividends.²² His paper puts forward evidence suggesting that the answer is yes, there *is* excessive volatility in stock prices. The purported deviation from efficient pricing caused by excessive volatility could then imply an arbitrage opportunity.²³ To be sure, this answer has been contested and has generated a substantial and still ongoing academic debate on the issue.²⁴

But suppose that markets are inefficient, as stock prices do fluctuate excessively. With this supposition, we return to the hypothetical firm that misstated its earnings:

Excessive Volatility Hypo: A firm falsely tells the market that it has \$2 of earnings while in fact it has only \$1 of earnings. Prior to the misstatement, the market had been expecting \$1 of earnings, but the misstatement causes the stock price to double from \$20 to \$40 (given the

²² Robert Shiller, 1981, "Do stock prices move too much to be justified by subsequent changes in dividends?" 71 *American Economic Review* 421-436; see also Robert Shiller, 1981, "The use of volatility measures in assessing market efficiency," 36 *Journal of Finance* 291-304.

²³ It is worth noting that tests of excessive volatility are mathematically equivalent to certain tests of long-run return predictability. John Cochrane, 1991, "Volatility tests and Efficient Markets: A Review Essay," 27 *Journal of Monetary Economics* 463, 471; see also Nobel Survey, p. 17.

²⁴ For instance, Marsh and Merton, 1986, "Dividend Variability and Variance Bonds Tests for the Rationality of Stock Market Prices," *American Economic Review* 76, 48-98, argue that if (i) firms smooth dividends over time and (ii) firm earnings follow a geometric random walk, then the efficient market hypothesis actually predicts the results documented by Shiller. For further papers in this literature, see, e.g., Alan Kleidon, 1986, "Variance bounds tests and stock price valuation models," 94 *Journal of Political Economy* 953-1001; John Campbell and Robert Shiller, 1987, "Cointegration and tests of present value models", 95 *Journal of Political Economy* 1062-1088; Nobel Survey, pp.15-17, 30-33.

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doubling of earnings being reported). Thereafter, the price fluctuates randomly for no reason whatsoever between \$38 and \$42 every single hour of the trading day for the next month. A month later, the stock price drops back to \$20 when the truth is revealed about the firm's true earnings, and the price subsequently continues to fluctuate randomly between \$19 and \$21 every hour.

As with our market overvaluation hypothetical, it is very difficult to see why excessive volatility should determine class-wide reliance. To be sure, the excessive volatility created opportunities for some trading profits. However, throughout the considered one-month period, the security's price was subject to a fraudulent distortion that would have a class-wide impact on the purchasers of the stock.

3. Market Underreaction

One final strand of the inefficient market literature we mention is the issue of market underreaction to information. In the securities class action context, one is often focused on (false) positive information, such as our hypothetical firm reporting the "good" news that it has \$2 of earnings. Thus, for purposes of our discussion, we now focus on market underreaction to positive information. With market underreaction, the market does not fully price the impact of the good news immediately. However, in the longer run, the information does eventually get impounded into the stock price. This can lead to "momentum" in stock

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prices—that is, an initial positive stock price return followed by further positive stock returns.²⁵

We return once again to the hypothetical firm that misstated its earnings, now assuming market underreaction.

Market Underreaction Hypo: A firm once again falsely tells the market that it has \$2 of earnings while in fact it has only \$1 of earnings. Prior to the misstatement, the market had been expecting \$1 of earnings. Upon word of the “good” news, the stock price initially increases from \$20 to \$35 and, over the coming week, increases another \$5 up to \$40. A month later, when the truth is revealed about the firm’s true earnings, the stock price drops back to \$20.

As per the standard definition of market efficiency in financial economics, this is a case in which the market is clearly inefficient; the slow, gradual response of the market price to the disclosure enabled one to make \$5 by buying the stock right after the disclosure and selling the stock when it reached \$40. However, although an arbitrageur could conceivably make abnormal returns, it is still the case that any investor who purchased the stock after the false representation (but before the corrective disclosure) paid an additional \$15 or \$20 as a result of the fraudulent distortion.

²⁵ For some papers on this topic, see Hong, H. and J. Stein, 1999, “A unified theory of under-reaction, momentum trading, and overreaction in asset markets,” *Journal of Finance* 54(6), 2143-2184; Daniel, K., D. Hirshleifer, and A. Subrahmanyam, 1998, “Investor psychology and security market under- and over-reactions,” *Journal of Finance* 53(6), 1839-1884; Barberis, N., Shleifer, A. and R. Vishny, 1998, “A Model of Investor Sentiment”, 49 *Journal of Financial Economics*, 307-343; see also Nobel Survey, p.41. As with our other purported examples of market inefficiency, findings of market underreaction have been challenged in the literature. See, e.g., Eugene Fama, 1998, “Market Efficiency, Long-term returns, and Behavioral Finance”, 49 *Journal of Financial Economics* 49, 283-306.

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D. Absence of Arbitrage Opportunities Does Not Imply Fraudulent Distortion

Suppose one rejects the various criticisms of efficient markets explored in Section C and instead adopts the view that markets are generally efficient and that any deviations from efficiency are modest and fleeting. It is worth noting that even among supporters of the efficient market hypothesis, it is uncontested that markets cannot be perfectly efficient.²⁶ As Professor Fama explained in his survey of the efficient market literature: “the extreme version of the market efficiency hypothesis is surely false. . . . Each reader is . . . free to judge the scenarios where market efficiency is a good approximation . . . and those where some other model is a better simplifying view of the world.”²⁷

As we illustrate through the use of two new hypotheticals, it is entirely possible that, even in the context of a generally efficient market, a misstatement might have no distortive impact on the market price. In short, the assumption of an efficient market should not lead one to conclude that fraudulent distortion necessarily occurred. Whether fraudulent distortion did occur remains an empirical question that needs to be addressed.

1. Public and Transparent Misstatement with No Fraudulent Distortion

Even in a market that is generally efficient, fraudulent statements, even ones that are clearly noticed by investors and analysts, might not have a price impact and thus might not fraudulently distort the market price. To see this, consider the following hypothetical:

Public and Transparent Misstatement with No Price Impact Hypo: Suppose an Internet firm, which is closely followed by analysts (and with all the *Commer* factors clearly indicating that its stock trades in an “efficient”

²⁶ On the impossibility of perfectly efficient markets, see Sanford Grossman and Joseph Stiglitz, 1980, “On the impossibility of informationally efficient markets,” 70 *American Economic Review* 222-227.

²⁷ Eugene Fama, 1991, “Efficient Capital Markets: II,” 46 *Journal of Finance* 1575, 1575.

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market), discloses to the market its recent quarterly earnings. Several days later, the firm falsely discloses that the number of visitors to its website (“Internet eyeballs”) increased in the last quarter some 75%. Analysts carefully ask the company about the Internet eyeball number and what it might mean for firm profitability. On the date of the misrepresentation there is no price reaction. When the misrepresentation is later revealed, there is likewise no price reaction.

In this hypothetical, we would conclude that there is no class-wide reliance given the lack of a price reaction associated with the misstatement regardless of the “efficiency” of the market. One could, of course, ask why there was no price reaction. Perhaps the market did not view this information as important, and so the fact that the information was misstated is also unimportant. Perhaps all that matters to the market is quarterly earnings, which had been released to the market earlier. Or perhaps the market for some reason simply did not believe the firm when it released the Internet eyeball figure. At the end of the day, however, the reason for the lack of a price reaction isn’t central to the class-wide reliance question. What should be determinative of that question is the absence of fraudulent distortion.

2. Buried and Opaque Misstatements

As we noted earlier, even strong supporters of the efficient capital market hypothesis agree that this hypothesis is at most an approximation of market conditions, and that modest arbitrage opportunities might arise because some information in unusual circumstances might not get quickly and fully reflected in market prices. One possible reason is that some information might be buried and opaque and thus not readily absorbed and fully analyzed by investors. Consider the following hypothetical:

Buried and Opaque Information Hypo: Suppose a firm, in a publicly available report on its environmental policies (with this specific report being of very limited general interest), misstates some aspect of its financials. The misstatement is contained in a footnote and is written in a convoluted fashion. Further suppose that neither the

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misstatement nor a subsequent disclosure that the footnote was incorrect is associated with a price reaction.

As before, we would conclude that, given the lack of a price reaction associated with the misstatement, there is no class-wide reliance. The reason underlying the lack of a price reaction may be unknown. It may be that although the market is generally efficient, this particular unusual disclosure, in context, reflects a modest deviation from efficiency. Or perhaps the disclosure is not important to the market given other information available. But again, while the reasons might be helpful in understanding why there was no price reaction, it is the fact that there was no price reaction that is determinative.

E. A Final Remark on the Market Efficiency Debate

Abstracting for a moment from the specific positions taken in the academic debate on market efficiency, one can ask a different question: Why has the debate continued unabated over the course of decades? One possible answer is a statistical one: the power of statistical tests sometimes used to test market efficiency is low, making it difficult to arrive at definitive proof one way or another.²⁸ A related answer goes back to an issue originally identified by Professor Fama in his 1970 paper: the joint hypothesis problem in testing for efficient markets. Andrew Lo describes the joint hypothesis issue in the following way:

[T]he Efficient Markets hypothesis, by itself, is not a well-defined and empirically refutable hypothesis. To make it operational, one must specify additional structure, e.g., investors' preferences, information structure, business conditions, etc. But then a test of the Efficient Markets Hypothesis becomes a test of several auxiliary hypotheses as well, and a rejection of such a

²⁸ One early paper exploring this topic is Lawrence Summers, 1986, "Does the Stock Market Rationally Reflect Fundamental Values?", 41 *Journal of Finance* 591-601; see also Robert Stambaugh, 1986, "Discussion," 41 *Journal of Finance* 601-602.

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joint hypothesis tells us little about which aspect of the joint hypothesis is inconsistent with the data.²⁹

The joint hypothesis issue suggests that, for the foreseeable future, reasonable financial economists could well be expected to hold divergent views on the extent to which markets are generally efficient. Fortunately, as we have discussed at length above, courts need not worry about this issue. Whether one reads the evidence as generally supportive of the efficient market hypothesis or as undermining it should not affect the judgment as to the existence of class-wide reliance. Rather, we recommend that, going forward in determining class-wide reliance, courts focus on whether the alleged misstatement resulted in fraudulent distortion, an inquiry that does not turn on providing a definitive yes/no answer to the market efficiency question. It is to this alternative approach that we now turn.

III. GOING FORWARD

A. Reformulating Basic: Fraudulent Distortion

A showing of market efficiency is currently the key precondition to invoking *Basic*'s fraud-on-the-market presumption of reliance. The Supreme Court in *Amgen* (decided earlier this year) described the *Basic* fraud-on-the-market test of reliance in the following way:

The fraud-on-the-market premise is that the price of a security traded in an efficient market will reflect all publicly available information about a company; accordingly, a buyer of the security may be presumed to have relied on that information in purchasing the security. . . . Thus, where the market for a security is inefficient, . . . a plaintiff cannot invoke the fraud-on-the-market presumption.

²⁹ Andrew Lo, "Efficient Market Hypothesis," in L. Blume and S. Durlauf, *The New Palgrave: A Dictionary of Economics*, Second Edition, 2007. New York: Palgrave MacMillan.

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This rule can be viewed as consisting of three propositions:

(A1) The price of a security traded in an efficient market will reflect all publicly available information about a company;

(A2) Accordingly, a buyer of the security in an efficient market may be presumed to have relied on public information in purchasing the security; and

(A3) Where the market for a security is inefficient, a plaintiff cannot invoke the fraud-on-the-market presumption.

We propose replacing these three propositions with the following three propositions (the text below **bolds** the changes made to (A1)-(A3) to produce the three new propositions):

(B1) The price of a security traded in **an efficient a public** market will reflect **all**-some publicly available information about a company;

(B2) Accordingly, a buyer of the security in **an efficient a public** market may be presumed to have relied ~~on public information~~ in purchasing the security **on the market price not being fraudulently distorted, i.e., not being different from what it would have been absent the disclosure deficiency**; and

(B3) Where the market **price** for a security is ~~inefficient~~ **not fraudulently distorted**, a plaintiff cannot invoke the ~~fraud-on-the-market presumption~~ **class-wide reliance** presumption.

The difference between our approach and that of the *Basic* rule can be viewed by noting the changes made in the three propositions. Our formulation of (B1) avoids the use of the term “efficient market,” whose existence, we have shown, should not be decisive for determining class-wide reliance. What is key is that the prices of securities in public markets are affected—and thereby reflect—some (but not necessarily all) public information. The key question is not whether all public information affects market prices but whether the public information that is the subject of the litigation under consideration had such an impact.

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Our formulation of (B2) again avoids the use of market efficiency that leads to the markets reflecting all public information. We limit class-wide reliance to buyers' reliance on the market price of a security not being fraudulently distorted—that is, reliance on the market price not being impacted by (and thus reflecting) misstatements and omissions that produced a price different from what it would have been in the absence of fraud. It is appropriate for an investor engaged in a security transaction to rely on the market price not being fraudulently distorted—whether or not market pricing happens to be consistent with some arbitrage profits being left unexploited (perhaps as a result of long-run return predictability, excessive volatility, or market underreaction).³⁰

Our formulation of (B3) follows from the centrality of fraudulent price distortion. The issue of whether there is a class of investors similarly situated in terms of reliance should turn on whether there is fraudulent distortion: where such distortion does not exist, class-wide reliance does not arise. Which side should have the burden of proof with respect to the existence of fraudulent distortion is an issue that we discuss in Section E. As we will explain, allocation of the burden of proof to either plaintiffs or defendants would be consistent with our approach and analytical points.

We would like to stress that propositions (B1)–(B3) should be fully acceptable to individuals reasonably taking different views on the validity of the efficient market hypothesis. These propositions are fully consistent with the views and evidence of both academic supporters and critics of the efficient market hypothesis alike. To illustrate this, we return to our hypothetical firm that misstates earnings in market conditions involving market inefficiency. In all three hypotheticals—market overvaluation, excessive volatility, and market underreaction—the misstatement is assumed to have had a substantial distortionary impact. This assumption is consistent with each of the three types of market inefficiency being assumed. Class-wide reliance exists in these hypotheticals as investors' reliance on the market price is in fact compromised by fraudulent distortion.

³⁰ Again, we are assuming throughout that the investor, when engaged in the security transaction, does not know the representation is false.

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For our hypothetical firm that misstates earnings in market conditions involving generally efficient markets, the absence of fraudulent distortion leads to the opposite conclusion: that no class-wide reliance exists. In short, the existence or absence of market inefficiencies (arbitrage opportunities) simply does not line up with whether class-wide reliance exists.

We would also like to emphasize that our reformulation of the *Basic* rule addresses the criticisms put forward by Justice White in his well-known opinion in the *Basic* case. Justice White expressed concern that “with no staff economists, no experts schooled in the ‘efficient-capital-market hypothesis,’ no ability to test the validity of empirical market studies, we are not well equipped to embrace novel constructions of a statute based on contemporary microeconomic theory.”³¹ The proposed modified rule does not depend on assessing the soundness of competing views in financial economics.

Our fraudulent distortion approach also addresses another concern expressed by Justice White when he opined that class-wide reliance should not depend on the assumption that investors believed at time of purchase, or at any other time, that the market price reflected in some sense “true value” (whatever meaning one wants to ascribe to this somewhat elusive phrase). Under our approach, market prices are not relied on or assumed to reflect true value. Fraudulent distortion merely turns on whether the market price is different from what it otherwise would have been absent the fraud.³²

³¹ 485 U.S. at 253.

³² Indeed, one could argue that in conditions of market inefficiency, stock prices do not represent “true value” in the specific sense that, going forward, abnormal returns can be obtained using a particular information set. In our market underreaction scenario, for instance, the initial fraudulent impact of the misrepresentation is an underestimate of the full fraudulent impact (hence leaving profits on the table for a would-be arbitrageur who can take advantage of this fact).

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B. Fraudulent Distortion and the Logic of Basic

Our recommendation to change the judicial focus from issues of market efficiency to those of fraudulent distortion, while representing a substantial reformulation of *Basic*, is nevertheless broadly consistent with what we see as the driving impetus for *Basic*'s fraud-on-the-market approach: the desire to focus on situations in which market prices are distorted by misrepresentations in a way that significantly distorts market pricing. In this vein, the *Basic* Court stated that the Securities Act of 1934 was based "on the premise that securities markets are affected by information, and enacted legislation to facilitate an investor's reliance on the integrity of those markets." We hasten to add that, as we point out in Section E when discussing the allocation of the burden of proof using a fraudulent distortion approach, our approach is also consistent with incorporating judicial concerns over strike suits and class certification generating unwarranted settlement value.

More specifically, it is worth noting in this connection that at some points, the *Basic* decision's discussion of the fraud-on-the-market presumption strongly points in the direction of fraudulent distortion. For instance, the *Basic* Court explains, "Any showing that severs the link between the alleged misrepresentation and either the price received (or paid) by the plaintiff, or his decision to trade at a fair market price will be sufficient to rebut the presumption of reliance."³³ Certainly a lack of price distortion should sever the link between the market price in a security transaction and the misrepresentation (and ignoring the potentially confusing reference to a "fair" market price).

Indeed, one of the examples the Court gives of an instance where the "link" would be severed involves a scenario in which "the market price would not have been affected by [the] misrepresentation."³⁴ The *Basic* Court also explains, "For purposes of accepting the presumption of reliance in this case, we need only believe that market professionals generally consider most publicly announced material statements about

³³ 485 U.S. at 248.

³⁴ *Id.*

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companies, thereby *affecting stock market prices*.”³⁵ To ask whether the misrepresentation actually affected the stock price is precisely the fraudulent distortion inquiry we recommend.

In discussing circumstances in which class-wide reliance will exist, there is an important doctrinal issue that bears special mention (and was referenced in the *Basic* decision). As it currently stands, the *Basic* fraud-on-the-market presumption is potentially available in securities cases involving misrepresentations (or cases “primarily” involving misrepresentations). There is another, separate presumption of class-wide reliance available in 10b-5 litigation pursuant to the Court’s decision in *Affiliated Ute*.³⁶ Under *Affiliated Ute*, investors are automatically entitled to a presumption of reliance (with no showing of market efficiency) if the allegations “primarily” involve omissions. The *Basic* Court explains that the *Affiliated Ute* presumption makes sense as “requiring a plaintiff to show a speculative state of facts, *i.e.*, how he would have acted if omitted material information had been disclosed . . . would place an unnecessarily unrealistic evidentiary burden on the Rule 10b-5 plaintiff who has traded on an impersonal market.”³⁷

We agree that proving what one would have done had a certain disclosure been made could well be speculative and therefore difficult in many instances. But there is no reason in principle why the fraudulent distortion approach should not apply equally in an omission case. The issue of whether the disclosure deficiency is an omission or misrepresentation should be the same: Did the disclosure deficiency result in fraudulent distortion?

Given this, the sound approach would be to remove the separate presumption of reliance currently available in cases “primarily” involving omissions. The issue should still be the question of fraudulent distortion. This unified approach would have the added benefit of removing the often

³⁵ 485 U.S. at 246 (emphasis added).

³⁶ 406 U.S. 128 (1972); For a recent example of the use of *Affiliated Ute* to certify a class, see *In re Dynex Capital, Inc.*, 1:05-cv-01897-HB-DCK (United States District Court for the Southern District of New York)

³⁷ 485 U.S. at 245.

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arbitrary distinction between cases “primarily” involving omissions versus misrepresentations (and the gamesmanship that can go along with attempting to be on the desired side of the line).³⁸

C. A Key Advantage of Focusing on Fraudulent Distortion

Before discussing how courts could actually apply a fraudulent distortion test, we first highlight a key advantage of our approach over the current practice of focusing on market efficiency. The *Halliburton* petitioners as well as various commentators have stressed the problems that result from providing a definitive yes/no answer as to whether the security trades in a market that is generally efficient. Our approach avoids these problems because it is focused on whether the specific misrepresentation(s) at issue in the litigation resulted in fraudulent distortion.

Under *Basic*, courts are tasked with determining whether the market in the security is generally efficient. In answering this question, they employ an open-ended multifactor test. Typically invoked in this context is the five-factor *Cammer* test for market efficiency.³⁹ Other factors have been used as well.⁴⁰ As the First Circuit explained in *Polymedica*, “Many factors bearing on the structure of the market may be relevant to the efficiency analysis, and courts have wide latitude in

³⁸ In crafting a complaint, plaintiffs currently have to trade off between obtaining the benefit of enjoying the *Affiliated Ute* presumption by bringing an omissions case and the cost of having to establish a legal duty to disclose the omitted information.

³⁹ The *Cammer* factors are (1) the stock’s trading volume, (2) the number of analysts that followed and reported on the stock, (3) the number of market makers, (4) the eligibility to file an S-3 Registration Statement, and (5) the reaction of the stock price on unexpected new events. See *Cammer v. Bloom*, 711 F.Supp. 1264 (1989).

⁴⁰ In the well-known case of *Krogman v. Sterritt*, 202 F.R.D. 467 (N.D. Tex. 2001), the court identified three additional market efficiency factors to be used in determining reliance: market capitalization, bid-ask spreads, and the percentage of shares held by the public.

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deciding what factors to apply in a given case, and what weight should be given to those factors.”⁴¹

This open-ended inquiry then leads to a binary answer: the market is deemed to be either efficient or inefficient. Commentators and the petitioners in *Halliburton* have highlighted the inherent difficulties in this kind of inquiry, one of which is that efficiency is a continuum rendering a yes/no answer potentially arbitrary.⁴² Indeed, in our market efficiency hypotheticals in Part II.D, the market is generally, but not necessarily perfectly, efficient.

The other problem, which to us is the most central, is that the focus on market conditions in general, as well as in situations having little or nothing to do with the case under consideration, leads to a serious problem of over- and underinclusion. In our hypothetical firm that misstates earnings, there is fraudulent distortion even though the market is inefficient. And in our hypotheticals involving misstatements made when the market is generally efficient, there is no fraudulent distortion. The former would be an example of underinclusion and the latter an example of overinclusion resulting from the focus on market efficiency. In considering this problem, it is worth bearing in mind that a market might be relatively efficient along some dimensions, while being less efficient along different dimensions.

In contrast to the market efficiency approach, our fraudulent distortion approach focuses on the actual issues presented by the litigation. Thus, if a company is trading in a market in which there are significant deviations from efficiency but the evidence shows fraudulent distortion in the situation actually at issue in the litigation, our approach would result in class-wide reliance. Conversely, if a company is trading in a market that is generally efficient but the evidence shows no fraudulent distortion resulting from the alleged misstatement, our approach would lead to a denial of class certification. Thus our approach would avoid the above

⁴¹ 432 F.3d 1, 18 (2005).

⁴² For a discussion of this issue, see Brad Cornell and James Rutten, “Market Efficiency, Crashes and Securities Litigation,” 81 *Tulane Law Review* 443.

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problems of over- and underinclusion, problems that are the inherent result of the current market efficiency approach.

The over- and underinclusion issue is a function of the fact that the focus on providing a simple yes/no answer to the question of efficiency does not line up with whether there is a class of investors similarly situated in terms of the economic impact resulting from market prices being fraudulently distorted. Our approach does. Of course, the question remains how to determine whether fraudulent distortion exists. It is to that question we now turn.

D. Identifying Fraudulent Distortion

In this section, we discuss briefly the availability of financial econometric tools for putting forward evidence regarding the presence or absence of fraudulent distortion. Parties would be able to use such tools to establish or rebut, depending on the allocation of the burden of proof on the issue, fraudulent distortion associated with the alleged misrepresentation or omission. A full analysis of these tools is beyond the scope of this article. However, to highlight the nature of the fraudulent distortion approach—an approach that would lead to a more focused and manageable analysis—we note three potential tools drawn from the relevant academic literature.

(i) *Event Study at Time of Misrepresentation*: An event study, perhaps the most ubiquitous analytical tool used in all of corporate finance, is a potentially powerful method for establishing fraudulent distortion.⁴³ If the misstatement was a surprise to the market, such as the case when our hypothetical firm told the market that its earnings were \$2 when the market expected only \$1, a statistical analysis of whether the market price reacted upon learning of the information could be probative

⁴³ We will not spend time discussing the well-known mechanics of conducting an event study. See generally Chapter 4 of John Y. Campbell, Andrew W. Lo and A. Craig MacKinlay, *The Econometrics of Financial Markets*, Princeton University Press, Princeton, N.J. 1997. On the issue of how to calculate abnormal stock price dollar movements rather than stock return movements, see Allen Ferrell and Atanu Saha, “Event Study Analysis: Correctly Measuring the Dollar Impact of an Event,” Harvard Working Paper (2011).

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of whether fraudulent distortion exists. Again, a finding of a reaction is consistent with some specific forms of inefficiency commonly discussed in the academic literature, notably long-run return predictability.⁴⁴ Likewise, a failure to find a price reaction is consistent with generally efficient markets.⁴⁵

On the other hand, if the misstatement was a so-called confirmatory lie—that is, a misstatement made so as to meet market expectations—then a failure to document a price reaction to it would not be expected even assuming the misstatement had a fraudulent impact. In such a situation, the confirmatory lie might prevent a stock price drop that would have occurred had the truth been told. Other analytical tools are needed to address this type of situation.

(ii) *Event Study at Time of Corrective Disclosure*: Another potential use of an event study would be to measure whether there was a price reaction when the market learned the truth about the misstatement—that is, at the time of a corrective disclosure. This could be relevant as to whether the misstatement at the time it was made resulted in fraudulent distortion (even if it was a confirmatory lie). To be sure, there might well be a number of issues surrounding the use of an event study in this manner, which need to be addressed for such an approach to be convincing, such as whether the market relevance of the information changed between the misrepresentation and the corrective disclosure.⁴⁶

(iii) *Forward-Casting*: Another potential analytical tool, with a long tradition in the finance and accounting literature, is forward-

⁴⁴ The identification of the economic and statistical pre-conditions for employing an event study is beyond the scope of this paper.

⁴⁵ Jonathan R. Macey, Geoffrey Miller, Mark Mitchell and Jeffrey Netter, 1991, “Lessons From Financial Economics: Materiality, Reliance and Extending the Reach of *Basic v. Levinson*,” 77 *Virginia Law Review* 1017, also discuss using an event study at time of misstatement to determine price impact.

⁴⁶ See generally Allen Ferrell and Atanu Saha, 2011, “Forward-casting 10b-5 Damages: A Comparison to other Methods” 37 *Journal of Corporation Law* 365.

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casting.⁴⁷ The basic idea is to estimate (i) the difference between how much the market would have been surprised if the truth had been told, relative to how surprised the market actually was given what was allegedly misreported; and (ii) what would have been the expected market price reaction (if any) to this level of surprise, given price reactions to similar types of disclosures (by the same firm or comparable firms).

To fix ideas, assume the misrepresentation is a confirmatory lie concerning earnings. In such a situation, an event study at the time of misrepresentation would likely not be informative as to fraudulent distortion. However, by measuring price reactions when the market had actually been surprised in the past when firm earnings were released, one can still estimate what the market reaction would have been had the market been told the truth. Alternatively, one could estimate price reactions for comparable firms when they reported earnings surprises. Using these estimates, one might be able to estimate the expected price impact (if any) of the misrepresentation in question.

E. Presumptions: Allocating the Burden of Proof

We have thus far suggested that (i) class-wide reliance should depend on the presence of fraudulent distortion, not market efficiency; (ii) an important advantage of the fraudulent distortion test is to focus attention on the actual issues at stake in the case; and (iii) there are well-established analytical tools available for determining the presence or absence of fraudulent distortion. In closing, we briefly discuss the issue of presumption—that is, allocating the burden of proof on the fraudulent distortion issue.

We do not take a position regarding which side should bear the burden of proof on fraudulent distortion. The burden of proof (i.e., the issue of presumptions) can be allocated to either the plaintiffs or the defendants (with the other side having the ability to rebut) with the focus

⁴⁷ See generally Allen Ferrell and Atanu Saha, 2011, “Forward-casting 10b-5 Damages: A Comparison to other Methods,” 37 *Journal of Corporation Law* 365; Esther Bruegger & Frederick C. Dunbar, 2009, “Estimating Financial Fraud Damages with Response Coefficients,” 35 *Journal of Corporation Law* 11.

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nevertheless remaining squarely on fraudulent distortion. The *Basic* Court itself justified the adoption of its presumption of fraud-on-the-market reliance based on “considerations of fairness, public policy, and probability, as well as judicial economy.”⁴⁸ A particular allocation of the burden of proof does not follow from our analytical framework and its focus on fraudulent distortion; it should thus be based on other considerations or analyses.

Perhaps the most commonly invoked practical and policy-type consideration by courts and some commentators are the concerns over strike suits and unwarranted settlement value generated by class certification. These concerns could lead one to prefer allocating the burden of proof to the plaintiffs on the fraudulent distortion issue. Indeed, Justice White in his *Basic* decision expressed these very concerns.⁴⁹ Even with the burden allocated to the plaintiffs, the defendants could of course present rebuttal evidence.

On the other hand, the conclusion that such concerns are already adequately addressed could lead one to place the burden of proof on the defendants (with the plaintiffs having the ability to rebut).⁵⁰ The *Basic* Court itself, in adopting a presumption of reliance, appears to have been motivated by its conclusion that the goals of the Securities Act of 1934 would best be served by lightening the evidentiary burden placed on the plaintiffs on the issue of reliance in the context of impersonal secondary market transactions.

Regardless of which side has the burden of proof, our analysis in this paper provides a clear answer to the second question presented in the petition for *certiorari*: defendants should be allowed to introduce, already at the class certification case, evidence on the absence of fraudulent

⁴⁸ 485 U.S. at 245.

⁴⁹ 485 at 262 (“I suspect that all too often the majority’s rule will ‘lead to large judgments, payable in the last analysis by innocent investors, for the benefit of speculators and their lawyers.’”). Similar concerns have been expressed as recently as *Amgen*.

⁵⁰ Pre-*Amgen* this was the position of the Second Circuit, *In re Salomon Analyst Metromedia Litigation*, 544 F.3d 474 (2nd 2008) (“the burden of showing that there was *no* price impact is properly placed on defendants at the rebuttal stage”).

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distortion. By enabling this issue to be explored at the class certification stage, our proposed approach would prevent class litigation from proceeding past certification (and potentially resulting in the extraction of a settlement) if fraudulent distortion does not in fact exist. This is yet another advantage of our approach.

F. Relationship of Fraudulent Distortion to Merits Issues

Finally, in this section, we discuss the sequence of judicial decisions that would be made under our proposed approach. Specifically, would a finding of class-wide reliance under our proposal necessarily imply a finding of materiality, an issue that the Court held in *Amgen* to be a merits issue? And, on a related note, would a finding of class-wide reliance under the proposed approach necessarily imply a finding of loss causation, an issue that the Court in *Halliburton* held also to be a merits issue? As we explain below, the answer to both questions is no. We first address the question of materiality and then turn to loss causation.

1. Materiality

Under our proposed approach, a finding of fraudulent distortion would not entail that materiality necessarily exists and thus would not make consideration of the subject of materiality unnecessary at the merits stage (i.e. at summary judgment and trial). Consider the following hypothetical:

Mining Hypo: A U.S. company has a gold mine in Australia. The CEO of the company visits the mine and talks with the company's geologists. Upon arriving back in the U.S. the CEO is asked on television about the gold mine's prospects. The CEO says "I have talked with my geologists and I feel great about the gold mine." The stock price of the company, which has been consistently flat (as was the market and industry) until the broadcasting of the CEO's statement jumps 10% immediately following the broadcast of the statement. It turns out (much later) that production of gold will not be possible at the gold mine. Plaintiffs establish (or the

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defendant fails to rebut) that the CEO's allegedly false statement had an impact on the stock price.

Under our proposal there would be class-wide reliance in the mining hypothetical. However, at the merits stage there would still be the issue of whether the statement was materially misleading. The factual issue would be what exactly was told to the CEO by the company's geologists. How favorable or unfavorable was this information concerning the gold mine? And did this information render materially misleading the CEO's statement that "I have talked with my geologists and I feel great about the gold mine."⁵¹ A finding that the statement had an impact on the stock price would thus not resolve, and would leave to the merits stage, the fact intensive issue of materiality, i.e., whether the statement involved a materially misleading statement, raised by the hypothetical.

2. Loss Causation

On a similar note, a finding of fraudulent distortion would not entail that loss causation exists and thus would not make consideration of the subject of loss causation unnecessary at the merits stage (i.e. at summary judgment and trial). Consider the following hypothetical:

FDA Approval Hypo: A firm makes an allegedly false statement that the FDA will likely approve its medical device. The stock price, which prior to the statement has been completely flat (as was the market and industry), immediately jumps 10% in the aftermath of the statement. Plaintiffs establish (or the defendant fails to rebut) that the firm's allegedly false statement had an impact on the stock price.⁵²

⁵¹ There is also the materiality issue of puffery, whether the statement is immaterial as a matter of law given that it arguably constitutes normal corporate optimism (an issue that would presumably be dealt with at the motion to dismiss stage).

⁵² The facts of this hypothetical are similar to those at issue in *Dura Pharmaceuticals v. Broudo*, 544 U.S. 336 (2005).

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In our hypothetical, plaintiffs have, by assumption, established class-wide reliance under our approach. However, the issue of loss causation would still be very much left unresolved. There has been no showing in our hypothetical that the fraudulent distortion resulted in any economic losses to plaintiffs. In *Dura Pharmaceuticals*, the Court explained: “in cases such as this one (i.e. fraud-on-the-market cases), an inflated purchase price will not itself constitute or proximately cause the relevant economic loss [for loss causation purposes] . . . [I]f, say, the purchaser sells the shares quickly before the relevant truth begins to leak out, the misrepresentation will not have led to any loss.”⁵³

Thus, merely purchasing at a fraudulent distorted price simply does not establish that the economic losses that one is seeking damages for were caused by the alleged fraud.⁵⁴ Therefore, under the proposed approach, the important merits issues of materiality and loss causation would not be usurped by a finding of fraudulent distortion at the class certification stage.

IV. CONCLUSION

We have provided a framework for thinking about the connection between market conditions and class action securities litigation. Our analysis can provide a useful framework for the current rethinking of *Basic* reliance and class certification in securities litigation.

We have shown that the focus of the opposing parties and of some of the literature on certain potential deviations from market efficiency is misplaced. The standard tests for deviations from market efficiency as they are practiced in financial economics should not be decisive for securities litigation. Whether market prices leave money on the table for

⁵³ *Id.* at 342.

⁵⁴ One common way to try to establish loss causation is to attribute the economic losses to the dissipation of fraudulent distortion resulting from a corrective disclosure. See Allen Ferrell and Atanu Saha, 2007, “The Loss Causation Requirement for Rule 10B-5 Causes of Action: The Implications of *Dura Pharmaceuticals v. Broudo*,” 63 *Business Lawyer* 163

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arbitrageurs should not determine class certification. Fully accepting the view of efficiency critics does not preclude the existence of fraudulent distortion of market prices and class-wide impact in some cases; and, conversely, fully accepting the view of efficiency supporters does not imply that fraudulent distortion and class-wide impact exist in any particular misstatement case.

Our analysis leads to the conclusion that the *Basic* rule should be reformulated to make the existence of class-wide reliance dependent on the presence of fraudulent distortion of the market price. The focus on fraudulent distortion would retain some key aspects of the *Basic* approach and its concern about the class-wide impact that can be produced when market prices are distorted. At the same time, the modified rule would address key problems with the *Basic* rule and concerns expressed by Justice White in his *Basic* opinion.

We further explain how using fraudulent distortion can potentially be identified using standard financial methods. Using the fraudulent distortion criterion would address the over- and under-inclusion problems inherent in the market efficiency approach that the federal courts have thus far pursued in applying *Basic*. Our approach would also screen out at the class certification stage frivolous cases in which market prices were not distorted by the alleged disclosure deficiency. Furthermore, we explain how the Court can use the allocation of the burden of proof so as to reflect its views concerning excessive class action litigation. Finally, we explain that our approach would not involve resolving the merits issues of materiality and loss causation at the class certification case. We hope that this framework of analysis will prove useful for the reexamination of *Basic* and fraud-on-the-market theory.