No. 11-1085

In the Supreme Court of the United States

AMGEN INC., ET AL., PETITIONERS

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CONNECTICUT RETIREMENT PLANS AND TRUST FUNDS

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

BRIEF OF LAW PROFESSORS AS AMICI CURIAE IN SUPPORT OF PETITIONERS

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INTEREST OF AMICI CURIAE¹

Amici are law professors whose scholarship and teaching focuses on corporate law and the federal securities laws. Law professors have an interest in ensuring that the securities laws are interpreted to accurately reflect both current financial economic scholarship and the historical underpinnings of the securities laws. Amici filed a brief amici curiae in Erica P. John Fund, Inc. v. Halliburton Co., 131 S. Ct. 2179 (2011) (No. 09-1403), addressing the consideration of market impact and the fraud on the market theory at the class certification stage of Rule 10b-5 securities fraud suits.

Amici include Adam C. Pritchard, the Frances and George Skestos Professor of Law at the University of Michigan Law School; and M. Todd Henderson, Professor of Law at the University of Chicago Law School.

SUMMARY OF ARGUMENT

In *Basic Inc.* v. *Levinson*, 485 U.S. 224 (1988), the Court held that in a Rule 10b-5 securities fraud suit, plaintiffs may invoke a "presumption of reliance" to gain class certification under Federal Rule of Civil Procedure 23(b)(3), which requires that common questions of law or fact "predominate" over questions particular to individual class members' claims. *Id.* at

¹ No counsel for a party authored this brief in whole or part, and no counsel or party made a monetary contribution to fund the preparation or submission of this brief. No person other than the *amici curiae* and their counsel made any monetary contribution to its preparation and submission. The parties have filed letters giving blanket consent to the filing of *amicus* briefs in this case.

241-48. *Basic* held that this presumption was supported by the "fraud on the market theory," which provides that "[a]n investor who buys or sells stock at the price set by the market does so in reliance on the integrity of that price." *Id.* at 247, 250.

Basic grounded its holding on the understanding that "the market price of shares traded on welldeveloped markets reflects all publicly available information," including "any public material misrepresentations"—a concept embodied in the "efficient capital markets theory." Id. at 246-47 & Basic reasoned that because every public n.24. material misrepresentation is reflected in a security's price, "an investor's reliance on any public material misrepresentations *** may be presumed for purposes of a Rule 10b-5 action." *Id.* at 247.

Basic thus combined two distinct concepts: the fraud on the market theory and the efficient capital markets hypothesis. The efficient capital markets hypothesis is not necessary to the use of the fraud on the market theory—as long as the market for a security incorporates the fraudulent information into the price, a "fraud on the market" has occurred, whether the market is efficient or not. But the two concepts can be combined to allow plaintiffs to invoke a presumption of reliance as to a particular instance of alleged fraud if they can first demonstrate that the relevant market was "efficient," i.e., that it "reflect[ed] all publicly available information." Id. at 246. In the years before *Basic*, scholars and lower courts championed the simultaneous application of these concepts in the belief that well-developed markets were efficient, and that stock prices within those markets reflected all public information. And while *Basic* claimed "not to assess the general validity of" these theories, *id.* at 242, courts have nevertheless read *Basic* to accept them and to hold that a presumption of reliance is appropriate when market efficiency has been established.

But Basic's view of the efficiency of capital markets was unrealistic. Rather than being totally "efficient" or "inefficient," securities markets enjoy varying degrees of efficiency, and therefore incorporate information at varying rates. Although amici accept that some well-developed markets incorporate most information into prices relatively quickly, empirical research conducted since Basic suggests that even the most open markets are not completely efficient, and will therefore incorporate some information slowly (or not at all). In light of this evidence, *Basic*'s understanding that a particular alleged fraud will necessarily be incorporated into the stock price is no longer sound.

Moreover, the lower courts' attempts to estimate efficiency have been inconsistent and empirically inaccurate. Faced with the difficult task of determining whether a market is "efficient"—a task for which they are ill-equipped—courts have resorted to examining proxies for efficiency as reflected in multifactor tests. Many of the proxies are highly correlated with each other (and therefore redundant), while others have little empirical relationship with efficiency; what is more, there is confusion about how to weigh the various factors. The result is a doctrinal and empirical muddle for both courts and litigants.

Use of the efficient capital markets hypothesis to show reliance becomes even more questionable when one considers that the fraud on the market theory does not require it. Rather, the core inquiry in whether the fraud on the market presumption of reliance is appropriate is whether the market as a whole relied on allegedly fraudulent information. Therefore, all that is necessary is evidence of a particular misstatement's effect on a security's market price. In light of this, and of the difficulties in evaluating efficiency, the Court should shift the focus of fraud on the market inquiries from a market's overall efficiency to the question whether the fraud at issue affected market price. The decision below should be reversed because it focuses on efficiency at the class certification stage, rather than on the market effect of the alleged misstatements at issue.

ARGUMENT

I. BASIC'S USE OF MARKET EFFICIENCY AS A MEANS OF SHOWING RELIANCE IS UNNECESSARY AND COUNTERPRODUCTIVE

Plaintiffs bringing a Rule 10b-5 securities fraud claim must prove they relied upon the company's alleged misrepresentation when deciding to trade the company's security. Basic, 485 U.S. at 243. Traditionally, such reliance is determined on an individualized basis. Cf. id. at 242; see also In re Salomon Analyst Metromedia Litig., 544 F.3d 474, 481 (2d Cir. 2008). But in the context of securities fraud class actions, which only can be maintained when common questions of law or fact predominate over individual questions, see Fed. R. Civ. P. 23(b), "[r]equiring proof of individualized reliance from each member of the proposed plaintiff class effectively

would * * * prevent[] [plaintiffs] from proceeding with a class action, since individual issues then would * * * overwhelm[] the common ones." *Basic*, 485 U.S. at 242.

In Basic, the Court allowed plaintiffs to invoke a "presumption of reliance" in lieu of showing individual reliance in class-action cases. combining two then-new economic theories. The first of these was the semi-strong version of the efficient capital markets hypothesis, see In re Res. Am. Sec. Litig., 202 F.R.D. 177, 189 n.12 (E.D. Pa. 2001), which postulates that "security prices fully reflect all available information," Eugene F. Fama, Efficient Capital Markets: II, 46 J. Fin. 1575, 1575 (1991); see Basic, 485 U.S. at 246 ("[T]he market price of shares traded on well-developed markets reflects all publicly available information, and, hence, any material misrepresentations."). Second was the fraud on the market theory, which provides that reliance may be presumed where "a fraud affects the price of a publicly traded security [because] investors will be affected even if they trade without knowledge of the misrepresentations that influenced the price at which they traded." Stark Trading v. Falconbridge Ltd., 552 F.3d 568, 572 (7th Cir. 2009); accord Basic, 485 U.S. at 247.

Basic combines these two concepts in its conclusion that if a market is efficient, then all information, including any material misstatement, is incorporated into a security's price, and any investor buying a security when a misstatement is incorporated into the price relies on it by purchasing at the inflated price. Basic, 485 U.S. at 247. Combining these concepts, the Basic Court concluded:

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.

Id.

Although the Court noted that it would not "determine by adjudication what economists and social scientists have debated through the use of sophisticated statistical analysis and the application of economic theory," it also observed that then-recent "empirical studies have tended to confirm * * * that the market price of shares traded on well-developed markets reflects all publicly available information, and, hence, any material misrepresentations." *Id.* at 246-47 & n.24.

Based on this language, courts and commentators have often interpreted *Basic* to allow plaintiffs to employ the fraud on the market theory only if they can demonstrate that the relevant market "reflects all publicly available information," a quality known as "efficiency." See, *e.g.*, *Gariety* v. *Grant Thornton*, *LLP*, 368 F.3d 356, 368 (4th Cir. 2004) ("*Basic* clearly requires that a market be efficient in order for the

² As discussed below, lower courts and commentators do not agree as to the level of efficiency necessary—just that some showing of a baseline of efficiency is required. Perfect efficiency is an unrealistic scenario. Fama, *supra*, at 1575 (stating that because there are information and trading costs in any market, the hypothesis that there is total market efficiency is "surely false").

fraud-on-the-market presumption of reliance to be invoked ***."). Although *Basic* indicated in a footnote that a market need only incorporate "most" information, see *Basic*, 485 U.S. at 246 n.24, other language in the opinion, see *id*. at 246, as well as many of the sources it cites, state that the relevant market must reflect "all" information to be efficient. See *In re PolyMedica Corp. Sec. Litig.*, 432 F.3d 1, 11-12 (1st Cir. 2005) (collecting authorities).

As set forth below, however, an examination of the efficiency of markets is not necessary for determining reliance or establishing the existence of a fraud on the market; it is not even the best means of determining reliance, even in the context of class actions.

A. Examining Efficiency Is Unnecessary to Demonstrate "Fraud on the Market"

Although "Basic seems to insist on" a showing that a market is efficient to support a fraud on the market claim, Donald C. Langevoort, Theories, Assumptions, and Securities Regulation: Market Efficiency Revisited, 140 U. Pa. L. Rev. 851, 899 (1992), there is no basis in logic or experience for such a requirement. To maintain a Rule 10b-5 action, a plaintiff must show only that he relied on the particular false statements at issue. Even if the plaintiff seeks to invoke the fraud on the market presumption, it should be unnecessary demonstrate that the market is efficient as a general matter. Proving that a market is generally highly efficient, and thus tends to incorporate information quickly, is unnecessary to demonstrating that there has been a fraud on the market as to a specific statement. As long as a market functions well enough that the specific representation at issue was incorporated into a security's price, see Daniel R. Fischel, Efficient Capital Markets, the Crash, and the Fraud on the Market Theory, 74 Cornell L. Rev. 907, 911 (1989), a showing of general efficiency is unnecessary. See Jonathan R. Macey et al., Lessons from Financial Economics: Materiality, Reliance, and Extending the Reach of Basic v. Levinson, 77 Va. L. Rev. 1017, 1021 (1991) ("Because security prices react quickly to new information, we can test for the relevant consideration—whether a security's price has been affected by misleading information."); Nathaniel Carden, Comment, Implications of the Private Securities Litigation Reform Act of 1995 for Judicial Presumptions of Market Efficiency, 65 U. Chi. L. Rev. 879, 904 (1998) (stating that "adherence to the [efficient capital markets hypothesis] is not for the fraud-on-the-market critical Perfect market efficiency may be "a sufficient reason why an investor relying on market-price integrity would be harmed" by fraud, but is not a necessary one "because fraud can and does distort prevailing prices" even in inefficient markets. Donald C. Langevoort, Basic at Twenty: Rethinking Fraud on the Market, 2009 Wis. L. Rev. 151, 161.

The fraud on the market theory effectively "shifts the inquiry from whether an individual investor was fooled to whether the market as a whole was fooled" by a particular misstatement. *In re Verifone Sec. Litig.*, 784 F. Supp. 1471, 1479 (N.D. Cal. 1992); see also Fischel, *Efficient Capital Markets, supra*, at 907. The efficient capital markets hypothesis, in contrast, provides a basis for the assumption that the market would be fooled by *any and all* instances of fraud.

But such a showing is unnecessary to demonstrate that the market was fooled as to a particular statement. As one scholar has observed, "[t]he only important question is whether the price was distorted," which requires only that the information was incorporated into the price of the individual stock, not that the market is efficient as a general matter. Langevoort, *Theories*, *supra*, at 898-99.

The understanding that perfectly efficient markets are unnecessary for application of the fraud on the market theory is borne out by the conception of that theory before Basic. The efficient capital markets hypothesis was first combined with the fraud on the market theory in the 1980s. See Jeffrey L. Oldham, Comment, Taking "Efficient Markets" out of the Fraud-on-the-Market Doctrine after the Private Securities Litigation Reform Act, 97 Nw. U. L. Rev. 995, 1006-11 (2003). Before that time, the fraud on the market presumption was described "as being predicated on a showing that 'the plaintiff establishes that a lie, misleading statement, or omission has affected the price of the stock." Id. at 1007 (quoting Flamm v. Eberstadt, 814 F.2d 1169, 1179 (7th Cir. 1987)); see also 4 Alan R. Bromberg & Lewis D. Lowenfels, Bromberg & Lowenfels on Securities Fraud and Commodities Fraud § 7:468 (2d ed. 2000) ("This text first suggested in 1967 that a 10b-5 reliance requirement in open market transactions could be satisfied by showing that an investor who traded with reference to market price and conditions could be treated as indirectly relying on a misrepresentation which affected the market."). Thus, the inquiry concerned the effect of a particular piece of information on the stock price in question.

But courts and commentators began to employ the efficient capital markets hypothesis, emphasizing that if a plaintiff could show that a market was efficient, then any material misrepresentation in a case necessarily affected the price of the security. Oldham, supra, at 1010-11 (citing In re LTV Sec. Litig., 88 F.R.D. 134, 142-46 (N.D. Tex. 1980); Daniel R. Fischel, Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities, 38 Bus. Law. 1, 9-10 (1982); Note, The Fraud-on-the-Market Theory, 95 Harv. L. Rev. 1143, 1154-56 (1982); Michael A. Lynn, Note, Fraud on the Market: An Emerging Theory of Recovery Under SEC Rule 10b-5, 50 Geo. Wash. L. Rev. 627, 647-53 (1982)); see also *Peil* v. *Speiser*, 806 F.2d 1154, 1163 (3d Cir. 1986) (stating that "a well-developed market can reasonably be presumed to respond to even a misrepresentation material or omission concerning a stock *** traded in that market"); Roger J. Dennis, Materiality and the Efficient Capital Market Model: A Recipe for the Total Mix, 25 Wm. & Mary L. Rev. 373, 374-75 (1984). *Basic* relied on several of these sources for its conclusion that welldeveloped markets reflect all public information. Basic, 485 U.S. at 246 n.24 (citing Dennis, Fischel, and LTV). Conversely, it was understood that if a market were not completely efficient, the fraud on the market presumption would be inappropriate. Reingold v. Deloitte Haskins & Sells, 599 F. Supp. 1241, 1264 (S.D.N.Y. 1984) ("By contrast with efficient markets, inefficient markets by definition do not translate all available information into the price. In such markets, the price of a security does not necessarily reflect all [information and] an inference of * * * reliance is inapposite." (citation omitted)).

Thus, the efficient capital markets hypothesis "effectively became a proxy for showing that the misrepresentation actually affected the stock price." Oldham, *supra*, at 1011; accord Langevoort, *Theories*, *supra*, at 890-91 ("The fraud-on-the-market theory is often understood to carry with it the second presumption that in an efficient market, a material misrepresentation or actionable omission influences the market price, and therefore removes the need to actually prove the impact.").

The fact that total market efficiency is *unnecessary* to establish fraud on the market is not itself reason to eliminate the requirement of such a showing. But as noted below, reference to market efficiency has disadvantages that counsel the use of a different mechanism for demonstrating reliance.

B. Basic's Efficiency Requirement Is Poorly Tailored to Remedy Fraud on the Market

Experience has shown that efficiency is not an especially close proxy for reliance, providing a remedy that is both underinclusive in some respects and overinclusive in others.

Basic's focus on the overall efficiency of a market, rather than the effect of the specific misstatement at issue, needlessly limits the ability of investors to employ the class-action mechanism with respect to fraud perpetrated in less efficient markets, even when the market price reflects those misstatements. Under prevailing caselaw in the lower courts, Basic's presumption of reliance has been held to be unavailable to investors in newly issued securities, see In re Initial Pub. Offerings Sec. Litig., 471 F.3d 24, 42 (2d Cir. 2006); Freeman v. Laventhol &

Horwath, 915 F.2d 193, 199 (6th Cir. 1990), mortgage-backed bonds, see Teamsters Local 445 Freight Div. Pension Fund v. Bombardier Inc., 546 F.3d 196, 210 (2d Cir. 2008), collateralized debt obligations, see Dodona I, LLC v. Goldman, Sachs & Co., -- F. Supp. 2d --, 2012 WL 935815, at *21 (S.D.N.Y. Mar. 21, 2012), and securities in less developed markets, see Krogman v. Sterritt, 202 F.R.D. 467, 474-78 (N.D. Tex. 2001), even when the false statement at issue is significant. A class-action remedy is frequently unavailable because the class cannot show efficiency.

This outcome is unfortunate because it is "in regard to the stock of small companies, traded over the counter or on non-traditional exchanges, that the kinds of fraud Rule 10b-5 was designed to avert are most likely to occur." Geoffrey Christopher Rapp, Proving Markets Inefficient: The Variability Federal Court Decisions on Market Efficiency in Cammer v. Bloom and its Progeny, 10 U. Miami Bus. L. Rev 303, 322-23 (2002); see also Advisory Comm. on Smaller Public Companies, Final Report to the U.S. Securities & Exchange Commission 139 (2006) (2006), available at http://www.sec.gov/info/smallbus/ acspc/acspc-finalreport.pdf (noting that "small firms consistently have more misstatements restatements of financial information, nearly twice the rate of large firms"). If the rationale for fraud on the market is that investors should be able to rely on securities markets being free from fraud, as the Ninth Circuit has observed,³ it makes little sense to

³ See *Blackie* v. *Barrack*, 524 F.2d 891, 907 (9th Cir. 1975) ("The statute and rule [of Section 10(b) and Rule 10b-5] are designed to foster an expectation that securities markets are

focus on market efficiency, which effectively limits the presumption of reliance to only the largest and most trustworthy securities issuers.

the emphasis on efficiency underinclusive as to strong fraud cases perpetrated in less efficient markets, it is overinclusive, as a practical matter, as to weak fraud cases involving more efficient markets. "For large-cap stocks, there is seldom any debate over whether the market is efficient enough: efficiency is assumed." Langevoort, Basic at Twenty, supra, at 173. Thus, plaintiffs suing a widely traded issuer can be certified as a class even in cases where the market, due to the obscurity or complexity of the information (or some other reason), did not actually rely on the misstatements. Although defendants can assert a lack of actual reliance as a defense on the merits, as a practical matter, a class action is overwhelmingly likely to settle once it is certified.⁴ Because such settlements are most easily

free from fraud—an expectation on which purchasers should be able to rely.").

⁴ See Jordan Milev et al., Recent Trends in Securities Class Action Litigation: 2011 Year-End Review 12 (Dec. 14, 2011) (unpublished manuscript), available at www.nera.com/nera-files/PUB_Trends_Year-End_1211_final.pdf (noting that since late 1995, "there have been only 29 securities class action trials, as compared to a total number of over 3,800 filings"); Richard A. Nagareda, Class Certification in the Age of Aggregate Proof, 84 N.Y.U. L. Rev. 97, 99 (2009) (observing that class certification usually "sets the litigation on a path toward resolution by way of settlement"); Bruce H. Kobayashi & Larry E. Ribstein, Class Action Lawyers as Lawmakers, 46 Ariz. L. Rev. 733, 743 (2004) (stating that "many certified class actions settle quickly"); Bryant G. Garth, Studying Civil Litigation Through the Class Action, 62 Ind. L.J. 497, 501 (1987) (reporting a 78% settlement

procured from the largest and most well-traded companies (which have the most to lose and can more readily afford them), they create a significant impact on the capital markets. Such an overinclusive standard is counterproductive.

C. Market Efficiency Determinations Are Difficult for Courts to Make

Many courts interpret *Basic* to permit plaintiffs, upon a showing of efficiency, to substitute a rebuttable presumption of reliance for a showing that the alleged misrepresentations at issue actually influenced the market price. This substitution suggests both that the efficient capital markets hypothesis is a sound explanation for market movements and that evaluating a security's overall efficiency is more practicable than determining whether the misstatement at issue actually distorted the market price. See *Litton Indus.*, *Inc.* v. *Lehman* Bros. Kuhn Loeb Inc., 967 F.2d 742, 748 (2d Cir. 1992) ("To saddle a plaintiff with proving the 'generally indeterminable fact of what would have happened but for * * * the misrepresentations that skewed the market value of stock would reduce the protection against fraud afforded by Section 10(b)." (brackets omitted) (quoting duPont v. Brady, 828 F.2d 75, 78 (2d Cir. 1987))). But it is now recognized that markets are rarely, if ever, totally efficient, and showing efficiency is in most cases a more difficult task than demonstrating distortion of market price caused by a particular misstatement.

rate for certified class actions and only a 15% settlement rate for noncertified cases).

1. Since *Basic* Was Decided, Research Has Called the Efficiency of Markets into Question

In employing the efficient capital markets hypothesis to support a presumption of reliance, *Basic* observed that "empirical studies have tended to confirm * * * that the market price of shares traded on well-developed markets reflects all publicly available information, and, hence, any material misrepresentations." 485 U.S. at 246. The decision thus relied on the understanding that "[r]esearchers agree that the efficient capital market model," which "posits that the price of a security reflects all publicly available information[,] * * * accurately represents the pricing behavior of stocks." Dennis, supra, at 374-75; see *Basic*, 485 U.S. at 246 n.24 (citing Dennis). On that basis, courts and commentators have concluded that Basic implicitly endorsed the semi-strong form of the efficient capital markets hypothesis, which theorizes that "an efficient market is one in which all publicly available information is reflected in the market price of the stock." PolyMedica, 432 F.3d at 10 n.16; see also Schleicher v. Wendt, 618 F.3d 679, 685 (7th Cir. 2010).

The Basic Court's confidence in the efficient capital markets hypothesis was a product of its time. See Lynn A. Stout, The Mechanisms of Market Inefficiency: An Introduction to the New Finance, 28 J. Corp. L. 635, 635 (2003) (noting that, by the 1980s, the efficient capital markets hypothesis "became one of the most widely-accepted and influential ideas in finance economics"); Ronald J. Gilson & Reinier H. Kraakman, The Mechanisms of Market Efficiency, 70 Va. L. Rev. 549, 549 (1984) ("Of all recent

developments in financial economics, the efficient capital markets hypothesis *** has achieved the widest acceptance by the legal culture.") However, as economists' understanding of capital markets has deepened, they have tempered their faith in the efficiency that was thought to be so prevalent in Basic's day.

Contrary to the view of efficiency Basic appears to have accepted—and which respondent asserts⁵— "efficiency is not a binary, yes or no question." Langevoort, Basic at Twenty, supra, at 167. Rather, there is a spectrum of market efficiency, see Gilson & Kraakman, supra, at 560, and "[p]erfect efficiency is just a theoretical ideal," Langevoort, Basic at Twenty, supra, at 167. Levels of efficiency even vary among types of information concerning the same market: If one piece of information is more easily collected and understood than another, it will make its way into the market price more quickly, even if both pieces of information concern the same security. See Brad M. Barber et al., The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency, 19 J. Corp. L. 285, 290-91 (1994); Gilson & Kraakman, supra, at 558-59.6 "For example, stock

⁵ See Brief in Opposition at 10 ("[I]f public statements are made in an efficient market, the materiality of the statements affects all purchasers similarly.").

⁶ See also Stout, *supra*, at 656:

Information that is easy to understand and that is trumpeted in the business media—for example, merger announcements or news of a stock split—may be incorporated into market prices almost instantaneously. But information that is "public" but difficult to get hold of, or information that is complex or requires a specialist's knowledge to comprehend, may take weeks

prices may reflect certain types of public information (concerning, for instance its own prices, or the interest rate on Treasury Bills) faster than other types of public information (concerning, for example, Iraq's invasion of Kuwait)." Ian Ayres, Back to Basics: Regulating How Corporations Speak to the Market, 77 Va. L. Rev. 945, 976 (1991).

And because no real-world market is completely efficient. information—even important, disseminated information—is not always rapidly incorporated into prices. For example, there is evidence of large disparities in market reaction to accounting restatements as a result prominence of the restatements. See Rebecca Files et al., Stealth Disclosure of Accounting Restatements (Apr. 27, 2009), available at http://papers.ssrn.com/ sol3/papers.cfm?abstract id=1395768. there is evidence that the Wall Street Journal's publication of reports of trading by corporate insiders rapidly and significantly affects that corporation's stock price, even though the SEC usually makes such reports public several days earlier. See Saeyoung Chang & David Y. Suk, Stock Prices and the Secondary Dissemination of Information: The Wall Street Journal's "Insider Trading Spotlight" Column, 33 Fin. Rev. 115, 115-17 (1998). And "[o]ne of the most common types of material disclosures—an earnings surprise—actually takes a while to be fully impounded, even for large-cap stocks, and even varies depending on whether it is good news or bad." Langevoort, Basic at Twenty, supra, at 170. efficient capital markets hypothesis would suggest

or months to be fully incorporated into prices. Indeed it may never be fully incorporated at all.

that such material, public information would be quickly incorporated into stock prices, but empirical evidence indicates otherwise.

In the same vein, in In re Merck & Co. Securities Litigation, 432 F.3d 261 (3d Cir. 2005), information regarding Merck—a large and well-followed firm in a well-developed market—was first released to the public in a complicated format through an SEC filing, to no demonstrable market effect. *Id.* at 269-70. As one scholar has noted, "it is hard to imagine any stock more likely traded in an efficient market than Merck," Langevoort, Basic at Twenty, supra, at 174, and so the efficient capital markets hypothesis would suggest that this information would rapidly be incorporated in price. But when an article in the Wall Street Journal "read | between the lines of this disclosure" several weeks later, the result was a significant decline in price. Merck, 432 F.3d at 263, 265. The court of appeals determined on this basis that the information was immaterial—even though the markets' response to the Journal article clearly militates against that conclusion—because "the efficient market hypothesis suggests that the market made these basic calculations months earlier." Id. at But also plausible is the possibility that the market had not actually incorporated the information when first released in the more obscure format. See, e.g., Langevoort, Basic at Twenty, supra, at 176 (noting possibility that market missed implications of Merck's initial disclosures). Commentators have identified many other instances in which markets have moved inefficiently.⁷

Early research on the efficient capital markets hypothesis—the kind of research available at the time Basic was decided—focused on types information that are usually rapidly incorporated into market prices (such as "stock splits, dividend changes, corporate mergers, and the like"). supra, at 653. But other "types of information highly relevant to assessing the economic health of firms appear to be incorporated into stock prices far more slowly and incompletely than the conventional view of market efficiency would suggest." Id. Researchers also analyzed broad-based indices rather than individual securities, which brought about results showing efficiency and obscured anomalous results involving particular securities. See Frederick C.

⁷ See, e.g., Langevoort, Basic at Twenty, supra, at 175 (stating that "the contemporary literature suggests that even for widely traded stocks, substantial deviations from the efficiency ideal are quite possible"); Marlene A. Plumlee, The Effect of Information Complexity on Analysts' Use of That Information, 78 Acct. Rev. 275, 293 (2003) (concluding that analysts fail to incorporate complex information in forecasts); Gur Huberman & Tomer Regev, Contagious Speculation and a Cure for Cancer: A Nonevent that Made Stock Prices Soar, 56 J. Fin. 387 (2001) (noting significant market effect of prominent news item concerning information that had been public for months); Peter Klibanoff et al., Investor Reaction to Salient News in Closed-End Country Funds, 53 J. Fin. 673 (1998) (concluding that wellpublicized news items were more likely to move the market than redundant information found elsewhere, and that wellpublicized news events created short periods in which the relevant markets reacted more quickly to changes); Thomas S.Y. Ho & Roni Michaely, Information Quality and Market Efficiency, 23 J. Fin. & Quantitative Analysis 53 (1988) (finding market effect from republication of already available information).

Dunbar & Dana Heller, Fraud on the Market Meets Behavioral Finance, 31 Del. J. Corp. L. 455, 525 (2006).

Post-Basic research reveals significant limitations on the efficient capital markets hypothesis. This is not to say that markets never rapidly incorporate most public information. But exceptions to the hypothesis exist, even as to material information in relatively efficient markets. In light of this research, Basic's assumption that a market deemed efficient will promptly and reliably reflect a particular misstatement into a security's price—which is, at bottom, what courts consider to be a "fraud on the market"8—is no longer consistently accurate.

2. Courts and Commentators Have Struggled with Determining When a Particular Market Is Sufficiently "Efficient" to Support a Presumption of Reliance

Basic requires courts to determine whether markets are "efficient" or "not efficient." But that is easier said than done. As seen above, markets exist along a spectrum of efficiency rather than at either end, and Basic offers no guidance about the point at which a market becomes efficient enough to qualify for the presumption of reliance. Moreover, the determination of efficiency is inherently difficult to make. Not even financial economists have been able to develop an agreed-upon test to prove efficiency.

⁸ See *Verifone*, 784 F. Supp. at 1479 ("The fraud-on-the-market theory * * * shifts the inquiry from whether an individual investor was fooled to whether the market as a whole was fooled.").

Because economists "do not know how to [calculate that fully reflects the available information," it is difficult at best to test whether a fully reflects all publicly market available Alon Brav & J.B. Heaton, Market information. Indeterminacy, 28 J. Corp. L. 517, 525 (2003); Fama, supra, at 1575 ("Market efficiency per se is not testable."). Perfect efficiency is not a realistic scenario. See Fama, supra, at 1575.

If efficiency determinations are difficult (if not impossible) for economists, they are harder still for courts: Determining efficiency "requires courts to drift far from their institutional competence." Carden, supra, at 905. Because of difficulties in determining market efficiency, courts have resorted examining proxies associated with efficient markets. If the proxies indicate a sufficiently large and developed market, the market is deemed efficient. The most prominent of the tests developed by the courts is that set forth in Cammer v. Bloom, 711 F. Supp. 1264 (D.N.J. 1989). The proxies examined by Cammer were the percentage of shares traded weekly; whether "a significant number" of analysts follow and report on the stock; the existence of market makers trading the stock; whether the issuer was qualified to use an S-3 registration statement with the SEC; and whether the plaintiff can "allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price." Id. at 1286-87. Courts have also looked to other proxies, including market capitalization, see Krogman, 202 F.R.D. at 478, bid-ask spread, id., percentage of stock held by insiders, id., and volume of trading by institutional investors, O'Neil v. Appel,

165 F.R.D. 479, 503 (W.D. Mich. 1996). But these indicators are only proxies for efficiency. See In re Countrywide Fin. Corp. Sec. Litig., 273 F.R.D. 586, 613 (C.D. Cal. 2009) (stating that many Cammer "indirectly assess market factors efficiency"); Bradford Cornell & James C. Rutten, Market Efficiency, Crashes, and Securities Litigation, 81 Tul. L. Rev. 443, 455 (2006) ("Inasmuch as the Cammer and *Krogman* factors for the most part do not directly speak to efficiency, but instead speak to whether a market is 'open and developed,' they are best understood as constituting an indirect test by which courts infer efficiency for reliance purposes."). These courts, then, took *Basic*'s already-relaxed concept of reliance—essentially a proxy for individual reliance adopted to allow more plaintiffs to bring securities class actions—and relaxed it further by allowing proxies for efficiency rather than the inquiry into actual efficiency Basic required.

What is more, the factors lower courts consider in determining efficiency frequently are unmoored from efficiency. Apart from being highly correlated with each other (and therefore redundant),⁹ research indicates that some often-considered factors thought to be proxies for efficiency, such as the number of market makers, issuer size, bid-ask spread, and institutional holdings, are not empirically correlated with efficiency. See Barber et al., *supra*, at 285-86; Victor L. Bernard et al., *Challenges to the Efficient Market Hypothesis: Limits to the Applicability of*

⁹ Barber et al., *supra*, at 293 ("[G]iven that most efficiency drivers are correlated, as the volume of trade and firm size are, they cannot be considered as independent efficiency indicators.").

Fraud-on-the-Market Theory, 73 Neb. L. Rev. 781, 796 (1994). As a result of this research, some courts have reduced the emphasis on market makers. See, e.g., Unger v. Amedisys Inc., 401 F.3d 316, 324 (5th Cir. 2005). But even these courts persist in considering other less reliable factors, and many other courts continue to use all the Cammer factors. See, e.g., In re Dynex Capital, Inc. Sec. Litig., No. 05 Civ. 1897, 2011 WL 781215, at *5 (S.D.N.Y. Mar. 7, 2011) (examining market makers); In re Health South Corp. Sec. Litig., 261 F.R.D. 616, 635 (N.D. Ala. 2009); In re Infineon Techs. AG Sec. Litig., 266 F.R.D. 386, 396-97 (N.D. Cal. 2009). And even the Cammer factor most closely correlated with efficiency—the at which the stock incorporated other information in the past—may not say much about how quickly the market incorporated the information at issue in a particular case, because different types of information, and information disclosed through different sources, are incorporated at different rates.

This problem is compounded by the fact that many proxies closely correlated with efficiency do not actually test efficiency. See David Tabak, *Use and Misuse of Event Studies to Examine Market Efficiency* 2 (Apr. 30, 2010) (unpublished manuscript), *available at* www.nera.com/nera-files/PUB_Use_Misuse_of_ Event_Studies_0410_final.pdf) (noting that, with the exception of response of prices to new information, "factors cited by courts are designed to be conditions that are likely to either be conducive to or the result of an efficient market"). Thus, their correlation with efficiency may be diminished in the future. For example, the studies noted above, which indicate that dollar trading volume is indicative of efficiency, were published in 1994. Since then, internet trading has

risen in popularity, increasing the number of novice investors and adding to overall trading volume.10 This added volume does not mean that the market became more efficient—in fact, internet traders and day traders often add to stock volatility without $_{
m the}$ stock price to reflect available causing information any more quickly. See William O. Fisher, Does the Efficient Market Theory Help Us Do Justice in a Time of Madness?, 54 Emory L.J. 843, 930 (2005) (noting that "large trading volume does not—if significantly including day trading and other online retail brokerage transactions—signal that the mechanism for efficient market pricing is actively working on the stock price"). Thus, trading volume probably is not as closely correlated with efficiency now as it was in 1994.

The relationship between analyst following and efficiency has been questioned in light of a similar change in market circumstances. See *id.* at 966-68 (noting that analyst bias during the dot-com bubble of 1998-2001 rendered analyst following an unsound predictor of efficiency during that period). More broadly, because most of the *Cammer* factors "are largely *descriptive*, not *predictive*," and cannot "be used directly to predict efficiency," Rapp, *supra*, at 319, there is always a risk that changes such as the internet trading explosion will confound the factors'

¹⁰ See Brad M. Barber & Terrance Odean, *The Internet and the Investor*, 15 J. Econ. Persp. 41, 41, 47 (2001) (stating that "[f]rom 1995 through mid-2000, investors opened 12.5 million on-line brokerage accounts" and that evidence suggests that access to internet trading leads to a greater volume of trading); Gregory La Blanc & Jeffrey J. Rachlinski, *In Praise of Investor Irrationality*, in The Law and Economics of Irrational Behavior 542, 558-59 (Francesco Parisi & Vernon L. Smith eds. 2005).

correlative strength. Because there inevitably will be lag time in understanding changes in the securities market, when such changes occur, courts may not apprehend their significance for years. Thus, courts' tests for efficiency may include factors that do not accurately reflect the operation of the market.

In addition, courts consider these factors in inconsistent ways. The caselaw is unclear about how much of a factor is necessary to show efficiency, or whether a combination of factors is required. Courts are "ill-equipped to determine and analyze the fundamentals of market efficiency; i.e., *** 'how analysts [a]re needed to ensure information concerning a company finds its way, through buy and sell recommendations, into the price of a company's stock, and 'how many' market makers [a]re needed to ensure the market's incorporation of company news into the price of a company's stock." Paul A. Ferillo et al., The "Less Than" Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-on-the-Market Cases, 78 St. John's L. Rev. 81, 93 (2004) (citations omitted). Thus, courts applying Cammer factors have come to disparate conclusions when evaluating similar facts. See Rapp, supra, at 309-317, 328. The result is "a massive hodgepodge of * * * outcomes." Ferillo, supra, at 102 (reviewing cases and concluding "most courts will come to very individual conclusions" on efficiency and find different factors persuasive).

In view of the difficulties courts face in determining the efficiency of markets, this Court should reconsider the role *Basic* has assigned to the

efficiency determination in assessing reliance. As one scholar has observed:

Given the well-acknowledged practical and conceptual difficulties of determining what is or is not a truly efficient market—various conundra that all stem from treating efficiency as a yes/no question rather than one that varies as a matter of degree depending on the type of issuer and the type of information—there are good reasons to want to avoid this sort of threshold inquiry.

Langevoort, *Theories*, *supra*, at 898-99. As set forth below, this Court should abandon *Basic*'s insistence upon a showing of efficiency in favor of a showing that the particular misrepresentation caused a market distortion.

II. IN DETERMINING RELIANCE, COURTS SHOULD LOOK TO MARKET MOVEMENT CAUSED BY AN ALLEGED MISREPRESENTATION, RATHER THAN TO OVERALL MARKET EFFICIENCY

Judicial inquiry into market efficiency, despite its difficulties, might still be worthwhile if it were the most reliable means of establishing whether to apply the fraud on the market presumption. But it is not. Apart from the fact that courts have difficulty making determinations of efficiency, see *supra* at 20-26, ultimately, proving the efficiency of the market as a whole is only an indirect means of proving that the market relied on a particular statement. And as discussed below, determining whether a particular misstatement distorted the market is typically *easier* than demonstrating efficiency of the market as a

whole. It is also a more direct means of inquiring into reliance, and a more reliable method of showing whether the complained-of fraud was, in fact, a "fraud on the market."

A. The Event Study Is the Best Available Tool to Examine Market Distortion and Show Reliance

The central issue in determining whether the fraud on the market presumption may be invoked is "whether the challenged disclosure artificially inflated ([or] deflated) the market price of the particular security. Inquiry into whether the market price was inflated ([or]]deflated) replaces individualized inquiry into the extent to which particular investors were aware of a challenged disclosure." Fischel, Efficient Capital Markets, supra, But even without relying on the general efficiency of markets, there remains a reliable and practicable method for courts to determine whether misstatements distorted the market: the event study.

"An event study is a regression analysis that measures the effect of an event, such as a firm's earnings announcement, on a firm's stock price." Allen Ferrell & Atanu Saha, *The Loss Causation Requirement for Rule 10b-5 Causes of Action: The Implications of Dura Pharmaceuticals, Inc. v. Broudo, 63 Bus. Law. 163, 166 (2007). "[A]n event study [can] determine whether the alleged misrepresentations caused any statistically significant stock price movements when made or when a supposedly corrective disclosure was made, controlling for other possible causes of stock price movements (such as movements of the overall market) and random*

fluctuations." Daniel R. Fischel, Market Evidence in Corporate Law, 69 U. Chi. L. Rev. 941, 948 (2002). They "are commonly used to isolate the effects on the stock price of the disclosure of the withheld information." Janet Cooper Alexander, The Value of Bad News in Securities Class Actions, 41 UCLA L. Rev. 1421, 1433 (1994). Thus,

[i]f an event study shows that a misrepresentation or a corrective disclosure had a statistically significant effect on the price of a stock, then the market may be said to have 'relied' on the misrepresentation. And, by the fraud-on-themarket theory, all of the investors who bought (or sold) the stock also 'relied' by buying or selling at a market price that included a component reflecting the falsity.

Fisher, *supra*, at 874. Conversely, if an event study shows that a misrepresentation or corrective disclosure¹¹ had no statistically significant effect on the stock price, then the market cannot be said to have relied on the misrepresentation.

The event study is the "gold standard" technique for determining whether the market for a security

¹¹ When the fraud at issue involves an alleged omission or a misstatement to meet expectations (and accordingly has no effect on stock price), plaintiffs can use an event study to discern the market effect of the corrective disclosure. See David Tabak, Loss Causation and Damages in Shareholder Class Actions: When It Takes Two Steps to Tango 6 (May 27, 2004) (unpublished manuscript), available at http://www.nera.com/extImage/200405Tabak_Loss_Causation.pdf. However, amici do not contend that the presumption of reliance in cases of pure omissions created by Affiliated Ute Citizens v. United States, 406 U.S. 128 (1972), should be disturbed.

relied on a misstatement. Madge S. Thorsen et al., Rediscovering the Economics of Loss Causation, 6 J. Bus. & Sec. L. 93, 109 (2006). It is accepted by courts, academics, and the SEC for that purpose. See In re Flag Telecom Holdings, Ltd. Sec. Litig., 245 F.R.D. 147, 170 (S.D.N.Y. 2007), rev'd on other grounds, 574 F.3d 29 (2d Cir. 2009) (finding "numerous courts have held that an event study is a reliable method for determining market efficiency"); In re N. Telecom Ltd. Sec. Litig., 116 F. Supp. 2d 446, 460 (S.D.N.Y. 2000); In re Oracle Sec. Litig., 829 F. Supp. 1176, 1181 (N.D. Cal. 1993); Fischel, Market Evidence, supra, at 948 (describing an event study as a "simple statistical technique, used in thousands of studies and employed routinely securities fraud litigation brought under the federal securities laws"); Mark L. Mitchell & Jeffry M. Netter, The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission, 49 Bus. Law. 545, 572-84 (1994) (describing SEC enforcement actions using event study analysis).

Event studies are routinely employed to show that a market is efficient at the class certification stage. See, e.g., Teamsters, 546 F.3d at 207-10; In re Xcelera.com Sec. Litig., 430 F.3d 503, 512-14 (1st Cir. 2005); In re Nature's Sunshine Prods. Inc. Sec. Litig., 251 F.R.D. 656, 664-65 (D. Utah 2008). Such studies examine the market effect of various news items relating to an issuer; if the security "change[s] rapidly, and in the expected direction, in response to new information," it supports a finding of market efficiency. Schleicher, 618 F.3d at 684; Teamsters, 546 F.3d at 207-08 ("Evidence that unexpected corporate events or financial releases cause an

immediate response in the price of a security has been considered 'the most important [] *Cammer* factor." (quoting *Xcelera.com*, 430 F.3d at 512)).

Thus, courts are already requesting, and plaintiffs already providing, experts' event studies examining the effect of disclosures at the class certification stage to prove that a market generally incorporates information into prices, to trigger the *Basic* presumption of reliance. But the same experts could conduct the same analyses to determine directly whether the alleged misstatement was incorporated into the stock price—the added step of determining efficiency as a general matter is unnecessary. Event studies can examine market effects of particular affirmative misstatements by looking to the effect at the time of disclosure; in cases involving omissions, they can look to the date the information was corrected. See David Tabak, Making Materiality Less Assessments aboutThrough the Use of Content Analysis 4-5 (Mar. 13, (unpublished manuscript), available http://www.nera.com/extImage/PUB_Tabak_Content_ Analysis SEC1646-FINAL.pdf.

Amici professors submit that a direct analysis of the market impact of a specific alleged misstatement, rather than examination of general market efficiency, is a more straightforward and reliable test for whether the fraud on the market theory should be invoked. Such an approach conforms Basic to current finance theory and research, and by limiting the overand underinclusiveness of the current approach, it offers a better balance between allowing meritorious class actions and preventing baseless ones at the outset.

In a recent case involving similar issues, it was argued that it is difficult to disentangle multiple simultaneous disclosures using an event study. See Brief for Law Professors as Amici Curiae Supporting Petitioner at 28-29, Erica P. John Fund, Inc. v. S. Halliburton, 131 Ct. 2179 (No. [hereinafter Professors' Halliburton Amicus Br.]. But while it may be more difficult in such instances to show price distortion as a result of a particular misstatement, there is no reason to think it is beyond the capability of event studies. See Frederick C. Dunbar & Arun Sen, Counterfactual Keys to Causation and Damages in Shareholder Class Action Lawsuits, 2009 Wis. L. Rev. 199, 227-41 (noting that content analysis can separate and clarify the impact of multiple simultaneous events); Ferrell & Saha, supra, at 170 (explaining the use of shorter event windows to avoid confounding events); David I. Tabak & Frederick C. Dunbar, Materiality and Magnitude: Event Studies in the Courtroom, in Litigation Services Handbook 19.2 (Roman L. Weil et eds., 2001) (noting that economists disentangle the effects of multiple announcements on effect of nonfraudulent single day if the announcements on that day can be estimated, perhaps through analogues on other days). claim that event studies of simultaneous information disclosures are too difficult would ring hollow in light of the fact that such studies would are routinely called for and used to demonstrate loss causation or materiality on the merits.

It was also suggested by *amici* in *Halliburton* that requiring event studies at the class certification stage is inappropriate because they may require evidence obtainable only through discovery. See Professors'

Halliburton Amicus Br. at 28-29; Brief of Financial Economists as *Amici Curiae* Supporting Petitioner at 31-33, Erica P. John Fund, Inc. v. Halliburton, 131 S. Ct. 2179 (No. 09-1403). But these amici together identified only one purported example of information useful for conducting an event study that would be obtainable only through discovery — the identity of competing or peer firms. Professors' Halliburton Amicus Br. at 28-29 (citing Jonathan Klick & Robert H. Sitkoff, Agency Costs, Charitable Trusts, and Corporate Control: Evidence from Hershey's Kiss-Off, 108 Colum. L. Rev. 749, 806-14 (2008), to illustrate the use of competitor information in an event study). Now, as then, that argument misses the mark. The very research amici professors cite as illustrative used publicly available data to determine relevant competitors. See Klick & Sitkoff, supra, at 793 & nn.250-51 ("We took our roster of Hershey's chocolate rivals from Google Finance *** and Yahoo! And because event studies examine Finance."). publicly disseminated information and its effect on public markets, the role of undisclosed private information is negligible. In any event, courts routinely call for discovery at the class certification stage. See, e.g., Initial Public Offerings Sec. Litig., 471 F.3d at 39 n.10.

B. Because the Proposed Class Has the Burden of Persuasion on Class Certification Under Rule 23, It Should Have to Show That the Alleged Misrepresentation Caused Market Distortion at the Class Certification Stage

"In addition to satisfying Rule 23(a)'s prerequisites, parties seeking class certification must show that the action is maintainable under Rule

23(b)(1), (2), or (3)." Amchem Prods., Inc. v. Windsor, 521 U.S. 591, 614 (1997). Thus, when plaintiffs wish to file a class action under Rule 23(b)(3), it is their burden to show that common questions "predominate affecting only any questions individual members." Fed. R. Civ. P. 23(b)(3). In the context of Rule 10b-5 class actions, it follows that it is plaintiffs' burden to show that common questions of reliance predominate over reliance questions affecting individual class members. Demonstrating applicability of the fraud on the market presumption is therefore plaintiffs' burden. See Erica P. John Fund, 131 S. Ct. at 2185 (stating that "securities fraud plaintiffs must prove certain things," such as efficiency and the public nature of the statements at "in order to invoke Basic's rebuttable presumption of reliance"); Salomon, 544 F.3d at 485 (discussing whether "plaintiffs had met their burden for invoking the fraud-on-the-market presumption"). This showing must be made before certification. See Szabo v. Bridgeport Machs., Inc., 249 F.3d 672, 676 (7th Cir. 2001). Therefore, just as plaintiffs are required to demonstrate market "efficiency" at the class certification stage, see, e.g., Gariety, 368 F.3d at 368, so should they be required to show market distortion to invoke the fraud on the market presumption.

Amici do not suggest that plaintiffs be subjected to a "preliminary inquiry into the merits of a suit." Eisen v. Carlisle & Jacquelin, 417 U.S. 156, 177 (1974). Rather, because the fraud on the market presumption must be invoked at the class certification stage, it is "necessary for the court to probe behind the pleadings before coming to rest on the certification question." Gen. Tel. Co. v. Falcon,

457 U.S. 147, 160 (1982). The Court recently reaffirmed this proposition. See Wal-Mart Stores, Inc. v. Dukes, 131 S. Ct. 2541, 2551 (2011) ("A party certification must seeking affirmatively demonstrate his compliance with [Rule 23]—that is, he must be prepared to prove that there are in fact sufficiently numerous parties, common questions of law or fact, etc. * * * Frequently that [process] will entail some overlap with the merits of the plaintiff's underlying claim. That cannot be helped."); see also Coopers & Lybrand v. Livesay, 437 U.S. 463, 469 (1978) ("[T]he class determination generally involves considerations that are enmeshed in the factual and legal issues comprising the plaintiff's cause of action.") (internal quotation marks omitted). As the Second Circuit has observed, Eisen is "properly understood to preclude consideration of the merits only when a merits issue is unrelated to a Rule 23 requirement." Initial Public Offerings Sec. Litig., 471 F.3d at 41. Accordingly, "there is no reason to lessen a district court's obligation to make a determination that every Rule 23 requirement is met before certifying a class just because of some or even full overlap of that requirement with a merits issue." Id.; accord Love v. Turlington, 733 F.2d 1562, 1564 (11th Cir. 1984) ("While it is true that a trial court may not properly reach the merits of a claim when determining whether class certification is warranted, this principle should not be talismanically invoked to artificially limit a trial court's examination of the factors necessary to a reasoned determination of a plaintiff has her burden met establishing each of the Rule 23 class action requirements."). Such is the case here.

CONCLUSION

The judgment of the court of appeals should be reversed.

Respectfully submitted.

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AUGUST 2012