

Estimating plaintiff damages in securities class actions cases

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Abstract

When publicly traded companies violate information disclosure regulations, stock prices can be distorted, leading to investor losses. However, given the inherent risks of investing in the stock market and the constant influx of news affecting stock prices, those disclosure violations might only account for a portion of an investor's loss. The remaining losses may be due to external factors beyond the company's control. Consequently, investors who try to sue can face difficulty proving the cause-and-effect relationship between their losses and a company's misconduct, in order to establish the precise amount of damages.

In the United States, courts tend to assume an efficient market, where new information is quickly absorbed into the market and immediately is reflected in the fluctuation of the share price. In such circumstances, the assumed damages from a failure of disclosure tend to be simply the change in stock price once the information is revealed.

This approach, however, may not work in the context of less efficient markets, such as capital markets in less industrialized countries or in cryptocurrency and other emerging markets. This article, therefore, proposes an alternative methodology for establishing damages in such markets: one that compares the change in price of the company at fault with the change in price of the overall index of the companies in the same field.

Keywords: Civil Liability, Confidential Information, Presumption of Causation, Market-Based Causation, Stock Market, remedy.

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I. Introduction

Every day, investors purchase corporate stock or a cryptocurrency based on the dissemination of positive news about that investment. But if that news is false or misleading, the investors may lose money and sue the company for violation of securities laws. In such circumstances, even if the investors can prove that the company did in fact disseminate false or misleading information, it can be difficult to prove how much of the subsequent loss was actually attributable to the violation. After all, stocks decline in value all the time, so how can investors isolate the effect of the misleading information in order to prove that the subsequent decline in value was causally connected to the incorrect information?

In the United States, courts have generally assumed causation, and so the amount of loss is calculated as simply the difference in share price at the time of the disclosure of the false or misleading information and the value at the time of filing the lawsuit. In Part II of this article, we analyze this jurisprudence and its rationale, and we argue that this rule was developed in the context of efficient capital markets, where information is so quickly reflected in stock price that this approach to calculating loss makes sense. However, in Part III, we argue that this approach makes less sense in the context of less efficient markets, such as capital markets in less industrialized countries or in cryptocurrency and other emerging markets. Thus, in Part IV, we propose a method for estimating damages in the context of less efficient markets.

II. Loss Calculation in the Context of Efficient Markets

US courts have long been faced with the question of how to calculate damages in cases where investors sue based on a corporation having disseminated fraudulent or misleading information. Early cases, such as *Basic Inc. v. Levinson* (485 U.S. 224, 1988), played a significant role in shaping the legal landscape regarding the calculation of damages in securities class action cases. *Levinson* introduced the so-called “fraud on the market” theory, holding that investors need not prove that they actually relied on the misrepresentation if they can establish that the misrepresentation affected the market price of the security.

This landmark case reflects the efficient market theory, which rests on the premise that market prices promptly and accurately reflect all available information. The

assumption is that in an efficient market, the dissemination of false or misleading information distorts the market, leading to a corresponding impact on stock prices. Building upon this theory, the prevailing approach in the United States has been to calculate damages as the difference in share price from the time of the disclosure of false or misleading information to the value at the time of the lawsuit.

However, while the efficient market theory and the traditional approach to calculating damages have gained acceptance in the context of efficient markets, their applicability to less efficient markets raises concerns. In less industrialized countries, emerging markets, and in the realm of cryptocurrencies, the efficiency of information assimilation may be compromised. These markets often exhibit slower and less accurate price adjustments in response to new information, making it challenging to determine the precise impact of false or misleading information on share prices.

The distinct difficulty in calculating damages in the context of inefficient markets is particularly important given that many securities class actions have transnational elements. In *Morrison v. National Australia Bank Ltd.* (561 U.S. 247, 2010), the US Supreme Court held that the Securities Exchange Act of 1934 only applies to transactions in securities listed on domestic exchanges or transactions conducted within the United States. This ruling limited the reach of US securities laws in cases involving foreign companies and transactions occurring outside the United States. Consequently, it has had implications for the calculation of damages in securities class actions, particularly when the alleged misconduct has international elements.

While the *Morrison* decision has provided guidance on the extraterritorial application of US securities laws, it has also highlighted the need for a nuanced approach to calculating damages in securities class actions with international elements. Consequently, there is a growing recognition of the need to explore alternative methods for estimating damages that better suit the intricacies of less efficient markets. In the following section, Part III, we delve into the crucial differences between efficient and inefficient markets, drawing upon the relevant literature to shed light on the distinct characteristics and challenges faced by less efficient markets. By analyzing these differences, we aim to lay the foundation for an alternative method of estimating damages that provides a more accurate and just assessment of plaintiff losses.

III.

The approaches for calculating losses that were discussed in Part II work well in the context of efficient markets because of the rapid assimilation of information into stock prices. However, inefficient markets present distinct challenges that have been extensively examined in the law journal and economics literature. Reviewing these sources provides valuable insights into the crucial differences between efficient and inefficient markets.

Scholars and experts have often highlighted the reality that efficient and inefficient markets operate differently. For example, Berger and Mester (Berger and Mester 1997), point out that many studies have found large inefficiencies, on the order of 20% or more of total banking industry costs, and about half of the industry's potential profits.

There is no clear consensus on what causes markets to be inefficient, but a comprehensive review by Mei and Guo (Mei and Guo, 2004) highlights the influence of macroeconomic conditions, political instability, and global market fluctuations on stock prices in inefficient markets. These external factors introduce additional noise and make it challenging to isolate the specific effects of false or misleading information on stock prices when estimating damages.

In addition, it can be very difficult even to determine whether a market is functioning efficiently or inefficiently. Shleifer (Shleifer, 2000) observes that although the efficient markets hypothesis has been the central proposition in finance for many decades, the assumptions of investor rationality and perfect arbitrage that underlie the hypothesis are overwhelmingly contradicted by both psychological and institutional evidence. Likewise, as Malkiel (Malkiel, 2003) observes, behavioral economists have long challenged the efficient capital markets hypothesis on numerous grounds.

These sources, on the one hand, illustrate a fundamental challenge in determining whether the market is efficient, and on the other hand, it seems that there is no effective method to assess damages in inefficient markets. The limitations of the traditional approach based solely on changes in market price become evident when considering the specific challenges posed by inefficient markets. Instead, a more nuanced methodology is necessary to accurately isolate the effect of misleading information in inefficient markets.

Part IV

Given the difficulties discussed above, we argue that in the context of inefficient markets, a different approach is needed for estimating damages. Instead of assuming that the appropriate loss calculation is simply the change in share price, we can use the group's index, of which the company is a subset, to determine the risk of investing more precisely in that company. This is because listed companies in the same industry are always placed in the same sector (those with the same or similar field of activity). Alternatively, we can compare companies with a similar price-to-earnings (P/E) ratio that operate in the same industry. The changes in this index are actually the average changes or fluctuations of the shares of all subsidiaries.

Typically, the price movement of a subsidiary company follows the movement of the group's index with a slight lag. This is evident given that the index represents the average of the same companies. Therefore, the difference between the percentage change in the stock price of a company accused of fraud and the company's group index can indicate the possible damage caused to shareholders by the defendant's fault. This is because, on average, a group of companies operating under the same economic conditions will experience the same growth or decline (regardless of the companies that may have abnormal profits, abnormal losses, or even go bankrupt due to adopting special policies). In fact, the behavior of this group's index indicates the typical behavior of a company. Thus, damages are equal to the difference between the percentage change in the stock price of the fraudulent company and the percentage change in the index of this company's group since the date of violation of the confidential information disclosure regulations. Obviously, this calculation is a percentage of the initial share price (from the date of the fault), so it must be multiplied by the initial share price in the final calculation.

This method calculates a different amount of loss than the percentage change in the company's stock price from the date of the violation of disclosure regulations (the method of calculating the loss proposed in the theory of assumption of causation). In other words, depending on the assumptions, the shareholder's loss may be less than or greater than the amount of change in the company's stock price since the date of the fault.

In the case of a violation of disclosure rules, the price behavior of the accused company is compared to the price behavior of a group of similar companies,

represented by the index of the company's group. This comparison eliminates the influence of short-term and immediate factors on price behavior. Since the price movement of the group's index reflects the average price movement of the group's members, external factors have a negligible effect on the behavior of the accused company. This is because these external factors affect all companies within the accused company's group. Consequently, using the price movement of the group's index as a standard price movement appears reasonable and logical. Rather than comparing the accused company's price behavior to that of an individual company, this method compares it to the average price of several conventional companies.

Indeed, in cases of market fraud, it is reasonable to assume a causal link between the fault and the shareholder's loss. Under conditions where no information disclosure rules have been violated, the fluctuations in the index price of this company's group can serve as a suitable standard for determining the price fluctuations of the accused company. As mentioned earlier, even the estimated shareholder loss may exceed the fluctuation in stock price during the fault period. This can occur when the company violated disclosure regulations, resulting in a decline in its stock price. However, the company's group index, representing the relative standing of comparable companies, may have experienced an increase. In such cases, the shareholder's loss comprises *both* the lack of price growth and the loss caused by the price decline during the period of the fault.

Numerous legal systems recognize the right to claim this lack of benefit. For instance, in The UN Convention on Contracts for the International Sale of Goods (CISG)², claimable damages are included loss of profit... in the light of the facts and matters of which he then knew or ought to have known, as a possible consequence of the breach of contract. And, in Common law, both imposing expenses on the victim and depriving him of the expected profit in the future are called economic damages (DeWolf, 2009: 125). And also, in American law, a compensation rule known as the Hull formula that means "prompt, adequate and effective" compensation, which was first proposed by US Secretary of State Cordel Hull in relation to the land reforms of the Mexican government. this method introduced to compensate the potential profits lost³.

² Art. 74 CISG

³ See Borokhov, V. Modified convex hull pricing for fixed load power markets. Energy Syst (2022). <https://doi.org/10.1007/s12667-022-00525-4>, and, O'SHEA v. RIVERWAY TOWING, 677 F.2d 1194 (CA 7, 1982).

Using this methodology, under the existing conditions in a country, when the entire group of companies operating in a specific industry experiences growth (or decline), this growth (or decline) should be considered the baseline. This is because if the investor had purchased shares of any company other than the fraudulent company, the prices of those shares would have increased. Therefore, the right to claim the lack of benefit as part of the shareholder's loss in the event of fraud makes far more sense.

A further practical advantage of this method is that, while the rights of the injured party are respected, imposing unnecessary responsibility on the defendant will be avoided to a significant degree. This is because there may also be cases where, even though the stock price of the accused company has fallen due to fraud, external factors (general investment risk) have caused the stock prices of all companies in that industry group to decline similarly. In these instances, the proposed solution results in lesser (or no) recovery for the plaintiff. This again makes sense because even if the investor had chosen a non-fraudulent company in the same market, that investment would still have decreased. Thus, the appropriate loss calculation is not merely the decline in value of the specific company, but whether the losses were greater than a comparable company that did *not* commit fraud. Accordingly, the appropriate loss calculation is the percentage of the decline in the accused company's stock price minus the percentage of the decline in the group's index during the fault period.

Conclusion

The US' approach to proving causation in cases involving damages resulting from violations of information disclosure regulations is similar to the theory of assuming a causal relationship. In the US approach, the plaintiff must prove the market's efficiency. Therefore, this method is not applicable in inefficient markets.

Given that the number of inefficient markets is not insignificant, it appears that even in inefficient markets, investors trade securities assuming legal oversight exists. In situations where market rules are violated, it is reasonable for an injured investor to

expect legal protection. Therefore, we seek an answer to the following question: Is there a way for the injured party to avoid proving market efficiency in these lawsuits, and is it possible to estimate damages fairly?

Considering that external and general factors always account for a portion of capital market losses, only the remaining portion can be attributed to rule violations. These external and general price-influencing factors frequently have similar effects on companies within the same industry. Thus, in an inefficient market, the current study suggests using the index of the accused company's group (the index of a group of companies of which the accused company is a subset) to estimate the damage caused by violating information disclosure regulations. This is because, according to the proposed method, the position of the group's index determines the most accurate price of the company's stock, and capital market participants determine this price; that is, collective intelligence determines the correct share price.

Therefore, the damage is equal to the difference between the percentage of change in the price of the company's shares and the percentage of change in the company's group index since the date of violation of the rules, which is different from the percentage of change in the company's stock price since the date of violation of the rules (that is, the proposed method of calculating the loss in the theory of the assumption of a causal relationship). Similarly, it is closer to calculating loss in an efficient market (known in the United States as the fraud-on-the-market theory), except it can also be applied in an inefficient market.

Another practical benefit of this method is that in addition to respecting the injured party's rights, this method also avoids, to a large extent, imposing unnecessary liability on the defendant. Due to the fact that in the previous review, a case was investigated in which the group's index and the stock price of the accused company moved in opposite directions. It is also possible that, even though the stock price of the accused company has fallen due to fraud, external factors (general investment risk) have exposed the stock prices of all companies in the same group as the accused company to a decline. In these situations, the proposed solution appears closer to justice. This is because, in this case, the loss equals the percentage of the decline in the stock price of the responsible company minus the percentage of the decline in the group index during the fault period. And price reduction caused by external factors is eliminated by this method.

In other words, an unlawful and harmful act has been committed, and the share price has fallen, while the share price of comparable companies has remained unchanged. Therefore, it can be concluded (in the absence of other factors within the company or unusual risk-taking) that the illegal and harmful action caused the share price decline. Maintaining market efficiency necessitates complete and stringent oversight and may be compromised by both internal and external factors or causes. Consequently, if we have an alternative method for estimating damages in this matter, we can account for all assumptions.

Further research is needed to explore the application and acceptance of this proposed method in legal systems worldwide. It would be beneficial to examine whether any legal systems have already considered or implemented similar approaches and to analyze the reception and effectiveness of these alternative methodologies. Additionally, reviewing scholarly literature on securities class actions and economic studies related to estimating damages in inefficient markets can provide valuable insights into the practical implications and potential refinements of the proposed approach.

By synthesizing legal and economic perspectives, future studies can contribute to the ongoing discourse surrounding the calculation of damages in inefficient markets, advancing our understanding and promoting more accurate and fair assessments of plaintiff losses.

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